

Short Paper

Perceived Impact and Challenges of Smallholder Rice Farmers on Microfinance Institutions (MFIs)

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Abstract

This study aims to assess the perceived impact and challenges faced by selected smallholder rice farmers who availed services from microfinance institutions. The respondents were registered smallholder rice farmers and were purposively selected. Data collection involved one-on-one interviews using a validated semi-structured survey guide. A mixed-methods research design was employed in the study. The findings revealed that microfinance institutions affect smallholder rice farmers' production levels, incomes, education, living conditions, and livelihoods. Most of the selected registered smallholder rice farmers reported improved agricultural productivity and living conditions.



However, the study also identified challenges they encountered in accessing and repaying microfinance services, including late loan repayments, insufficient income to settle debt, complex processes and procedures of microfinance institutions, delayed loan disbursement, and inadequate loan amounts. Additionally, smallholder rice farmers faced difficulties, including low incomes due to inadequate yields, with their crop production cycles affected by fluctuations in weather conditions, particularly the southwest and northeast monsoon seasons, which negatively impacted agricultural production. In conclusion, microfinance institutions generally provide financial support through services and products, such as loans, credit, savings, and insurance. However, they also entail risks, as loans are expected to be repaid regardless of the condition and outcome of agricultural production at the end of the season. The study suggests that microfinance institutions and policymakers could implement financial literacy programs to help farmers avoid excessive interest and penalties. Furthermore, local government units should support training programs for rice farmers to improve agricultural practices and living conditions. The study recommends further impact evaluation.

Keywords –agriculture, impacts, smallholder rice farmers, microfinance

INTRODUCTION

Agriculture has been the biggest source of livelihood in society. Smallholder rice farmers are a vital component of the global effort to address hunger and food insecurity, even as they increasingly struggle to generate income. Smallholder rice farmers contribute significantly to global nutrition, food security, and overall development (Fan and Rue, 2020). However, smallholder rice farmers also experience various challenges in the agricultural sector. According to Nolon and Plaza (2021), one of the primary causes of low productivity is the lack of financial support among farmers, particularly rice farmers, who are typically described as having little capital formation, low savings, and low incomes. Financial problems are always among the main challenges for smallholder farmers, resulting in low productivity and development, despite the government's established financing mechanisms to support the agricultural sector. However, concerns remain, including trading opportunities and low prices for agricultural products (World Bank, 2014; Bayudan-Dacuycuy et al., 2022).

Despite this fact, there is one solution that has helped overcome those problems and challenges of smallholder rice farmers, which is availing of microfinance, as it helps them to have a proper credit allocation to support their farming inputs and equipment to improve crop yields and overall agricultural output (World Bank, 2014; Chaiya et al., 2023). Microfinance began in the 19th century and is recognized as the most effective tool for reducing poverty and supporting agriculture, developed by Muhammad Yunus, the renowned economist and Nobel Peace Laureate. The rise of microfinance is a phenomenon that provides a new source of financial resources, promoting economic

progress in developing countries that helps the rice farmers to implement appropriate harvesting techniques and technologies to increase cropping efficiency, crop production, and economic independence with less time, labor, and money (Khavul, 2010; Hasan et al., 2020). Microfinance has proven important for economic growth and poverty eradication in many developing countries, as it supports those in greatest need of financial resources. Thus, it shows a significant connection between microfinance and poverty reduction, implying that microfinance is a vital tool for lowering poverty in society (Cull & Morduch, 2018; Rahman, 2023).

In the Philippines, microfinance has rapidly gained widespread acceptance and has been extremely helpful in providing financial services to individuals, small businesses, and, especially, smallholder rice farmers. In the 1980s, the Philippines was among the first economies to copy the financial model of Grameen, where authorized non-governmental organizations (NGOs) carried out microfinance initiatives based upon the Grameen model as quick accessibility to credit enables smallholder rice farmers to raise their agricultural productivity and income from farming, improve children's education, strengthen their standard of living and reduce the risk factor of rural households (Bangko Sentral ng Pilipinas, 2013; Sothorn, 2020). Furthermore, in the late 2000s, microfinance institutions provided other varieties of microfinance products, such as microdeposits and microinsurance, and various kinds of microcredit, such as microloans for housing, microloans for the agricultural sector, and microloans plus for growing and expanding small businesses, or MSMEs for people who live in low-income communities to improve their living conditions and become financially independent (Bangko Sentral ng Pilipinas, 2013; Ramon Aboitiz Foundation Incorporated, 2022).

Moreover, microcredit is significant for smallholder rice farmers because it enables them to invest in essential farming inputs to improve their production. Consequently, providing financial aid to agriculture increases its income and improves the livelihood conditions of rice farmers from marginal to non-marginal. The study by Anjum et al. (2020) showed that MFIs affect socioeconomic conditions, including family health, children's education, living standards, food/diet patterns, crop production, and transportation. Moreover, 72.2% of farmers, due to microcredit, have experienced increased income, resulting in enhanced access to healthcare compared to before (Anjum et al., 2020). Farmers involved in microfinance have increased and improved their production, income, and gross profit from rice and wheat, as well as from livestock. Rice farmers who are already members of institutions and corporations can access financial services more easily than those who are not. The studies of Sarmiento et al. (2013) and Perera et al. (2021) showed that rice farming has been proven to increase agricultural output by 39% through MFI, and smallholder rice farmers have the potential to increase their agricultural productivity. Furthermore, according to Kulathunga et al. (2013) and Jumpah and Adams (2020) the problems faced by microfinance institutions and rice farmers are the increase in interest rates, strict loan payback terms, collateral demands, and close rivalry however, despite high interest rates, farmers were still constrained to rely on it because there were limited alternatives, and also such loans were granted quicker which eliminates delays

associated with the traditional financial sector. This factor claims that lenders and rice farmers lose interest in acquiring any financial services.

