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Financial Inclusion and Resilience among Farmers in Rural Communities

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Abstract

Farmers are among the underserved community and often face difficulties to accessing financial services which hinders their ability to improve productivity, manage risks, and achieve economic resilience in the long term. This study explores the financial inclusion among farmers in rural communities focusing on the challenges they encounter and their coping mechanisms to survive economic shocks and financial exclusion. This study used convergent parallel mixed-methods design, and data were collected across seven municipalities in Southern Palawan, Philippines with 369 farmers participants. The study determines the socio-economic profile of farmers in terms of educational attainment, training and seminars attended, average income per cropping, farm size, and financial services obtained. While majority of the farmers are in elementary and high school levels, they have varied income brackets along with their farm size and access to different financial services, such as loans and insurance. A significant portion of farmers reported utilizing financial services from microfinance companies and informal credit sources. Thus, challenges identified include limited access to financial resources, inadequate financial management skills, loan dependency worsened by misalignment with agricultural cycles, leaving farmers more susceptible. Farmers cope by relying on loans and credits sought after microfinance companies and informal financial providers, alternative income sources, and crop insurance. The study suggests a financial inclusion program to give farmers in rural areas better access to affordable and quality financial services along with policies supporting sustainable agricultural practices and continuous financial education emphasizing practical approach.

Keywords: Farmers, Financial Inclusion, Financial Services, Risk Management, Rural Communities.

Introduction

Financial Inclusion is a process of ensuring that the individuals, particularly those in the underserve communities, have access to timely and affordable banking services such as savings, credit, insurance, and payment systems. These services are essential in improving socio-economic development of the society (Yadav & Kumar, 2022). In the Philippines, a large portion of the population, especially in rural areas, remains underserved by formal financial institutions, relying instead on informal credit systems. This trend is especially pronounced among farmers, who represent one of the most vulnerable and financially underserved sectors of the population (Inquirer.net, 2023). This is also supported by the words of former BSP governor, Felipe M. Medalla, who mentioned that Bangko Sentral ng Pilipinas (BSP) data reveals more Filipinos are reported having outstanding loan even though they may have more financial accounts and investments. Based on the 2021 financial inclusion survey conducted by BSP, data shows vulnerable sectors are most affected by financial exclusion and financial illiteracy aside from health crises and natural disasters. Thus, farmers and agricultural workers were the least banked among all types of workers, with 73.0 percent having no financial accounts.

Financial inclusion is a key concept in enhancing financial literacy, particularly in rural areas. According to Hasan et al. (2021), knowledge of financial services plays a significant role in financial literacy, as individuals who are well-informed about financial products are more likely to access formal financial services. Desello & Agner (2023) further support this, showing that individuals with a basic understanding of financial services are more likely to engage in sound financial management, thus promoting overall financial well-being. The OECD (2020) also identifies the role of financial services, such as savings, investments, payment products, and insurance, in improving financial literacy and inclusion.

Farmers face numerous financial risks due to factors such as weather variability, fluctuating commodity prices, and natural disasters. To mitigate these risks, various financial risk management strategies and models are employed. The Risk Management framework identifies strategies such as diversification, crop insurance, and futures contracts to reduce exposure to financial volatility (OECD, 2022). These strategies are essential for farmers in Southern Palawan, where agricultural risks are prevalent.

In rural areas like Southern Palawan, which is a home to numerous indigenous tribes and rich agricultural resources, farmers face significant challenges related to financial management, including limited access to financial services, a lack of financial literacy, and barriers to formal credit.

This study aims to assess the financial inclusion of farmers in Southern Palawan. It also aims to explore the challenges they face in managing their finances and their coping strategies.

Furthermore, this study aims to bridge the significant gap in financial inclusion among farmers in Southern Palawan, and that this gap is driven by limited access to formal financial services, insufficient educational programs, and other environmental barriers. By addressing these gaps, the study suggests that targeted financial inclusion programs can improve the economic well-being of farmers, enabling them to make better financial decisions, manage risks, and access more sustainable financial services. The findings of this research will contribute to the development of tailored financial education programs that empower farmers in Southern Palawan and similar rural communities, fostering inclusive growth and resilience, economic self-sufficiency, and environmental sustainability.

Methodology

This study used convergent parallel mixed-methods design to integrate qualitative and quantitative data, ensuring assessment of financial inclusion, challenges, and coping mechanisms related to agriculture in Southern Palawan. The quantitative data collection measured financial inclusion among farmers based on their socio-economic profile, while qualitative insights provided context to the financial challenges and coping strategies they employed.

