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Enhancing Farmer Engagement in Cooperatives: Implications of Awareness and Interest

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Abstract:

This study aimed to identify the motivations of farmers in Camarines Sur, Philippines to join cooperatives. By examining their awareness and interest levels, the researchers used a descriptive-correlational research design and gathered data from 308 farmers through surveys and interviews. The findings showed that most farmers were married, male, had completed high school, owned small landholdings, and had limited income. Many farmers lacked awareness about the benefits of joining cooperatives, especially the personal benefits, which impacted their interest in joining. The study found that economic factors like access to financial aid for seeds, fertilizers, and equipment were the biggest reasons farmers showed interest in cooperatives. Personal motivations, such as individual growth opportunities, were less influential due to low outreach. There was also a strong connection between farmers' awareness of financial benefits and their willingness to join cooperatives. Barriers to joining cooperatives included lack of information, distrust, and the lack of cooperatives near the farmers. The study crafted Project Enganyo, a strategy for continuous improvement within cooperatives to address these challenges and enhance farmer involvement. Strategies such as highlighting financial benefits, offering clear communication, and supporting market access could encourage more farmers to join cooperatives. Addressing these issues can improve farmer engagement and support sustainable agricultural development in Camarines Sur.

Keywords:

Farmer Engagement, Cooperatives, Awareness, Interest, and Farmers.

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INTRODUCTION

Cooperatives are pivotal in providing social and economic support within the global agricultural sector. Yet, their role and impact can vary significantly depending on region, the type of cooperative, and the engagement of farmers. Blekking et al. (2021) asserted that cooperatives enhance agricultural production efficiency and output by enabling collective action, but the specific ways this happens was contrasted across different studies. For instance, Lin et al. (2022) focused on China, revealing that cooperatives, by leveraging economies of scale, can improve rice productivity through mechanized farming, provision of quality inputs, and technical training. This direct influence on production is not as strongly emphasized in research on cooperatives in other regions, such as the Philippines, where social and governance issues tend to overshadow purely economic considerations.

In the context of the Philippines, Czachorska-Jones (2019) pointed out that cooperatives historically aligned with the country's agrarian economy, but more recent trends show a shift toward multipurpose cooperatives (MPCs), which now dominate in terms of membership. This trend, while broadening the scope of services available, contrasts with the highly focused agricultural cooperatives examined by Lin et al. (2022) in China, where membership boosts productivity. The differences in cooperative structures highlight how regional economic conditions and cooperative governance models shape the outcomes for farmers.

A key point of comparison lies in the factors influencing membership in cooperatives. According to Chen Chen et al. (2023), household heads in China are more likely to join cooperatives if they are married or trained in digital technologies, suggesting that digital literacy is becoming an increasingly important factor for cooperative engagement. In contrast, research in the Philippines by Fajilan & Bitonio (2023) showed that a lack of ownership mentality and inadequate policies are the primary barriers to sustainable cooperative operations. These findings suggested that while technology and education are key motivators in some regions, governance and member engagement are more critical in others.

Furthermore, the Bicol Region in the Philippines, with its 1,534 registered cooperatives (CDA RV EO, 2022), of which only 13.17% are agricultural, underscores the dominance of multipurpose and credit cooperatives over purely agricultural ones. In comparison, agricultural cooperatives in China, as studied by Lin et al. (2022), are much more common and specifically tailored to enhancing agricultural productivity. This contrast reflected different developmental priorities: while Chinese cooperatives focus on optimizing agricultural output, cooperatives in the Philippines appear to have diversified, potentially due to challenges like insufficient infrastructure, governance issues, or limited farmer engagement in purely agricultural cooperatives.

Gasga et al. (2019) contributed another layer to this comparison by identifying infrastructure such as farm-to-market roads and support from local government units as critical factors encouraging rice farmers to join cooperatives in the Philippines. This contrasts with the findings from Kustepeli et al. (2019) that highlight the social capital and

improved livelihoods experienced by cooperative members in other countries. In essence, while economic and infrastructural incentives play a major role in the Philippines, different regions may prioritize social benefits, suggesting that cooperatives must adapt their focus depending on local needs.

The role of cooperatives in fostering resilience and sustainability also offers a point of contrast. Cook (2022) emphasized that in the Philippines, cooperatives can play a crucial role in addressing environmental sustainability and disaster preparedness, particularly in the face of climate change and natural disasters. This perspective differs from studies like that of Brian James Lu (2023), which focused more on the cooperatives' role in enhancing access to markets and technology, rather than environmental concerns. The contrast between environmental and economic priorities illustrates the multifaceted nature of cooperatives and how their objectives may shift based on regional vulnerabilities.

The present research will aim to bridge the gap between rice farmers and cooperatives in Camarines Sur by examining how awareness and interest impact farmer engagement. Unlike studies that focus purely on the economic or infrastructural benefits of cooperative membership, this research will seek to integrate social and environmental considerations. By leveraging cooperatives' potential to provide both scale benefits and social capital, the researchers will offer promotional strategies that not only expand production and trading opportunities but also enhance sustainability and resilience in agricultural communities.

Research Questions

This research aims to enhance farmer engagement in cooperatives in Camarines Sur by integrating established theories to explore the connections between farmers' profiles, their awareness of cooperative benefits, and their interest in joining. Specifically, it aims to answer the following questions:

1. What are the profiles of the farmers in terms of age, gender, socio-economic status, educational attainment, crops being planted, and land size?
2. What is the level of awareness of the farmers in joining cooperatives in terms of financial benefits, opportunities for upskilling, and marketing support?
3. What is the level of interest of farmers in joining cooperatives along with personal, social, and economic aspects?
4. What is the profile that affects the level of awareness of farmers?
5. What is the relationship between the level of awareness and interest of farmers in joining cooperatives?
6. What is an effective strategy for cooperatives to engage farmers?

Theoretical Framework

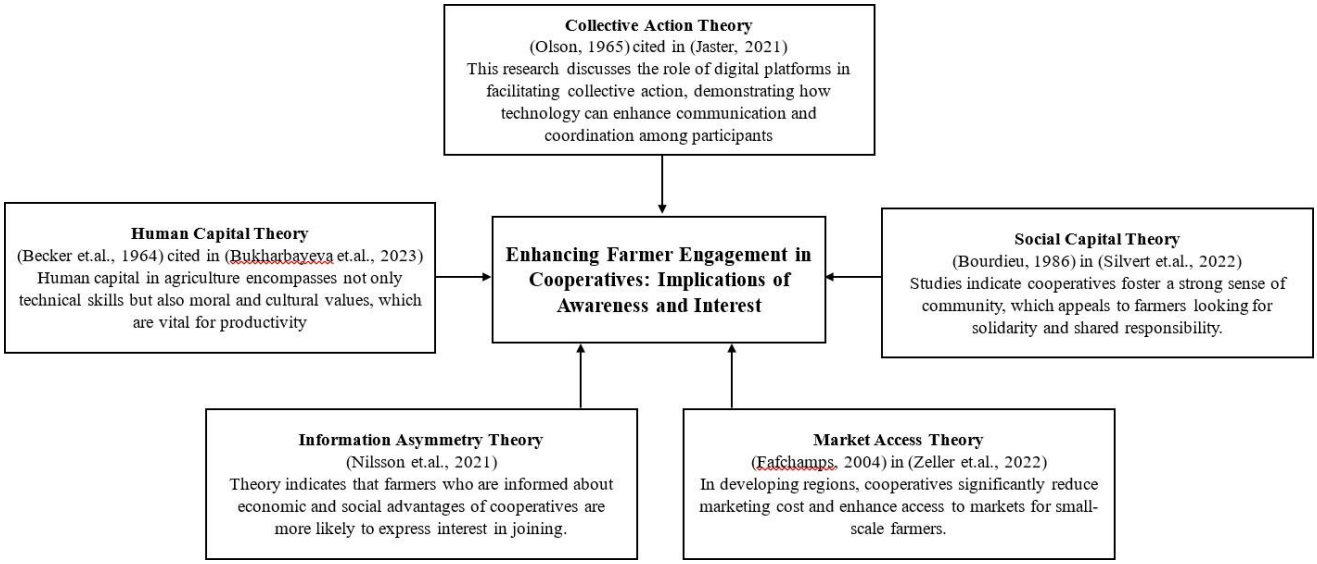
The theoretical framework for this research pulls together several well-established theories to better understand and enhance farmer participation in cooperatives in Camarines Sur, Philippines. Human Capital Theory (Becker, 1964; Bukharbayeva et al., 2023) lays the

groundwork by highlighting the role of education in decision-making. This theory suggests that farmers with more education are better equipped to recognize the advantages of joining cooperatives. This insight supports the notion that educational initiatives should be integral to encouraging participation, which directly aids the research in identifying how cooperative membership could be more effectively promoted.