Despite the benefits of microfinance, it can also pose risks, as loans are expected to be repaid on time regardless of crop production conditions. This states that microfinance schemes have an impact on the complete elimination of poverty and on the problems faced by smallholder farmers around the world, in both positive and negative ways. Smallholder farmers experience some difficulties and challenges. As a result, rice farmers, or even those in other sectors of agriculture, struggle to recover their capital to cover expenses at the beginning and end of the production cycle. In the Philippines, the poverty level in the agricultural sector was 27% in 2023 (Philippine Statistics Authority, 2025).

The expectations and views of rice farmers regarding credit approaches that meet their needs indicate dissatisfaction with the current credit scheme's quality (Dossou et al., 2020). The Philippine Statistics Authority (PSA) (2023) reported that among the national poverty households, farmers residing in rural regions comprise 30.0% of the lowest group. In the Bicol region as of 2023, the poverty incidence among families is 29.7% (PSA, 2025). Specifically, in Sorsogon province, the estimated percentage is 28.4% (PSA, 2024). Furthermore, the lack of collateral assets, limited output, tiny loan amounts, and the delayed disbursement of agricultural loans are some of the significant issues faced by smallholder rice farmers in microcredit, so they have been concerned about how they will be able to pay back the loan, feed their families, and buy resources for the following growing season, as is MFIs' struggle to produce loans because of the lack of knowledge and information of the farmers towards microcredit (Sulemana & Adjei, 2015; Gutema, 2021).

According to the studies of Aung et al. (2019) and Petruzzello (2025) rice farmers in Myanmar, one of the most remote countries in Asia are identified, a large-scale, long-term rice subsidy scheme demonstrates that the credit provision rule is dependent on the size of the rice landholding and they often experience low income because of their arrangement, in which a tenant or sharecropper is given the right to use land in exchange for paying a proportion of the yield to the landowner. It shows that land size is considered when determining whether rice farmers can avail themselves of microfinance services. Among Bangladeshi small-scale rice farmers, household age, extension visits, off-farm income, location, farm size, and educational level are the main variables influencing profit efficiency and inefficiency (Sumelius et al., 2011; Adnan et al., 2021). The availability of financial services through microfinance institutions is important for helping farmers access capital and sustain the cycle of rice production.

THEORETICAL FRAMEWORK

There are three anchored theories in the study, namely the Theory of Change Model, the Microfinance Theory and Practice, and the Resource-Based Theory. The impact of Microfinance Institutions (MFIs) on smallholder rice farmers will become the foundation

of the study. The Theory of Change was originally proposed by Carroll Weiss (1995). It analyzes the existing evidence and information to explain why and how a desired change is anticipated in certain concepts. It explains the “four levels of learning evaluation model,” including reaction, learning, behavior, and results. Stein and Valters (2012) stated that the theory of change acts like a road map for achieving long-term objectives. Furthermore, it is a process for impact analyses intended to evaluate both the route and the notions made about the process of change. The theory of change supports the present study to determine how the accessibility of microfinance services leads to specific desired outcomes. It will serve as the intervention or set of actions that guides smallholder rice farmers toward their long-term goal through the services provided by Microfinance Institutions.

The Microfinance Theory and Practice was originally proposed by Muhammad Yunus (1976) this theory gives crucial information about how it explores the principles and services offered by microfinance institutions, which are intended to offer, aside from financial support for individuals with low income, a mission to reduce poverty around the world, which includes morality, ethical, and social duties (Hearth, 2018). The present study will explore the impact of microfinance institutions on the productivity and livelihoods of farmers, addressing the difficulties encountered by smallholder rice farmers when availing of microfinance services.

Moreover, this study considers the Resource-Based Theory (RBT), originally proposed by Birger Wernerfelt (1984) and later developed by Jay B. Barney (1991). It attempts to identify and find resources for competitive advantages, such as profitability, alliances, and environmental performance, using its resources (Utami & Alamanos, 2023). The theory supports the present study as it states that RBT can be a sufficient factor in how access to resources is aligned with financial capital for the success of the smallholder rice farmers in the production cycle. In the study of Zica et al. (2016), RBT explores and explains an organization’s efficiency based on the management of its particular resources. It directs thinking and analysis toward increasing profitability, preserving competitive advantages, and opening new markets. Moreover, this theory argues that access to financial services enables farmers to access resources for stability, development, and expansion.

Hence, this study aims to identify the perceived impact of microfinance on smallholder rice farmers, as it will determine how microfinance services lead to specific development changes and how activities contribute to certain outcomes. These theories aim to establish strategies for the agricultural sector and to determine how these strategies can affect the socioeconomic and economic development of smallholder rice farmers throughout the production cycle.

METHODOLOGY

Research Design

A mixed-methods approach was used to provide a detailed account of both quantitative and qualitative responses from small rice-holder farmers. Using a mixed-method research design allows researchers to provide a comprehensive, in-depth analysis of specific issues or phenomena (Creswell & Inoue, 2025). For qualitative data, thematic analysis and one-on-one interviews were employed to gather and interpret qualitative data.

Participants

Twenty registered smallholder rice farmers were purposively selected from five barangays in the municipality of Gubat. The barangay with the highest number of registered smallholder rice farmers was the basis for choosing the five barangays in the Municipality of Gubat, Sorsogon, including Barangay Carriedo, Bagacay, Rizal, Bulacao, and Tiris. The selected registered smallholder rice farmers must have at least three years of experience accessing microfinance services and have less than three hectares of rice farmland.