Southern Palawan primarily focused on agriculture, served as the study's setting while participants are the farmers from the municipalities of Aborlan, Narra, Brooke's Point, Sofronio Española, Bataraza, Quezon, and Rizal.

A multi-stage sampling method was also used. First, the researcher selected the land municipalities to be the focus of the study. Second, the researcher employed stratified sampling to select 369 farmer respondents, with 95% confidence level and 5% margin of error, based on criteria such as at least two years of farming experience and membership in farmers' associations. Data collection utilized survey questionnaire with close ended questions assessing the socio-economic profile and open-ended questions about financial challenges and coping mechanisms.

The study analyzed quantitative data using descriptive statistics and qualitative data using inductive thematic analysis, following Dawadi's (2020) framework, structured the qualitative data analysis through familiarization with data, code generation, theme identification, theme review, and reporting of findings.

Ethical considerations were given emphasis throughout the study. Informed consent was obtained from all participants, ensuring voluntary participation and transparency. Data confidentiality was maintained through anonymization and secure storage. The study adhered to ethical research standards, promoting fair treatment and data protection.

Results

This study assesses the financial inclusion among farmers in Southern Palawan. The study aimed to determine their socio-economic profiles, which is crucial for their financial well-being and overall socio-economic development.

Farmers Financial Inclusion

Table 1. Farmers' Socio-economic Profile

Characteristics	**F**	**%**
Educational Attainment:		
No formal education	17	4.6
Elementary level	137	37.1
High School level	150	40.7
Senior High School level	6	1.6
Tertiary level	37	10.0
Post Graduate level	22	6.0
Total	369	100.0
Attendance to Financial Literacy Trainings and Seminars:		
Not attended	179	48.5
Attended, once a year	142	38.5
Attended, once in every four months	7	1.9
Attended, once a month	21	5.7
Attended, twice a year	15	4.1
Others (Seldom)	4	1.1
No response	1	.3
Total	369	100.0
Average Income per Cropping:		
PhP 25,000 and below	200	54.2
PhP 25,001- PhP 50,000	117	31.7
PhP 50,001-PhP 75,000	40	10.8
PhP 75,001-PhP 100,000	7	1.9
PhP 100,001 and above	4	1.1
No response	1	.3
Total	369	100.0

Characteristics	F	%
Farm Size:		
2 hectares and below	238	64.5
3 to 4 hectares	105	28.5
5 to 6 hectares	19	5.1
7 to 8 hectares	4	1.1
9 hectares and above	3	.8
Total	369	100.0

Table 1 above shows that majority of farmers have limited formal schooling, with 40.1% high school level and 37% elementary level. While almost half of the farmers have not attended financial literacy trainings, there are 38.7% of them who were able to attend financial literacy events once a year, with only small portion has frequent attendance. In addition, big population (54.2%) of the farmers earn PhP 25,000.00 and below with most of them also cultivating 2 hectares and below, indicating a low agricultural output.

Table 2. Financial Services Obtained by Farmers

Characteristics	F	%
Savings:		
Mandatory (GSIS, SSS, Pag-Ibig)	45	12.2
Not Mandatory (Savings Account in Bank)	20	5.4
Payment Products:		
Debit Cards	9	2.44
Current Account	0	0.00
Insurance Products:		
Health & Life Insurance	210	56.9
Crop Insurance	239	64.8
Vehicle or other Non-Life Insurance	4	1.1
Credit Products:		
Loan from Rural Bank	41	11.1
Loan from Cooperative/ Cooperative Bank	5	1.4
Loan from Thrift/ Development Bank	2	0.5
Loan from Commercial/ Universal Bank	2	0.5
Loan from Government Bank	70	19.0
Microfinance Companies	155	42.0
Informal Creditors	63	17.1
Family & Friends	42	11.4

Table 2 reveals a significant result that crop insurance is widely used by the farmers with 56.9% of them having it, while it is notable that farmers rely on microfinance companies for loans (42%). Government banks are also playing their cards with 19%, however, informal creditors (17.1%) also play a significant role.

Challenges of Farmers in Relation to Agricultural Operations

Farmers in Southern Palawan face significant challenges primarily stemming from financial constraints, economic instability, climate and environmental conditions, external factors, and risk management difficulties.

The study of Costea et al. (2024) sheds light on the multifaceted financial challenges confronting farmers engaged in agriculture. In addition, the study found the significant effects of various factors on the financial viability of agricultural operations.