Collective Action Theory (Olson, 1965; Jaster, 2021) focuses on how farmers become more likely to join cooperatives when they understand the financial benefits of collective efforts, such as group bargaining and shared market access. This theory underscores the importance of economic incentives, aligning with the research's goal of emphasizing how clear financial benefits can significantly increase cooperative membership.

Figure 1

Theoretical Paradigm



Meanwhile, Social Capital Theory (Bourdieu, 1986; Silvert et al., 2022) reveals how social networks influence decision-making. When farmers witness their peers benefiting from cooperative membership, they are more likely to follow suit. This is a valuable insight for cooperatives, suggesting they should leverage community relationships and word-of-mouth promotion to boost membership. Both of these theories illustrate how the awareness of economic and social advantages plays a pivotal role in motivating farmers' interest to engage in cooperative efforts, guiding the study to design marketing strategies that highlight both economic gains and community support.

Awareness of the benefits of cooperatives also hinges on access to information, as explained by Information Asymmetry Theory (Nilsson et al., 2021). Farmers who lack accurate knowledge about financial, educational, or social benefits may hesitate to participate. This framework provides business researchers with actionable insights on how marketing strategies should focus on bridging these knowledge gaps through clear, targeted communication. By addressing these information barriers, cooperatives can foster greater

awareness and interest among farmers, making the findings of the study highly relevant to real-world marketing strategies.

Finally, practical approaches to engaging farmers are acknowledged through the Diffusion of Innovation Theory (Rogers, 1962; Zondo & Ndoro, 2023), which suggests that cooperatives should not only communicate benefits but also focus on capacity building through training and education. This strategy enhances farmers' skills and knowledge, making cooperative membership more appealing. Additionally, the Market Access Theory (Fafchamps, 2004; Zeller et al., 2022) emphasizes how cooperatives can lower marketing costs and improve market access, particularly for small-scale farmers. This addresses challenges farmers face, such as age, lack of training, and limited financial resources.

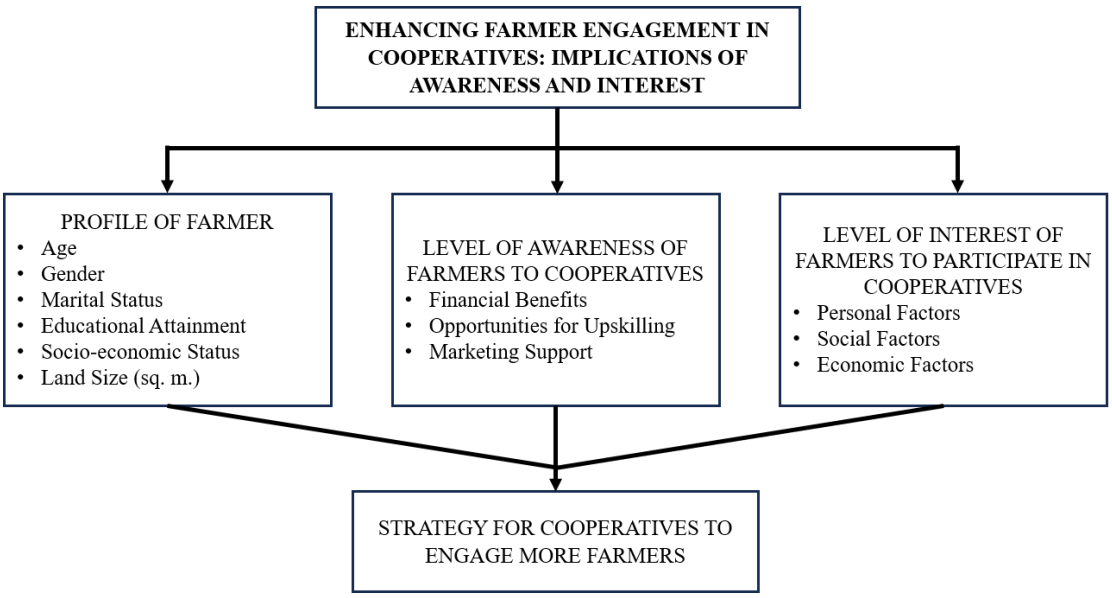
By integrating insights from these theories, the research aims to develop a comprehensive strategy to increase cooperative membership in Camarines Sur. This involves raising awareness through effective outreach, building capacity through education and training, and offering clear economic incentives. The ultimate objective is to align cooperative membership with farmers' needs, both economically and socially, making it a more attractive and beneficial option for the farming community in the region.

Conceptual Framework

The researchers hypothesize that the farmers who are interested in joining cooperatives fit a certain profile and are affected by their awareness of the benefits of joining a cooperative. Therefore, the researchers have developed a conceptual framework where the independent variable is the profile of farmers, the dependent variable is the level of interest, and the intervening variable is the awareness of farmers.

Figure 2

Conceptual Paradigm



Literature Review

Research on farmers' awareness and interest in cooperatives across various regions and crops has yielded significant insights into how farmers engage with these organizations. For instance, while Bigueja et al. (2021) focused on the socio-economic profile and biodiversity awareness of fishers in the Bicol River, their work indirectly contributes to understanding how different demographic profiles might affect engagement in cooperatives. This contrasts with Lirag et al. (2023), who concentrated on Pili farmers' demographics in the Bicol region. Both studies, while focused on different groups and methods, provide essential data on profiling specific sectors, contributing to a broader understanding of the population characteristics that could influence cooperative participation. In comparison to these region-specific studies, Makwana et al. (2023) conducted a broad review of sampling methods across various research designs, stressing the impact that sampling techniques can have on the accuracy of results. This work is distinct because it focuses less on a specific population and more on improving research methodology across different contexts, including the study of cooperatives. Meanwhile, Teherdoost (2021) provides further guidance on selecting the best data collection methods, emphasizing the importance of choosing the right approach based on the nature of the research and the type of data required. This selection process directly influences the findings' credibility in studies like those on cooperative awareness and participation.

When it comes to the role of financial literacy, research highlights various impacts on farmer welfare. Munawarah et al. (2022) demonstrate how financial literacy programs empower farmers by enabling them to make informed financial decisions and reduce dependence on exploitative lending practices. This focus on financial education aligns with the benefits seen in cooperative training programs. Pandey et al. (2024), for instance, underscore the importance of skill-building programs in promoting the adoption of sustainable agricultural practices, linking this to the broader goals of the Sustainable Development Goals (SDGs).

Hence, the significance of cooperative education and training (CET) in improving organizational management is well-noted. Lawrence et al. (2023) highlight how CET equips cooperative leaders with critical skills, which helps them achieve their goals and ensure better organizational direction. In a similar vein, infrastructure development initiatives also play a pivotal role. Chhabra (2023) and the "Agriculture Marketing in India" report (2022) both discuss the advantages of digital platforms like the electronic National Agriculture Market (e-NAM), which provide farmers with market access, price discovery, and improved incomes. So despite the availability of these infrastructure developments, some farmers remain unaware of the full scope of the benefits, suggesting a gap in outreach or communication similar to the challenges faced in promoting cooperative education and financial literacy initiatives.

Looking at farmers' interest in joining cooperatives, Wang et al. (2019) demonstrate that financial incentives such as market certifications significantly motivate farmers to join cooperatives. This finding aligns with Zhu and Wang’s (2024) study, which emphasizes the

social aspects of cooperative participation, particularly the community-building that cooperatives foster. Yet, while financial gains are a substantial motivator, other studies like those by Skaalsveen, Ingram, and Urquhart (2020) point out the influence of peer networks in encouraging cooperative membership. Fernando et al. (2021) add another layer by showing that cooperatives in developing countries offer vital access to technology and markets, which is a strong incentive for smallholder farmers. This wide range of motivational factors—financial, social, and technological—illustrates how the appeal of cooperatives varies depending on the specific context and region.

The challenges cooperatives face in maintaining traditional values amidst modern market pressures are another area of contrast. Ajates (2020) highlights the risk cooperatives face in losing their core principles as they adapt to new market demands. This tension between tradition and modernization is further complicated by findings from Dela Cruz et al. (2022) and ICA (2021), both of which show a disconnect between youth and cooperative participation due to perceived outdated practices and a lack of awareness.

Moreover, a comparison of studies conducted on cooperative engagement reveals best practices for enhancing membership. Beriales (2022) focuses on member satisfaction and transparency in cooperative management, suggesting that operational governance is a crucial factor in engagement. In contrast, Launio and Sotelo (2021) emphasize the importance of strategic planning and capacity-building, recommending a more structured approach to cooperative development. Dimas et al. (2022) take a financial perspective, showing how practices like proportional investment and shareholding adjustments can improve cooperative performance. These studies collectively suggest that cooperatives can improve engagement by focusing on transparency, strategic development, and financial flexibility.