Instrument

One-on-one in-depth interviews utilizing a semi-structured questionnaire were conducted. To assess the instrument's validity, face validation was conducted by three experts.

Data Analysis

Thematic analysis, descriptive statistics, and coding were employed to assess the status and experiences of smallholder rice farmers in microfinance institutions in the municipality of Gubat. Thematic analysis involves identifying patterns in interview data to derive themes that go beyond mere summary. To achieve saturation of the topic in thematic analysis, 15-20 respondents are needed (Ahmed, 2025; Braun & Clarke, 2006). Descriptive statistics summarize and describe datasets, including percentages and averages.

Ethical Considerations

Researchers maintained ethical considerations to ensure confidentiality and to guarantee that data are collected solely for scholarly purposes, thereby preserving participants' reputations. Furthermore, the researcher also sought participants' permission to be interviewed and to sign a consent form. They requested permission to

audio-record the interview, but assured that the data collected would be used for academic purposes and would protect participants' reputations. Data responses were kept confidential, and participants' names were not disclosed to any third party. Participants were also free to leave at any time.

RESULTS AND DISCUSSION

Demographic profiles of the respondents

A total of twenty respondents from five barangays in the Municipality of Gubat, Sorsogon, participated in one-on-one interviews using a semi-structured survey questionnaire. The majority of respondents were female (75%) and accessed microfinance services, while the remaining respondents were male (25%). The findings indicated that smallholder rice farmers who accessed MFI services were primarily female. Furthermore, the age group of 60-69 comprised the largest proportion (50%), while the other age groups had lower percentages. About half of the selected smallholder rice farmers were married, and 20% were widowed. Regarding educational attainment, all surveyed smallholder rice farmers had received an education. Most of them completed primary school (40%), reached secondary school (35%), and achieved a tertiary level (25%) (Table 1).

The majority of smallholder rice farmers in each chosen barangay had been there since birth, with an average of 51.75 years. All farmers are involved in farming, with an average of 31.45 years. Furthermore, regarding land ownership, 55% of respondents owned their land. However, one of them is both a landowner and a tenant, which means they own some land but also rent other land. This explains why 50% of registered smallholder rice farmers said they were tenants. All of them were mainly engaged in agriculture. The size of owned and leased rice lands varied between 0.25 and 3.0 hectares. A total of 11 (55%) smallholder rice farmers have a farm size range between 0.26-0.5 hectares; seven (35%) have a range between 0.6-1.0, while the remaining had the lowest number of farmers surveyed. Half of the participants earn an average farming income of ₱15,000 to ₱24,000, and the remaining farmers earn only ₱1,000 to ₱10,000. This is because their yields are usually not intended for sale but are reserved for their most basic household needs. In addition, not all of the harvest goes to the farmers themselves, particularly among tenant farmers who must share their yield with landowners, resulting in lower income.

Perceived Impact of Smallholder Rice Farmers on MFI

Agricultural Production

With the expansion of microfinance services, several rice farmers were influenced to avail themselves of their services to enhance their agricultural productivity. Microfinance services directly impact smallholder rice farmers, which helps increase their agricultural

production by giving them capital for their fields. The results showed that half of the respondents who used microfinance services increased their capital, hence it also increased their agricultural production with an average of 15.6% annually, while the other 40% remained the same, and 10% of the respondents answered that their agricultural production level decreased every cropping season.

Table 1. Profile of Respondents

Variables	Frequency	Percentage (%)
Gender		
○ Female	15	75
○ Male	5	25
Age		
○ 30-39	1	5
○ 40-49	1	5
○ 50-59	7	35
○ 60-69	10	50
○ 70 up	1	5
Civil Status		
○ Single	3	15
○ Married	10	50
○ Widow	4	20
○ Live-in	2	10
○ Solo parent	1	5
Educational Attainment		
○ Undergraduate Elementary	1	5
○ Elementary	7	35
○ Undergraduate High School	2	10
○ High school	5	25
○ Undergraduate College	1	5
○ College	4	20

About (55%) half of the smallholder rice farmers had large proportions of agricultural production, with 50-150 sacks annually, with a large farmland ranging from 0.26 to 1.0 hectares, while the remaining farmers' productivity was between 45 and 20 sacks annually, with farmland ranging from 0.26 hectares. The respondents stated that, due to climate change, a lack of capital, and higher prices of farming inputs, their yields decreased. Microfinance assists farmers in improving their agricultural skills to boost rural economic development (Mago & Hosifi, 2014). The findings revealed that half of the farmers increased their agricultural productivity while availing MFI services such as loans. One of the respondents mentioned that:

“Opo, nag tataas man an amo produksyon sa agrikultura na nag-aabot man sin mga three (3) percent.” (Yes, our agricultural production is also increasing by about three (3) percent).

Similarly, another farmer said that,

“Batug san pag-avail ko san serbisyo san microfinance, nagtaas man an amo produksiyon na nag-aabot man siguro sa five (5) percent na nagagamit ko pang kapital sa pasakay halimbawa mabakal abono.” (After availing of microfinance services, our production also increased to five (5) percent, which I use as capital to buy fertilizer.)

The findings revealed that MFI services influenced smallholder rice farmers' agricultural livelihoods by increasing their agricultural income following accessing microfinance services. Microfinance institution services contribute positively to agricultural modernization, increased agricultural production, and significantly influence output levels (Sulemana & Adjei, 2015).

Furthermore, the study found that more than half of the respondents have increased their income by up to 20.75% after availing themselves of microfinance services, as they have managed the money borrowed from the MFI. One of the respondents discussed that,

“Batug man san mag avail ako dun sa microfinance, nakadanun yadto saako kay nagkakamay-on ako san dagdag na income tapos nagagamit ko man para pangdagdag sa pang uruadlaw na allowance san mga bata ko.” (When I availed myself of microfinance, it helped me because I had extra income, and I used it to support my children's daily allowance.)