Southern Palawan farmers identified financial constraints as the most pressing challenge they encountered in sustaining their agricultural livelihoods. Financial constraints such as insufficient income, debt dependency, access to financial resources, and inadequate financial management skills pose challenges to the sustainability of farming activities. Economic instability and vulnerability of farmers contribute to financial instability that limits them from investing in sustainable agricultural practices. High production costs due to an increase of input prices, unstable and low market prices of agricultural products, and other external economic pressures worsen the farmers' financial struggles. Additionally, climate-related challenges, such as drought, pests, and water scarcity, further threaten productivity. Many farmers lack financial management skills, making them more vulnerable to economic shocks and unsustainable practices. Addressing these issues requires financial literacy and/or inclusion programs which lead to improve access to financial resources, sustainable agricultural practices, and policy interventions to enhance resilience and economic stability.

Coping Strategies of Farmers

Farmers in Southern Palawan engage in a variety of coping mechanisms to manage and withstand the agricultural challenges. Forming associations and cooperatives emerged as the primary coping strategies among farmers in Southern Palawan. It indicates understanding the power of unity and collective action in facing the challenges in agriculture industry. Another is their reliance on loans and credits, as majority of the farmers (268 out of 369 or 73%) reported have debts and relying on loans to finance their agricultural activities. Among these indebted farmers, 176 (66%) obtained loans from a single source while 92 (34%) sourced loans from multiple creditors. It has been also noted that the majority of these farmer participants sourced out from microfinance (155 farmers, 42%), government banks (70 farmers, 19%), and Informal lenders (63 farmers,17%). Other coping strategies are crop insurance enrollment, resource management, resilience, adaptability, and faith. The adoption of crop insurance has provided financial security, allowing farmers to recover from losses and reinvest in future cropping. Their cautious approach to high-risk practices, such as limiting third cropping and reallocating resources, demonstrates strategic financial management. Farmers also exhibit resilience by working longer hours, relying on family support, and exploring new techniques to sustain productivity. Their deep-rooted faith and perseverance serve as emotional and psychological anchors, helping them endure hardships and maintain hope for better harvests. These coping mechanisms highlight their adaptability and determination to sustain their livelihoods despite environmental and economic challenges.

Discussion

Access to affordable and formal financial services is the key to financial inclusion. The study reveals that only a small portion of farmers have access to formal savings account, with 5.4% who have non-mandatory savings in a bank and 12.2% who have mandatory savings like Pag-ibig, SSS, and GSIS. This shows a relatively low level of access to formal financial services in terms of saving, which is an important component of financial inclusion. The Department of Agriculture's initiative to provide crop insurance has made a significant impact on the farming community. Out of 369 farmer participants, 239 have enrolled in crop insurance programs, highlighting a positive shift towards safeguarding their agricultural investments. This adoption rate of nearly 65% demonstrates the growing awareness among farmers of the importance of protecting their livelihoods against unforeseen events such as natural disasters, pest outbreaks, and other risks that can devastate crops. A significant portion of farmers (42%) rely on microfinance companies for credit, which is a form of financial inclusion for low-income populations.

In addition, the data reveals that a significant number of farmers (48.5%) have never attended any financial literacy training or seminar. This underscores a large gap in financial education. Though, 38.5% attend financial literacy training ore seminars once a year, there are still more farmers that are not regularly exposed to the enhancement of financial knowledge and skills that would help them effectively manage their finances and eventually lead to financial resilience and sustainability.

Farmers income levels may directly influence financial inclusion, as higher income leads to greater access to financial services such as setting up saving accounts in formal financial institutions. A big percentage of farmers (54.2%) earn PhP 25,000 and below every cropping season, indicating a very low-income level for many farmers as it takes an average of 3 to 6 months per cropping. This contributes to financial vulnerability and limits the farmers ability to save, invest, or even access credit from formal financial institutions. However, this reliance on microfinance indicates that formal banking services may be inaccessible to many.

This gap in financial inclusion is tend to contribute to challenges in utilizing formal financial services like savings accounts, insurance, and loans. It also highlights the need for increased financial education programs to improve the confidence and financial decision-making capabilities of rural farmers.