Lastly, this research sets itself apart by focusing not only on economic benefits but also on the role of demographic factors such as age, education, and socio-economic status in shaping farmers' interest in cooperatives, particularly in the Camarines Sur region. By incorporating modern elements like digital literacy and climate resilience, this study moves beyond traditional analyses of cooperatives to offer practical, region-specific strategies that address behavioral and sustainability challenges.

METHODS

Research Methods

This research used a descriptive-correlational design to investigate farmers' awareness and interest in cooperatives. It aimed to assess farmers' familiarity with cooperatives, their access to services like financial support, education, and marketing, as well as their financial and social expectations and the challenges they face in joining. The study has considered various factors including age, gender, socio-economic status, education, and crop type that may affect awareness. Additionally, it analyzed the relationship between farmers' awareness of cooperatives and their interest in membership.

Overall, the study offered a comprehensive overview of the current landscape and explored how these factors interact.

Sampling Procedure

The researchers utilized purposive convenience sampling through clustering to address the logistical difficulties of covering the entire Camarines Sur province. The clusters were defined based on the districts within Camarines Sur. Guided by the combination of methods, such as focus group discussions with a selected number of farmers (both farmers that are operating on their land or property and farmers renting land or property for them to operate), key informant interviews, and self-constructed surveys administered to 52 respondents from Calabanga, 57 from Baao, 15 from Pacol, 37 from Calabanga, 41 from Bula, 22 from Sipocot, 39 from Libmanan, 15 from Canaman, 20 from Lagonoy, and 10 from Pili totaling 308 respondents from Province of Camarines Sur for the entire research. The surveys were administered in a face-to-face manner to guarantee the accuracy and reliability of the data gathered.

Data were collected to further investigate the relationship between farmers' awareness of cooperatives and their interest in membership through data analysis using various techniques such as frequency and percentage distribution, weighted means and ranking, Chi's Square Test, and Pearson's R. Correlation. Thematic analysis was conducted during the interview to connect existing theories from the literature review with new and robust theoretical frameworks. This helped deepen the understanding of significant patterns in farmers' awareness and interest in cooperatives.

RESULTS AND DISCUSSION

Farmer's Profile

Table 1

Profile of farmers

Profile	F	%	RANK
Age			
20-29 years old	18	5.84	6
30-39 years old	38	12.34	4
40-49 years old	79	22.73	2
50-59 years old	85	27.60	1
60-69 years old	62	20.13	3
70-79 years old	29	9.42	5
80-89 years old	5	1.63	7
90-99 years old	1	0.33	8
Total	308		
Gender			
Male	174	56.49	1
Female	134	43.51	2

Total	308		
Civil Status			
Single	23	7.47	3
Married	257	83.44	1
Separated	1	0.33	4
Widowed	27	8.77	2
Total	308		
No. of Children			
1-4	184	59.74	1
5-9	95	30.84	2
10-14	12	3.90	4
15-20	1	0.36	5
N/A	16	5.20	3
Total	308		
Highest Educational Attainment			
Elementary	109	35.39	2
High School	154	50.00	1
College	45	14.61	3
No Formal Education	0	0.00	4
Total	308		
Land Ownership			
Owned	130	42.21	2
Rented	178	57.79	1
Total		308	
Land Size (Sq. M.)			
0-10,000	167	54.22	1
10,001-20,000	69	22.40	2
20,001-30,000	30	9.74	4
30,001-40,000	10	3.25	5
40,001 or more	32	10.39	3
Total	308		
Crops Planted			
Rice	198	64.29	1
Coconut	41	13.31	3
Corn	0	0.00	4
Assorted Vegetables	69	22.40	2
Total	308		
Average Monthly Income From Farming (₱)			
0-4,999	98	31.82	2
5,000-9,999	105	34.09	1
10,000-14,999	53	17.21	3
15,000-19,999	24	7.79	4
20,000-24,999	10	3.25	6
25,000-29,999	18	5.84	5
Total	308		

Table 1 shows the profile of the 308 farmers all over Camarines Sur interviewed for this research. Most of the respondents are between 50 and 59 years old (27.60%), married

(83.44%), male (56.49%), high school graduates (50.00%), tenants (57.79%), cultivating less than 10,000 sq. m. of land (54.22%), rice farmers (64.29%), and earn ₱5,000 - ₱9,999 per month from farming (34.09%).

These findings reveal several critical challenges faced by farmers in Camarines Sur, including an aging workforce, low educational attainment, limited land access, and low income. The high percentage of married and male farmers indicates a traditional family farming structure, limiting the diversification of gender roles within the agricultural sector. The educational attainment is relatively low, hindering farmers' ability to adopt new technologies and innovative practices. There is a high percentage of landlessness among farmers, relying on rental agreements rather than ownership. This indicates economic vulnerability and a need for improved land access and security for farmers in the region.

The trends identified in Camarines Sur align with broader challenges in Philippine agriculture as highlighted in studies such as Sicat et al. (2019). These challenges stem from structural barriers, such as unequal land distribution, limited access to land ownership, and insufficient support systems for smallholder farmers. The findings in Camarines Sur suggest that empowering smallholder farmers and addressing these structural issues is crucial for sustainable agricultural development in the region.

Level of Awareness of Financial Benefits in Cooperatives

This part will discuss the level of awareness of financial benefits in cooperatives, focusing on how members understand and utilize various support programs, such as low-interest loans, shared profits, savings opportunities, and bulk purchasing. It will also explore members' awareness of training, market access, and resources for improving business skills, leadership, and logistics.

Financial Benefits

Table 2.1
Awareness of Farmers in Terms of Financial Benefits

Parameters	Mean	Rank	Interpretation
Financial support programs	2.24	2	Somewhat aware
Access to low-interest loans and credits	2.16	4	Somewhat aware
Shared profits with members	1.86	5	Somewhat aware
Savings and investment opportunities	2.28	1	Somewhat aware
Access to bulk purchasing of supplies	2.24	2	Somewhat aware
Overall	2.16		Somewhat aware

Legend:

4.00 - 3.25 - Highly Aware	3.24 - 2.50 - Moderately Aware
2.49-1.75 - Somewhat Aware	1.74-1.00 - Not Aware

Table 2.1 presents the findings for the Awareness of Financial Benefits parameter. Among the factors analyzed, "Savings and investment opportunities" ranks the highest, with a mean score of 2.28 interpreted as “Somewhat Aware”. On the other hand, "Shared profits with members" ranks the lowest, with a mean score of 1.86 and also interpreted as “Somewhat aware”,

Farmers are more aware of the savings and investment opportunities due to the prevalence of cooperative banks offering accessible financial services to farmers, such as loans and savings accounts, which have become an integral part of the farmer’s financial management. The low awareness of “shared profit with members” is primarily attributed to the lack of training programs and seminars targeting smallholder farmers. These training programs are essential in teaching farmers how cooperatives work and how profit-sharing works, yet their absence has created a significant knowledge gap. The overall findings suggest that farmers have limited awareness of the financial benefits cooperatives offer. This affects the farmer’s willingness to actively participate or join cooperatives, as they are unaware of the potential economic advantages, such as profit-sharing, investment benefits, and long-term financial security.

This result is supported by the study of Dimas et al. (2022), which emphasized that better financial literacy and practices within cooperatives lead to improved performance and greater farmer engagement. By enhancing financial knowledge, cooperatives can significantly improve their overall performance, making them more efficient and effective in serving their members. This improved performance, in turn, leads to greater engagement from farmers, who are more likely to participate actively when they see tangible benefits and understand the financial mechanisms at work. Bridging the gap in financial awareness through focused educational programs and clear communication is crucial. These initiatives not only boost farmers' financial understanding but also drive broader participation in cooperative activities. Such engagement is essential for fostering sustainable economic development in farming communities, as it ensures that all members are informed and empowered to contribute to and benefit from the cooperative's growth and success.

Upskilling Opportunities

Table 2.2
Awareness of Upskilling Opportunities

Parameters	Mean	Rank	Interpretation
Training and skill-building programs	2.57	1	Moderately aware
Education on modern farming techniques	2.55	2	Moderately aware
Financial literacy and management	2.29	4	Somewhat aware
Market access and business skills	2.28	5	Somewhat aware
Leadership, negotiation, and decision-making	2.31	3	Somewhat aware
Overall	2.40		Somewhat aware

Legend:

4.00 - 3.25 - Highly Aware	3.24 - 2.50 - Moderately Aware
2.49-1.75 - Somewhat Aware	1.74-1.00 - Not Aware

Among the factors, training and skill-building programs ranked first with a mean of 2.57 interpreted as "Moderately aware." In contrast, market access and business skills ranked last with a mean of 2.28 interpreted as "Somewhat aware".