Through MFI services, smallholder rice farmers have met their basic needs. According to Hussian et al. (2025), microcredit can help boost the agricultural production of smallholder rice farmers to develop and build their capital in farming, hence increasing agricultural production and income. In summary, these results show that the majority of smallholder rice farmers have enough income to support their families' basic needs because they find ways to meet them every day.

Farming Inputs

Ever since smallholder rice farmers borrowed from microfinance institutions, they have been able to cope with farm needs, buying inputs such as seeds and fertilizers. All respondents used loans from microfinance institutions for agricultural activities. Out of the 20 registered smallholder rice farmers, 18 (90%) answered that the

loans they availed in microfinance were used to pay for labor (25%), fertilizer (30%), seeds (30%), and the remaining (40%) for paying for tractor operators. According to the farmer,

“Ang nauutang ko dun sa microfinance nagagamit ko man sa pag-uma kay nakabarakal ako abono, nagbabayad sa labor sugad san pagpatractor nan pagpatanum.” (The money I borrowed from microfinance was also used for farming because I bought fertilizer and paid for workers like the tractor driver and the planter.)

This indicates that most smallholder rice farmers used the loans and services they availed from microfinance for their rice fields, specifically for labor, fertilizer, seeds, and tractor operators. Allocating credit to important inputs such as seeds, fertilizers, and soil preparation directly contributes to higher crop yields and overall agricultural output (Chaiya et al., 2023).

Credit Scheme

One of the smallholder rice farmers' other ways to provide for their family needs and farm inputs is to borrow from other constituents rather than from their relatives, since it is more convenient and less complicated. Credit is a transaction between two individuals in which the creditor provides money, products, services, or securities in exchange for a guaranteed future payment from the other borrower (Encyclopedia Britannica, 2024). The results of this study showed that seven (35%) of the smallholder rice farmers borrowed from family members to repay MFIs when their harvest was insufficient. In comparison, the other six (30%) of the respondents borrow from other microfinance institutions or cooperatives, and three (15%) of them borrow from their constituents. The four (20%) smallholder rice farmers used their other sources of income to repay their MFIs. The remaining seven (35%) of the respondents who were interviewed indicated that they get money from their children. There are only five (25%) smallholder rice farmers who answered that they borrow money from other people to pay the debt borrowed from the MFI. The respondent said,

“Ano, kun minsan na diri sapat an ako kita tapos inkakapos ako sa budget pangbayad sa nautang ko, naghihimo ako san iba na paraan kay sa lending diri pwede na diri ka magbayad weekly kaya dapat magbayad.” (Well, sometimes when I don't earn enough income and have a shortage of money to pay my debt, I just find other ways to pay it.)

Some of the respondents have other jobs where their income is used to pay debts. The study showed that their yield per harvest remains insufficient to meet their basic needs due to rising prices of farming inputs. Additionally, due to a lack of capital, they deliberately borrowed from other institutions and cooperatives to support their farming activities. Family relatives and constituents are alternative ways for the smallholder rice farmers to meet their basic needs. Mersha and Ayenew (2018) stated

that smallholder rice farmers choose to obtain credit from informal sources such as relatives and constituents. The results indicated that smallholder rice farmers borrowed from various credit schemes to pay their microfinance debts.

Poverty Reduction

The presence of microfinance institutions helps reduce poverty among smallholder rice farmers by offering services that enhance their income and agricultural production. The results from 20 respondents: 10 (50%) smallholder rice farmers reported earning between ₱15,000 and ₱24,000 from farming, while the other 10 (50%) earned between ₱1,000 and ₱10,000 in yield. According to Ricelytics (2022), in the Philippines, farmers' monthly income is ₱29,912, and in the Bicol region, it is ₱23,018. This indicates that farmers' income is low, resulting in insufficient funds to purchase necessities for their families and limited resources for farming. The Philippine Statistics Authority (2023) reports that 27.0% of the lowest poverty rate group consists of small farmers in rural areas, a notable decrease from 30% in 2021. As of 2023, in the Bicol region, the poverty threshold for farmers stands at 29.7% (PSA, 2025). In the province of Sorsogon, a poverty incidence of 28.4% has been reported, indicating that farmers struggle to meet their basic needs (PSA, 2024). A comparison of poverty incidences among farming sectors reveals that those with low incomes belong to poor families. According to Farmer, 4 stated that,

“Nakadanun man saako kay syempre kontra baga yuon sa kahirapan kaya batug san pag-avail ko dun sa microfinance nabawasan man an amo kahirapan.” (It also helped me because, of course, microfinance is against poverty, so I availed of microfinance, and it helped reduce our poverty.)

Farmer 19 mentioned that,

“Para saako, an microfinance ay dako-dako na danun man siya para mabawasan an kahirapan, kun baga diskarte mo nalang sa buhay kun pano mo yadto bayadan. Pag sa tawo di kaman makautang san dako na sinte samantalang sa microfinance pwede ka maka loan sin dako na halaga san sinte.” (For me, microfinance is a good way to reduce poverty, but you just need a life strategy on how to pay it off. If you can't borrow money from people, you can borrow a large amount of money from microfinance.)

Farmer 14 stated that,

“An microfinance nakadanun man saamo na mabawasan an amo kahirapan kay maski papano nadagdagan man amo budget na pang gastos sa pangangaipo mi sa balay.” (Microfinance also helped us reduce our poverty because at least our budget increased to spend on our household needs.)

