

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao



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**ABSTRACT:** Cooperatives serve as cornerstones in the region's agricultural sector, supporting livelihoods, food security, and economic development. In examining the complex dynamics of agricultural cooperatives in Northern Mindanao, this analysis investigates the multifaceted factors that affect their business sustainability, shedding light on crucial determinants driving the region's agricultural cooperative landscape. The study used a descriptive correlational research design and used survey in gathering primary data. Findings revealed that the majority of the cooperatives have been operating for 21 years and above, more have members from 15 to 150, the majority have 1 to 9 employees, and the majority are micro-cooperatives. The results indicating an average mean distribution of management of cooperatives described as strongly affecting business sustainability, shed light on the critical role of effective management practices in ensuring the long-term viability of agricultural cooperatives. The study concluded that Management of Cooperatives is significantly correlated to Business Sustainability: People means are considered weak and positive relationships between the variables tested, and Profit means are described as strong. The Enterprise Characteristics are significantly correlated to Business Sustainability, People means are described as moderate and positive relationships between the variables tested, and Profit means are described as moderate. Implications: emphasize the need for cooperatives to strategically leverage their organizational characteristics to enhance business sustainability through targeted interventions in areas such as human resource management, innovation adoption, and value chain integration.

**KEYWORDS:** Business sustainability, Agricultural Cooperatives, management, enterprise, people, profit, Philippines

### I. INTRODUCTION

The sustainability of agricultural cooperatives is a critical aspect of rural development, particularly in regions like Northern Mindanao, Philippines, where agriculture serves as a cornerstone of the economy. This analysis seeks to explore and understand the multifaceted factors influencing the sustainability of agricultural cooperatives in Northern Mindanao, considering the region's dynamic socio-economic and environmental landscape.

Analyzing the factors affecting the business sustainability of agricultural cooperatives in Northern Mindanao holds significant importance in guiding policy interventions, resource allocation, and strategic decision-making aimed at fostering resilient agricultural systems and sustainable rural development. Such an analysis provides invaluable insights into the unique challenges and opportunities faced by agricultural cooperatives in the region, allowing stakeholders to tailor interventions that address specific needs and leverage existing strengths (Smith et al., 2023).

By identifying key determinants affecting business sustainability, such as market dynamics, access to finance, technological adoption, and socio-economic factors, policymakers, development agencies, and cooperative managers can formulate evidence-based strategies to enhance the resilience, competitiveness, and socio-economic impact of agricultural cooperatives. Furthermore, a nuanced understanding of these factors enables the design of targeted support mechanisms and capacity-building initiatives tailored to the diverse contexts and priorities of cooperatives operating in Northern Mindanao, ultimately contributing to the region's agricultural growth, food security, and rural prosperity (Martinez-Carrasco et al., 2022; Lee et al., 2021).

Further, effective management of agricultural cooperatives is supreme for ensuring their sustainability and long-term success. Agricultural cooperatives play a crucial role in empowering smallholder farmers, enhancing their bargaining power, and promoting equitable distribution of resources and benefits within rural communities. However, without efficient management practices, these cooperatives face various challenges including internal conflicts, financial instability, and ineffective governance structures, which can impede their ability to thrive in dynamic market environments (Nelson & Black, 2023).

By adopting strategic planning, transparent decision-making processes, capacity-building initiatives, and embracing technological innovations, agricultural cooperatives can enhance their operational efficiency, resilience, and competitiveness in

## **Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao**

the global marketplace (Nelson & Black, 2023; Gildemacher et al., 2022). Moreover, fostering partnerships with stakeholders, including governments, NGOs, and private sector entities, can further support the sustainability agenda of agricultural cooperatives by facilitating access to markets, finance, and knowledge resources (Hamel et al., 2023). In essence, effective management practices are integral for ensuring the viability and long-term impact of agricultural cooperatives in driving rural development and food security agendas worldwide.

Moreover, the characteristics of agricultural cooperatives significantly influence their business sustainability. Key enterprise characteristics such as size, governance structure, member participation, diversification of activities, and market orientation play crucial roles in determining the resilience and long-term viability of these cooperatives. Cooperatives with effective governance mechanisms, including transparent decision-making processes and strong leadership, are better equipped to navigate challenges and capitalize on opportunities in dynamic market environments (Nilsson et al., 2023).