The results show that farmers in Camarines Sur are “somewhat aware” of the upskilling opportunities that cooperatives provide for their members. Training and skill-building programs ranked first because it is the general parameter for this section. Farmers ranked "market access and business skills" as the least important factor, as revealed by the focus groups and survey conducted in this research. This outcome is attributed to the established practice in their areas, where each farmer already has a consistent buyer for their products. Consequently, farmers do not perceive a strong need for advanced business skills or strategies, as they typically follow existing norms and practices rather than innovating or diversifying their approaches.

The findings indicate that farmers in Camarines Sur are only moderately aware of the upskilling opportunities offered by cooperatives, with training and skill-building programs considered most important. However, "market access and business skills" are deemed less significant because farmers typically already have stable buyers and adhere to established practices, reducing the perceived need for advanced business skills or innovative strategies. This conclusion is consistent with research by David and Rivera (2020), which underscores the critical role of comprehensive training and skill development in enhancing farmers' capacity for innovation and market engagement. Despite this, the local context of consistent market access diminishes the immediate need for further business education among these farmers.

Marketing Support

Table 2.3
Awareness of Marketing Support

Parameters	Mean	Rank	Interpretation
Provide Marketing support	2.41	1	Moderately aware
Help access markets	2.24	3	Somewhat aware
Assist with pricing and selling	2.24	2	Somewhat aware
Provide fair prices for produce	2.20	4	Somewhat aware
Help with transportation and logistics	2.15	5	Somewhat aware
Overall	2.25		Somewhat aware

Legend:

4.00 - 3.25 - Highly Aware	3.24 - 2.50 - Moderately Aware
2.49-1.75 - Somewhat Aware	1.74-1.00 - Not Aware

Table 2.3 highlights farmers' awareness of the marketing support cooperatives provide. Among the factors, "Marketing support" ranks highest, with a mean score of 2.41, interpreted as "Moderately aware." On the other hand, "Help with transportation and logistics" ranks lowest, with a mean score of 2.15, interpreted as "Somewhat aware."

This indicates that farmers recognize cooperatives' role in assisting members with promoting and selling their products. The low awareness of cooperatives' logistical support is due to the farmer's reliance on "compradas" (local traders), who purchase products directly from the farmers' fields and often handle transportation themselves. This arrangement, while convenient for farmers, limits their exposure to alternative solutions that cooperatives might offer, such as bulk transportation or shared logistics systems.

The data aligns with the research by Mendoza and Alave (2019), who identified logistical constraints as a significant barrier to the profitability of smallholder farmers in the Philippines. These constraints include challenges such as transportation issues, inadequate storage facilities, and the high costs associated with getting products to market. Additionally, the findings are supported by Banaszak (2020), who emphasized the vital role of cooperatives in alleviating these logistical and financial burdens. By facilitating better market access and reducing transaction costs, cooperatives help smallholder farmers overcome these obstacles, thereby enhancing their overall profitability and market reach. This synergy between cooperative support and overcoming logistical constraints is crucial for improving the livelihoods of smallholder farmers and ensuring more sustainable agricultural practices.

Summary of Level of Awareness of the Farmers in Joining Cooperative In Terms of Financial Benefits, Opportunities for Upskilling, and Marketing Support

Table 2.4
Summary Table for Farmer's Awareness

Parameters	Overall Mean	Rank	Interpretation
Awareness of Financial Benefits	2.16	3	Somewhat Aware
Awareness of Upskilling Opportunities	2.40	1	Somewhat Aware
Awareness on Marketing Support	2.25	2	Somewhat Aware
Overall	2.27		Somewhat Aware

Legend:

4.00 - 3.25 - Highly Aware	3.24 - 2.50 - Moderately Aware
2.49-1.75 - Somewhat Aware	1.74-1.00 - Not Aware

The table presents the overall results for the factors influencing farmers' awareness of cooperative benefits, where Awareness of Upskilling Opportunities, with a mean of 2.40 and interpreted as "somewhat aware", ranks the highest. While awareness of Financial Benefits, with a mean of 2.16 also interpreted as "Somewhat aware", ranks lowest.

It can be concluded that while farmers are somewhat aware of the upskilling opportunities cooperatives offer, their awareness of the financial and marketing benefits is relatively low. This shows the need for cooperatives to prioritize educating farmers about these key benefits, as increased awareness could play a crucial role in boosting their interest in cooperative membership.

The findings indicate that farmers' awareness of the advantages offered by cooperatives is a key driver in encouraging their involvement. This aligns with Information

Asymmetry Theory as explained by Nilsson et al. (2021), which suggests that when farmers do not have access to precise and comprehensive information about the financial, educational, or social benefits that cooperatives provide, their likelihood of participation diminishes. The theory underscores the importance of equitable information distribution, positing that the disparity in knowledge can lead to lower engagement levels, as those who are less informed may not recognize or understand the potential benefits that cooperatives can offer. Therefore, addressing these informational gaps through targeted outreach and education is essential to boost cooperative participation and, subsequently, improve the overall welfare of farming communities.

Level of Interest of Farmers in Joining Cooperatives

This part will explore the level of interest among farmers in joining cooperatives, focusing on factors such as the desire to improve farming practices, achieve better financial stability, and secure better pricing for their produce. It will also consider the influence of affordable membership fees, time commitments, and positive experiences shared by other members, as well as the opportunities to strengthen social networks, collaborate with other farmers, and improve livelihoods through financial assistance, subsidies, and collective buying power.

Personal Factor

Table 3.1
Interest in terms of Personal Factors

Parameters	**Mean**	**Rank**	**Interpretation**
Improve my farming practices	3.00	**4**	Moderately Interested
Achieve better financial stability	3.02	**3**	Moderately Interested
Secure better pricing for my produce	3.18	**1**	Moderately Interested
Management acts in my best interest	3.07	**2**	Moderately Interested
I can afford in terms of time and membership fees	2.74	**5**	Moderately Interested
Overall	3.00		Moderately Interested
Legend:			
4.00 - 3.25 - Highly Interest	3.24 - 2.50 - Moderately Interest		
2.49-1.75 - Somewhat Interest	1.74-1.00 - Not Interest		

The data in table 3.1 presents the personal factors influencing farmers' interest in joining cooperatives, where “Secure better pricing for my produce”, with a mean of 3.18, ranks the highest. This indicates that farmers are moderately interested in the potential for cooperatives to secure better pricing for their produce. Affordability in terms of time and membership fees, with a mean of 2.74, interpreted as “Moderately Interested”, ranks the lowest, suggesting that farmers may have some concerns regarding the costs and time commitments involved in joining cooperatives.

Farmers prioritize obtaining better prices for their products, demonstrating a clear interest in financial gain. However, their enthusiasm for improving farming practices is

noticeably lower, suggesting that they consider the costs associated with such improvements to be manageable or less urgent. This perception might stem from a comfort with existing methods or a lack of understanding of the long-term benefits of enhanced practices. For cooperatives, this presents an opportunity to bridge the gap by emphasizing the value of improved farming techniques. By showing how these practices can lead to higher yields, better quality produce, and ultimately more competitive pricing, cooperatives can foster greater farmer engagement and participation.

These findings align with the "Agriculture Marketing in India" report (2022), which indicates the role of digital platforms like the electronic National Agriculture Market (e-NAM) in providing farmers with price discovery to improve income. While farmers' primary focus is on securing better prices, cooperatives must address the lower interest in affordability and improved practices. By providing targeted education and demonstrating the tangible benefits of investing in better farming methods, cooperatives can enhance their members' overall performance and satisfaction. This balanced approach will not only improve individual farmer outcomes but also strengthen the cooperative as a whole, promoting sustainable agricultural practices and economic growth within farming communities.

Social Factor

Table 3.2
Interest in terms of Social Factors

Parameters	Mean	Rank	Interpretation
Strengthen my sense of community	3.05	3	Moderately Interested
Other members share positive experiences	3.09	1	Moderately Interested
Others in social circle are also members	2.95	5	Moderately Interested
Build stronger social networks	3.06	2	Moderately Interested
Work collaboratively with other farmers	3.02	4	Moderately Interested
Overall	3.03		Moderately Interested

Legend:

4.00 - 3.25 - Highly Interest	3.24 - 2.50 - Moderately Interest
2.49-1.75 - Somewhat Interest	1.74-1.00 - Not Interest

The data presents the results for the social factors influencing farmers' interest in joining cooperatives, where other members share positive experiences, with a mean of 3.09, which ranks the highest. This indicates that farmers are moderately interested in the social benefits of cooperatives, particularly the positive experiences shared by existing members. On the other hand, Others in my social circle are also members, with a mean of 2.95, ranking the lowest, suggesting that farmers are somewhat less motivated by the presence of their social circle in cooperatives.

The study concludes that the social dynamics within cooperatives, characterized by shared positive experiences and collaboration, are crucial motivators for farmers. This suggests that while community connections hold significance, the involvement of friends or family members in cooperatives is not the primary factor driving participation. Instead, the

benefits of collective action and mutual support are more influential in encouraging farmers to join these groups.