The results of the study showed that 19 respondents (95%) reported a decrease in their poverty levels, while one respondent (5%) felt that microfinance services did not help reduce their poverty because they faced difficulties in repaying debts. However, the overall response to this question was very positive, as microfinance services helped reduce poverty among smallholder rice farmers who used them. Surprisingly, 19 respondents (95%) indicated that microfinance services helped reduce their poverty by meeting family needs and increasing their budgets for children. The findings revealed a substantial and positive relationship between microfinance and poverty alleviation, suggesting that microfinance is a vital component in reducing poverty in society (Rahman, 2023).

Changed Lifestyle

Microfinance institutions directly impact the lives of smallholder rice farmers. With the services they offer, they have changed the lifestyle of these farmers, especially regarding their children's education, allowing them to send their children to private schools and meet their needs. The presence of microfinance institutions provided them with greater comfort by enabling access to capital, leading to increased income. The study's results showed that most smallholder rice farmers experienced lifestyle changes after using microfinance: 19 (95%) of the 20 respondents reported lifestyle changes, while only one (5%) reported no changes. Overall, this study indicates that borrowing from microfinance has positively impacted the lifestyles of most smallholder rice farmers. According to the Farmer 3 respondent,

“Batog san nag utang kame sa microfinance nakaranas man maski papano san pagbabago kay nakapabalay ako dahil suon na lending.” (We experienced a change since I was able to build our house because of the lending.)

As mentioned by Farmer 10,

“Dahil doon sa lending nakapatapos ako san bata ko kaya dire ko nanggad inkakaraway yun napag utang kay grabe kun sa danon lang.” (I will never get ashamed of having debt since I was able to send my child to finish college.)

Farmer 11 indicated that,

“Aram niyo an microfinance maski papano naka danon man kay lalo na sa kabuhayan namo tapos sa basic needs.” (Microfinance helps our livelihood and basic needs.)

Microfinance has a positive impact on socioeconomic factors such as farmer yields, children's education, and healthcare (Stewart et al., 2010). Overall, the results indicated a

positive outcome, as most smallholder rice farmers experienced positive changes in their lifestyles after borrowing from microfinance institutions. Moreover, the result showed that out of 20 respondents, 15 (75%) of them feel comfortable since it added to the family's income and for the children's education, while three (15%) of them do not feel comfortable due to pending debts that need to be paid, and two (10%) of the respondents remain the same after availing microfinance services. As stated by Farmer 18,

“Syempre naman, kasi talagang nag utang ka don for comfortableness dire sa maging distract or stress ka lang, always think positive” (You borrowed a loan for comfortableness, not for distraction or stress; always think positive)

As a personal experience by another respondent, Farmer 20 stated that,

“Naging comfortable man maski papano, sugad nga son nyan na susuportahan mi na an amo mga pang uruadlaw na gastos nan kaipuhan sa sulod san balay.” (We feel comfortable since we can already support our everyday expenses and needs in house.)

According to Sothorn (2020), easy access to credit helps smallholder rice farmers increase their agricultural production and income, boosting their well-being and reducing the vulnerability of rural households. Lastly, most of those interviewed indicated that they feel comfortable in life after availing themselves of microfinance services.

Adaptability and Resilience

The presence of microfinance institutions boosts the resilience and adaptability of smallholder rice farmers, as their involvement in these services increases farm production, making them feel more empowered. Adaptability is an essential ability in today's constantly changing working conditions. On the other hand, resilience is a notion that highlights a person's ability to maintain the current state in the face of disruptions to maintain stability, adapt, and transform in response to change (Darnhofer, 2021). The results indicated that the majority (80%) of the respondents perceived that they had increased their resilience and adaptability because it raised their agricultural production upon borrowing from microfinance, while the others (15%) respondents did not change their resilience and adaptability, and the remaining (5%) decreased their adaptability due to the debt. Others were forced to be resilient,

“Sobra na katatagan, kasi hindi pwede na tatamad-tamad ngayon kasi may bayaran.” (We are not allowed to be lazy since we have debt to pay.)

Challenges encountered by farmers in Microfinance Institutions

Through microfinance Institutions, smallholder rice farmers can access funds to buy raw materials and equipment. However, they also encountered challenges before and

after availing of microfinance services. The finding showed that 17 (85%) of respondents who availed of Microfinance services experienced challenges in using microfinance services. It includes (1) late loan repayment and (2) insufficient income to repay their debt. According to respondent Farmer 3,

“Pag di naka bayad sa due date lalo nakun late na late na dako un na problema.” (If the payment isn’t made by the due date, especially if it’s extremely late, it becomes a big problem.)

In the response, Farmer 16 stated,

“Lalo na kung may nagpapasabay tapos pag-abot san oras wara man pambayad.” (Even more so if someone else is relying on the payment, but when the time comes, there’s no money to pay.)

Farmer 18 also mentioned,

“Kung nagkakarabay an pag-hulog tapos an bayadan san tubig tas an kuryente.” (When payments coincide, like paying for water and then electricity.)

These two main problems arise when farmers’ yields at the end of the season are insufficient to cover their expenses and debts. Additionally, in group lending, the late repayment of one member can affect the whole group, resulting in late repayment. Group lending is a type of joint-liability contract that Microfinance Institutions (MFIs) offer to groups of people who join together to share risks and gain funds (Altinok, 2023).

According to Gutema (2021), smallholder rice farmers are concerned about how they will repay the loan, feed their families, and purchase supplies for the upcoming growing season because, for most of them, their output is insufficient. The results indicate that most borrowers are concerned about loan repayment, particularly during times of shock and disruption, which hurt their agricultural productivity.