In the challenges of the farmers, the study highlights significant financial constraints that pose challenges to their agricultural operations. Insufficient income, debt dependency, and limited access to financial resources not only hinder productive investments but also trap farmers in cycles of high-interest debt (Kato & Otsuka, 2020; Cihak & Demirguc-Kunt, 2021; Khan et al., 2024). These factors, along with a lack of alternative livelihoods (Raza & Khan, 2024), underscore the need for policy interventions such as microfinance programs and digital finance initiatives, which have the potential to reduce poverty and bolster rural resilience (Vassallo & Gallegos, 2022; Mowafi & Koomson, 2021). External economic pressures further exacerbate these problems. High input costs for essential items like fertilizers and pesticides, combined with low market prices, force many farmers into debt or inhibit their ability to reinvest in their operations (Sothorn, 2020; Kato & Otsuka, 2020). Fluctuations in commodity prices and economic policies increase the cost of living and strain household budgets, while environmental challenges—including droughts, water scarcity, and pest infestations—exacerbate financial losses and threaten agricultural sustainability (Hansen et al., 2020; Kahil et al., 2021; Deutsch et al., 2018; Rockström et al., 2020; Lobell et al., 2019). These challenges provide opportunities for a more focused interventions, such as input subsidies, support for alternative income sources, and investments in sustainable practices and adaptive farming techniques.

While the primary coping strategy of farmers in the rural communities is forming associations and cooperatives, allowing them to pool their resources, provide access to credit, and manage other challenges of agriculture. While forming associations and cooperatives offers benefits such as collective bargaining and ease of obtaining government grants, it also faces difficulties such as poor management, internal conflicts, and difficulty in securing long term funds that affects it sustainability. Moreover, another strategy is their reliance on loans and credits, where the data indicates that the majority of farmers rely on loans to fund their agricultural activities which present multifaceted implications within the farming community. On a positive side, access to credit can facilitate investments in farming inputs, thereby enhancing productivity and income generation. However, excessive debt burdens can also worsen the financial instability of farmers, especially during periods of crop failure and fluctuations in market prices. While financial services from microfinance institutions were highly sought after by farmers, their payment terms are often misaligned with agricultural cycles, potentially resulting in high interest burdens and rigid repayment schedules that may further hinder farmers' ability to invest in long-term sustainability. Additionally, many farmers engage in supplementary income sources, such as side jobs and various micro-entrepreneurial activities to mitigate the risks associated with farming and cope with their day-to-day living. Diversifying income through alternative livelihoods, such as livestock farming, small businesses, or seasonal employment, provides farmers with financial stability and reduces dependence on agriculture alone (Barrett et al., 2021). This strategy increases resilience during periods of crop failure or low market prices. However, engaging in multiple income-generating activities can divert time and resources from farming, potentially reducing agricultural productivity in the long run (Adjimoti & Kwadzo, 2020).

Finally, the integration of financial inclusion with adaptive strategies, including crop diversification and improved technologies, can empower farmers to navigate these multifaceted challenges more effectively (Dercon & Christiaensen, 2022). Overall, this study recommended the need for comprehensive approaches that combine enhanced financial inclusion program with supportive policies and sustainable agricultural practices. Such interventions are essential to improve the financial resilience and long-term viability of the agricultural sector in Southern Palawan.

Conclusions

To conclude, financial inclusion is essential in empowering farmers in rural communities, it enables them to access affordable, timely, and quality financial services to improve productivity and enhance financial resilience in the long run. With low access in financial services particularly in savings and formal banking institutions, financial inclusion of farmers in Southern Palawan is limited. Inadequate financial management skills evidenced by the large percentage of farmers who have not attended financial literacy trainings and seminars, moreover, financial literacy skills cannot be fully developed by occasional attendance to trainings and lectures, as it requires continuous learning and support, and practical application to be fully internalized and utilized.

The challenges faced by farmers primarily financial constraints caused by insufficient income, limited access to affordable financial services, burden of debt, and inadequate financial management skills continue to destabilize farmers ability to invest in long term agricultural sustainability. Economic instability brought by high input prices, fluctuating market prices for agricultural products, and environmental factors contribute to the financial challenges encountered by farmers in rural communities (Sothorn, 2020; Kato & Otsuka, 2020; Hansen et al., 2020). This is in consistent with the study of FAO (2020), that highlights how vulnerable farmers are to the adverse effect of climate change to agricultural productivity while there are also studies indicating that lacks of financial literacy combined with limited access to affordable credit make farmers unable to effectively manage risks and invest in sustainable agricultural practices (Birchall, 2020; Abebaw & Haile, 2019).

The study recommends development of financial inclusion programs emphasizing practical, experience-based financial training, enhancing access to financial resources, and integrating financial literacy into agricultural extension services, farmers will be better equipped to make informed financial decisions. As aligned with other studies, policies that include digital finance solutions, and input subsidies to help transform basic financial knowledge into effective financial practices (Vassallo & Gallegos, 2022; Mowafi & Koomson, 2021).

Overall, this research shows that combining practical, context-specific financial inclusion program with supportive policy interventions can enhance the financial resilience of farmers. These findings provide clear insights for policymakers, practitioners, and future researchers working to improve financial inclusion and sustainability in rural agricultural communities.

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