The findings demonstrate that social factors, such as positive shared experiences and the strengthening of networks, significantly motivate farmers to engage with cooperatives. This is supported by Social Capital Theory (Bourdieu, 1986; Silvert et al., 2022), which posits that farmers are more inclined to participate when they observe their peers reaping the benefits of cooperative membership. Consequently, fostering a supportive and collaborative environment within cooperatives is essential for enhancing farmer participation and ensuring the sustainability of these agricultural communities.

Economic Factor

Table 3.3
Interest in terms of Economic Factors

Parameters	Mean	Rank	Interpretation
Improve our livelihoods	3.15	3	Moderately Interested
Offer financial assistance	3.05	5	Moderately Interested
Offers subsidies for seeds, fertilizers, or equipment	3.31	1	Highly Interested
Provide better market access and selling opportunities	3.23	2	Somewhat Interested
Help reduce costs through collective buying power	3.13	4	Somewhat Interested
Overall	3.18		Moderately Interested

Legend:

4.00 - 3.25 - Highly Interest	3.24 - 2.50 - Moderately Interest
2.49-1.75 - Somewhat Interest	1.74-1.00 - Not Interest

As shown in Table 3.3, farmers express the highest interest in joining cooperatives due to the subsidies offered for seeds, fertilizers, and equipment, which received a mean score of 3.31, interpreted as "Highly Interested." Conversely, the least interest is observed in the "offer financial assistance" factor, which with a mean of 3.05, is interpreted as "Moderately Interested".

Farmers' strong interest in subsidies highlights the financial challenges they face in acquiring essential agricultural inputs such as seeds, fertilizers, and equipment. These inputs are crucial for enhancing productivity and yield quality, but they are often expensive, particularly for smallholder farmers with limited financial resources. Cooperatives can significantly mitigate these financial burdens by offering subsidies or facilitating bulk purchasing agreements, providing a powerful incentive for farmers to join. These measures directly reduce farmers' operational expenses, making agricultural activities more affordable and sustainable.

The high demand for subsidies also supports findings by Tolentino et al. (2021), which emphasize the importance of reducing input costs to enhance farm profitability and

sustainability. By addressing these financial barriers, cooperatives play a vital role in supporting farmers' economic stability and promoting more resilient agricultural practices.

Summary of the Level of Interest of Farmers in Joining Cooperatives along with Personal, Social, and Economic Aspects.

Table 3.4
Summary Table for Farmer's Interest

Parameters	Overall Mean	Rank	Interpretation
Personal Factors	3.00	3	Moderately Interested
Social Factors	3.03	2	Moderately Interested
Economic Factors	3.18	1	Moderately Interested
Overall	3.07		Moderately Interested

Legend:

- 3.25 - Highly Interest	3.24 - 2.50 - Moderately Interest
2.49-1.75 - Somewhat Interest	1.74-1.00 - Not Interest

The data set in Camarines Sur illustrates the overall results for the factors that affect the level of interest of farmers in joining cooperatives, where Economic Factors, with a mean of 3.18, rank the highest. This indicates that financial considerations, such as subsidies for seeds, fertilizers, or equipment, significantly influence farmers' interest in cooperatives. While, Personal Factors, with the lowest mean of 3.00, show that individual motivations have less impact on farmers' willingness to join cooperatives, due to a lack of awareness about the personal benefits these cooperatives offer.

Farmers' awareness of economic benefits, such as access to financial resources, significantly influences their interest in joining cooperatives. However, the limited awareness of personal benefits or the absence of targeted outreach initiatives could explain the lower interest levels in cooperative membership. This highlights the necessity for more educational and training programs to enhance awareness and understanding of the advantages cooperatives offer.

In conclusion, the findings reveal that both economic and social factors play a pivotal role in motivating farmers to join cooperatives. This is supported by Collective Action Theory, as cited by Jaster (2021), which suggests that farmers are more inclined to participate when they recognize the financial benefits. Therefore, increasing awareness through targeted educational initiatives is essential for boosting cooperative membership and ensuring the long-term success of these organizations.

Impact of Demographic and Farm Characteristics on Farmers' Awareness of Financial Benefits, Upskilling Opportunities, and Marketing Support

Table 4

Chi-Square Analysis of the Impact of Demographic and Farm Characteristics on Farmers' Awareness of Financial Benefits, Upskilling Opportunities, and Marketing Support

	Financial Benefits	Upskilling Opportunities	Marketing Support
Age	X^2 (18, N = 308) = 22.7410, p = 0.2007	X^2 (18, N = 308) = 13.8876, p = 0.7364	X^2 (18, N = 308) = 15.8830, p = 0.6007
Gender	X^2 (3, N = 308) = 2.6343, p = 0.4515	X^2 (3, N = 308) = 1.6440, p = 0.6495	X^2 (3, N = 308) = 8.4199, p = 0.03809***
Civil Status	X^2 (9, N = 308) = 6.5697, p = 0.6818	X^2 (9, N = 308) = 6.4534, p = 0.6938	X^2 (9, N = 308) = 5.7441, p = 0.7652
Average Monthly Income (₱)	X^2 (12, N = 308) = 9.6838, p = 0.6437	X^2 (12, N = 308) = 9.3271, p = 0.6748	X^2 (12, N = 308) = 14.6815, p = 0.2593
Highest Educ. Att.	X^2 (9, N = 308) = 18.8786, p = 0.02625***	X^2 (9, N = 308) = 13.0955, p = 0.1583	X^2 (9, N = 308) = 15.4496, p = 0.0793
Crops Planted	X^2 (12, N = 308) = 18.5961, p = 0.09875	X^2 (12, N = 308) = 39.2258, p = 0.00009659***	X^2 (12, N = 308) = 45.3173, p = 0.000009092***
Land Size (Sq. M)	X^2 (12, N = 308) = 37.8655, p = 0.0001615***	X^2 (12, N = 308) = 24.2517, p = 0.0188***	X^2 (12, N = 308) = 37.8454, p = 0.0001628***

*Legend: X2 (degress of freedom, N = sample size) = chi-square statistic value p = p value Note: *** p is significant (p<0.05)*

The analysis reveals that gender, educational attainment, crops planted, and land size play crucial roles in shaping farmers' awareness of cooperative support programs in Camarines Sur, specifically regarding financial benefits, upskilling opportunities, and marketing support. Statistical analysis using p-values ($p<0.05$) indicates that gender, with a significant p-value of 0.03809, notably impacts awareness of marketing support. Meanwhile, education, with a p-value of 0.02625, significantly affects understanding of financial benefits. The type of crops farmers cultivate and the size of their landholdings also influence awareness across all areas of cooperative support. Farmers with larger landholdings generally exhibit higher awareness and engagement with cooperative programs, likely due to their better access to resources, increased production capacity, and greater demand for advanced agricultural skills and marketing assistance. These statistically significant results, characterized by very low p-values, underscore the importance of land size in determining a farmer's ability to leverage various cooperative services in Camarines Sur.

The findings underscore the multifaceted factors that influence farmers' engagement with cooperative support programs. Gender and education emerge as pivotal factors, shaping awareness in specific areas such as marketing support and financial benefits. Additionally, the type of crops grown and land size are critical determinants of overall awareness and engagement, highlighting the need for targeted outreach and support that considers these demographic and agricultural variables. By addressing these factors, cooperatives can better tailor their programs to meet the diverse needs of farmers, fostering greater participation and maximizing the benefits of cooperative membership.

Assessment of the Relationship Between Farmers' Level of Awareness and Level of Interest in Joining Cooperatives

Table 5

Pearson Correlation Coefficients Between Farmers' Level of Awareness and Level of Interest in Joining Cooperatives across Financial, Social, and Economic Factors

C	Financial Benefits	Upskilling Opportunities	Marketing Support
Personal Factors	r(306) = .438, p < .001***	r(306) = .438, p < .001***	r(306) = .361, p < .001***
	moderate	moderate	weak
Social Factors	r(306) = .427, p < .001***	r(306) = .444, p < .001***	r(306) = .389, p < .001***
	moderate	moderate	weak
Economic Factors	r(306) = .337, p < .001***	r(306) = .342, p < .001***	r(306) = .2998, p < .001***
	weak	weak	weak

Legend: Note: *** p is significant (p < 0.05)
r(degress of freedom) = the r statistic, p = p value.

Table 5 shows that personal and social factors have moderate correlations with financial benefits and upskilling opportunities. This shows that these factors play a significant role in influencing farmers' interests in joining cooperatives for financial gain and skill enhancement.