In terms of availing microfinance services, participants shared their experiences. It indicates that 50% (10) of respondents have encountered challenges. It includes the (1) challenging processes and procedures of MFIs, the submission of different documents that are crucial as part of the MFIs’ rules and regulations. Due to the strict processes of MFIs, some individuals, especially farmers, are hesitant to engage with Microfinance, leading them to informal credit schemes. Additionally, (2): the delayed loan release, and (3): the amount of loan being released is not enough, these are the most common and often encountered problems that farmers experience in availing microfinance services. According to Farmer 4,

“Minsan delayed or na lalate an pag release san loan.” (Sometimes the release of the loan is delayed or late.)

As stated by respondent Farmer 6,

“Pag wra pambayad an ka member obligado mag bayad an iba na member lalo na kung schedule na san pag-release san loan kasi diri ma release san loan pag diri fully paid.” (If a member doesn't have the money to pay, another member is obligated to cover the payment, especially when it's already the scheduled time for the loan release, because the loan won't be issued unless it's fully paid.)

This greatly affected their production, as they used it as a fund to cover their rice production expenses. Group lending is one of the factors for delayed loan release. For instance, if a member is unable to pay on time, the other members of the group are obligated to cover that shortfall, resulting in delayed loan release. The study showed that, in availing and paying their loans, it depends on which MFI a farmer is involved with, as each MFI has its own processes and procedures. Group lending is also one of the factors that affects smallholder rice farmers' ability to pay their loans.

Additionally, the results showed that weather conditions are among the main reasons smallholder rice farmers do not engage in farming. Climate change is one of the factors that greatly affects farmers' agricultural production. Also, natural disasters such as soil erosion, biodiversity loss, limited access to water, and other factors affect smallholder rice farmers' ability to meet rising food demand (Touch et al., 2016). Small-scale farmers have been adversely affected by climate change because they largely depend on rainfall for irrigation and on favorable weather for agricultural production. According to Farmer, 4 stated that,

“Ano sa sayo kataon bali sayo hak ka beses ako nag-uuma kay an ako pasakay salod sa uran yuon lalo pa niyan kay paiba-iba an panahon baga pag tag-habagat nawawaraan sin tubi ang pasakay tas wara san patubig kaya masakit an pag-uma.” (I only farm once a year since my rice field depends solely on rain, and our weather here is unpredictable. In addition, the farm field loses water during the southwest monsoon, and we don't have irrigation, which makes it more difficult to farm.)

In the response, Farmer 17 argued,

“Minsan nagtataas man an amo produksyon sa pag-uma nan minsan dire talaga nagtataas an amo produksyon kay sugad ngani suon ho pag nagpapara uran kaya depende talaga sa panahon.” (Sometimes it increases our farming production, and sometimes it doesn't rise at all since it always rains, so our production really depends on the weather.)

Furthermore, farmers are anticipating the northeast monsoon season, particularly in the barangays without irrigation systems. However, the northeast monsoon also has adverse effects due to the excessive rain, which leads to severe flooding. It resulted in the destruction of their crops, which they could no longer sell for profit. Food stability is seriously threatened by severe weather conditions, including floods, heat waves, cold waves, and droughts, particularly for marginalized and small-scale farmers (Roy et al., 2021). The findings indicated that a minority of respondents (15%) reported no change in their agricultural production due to changing weather conditions, such as extreme heat and heavy rain. The findings revealed that, due to the effects of climate change, they experienced a full year of the farming cycle and incurred expenses for labor, pesticides, fertilizer, and other farming activities.

CONCLUSIONS AND RECOMMENDATIONS

Microfinance institutions had an impact on smallholder rice farmers. Findings indicate that MFIs play a critical role in enhancing agricultural productivity, income levels, livelihood conditions, and living standards. The study revealed that smallholder rice farmers benefit from MFI services through improved financial access, enabling them to invest in seeds, fertilizers, labor, and equipment, thereby increasing their yields.

However, despite these advantages, farmers face challenges such as delayed loan disbursement, difficulty in repayment due to delayed loan disbursement and strict lending processes. Furthermore, smallholder rice farmers experience difficulties with their agricultural production and income, resulting in insufficient yields, and crop production cycles have been affected by weather fluctuations. Despite these, the study confirms that microfinance contributes to poverty reduction, enhances resilience, and positively influences rural development. Future studies should focus on the impact evaluation of MFI across other sectors and a broader scope, as well as on financial literacy programs and alternative funding models to enhance microfinance accessibility and effectiveness in rural agriculture.

IMPLICATIONS

The implication of this study concerns the perceived impact of microfinance institutions on smallholder rice farmers' financial situation, capital utilization, and overall well-being. A promising outcome but a challenging area for future study would be determining the effectiveness of microfinance institutions and the extent of knowledge gained by smallholder rice farmers.

Moreover, the research will be very helpful to MFIs and the agricultural sector, as it will provide valuable knowledge and information to improve financial accessibility and enhance the effectiveness of rice production. The study advocates that microfinance institutions and policymakers introduce financial literacy programs to prevent farmers from incurring high interest rates and penalties on loans. Furthermore, it recommends

that local government units support training programs to improve agricultural practices and living conditions for rice farmers.

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Declarations

Conflict of interest

The authors declare no conflict of interest.

Informed Consent

Informed consent was obtained from all participants involved in the study.