All three factors show statistically significant correlations ($p < .001$), highlighting a strong relationship between the variables. Personal and Social Factors demonstrate significant correlations with Financial Benefits and Upskilling Opportunities. In contrast, Economic Factors exhibit weak correlations with all three aspects—Financial Benefits, Upskilling Opportunities, and Marketing Support—suggesting that economic considerations may have a smaller influence on farmers' decisions compared to Personal and Social Factors. Additionally, the relationship between these factors and Marketing Support is weaker, for Personal Factors and for Social Factors. Overall, Economic Factors show consistently weak correlations across all three outcomes, indicating a less substantial impact on farmers' awareness and interest in joining cooperatives.

Strategy for Cooperatives to Engage with Farmers

This section presents the strategy formulated by the researchers based on the findings from the interviews conducted. Each plan category outlines actionable steps that agricultural cooperatives can take to enhance their engagement with farmers, improve member retention, and attract new members.

Inputs:

1. Primary Resources - The researchers developed the strategy using data from surveys conducted with 308 farmers all over Camarines Sur.
2. Secondary Resources - The researchers used annual reports and publications from the Cooperative Development Authority. In addition, related literature was also used to substantiate the strategic plan. The related literature was derived from sites

like researchgate.com, sciencedirect.com, and doi.org, which are peer-reviewed.

Process:

Step 1: Define the specific issues or challenges cooperatives face in engaging with farmers to establish relevant parameters for designing effective survey questionnaires.

Step 2: Conducted a survey of each respondent using a structured questionnaire that contained a Likert scale to measure the degree of their opinion on the given parameters.

Step 3: The responses from the survey were gathered, consolidated, and analyzed.

Step 4: Summarized the responses from the survey, analyze, and infer the data collected easily. Step 5: The developmental plan was created using the results acquired from the survey

Output:

This section shows the strategic plan formulated by the researchers based on the results of the interviews conducted. Each plan category highlights cooperatives' possible actions to enhance their engagement with farmers, improve member retention, and attract new members.

Project Enganyo: Integrating Continuous Improvement in Cooperatives

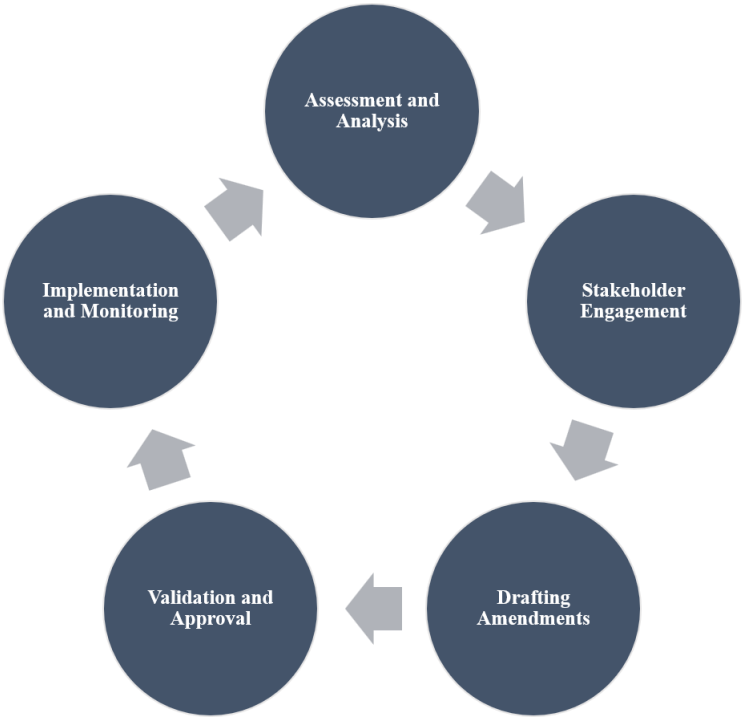
In the dynamic world of agricultural cooperatives, it is essential for organizations to remain adaptable, efficient, and responsive to the evolving needs of their members. To achieve this, cooperatives must integrate a continuous improvement framework that includes regular reviews of key governance documents, such as by-laws, as well as evaluations of Vision Mission and Objectives (VMOs) and operational audits. This proactive approach ensures that cooperatives not only stay aligned with their members' expectations but also continuously optimize their operations for better efficiency, transparency, and service delivery.

Figure 4

Figure 4

Figure 4

Framework for Recommended Amendments on VMOs, By-laws, and Operations of Agricultural Cooperatives



Project Enganyo proposes a structured, sustainable model to integrate these reviews into an ongoing process of enhancement and growth. The focus is on creating a robust feedback loop that encourages continuous adaptation to changes in the cooperative's internal operations and external market conditions. Through this framework, cooperatives can strengthen their governance structures, improve member engagement, and streamline their overall functioning to better serve the farming community.

By embedding these reviews into a continuous improvement cycle, cooperatives will have the tools to address challenges more effectively, increase member satisfaction, and ensure long-term sustainability. This strategy ensures that cooperatives are not only reactive but also proactive in managing change and enhancing operational outcomes.

The "Project Enganyo" is closely connected to the experiences and needs of farmer-members, ensuring that the cooperative is better equipped to serve them, align with their goals, and address the unique challenges they encounter in their agricultural work

Table 6

Project Enganyo Matrix

Project Stages	Activity	Strategies	Actions	Resources	Duration
Assessment and Analysis	● Review by-laws, VMO evaluations, and operational audits ● Collect data from members and internal records	● Engage non-member farmers to understand the importance of the VMO and by-laws. ● Encourage participation to highlight how changes affect their livelihoods.	● Conduct surveys, focus groups, and document reviews to gather farmer feedback on their needs and concerns ● Analyze operational performance and governance issues	● Access to cooperative documents ● Data collection tools (surveys, interviews) ● Staff and expert support	● 2-3 weeks for data collection and analysis ● 1-2 weeks for internal review
		● Raise awareness of how cooperative decisions impact them indirectly.			
Stakeholder Engagement	● Engage key stakeholders through meetings, surveys, and consultations ● Gather feedback and suggestions	● Gather feedback and suggestions from farmer-members ● Ensure broad participation in decision-making	● Conduct orientation meetings specifically for those who attended the Assessment and Analysis stage	● Communication tools (survey platforms, meeting spaces) ● Facilitators or external consultants	● 3-4 weeks for stakeholder engagement and feedback collection
			● Incorporate feedback into the proposed amendments		
Drafting Amendments	● Draft by-law amendments based on analysis ● Revise operational policies and VMO strategies	● Ensure alignment with cooperative goals and member needs ● Maintain transparency in drafting	● Use farmer feedback to prioritize high-impact changes ● Maintain transparency and share drafts with members for input	● Drafting tools (legal templates, financial reports) ● Data and feedback from the assessment stage	● 2-3 weeks to draft amendments

Validation and Approval	● Validate amendments with legal review and member input ● Secure approvals through voting or board decision	● Ensure compliance with legal and regulatory standards ● - Achieve consensus among members and leadership	● Present amendments for approval ● Adjust proposals based on feedback	● - Legal advisors for document review ● - Meeting spaces and voting mechanisms	● - 1-2 weeks for validation and approval processes
Implementation and Monitoring	● Implement amendments ● Monitor and track the impact of changes ● Communicate progress to members	● Ensure smooth implementation ● Regularly assess the effectiveness of changes	● Allocate resources for implementation and track changes and assess progress ● Hold the Annual General Assembly (AGA) as mandated by	● Staff, funding, and technology for implementation ● Monitoring tools (KPIs, progress tracking)	● 3-6 months for implementation, with ongoing monitoring thereafter

Project Enganyo Sustainability Model

1. In the Assessment and Analysis stage, it's crucial to first engage member farmers to understand the importance of the VMO and by-laws, ensuring they are fully informed about how these governance documents shape the cooperative's operations and their own farming practices. Once member participation is secured, the cooperative should then engage non-member farmers to help them understand the importance of the VMO and by-laws as well. The cooperative should create accessible communication materials, such as flyers, radio ads, and social media posts, to inform non-members about how these documents affect their agricultural environment. Additionally, the cooperative should encourage participation to highlight how changes in governance can directly or indirectly impact their livelihoods. By raising awareness of how cooperative decisions impact them indirectly, non-members will see the value in being involved in the process, which can foster a sense of shared responsibility, increase transparency, and potentially encourage non-members to become more engaged with the cooperative in the future.
2. In the Stakeholder Engagement phase, farmer-members play a critical role. Their voices are integral to the process through consultations, surveys, and meetings that allow them to share their concerns, needs, and suggestions for improvements. Engaging farmers ensures that the cooperative's proposed changes are relevant and beneficial to them. For example, if farmers express concerns about the cooperative's policies on resource allocation or service delivery, those concerns will be considered when updating the by-laws and VMOs. Additionally, it is important to conduct orientation meetings, especially for those who have participated in the Assessment and Analysis stage. These sessions will provide detailed information on the proposed

changes, clarifying any questions and allowing for further feedback. By actively involving farmers in these discussions, the cooperative fosters a sense of ownership and collaboration, ensuring that the proposed changes are aligned with the realities of their farming practices and address the challenges they face.

3. The Drafting Amendments stage is where the cooperative starts to address the feedback and concerns gathered from farmers during the engagement phase. For example, if farmers have expressed a need for better access to affordable resources or services, such as seeds, equipment, or financial support, the cooperative can revise its by-laws and operational practices to provide better support. This could involve creating new policies that enhance the delivery of services tailored to the specific needs of farmers, such as improving participation in decision-making processes, establishing fairer resource distribution, or revising VMO strategies to increase member engagement. These amendments will prioritize improvements that can have a direct positive impact on farmer-members' productivity and financial wellbeing.
4. Once the amendments are drafted, the Validation and Approval stage ensures that the changes are not only feasible but also legally sound, and have the backing of farmer-members. In cooperatives, especially those with large numbers of farmer-members, member approval is crucial. Farmers will likely need to vote on major amendments, such as by-law revisions or changes to operational practices. This stage ensures that the proposed changes are legitimate and have the broad support of farmer-members, further strengthening their sense of involvement and commitment to the cooperative's success.
5. Finally, in the Implementation and Monitoring stage, the approved changes are put into action, ensuring that farmer-members can fully benefit from the amendments. For example, if new by-laws are introduced to enhance access to resources such as loans or technical support, the cooperative will work to make these services easily accessible to the farmers. The success of these changes will be carefully monitored to assess their impact on farmer engagement, operational efficiency, and service delivery. Regular feedback from farmer-members, gathered through mechanisms like the Annual General Assembly (AGA), will help the cooperative identify any areas that need adjustment. This continuous feedback loop ensures that the cooperative's evolution stays aligned with the evolving needs of the farmers.

By following the Project Enganyo process, the cooperative ensures that its structure and operations are continually refined to best serve its farmer-members. This process promotes continuous improvement, increases member engagement and satisfaction, and enhances operational efficiency, all of which directly benefit farmers. By regularly updating governance structures and policies, the cooperative can ensure it remains responsive to changes in the agricultural sector. Importantly, the entire process is carried out with close coordination with the Cooperative Development Authority (CDA), ensuring that the cooperative complies with legal standards and adheres to CDA regulations. This coordination guarantees that all amendments to the by-laws, operational practices, and

VMOs are in line with national policies governing cooperatives, helping avoid legal pitfalls and maintaining the cooperative's credibility. Furthermore, working closely with the CDA ensures that the cooperative's operations remain transparent, efficient, and legally sound, positioning it for long-term sustainability. This coordination strengthens the cooperative's governance and compliance, while also enhancing its ability to provide valuable services to farmers, ensuring its continued growth and success in a competitive and dynamic agricultural environment.

For better dissemination and accessibility of information about the ENGANYO program, the researchers have created an informational pamphlet. You can view it through this link: **https://bit.ly/enganyo**

CONCLUSIONS AND RECOMMENDATION

This section presents the findings derived after the data analysis and the conclusions made for the problems being solved.

Profile of Farmers in Camarines Sur

The findings highlight the pressing challenges faced by farmers in Camarines Sur, including an aging workforce, low educational attainment, limited land access, and insufficient income, showing the need for agricultural cooperatives to implement targeted strategies and support mechanisms to address these barriers and promote sustainable farming practices.

To address these challenges, agricultural cooperatives should focus on developing targeted training programs to enhance farmers' skills and knowledge, particularly among younger and less educated farmers. Additionally, cooperatives can establish financial support systems, such as subsidies and low-interest loans, to alleviate income constraints and improve access to essential farming inputs. Strengthening land tenure policies and advocating for fair land distribution can help increase land access for smallholder farmers. Furthermore, promoting community-based initiatives and fostering strong social networks within cooperatives can encourage knowledge sharing and collective problem-solving, ensuring the sustainability and resilience of farming practices in Camarines Sur.

Level of Awareness of Farmers in Cooperatives

The findings suggest that while farmers have moderate awareness of upskilling opportunities provided by cooperatives, their understanding of financial and marketing benefits is significantly lower. This highlights the need for cooperatives to address information gaps and educate farmers on the full range of benefits, as improved awareness is essential for fostering participation and engagement in cooperative initiatives.

To bridge these gaps, cooperatives should implement comprehensive educational campaigns that emphasize the diverse benefits of membership. This could include workshops,

informational brochures, and community meetings aimed at explaining financial incentives, marketing support, and the value of upskilling opportunities. Additionally, leveraging digital platforms to disseminate information and provide resources can help reach a broader audience. By actively engaging farmers through targeted communication strategies and personalized outreach, cooperatives can enhance farmers' understanding and appreciation of the full spectrum of benefits, ultimately encouraging greater participation and fostering stronger, more resilient farming communities.

Level of Interest of Farmers in Joining Cooperatives

The findings indicate that farmers' interest in joining cooperatives is primarily influenced by economic factors, such as access to financial support for agricultural inputs, while personal factors have a lesser impact due to limited awareness of the personal benefits cooperatives offer. This highlights the importance of enhancing farmers' knowledge of both economic and personal advantages to increase cooperative membership. In conclusion, the results align with Collective Action Theory, which suggests that farmers are more likely to engage in cooperatives when they perceive clear financial benefits.

Profile that Affects the Level of Awareness of Farmers

The analysis reveals that gender, education, crop types, and land size significantly affect farmers' awareness of cooperative support programs in Camarines Sur. Specifically, gender and education influence awareness of marketing and financial benefits, respectively, while larger land holdings correlate with greater awareness of all forms of support, likely due to increased access to resources and greater agricultural needs. These findings emphasize that land size, in particular, is a crucial factor in determining a farmer's ability to benefit from cooperative programs, highlighting the need for targeted outreach to farmers with smaller land holdings to increase their engagement.

To address these disparities, cooperatives should develop targeted outreach initiatives specifically aimed at farmers with smaller land holdings, ensuring they have equal access to support programs. This could include personalized educational workshops, tailored financial assistance plans, and specialized marketing support to meet their unique needs. Additionally, cooperatives should enhance communication strategies to better inform all farmers, regardless of land size, about the full range of available benefits. By creating a more inclusive approach that considers the diverse characteristics and needs of the farming community, cooperatives can foster greater engagement, equitable participation, and ultimately, a more resilient agricultural sector in Camarines Sur.

Relationship Between the Level of Awareness and Level of Interest of Farmers in Joining Cooperatives

The results suggest that personal and social factors have a stronger influence on farmers' interest in joining cooperatives for financial and upskilling benefits compared to economic factors, which show weaker correlations. This indicates that to increase

cooperative membership, efforts should focus on addressing personal motivations and social influences, while also emphasizing the financial and skill-enhancing benefits of membership.

To enhance cooperative membership, cooperatives should prioritize strategies that build on personal and social motivations. Initiatives such as community-building activities, peer mentorship programs, and success stories shared by current cooperative members can help highlight the social benefits and strengthen community ties. Additionally, cooperatives should actively promote the financial and skill-enhancing advantages of membership through targeted marketing campaigns, educational workshops, and success-driven testimonials. By addressing both the personal and social drivers of engagement and clearly communicating the tangible benefits, cooperatives can foster a more inclusive and motivated membership base, ultimately leading to stronger, more resilient farming communities.

REFERENCES:

A., Z., Bukharbayeva., A.Sh., Abdimomynova., K., A., Utegenova. (2023). Formation and use of human capital in agricultural sector. Problemy agrorynka, doi: 10.46666/2023-3.2708-9991.18

Agricultural Credit Policy Council. (2023 July 20). Annielen Panerio. PLC Spotlight: Camsur Multi-Purpose Cooperative [Video]. Facebook. https://www.facebook.com/share/v/UpG6eC2Z9zMzuBPU/

Agriculture Marketing in India (2022): Perspectives on Reforms and Doubling Farmers' Income. Journal of Marketing Development and Competitiveness, 16(3) doi: 10.33423/jmdc.v16i3.5672

Ajates, R. (2020). An integrated conceptual framework for the study of agricultural cooperatives: From repolitisation to cooperative sustainability. Journal of Rural Studies, 78, 467-479. https://doi.org/10.1016/j.jrurstud.2020.06.019

Aluwani, Tagwi. (2023). Market Access Enablers for Small-Scale Crop Farmers. Advances in marketing, customer relationship management, and e-services book series, 142-159. doi:

10.4018/978-1-6684-4780-2.ch008

Anonymous. (2021). Young People and Cooperatives: A Perfect Match? https://ica.coop/sites/default/files/news-item-attachments/coops4devyoungpeoplereport-267264990.pdf

Barbara Czachorska-Jones, PhD. (2019). The Cooperative Context in the Philippines: A Review of the Historical, Legal and Regulatory Environment.

https://ocdc.coop/wp-content/uploads/imported-files/ContextStudy_Philippines.pdf

Barbara Czachorska-Jones. (2019). The Cooperative Context in the Philippines: A Review of the Historical, Legal and Regulatory Environment.