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REFERENCES

- Adnan, K. M., Sarker, S. A., Tama, R. A. Z., & Pooja, P. (2021). Profit efficiency and influencing factors for the inefficiency of maize production in Bangladesh. *Journal of Agriculture and Food Research*, 5, 100161. <https://doi.org/10.1016/j.jafr.2021.100161>
- Ahmed, S. K. (2025). Sample size for saturation in qualitative research: Debates, definitions, and strategies. *Journal of Medicine, Surgery, and Public Health*, 5, 1-6. <https://doi.org/10.1016/j.glmedi.2024.100171>
- Altinok, A. (2023). Group lending, sorting, and risk sharing. *Games and Economic Behaviour*, 140, 456-480. <https://doi.org/10.1016/j.geb.2023.05.003>.
- Anjum, M. N., Rehman, A., Khan, M. N., Saqib, R., Fayaz, M., & Javed, I. (2020). Impact of microfinance on the socioeconomic status of farmers in the district of Dera Ismail Khan. *Sarhad Journal of Agriculture*, 36(3), 851-860. <http://dx.doi.org/10.17582/journal.sja/2020/36.3.851.860>
- Aung, N., Nguyen, H. T. M., & Sparrow, R. (2019). The impact of credit policy on rice production in Myanmar. *Journal of Agricultural Economics*, 70(2), 426-451. <https://doi.org/10.1111/1477-9552.12299>

- Bangko Sentral ng Pilipinas (2013). *Financial Inclusion in the Philippines*. Retrieved from: https://www.bsp.gov.ph/Media_And_Research/Financial%20Inclusion%20in%20the%20Philippines/FIP_3Qtr2013.pdf
- Bayudan-Dacuycuy, C., Magno-Ballesteros, M., Baje, L. K. C., & Ancheta, J. A. (2022). Sustainable value chain financing for smallholder agricultural production in the Philippines. *Philippine Journal of Development*, 46(1), 19-40. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidspjd46-2022-1b.pdf>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp0630a>
- Chaiya, C., Sikandar, S., Pinthong, P., Saqib, S. E., & Ali, N. (2023). The impact of formal agricultural credit on farm productivity and its utilization in Khyber Pakhtunkhwa, Pakistan. *Sustainability*, 15(2), 1-14. <https://doi.org/10.3390/su15021217>
- Creswell, J. W., & Inoue, M. (2025). A process for conducting mixed methods data analysis. *Journal of General and Family Medicine*, 26(1), 4-11.
- Cull, R., & Morduch, J. (2018). Microfinance and economic development. In *Handbook of finance and development* (pp. 550-572). Edward Elgar Publishing. <https://doi.org/10.4337/9781785360510.00030>
- Darnhofer, I. (2021). Farming resilience: From maintaining states towards shaping transformative change processes. *Sustainability*, 13(6), 1-21. <https://doi.org/10.3390/su13063387>
- Dossou, S. A., Aoudji, A. K., Houessou, A. M., & Kaki, R. S. (2020). Microfinance services for smallholder farmers: An assessment from rice farmers' expectations in Central Benin. *Agricultural and Food Economics*, 8(1), 1-15. <https://doi.org/10.1186/s40100-020-00165-1>
- Encyclopedia Britannica (2024). Credit. Retrieved from: <https://www.britannica.com/money/credit>
- Fan, S., & Rue, C. (2020). *The Role of Smallholder Farms in a Changing World*. In: Gomez y Paloma, S., Riesgo, L., Louhichi, K. (eds). *The Role of Smallholder Farms in Food and Nutrition Security*. Springer, Cham, 11-251. https://doi.org/10.1007/978-3-030-42148-9_2
- Gutema, A. A. (2021). Microfinance for smallholder farmers: The lived experience of borrowers in Akaki, Ethiopia. *Walden Dissertations and Doctoral Studies*, 77-239. <https://scholarworks.waldenu.edu/dissertations/11476>
- Hasan, K., Tanaka, T. S., Alam, M., Ali, R., & Saha, C. K. (2020). Impact of modern rice harvesting practices over traditional ones. *Reviews in Agricultural Science*, 8, 89-108. https://doi.org/10.7831/ras.8.0_89
- Hearth, H. M. W. A. (2018). *Microfinance theory and practice*. S. Godage & Brothers (Pvt) Ltd, 661, 665-675.
- Hussian, R., Ahmad, R., & Fatima, Q. (2025). Impact of microfinance on agriculture and livestock production: Insights from Southern Punjab, Pakistan. *The Critical Review of Social Sciences Studies*, 3(1), 2126-2151. <https://doi.org/10.59075/r9heov07>
- Jumpah, E. T., & Adams, A. (2020). Resolving the constraints in accessing microcredit: the neglected views of the smallholder farmers. *International Journal of Social and Administrative Sciences*, 5(1), 1-15. <https://doi.org/10.18488/journal.136.2020.51.1.15>

- Khavul, S. (2010). Microfinance: Creating opportunities for the poor?. *Academy of Management Perspectives*, 24(3), 58-72. <https://doi.org/10.5465/amp.24.3.58>
- Kulathunga, P. S. S. H., Edirisinghe, D. P. D. S., Athauda, A. M. T. P., & Anjalee, G. H. I. (2013). Challenges of microfinance accessibility by paddy farmers. The case of the Anuradhapura district. *12th Agricultural Research Symposium*, 399-403. <http://repository.wyb.ac.lk/handle/1/753>
- Mago, S., & Hofisi, C. (2014). Conceptualizing microfinance for effective smallholder farming in Africa. *International Business & Economics Research Journal*, 13(6), 1437-1446. <https://core.ac.uk/download/pdf/268107923.pdf>
- Mersha, D., & Ayenew, Z. (2018). Financing challenges of smallholder farmers: A study on members of agricultural cooperatives in Southwest Oromia Region, Ethiopia. *African Journal of Business Management*, 12(10), 285-293. <https://doi.org/10.5897/AJBM2018.8517>
- Nolon, J. C., & Plaza, R. C. O. (2021). The impact of micro-financing among rice farmers. *International Journal of Latest Research in Humanities and Social Science*, 4(10), 104-109. <http://www.ijlrhss.com/paper/volume-4-issue-10/15-HSS-1173.pdf>
- Perera, S. M. S. D., Dissanayake, S. N., Rajapaksa, D., & Lankapura, A. I. Y. (2021). Does microcredit play a role in improving the technical efficiency of paddy farmers? A case study in the Anuradhapura District of Sri Lanka. *Sri Lankan Journal of Agriculture and Ecosystems*, (3)1, 167-182. DOI: 10.4038/sljae.v3i1.66
- Petruzzello, M. (2025). Sharecropping. The Editors of Encyclopedia Britannica. <https://www.britannica.com/topic/sharecropping>
- Philippine Statistics Authority (2023). *Fisherfolk and Farmers Remain to Have the Highest Poverty Incidence Among the Basic Sectors in 2021*. Retrieved from: https://psa.gov.ph/system/files/phdsd/Press%20Release_5%20%281%29.pdf
- Philippine Statistics Authority (2024). *2023 Full-Year Poverty Statistics of Sorsogon*. Retrieved from: <https://rso05.psa.gov.ph/content/2023-full-year-poverty-statistics-sorsogon>
- Philippine Statistics Authority (2025). *Poverty Incidence Declined from 2021 to 2023 in Ten Basic Sectors*. Retrieved from: <https://psa.gov.ph/statistics/poverty>
- Philippine Statistics Authority (2025). *Poverty Incidence Declined in Eight Basic Sectors in 2023 in the Bicol Region*. Retrieved from: <https://rso05.psa.gov.ph/statistics/poverty>
- Rahman, M. O. (2023). The impact of microfinance on poverty alleviation and employment creation. *International Research Journal of Management and Social Sciences*, 4(3), 509-527. <https://irjmss.com/index.php/irjmss/article/view/41>
- Ramon Aboitiz Foundation, Inc. (2022). *The Ten Benefits of Microfinance Programs in The Philippines*. Retrieved from: <https://share.google/YELSdqSmxBNjQvUUx>
- Ricelytics (2022). *Rice farmers in the Philippines*. Retrieved from: https://ricelytics.philrice.gov.ph/rice_farmer?location=999&locType=2&locationText=The%20Philippines
- Roy, A., Kolady, D., Paudel, B., Yumnam, A., Mridha, N., Chakraborty, D., & Singh, N. U. (2021). Recent trends and impacts of climate change in the North-Eastern region of India: A review. *Journal of Environmental Biology*, 42(6), 1415-1424. <http://doi.org/10.22438/jeb/42/6/MRN-1701>

- Sarmiento, J. M. P., Ellson, A. G., Traje, A. M., Manzano, G. F. A. E., & Comidoy, S. M. (2013). Does access to microfinance improve farm production? Evidence from rice farmers in San Francisco, Agusan del Sur, Philippines. *Asian Journal of Agriculture and Rural Development*, 3(7), 469-476. <https://archive.aessweb.com/index.php/5005/article/view/857>
- Sothorn, K. (2020). The Use of Credit by Rice Farmers in Takeo. In: Cramb, R. (eds). *White Gold: The Commercialization of Rice Farming in the Lower Mekong Basin*, 309-326. https://doi.org/10.1007/978-981-15-0998-8_15
- Stein, D., & Valters, C. (2012). Understanding the theory of change in international development. *Justice and Security Research Programme*, 4-27. <http://eprints.lse.ac.uk/id/eprint/56359>
- Stewart, R., Van Rooyen, C., Dickson, K., Majoro, M., & de Wet, T. (2010). What is the impact of microfinance on poor people? A systematic review of evidence from sub-Saharan Africa. *EPPI-Centre, Social Science Research Unit, Institute of Education, University of London*, 7-104. [https://discovery.ucl.ac.uk/id/eprint/1500246/1/Stewart2010What\(Report\).pdf](https://discovery.ucl.ac.uk/id/eprint/1500246/1/Stewart2010What(Report).pdf)
- Sulemana, A., & Adjei, S. A. (2015). Microfinance impact on agricultural production in developing countries: a study of the Pru District in Ghana. *International Journal of Academic Research and Reflection*, 3(3), 26-44. <https://www.idpublications.org/wp-content/uploads/2015/02/MICROFINANCE-IMPACT-ON-AGRICULTURAL-PRODUCTION-IN-DEVELOPING-COUNTRIES.pdf>
- Sumelius, J., Islam, K. M., & Sipilainen, T. (2011). Access to microfinance: Does it matter for profit efficiency among small-scale rice farmers in Bangladesh?. *International Congress, Zurich, Switzerland 116067, European Association of Agricultural Economists*, 1-14. DOI: [10.22004/ag.econ.116067](https://doi.org/10.22004/ag.econ.116067)
- Touch, V., Martin, R. J., Scott, J. F., Cowie, A., & Liu, D. L. (2016). Climate change adaptation options in rainfed upland cropping systems in the wet tropics: A case study of smallholder farms in North-West Cambodia. *Journal of Environmental Management*, 182, 238-246. <https://doi.org/10.1016/j.jenvman.2016.07.039>
- Utami, H., & Alamanos, E. (2023). *Resource-Based Theory: A review*. In S. Papagiannidis (Ed.), *TheoryHub Book*. <https://open.ncl.ac.uk/theories/4/resource-based-theory/>
- World Bank (2014). *Access to finance for smallholder farmers*. Retrieved from: <https://documents1.worldbank.org/curated/ru/965771468272366367/pdf/949050WPoBox3800EnglishoPublication.pdf>
- Zica, R. M. F., Gonçalves, C. A., Martins, H. C., & Gonçalves, M. A. (2016). The resource-based theory and its adherence to a superior performance strategy: An analysis in small companies in Brazil. *Corporate Ownership & Control*, 13(3), 434-444. <http://hdl.handle.net/1843/42214>

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