https://ocdc.coop/wp-content/uploads/imported-files/ContextStudy_Philippines.pdf

Beriales M. R., (2022). Member Engagement and Level of Satisfaction in a Revitalized Co-operative Enterprise in Iloilo Province, Philippines. Journal of Economics, Management & Agricultural Development, 8(1)

Bigueja, M., Bigueja, C., & Plantado, L. (2021). Socio-Economic profile and biodiversity awareness of fishers in upstream part of Bicol River in Camarines Sur. International Journal of Multidisciplinary and Current educational research

,3(5),19–27.https://www.ijmcer.com/wp-content/uploads/2021/10/IJMCER_D035019027.pdf

Chen Chen. Et al. (2023). Linking farmers to markets: Does cooperative membership facilitate e-commerce adoption and income growth in rural China?https://www.sciencedirect.com/science/article/abs/pii/S0313592623002473

Chen Chen. Et al. (2023). Linking farmers to markets: Does cooperative membership facilitate e-commerce adoption and income growth in rural China?https://www.sciencedirect.com/science/article/abs/pii/S0313592623002473

Colby, Silvert., Willis, Ochieng., Jose, J., Perez, Orozco., Ange, Asanzi. (2022). Dissecting the Roles of Social Capital in Farmer-to-Farmer Extension: A Review. Journal of International Agricultural and Extension Education, 29(4):7-26. doi: 10.4148/2831-5960.1058

Cooperative Development Authority. (2020). 2020 Cooperative Statistics. https://cda.gov.ph/updates/fy-2020-cooperative-statistics/

Cooperative Development Authority. (2021, September 28). FY 2020 Cooperative Statistics. Retrieved from CDA website Kustepeli, Y., Gulcan, Y., Yercan, M., & Yildirim, B. (2019). The role of agricultural development cooperatives in establishing social capital. The Annals of Regional Science. https://doi.org/10.1007/s00168-019-00965-4

Cooperative Development Authority. (2022). Cooperative Statistics of 2022. https://cda.gov.ph/region-5/cooperative-statistics/

Daniel, Jaster. (2021). Collective Actions in the Gloaming of the Past: Modern Midwestern Farm Protests and Social Change from the Post-WWII Era Until Now. 165-200. doi: 10.1007/978-3-030-71013-2_6

Dimas, Brenda & Lyne, Michael & Bailey, Alison. (2022). Identifying and Addressing Institutional Problems Constraining the Financial Performance of Rice Cooperatives in the Philippines. Asian Journal of Agriculture and Rural Development. 12. 148-156. 10.55493/5005.v12i3.4527

Felipe Cook. (2022). Boosting Cooperatives to Support Farmers in the Philippines. https://www.hungercenter.org/blog/boosting-cooperatives-to-support-farmers-in-the-philippines/

Fernando, S., Garnevska, E., Ramilan, T., & Shadbolt, N. (2021). Organisational attributes of cooperatives and farmer companies. Journal of Co-operative Organization and Management, 9(1), 100132. https://doi.org/10.1016/j.jcom.2021.100132

Havid B. Dela Cruz. (2022). The Effects of the Awareness Level to the Behavior of Non-Cooperative Members in Palangoy, Binangonan, Rizal.

https://rsisinternational.org/journals/ijriss/Digital-Library/volume-6-issue-11/478-483.pdf James Lu. (2023). Strengthening agricultural dev't through cooperative empowerment in PH.

https://www.pna.gov.ph/opinion/pieces/798-strengthening-agricultural-devt-through-cooperative-empow erment-in-ph

Kier Gasga. Et al. (2019). Rice Farming Assessment of Selected Barangays near Bicol River, Camarines Sur: A SWOT Analysis through Participatory Approach. https://www.researchgate.net/publication/341988385_Rice_Farming_Assessment_of_Selected_Baranga ys_near_Bicol_River_Camarines_Sur_A_SWOT_Analysis_through_Participatory_Approach

Launio C., Sotelo M. C., (2021). "Concern for community": Case of cooperatives in the Cordillera region, Philippines. Journal of Co-operative Organization and Management, 9(1), https://doi.org/10.1016/j.jcom.2021.100130

Lirag, Ma. Teresa & Foronda, Vladimir & Ativo, Aries. (2023). Demographic Evaluation of Pili Farmers and Their Production Capacity in Bicol Region, Philippines. Asian Journal of Agricultural Extension, Economics &

Sociology.15-25.10.9734/ajaees/2023/v41i11826.https://www.academia.edu/97769779/Demographic_E valuation_of_Pili_Farmers_and_Their_Production_Capacity_in_Bicol_Region_Philippines

Lungelo Cele. Et al. (2022). Youth perceptions of, and willingness to join Irish dairy cooperatives and their governancehttps://www.sciencedirect.com/science/article/pii/S2213297X22000167

Makwana, Dhaval & Engineer, Priti & Dabhi, Amisha & Chudasama, Hardik. (2023). Sampling Methods in Research: A Review. 7. 762-768. https://www.researchgate.net/publication/371985656_Sampling_Methods_in_Research_A_Review

Munawarah, Munawarah., R, Br, Bukit., Ibnu, Austrindanney, S.., Mayhana, Bilqis, Rangkuti. (2022). Does Financial Literacy a Stimulus for Improving the Farmer's Welfare in Serdang Bedagai, Indonesia?. 1(4):275-283. doi: 10.56225/ijfeb.v1i4.75

Odax, Manumbu, Lawrence., Sotco, Claudius, Komba., John, Jackson, Iwata. (2023). Effect of Cooperative Education and Training on the Performance of Agricultural Marketing Cooperative Societies in Ukerewe and Sengerema, Tanzania. East African Journal of Education and Social Sciences, 4(1) doi: 10.46606/eajess2023v04i01.0254

ProfileoftheFilipinofarmer.(2016).https://www.philrice.gov.ph/ricelytics/profilemain/province/17Makwana, Dhaval & Engineer, Priti & Dabhi, Amisha & Chudasama, Hardik. (2023). Sampling MethodsinResearch:AReview.7.762-768.https://www.researchgate.net/publication/371985656_Sampling

_Methods_in_Research_A_Review

Sangeeta, Pal,, Prof., (Dr.), Sanjay, Kumar, Chhabra. (2023). A Review On India's Rural Development And Agricultural Infrastructure. Journal of Pharmaceutical Negative Results, 682-684. doi: 10.47750/pnr.2023.14.s01.92

Sanjay Verma. (2019) Role of Media in Promotion of Cooperatives Amongst Youth. https://www.linkedin.com/pulse/seven-ways-which-cooperativescan-win-trust-people-sanjay-verma

Satyendra, C., Pandey., Pratik, Modi., Vijay, Pereira., Samuel, Fosso, Wamba. (2024). Empowering small farmers for sustainable agriculture: a human resource approach to SDG-driven training and innovation. International Journal of Manpower, doi: 10.1108/ijm-11-2023-0655

Skaalsveen, K., Ingram, J., & Urquhart, J. (2020). The role of farmers' social networks in the implementation of no-till farming practices. Agricultural Systems, 181, 102824. https://doi.org/10.1016/j.agsy.2020.102824

Taherdoost, Hamed. (2021). Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects.

Taherdoost, Hamed. (2021). Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects.

Wang, B., Cheng, P.-Y., Lee, B., Sun, L.-C., & Chang, H.-H. (2019). Does participation in agricultural cooperatives affect farm sustainability? Empirical evidence from Taiwan. Sustainability, 11(18), 4987. https://doi.org/10.3390/su11184987

Welcome, Ntokozo, Sifisosami, Zondo., Jorine, T., Ndoro. (2023). Attributes of Diffusion of Innovation’s Influence on Smallholder Farmers’ Social Media Adoption in Mpumalanga Province, South Africa. Sustainability, 15(5):4017-4017. doi: 10.3390/su15054017

Yifeng Zhang. Et al. (2023). Cooperative membership, service provision, and the adoption of green control techniques: Evidence from China. https://www.sciencedirect.com/science/article/abs/pii/S0959652622050363

Yu, L., & Nilsson, J. (2021). Farmers’ assessments of their cooperatives in economic, social, and environmental terms: an investigation in Fujian, China. Frontiers in Environmental Science, 9. https://doi.org/10.3389/fenvs.2021.668361

Zhu, X., & Wang, G. (2024). Impact of agricultural cooperatives on farmers’ collective action: A study based on the socio-ecological system framework. Agriculture, 14(1), 96. https://doi.org/10.3390/agriculture14010096

Zhu, X., & Wang, G. (2024). Impact of agricultural cooperatives on farmers' collective action: A study based on the socio-ecological system framework. Agriculture, 14(1), 96. https://doi.org/10.3390/agriculture14010096