Additionally, fostering active member participation and engagement not only enhances social cohesion but also promotes a sense of ownership and accountability, thereby contributing to the cooperative's sustainability (Berg & Bergevoet, 2022). Diversification of activities enables agricultural cooperatives to mitigate risks associated with market fluctuations and environmental uncertainties while tapping into new revenue streams (Gibson & Ward, 2023). Furthermore, a market-oriented approach that focuses on meeting consumer demands, quality standards, and sustainable practices is essential for maintaining competitiveness and ensuring the long-term success of agricultural cooperatives (Bijman & Poppe, 2023).

Further, understanding the interplay between enterprise characteristics and the sustainability of agricultural cooperatives is crucial, especially in regions like Northern Mindanao, where the agricultural landscape is dynamic and diverse. The research aims to build upon these insights from 2021, exploring how the specific enterprise characteristics of agricultural cooperatives in the region contribute to their ability to thrive in a rapidly changing environment. By delving into the latest literature on cooperative enterprise characteristics, this analysis will provide nuanced insights into the factors that can bolster the sustainability of agricultural cooperatives in Northern Mindanao.

On the other hand, determining the gap and problems between the management of agricultural cooperatives and their sustainability is crucial for fostering their long-term success and resilience. Inadequate management practices within cooperatives can lead to a range of challenges, including ineffective governance, financial instability, poor decision-making, and limited capacity to adapt to changing market conditions (Kaganzi et al., 2022). Identifying and addressing these gaps is essential for enhancing the performance and sustainability of agricultural cooperatives.

In addition, by implementing healthy management systems, improving leadership capabilities, promoting transparency and accountability, and investing in capacity building initiatives, cooperatives can enhance their operational efficiency, attract investment, and better serve the needs of their members and communities (Akudugu et al., 2023). Furthermore, understanding the specific challenges faced by agricultural cooperatives in different contexts enables stakeholders to develop targeted interventions and support mechanisms that address these issues effectively, thereby promoting the long-term viability and impact of c

Understanding the gap and problems between enterprise characteristics and the sustainability of agricultural cooperatives is crucial for addressing the challenges that hinder their long-term success. Agricultural cooperatives often face issues such as inadequate governance structures, limited member participation, lack of diversification, and insufficient market orientation, which can impede their ability to remain sustainable in competitive markets (Liu & Roosen, 2022).

Identifying these gaps allows cooperatives to implement targeted strategies aimed at enhancing their governance mechanisms, fostering greater member engagement, diversifying their activities, and adopting market-driven approaches to improve their competitiveness and resilience (Ollila et al., 2023). Moreover, recognizing the specific challenges faced by agricultural cooperatives in different contexts enables policymakers, researchers, and practitioners to develop tailored interventions and support mechanisms that address these issues effectively, thereby promoting the sustainability and long-term viability of agricultural cooperatives as essential drivers of rural development and food security (Gildemacher et al., 2022).

## **II. METHODOLOGY**

In analyzing the factors affecting the business sustainability of agricultural cooperatives in Northern Mindanao, a descriptive correlational approach was employed. Firstly, a comprehensive literature review will be conducted, drawing on recent scholarly works such as "Sustainability Performance Evaluation of agricultural cooperatives' Operations" by Marcis, Bortoluzzi, de Lima, and da Costa (2019) and "Cooperatives and sustainability drivers in the Spanish wine sector" by Ferrer, García-Cortijo, Castillo Valero, Pinilla, and Serrano (2023) to identify key theoretical frameworks and factors that have been previously examined. The collected data were analyzed using statistical tools and quantitative coding techniques, allowing for a holistic understanding of the multifaceted factors correlated with the business sustainability of agricultural cooperatives in Northern Mindanao (Hilario, 2022).

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

### III. RESULTS AND DISCUSSION

Table 1 shows that in the Northern Mindanao Region, in terms of Cooperative Age, 34.30% of the respondents have worked in a cooperative operating for more than 21 years, followed by 24.30% at 1 to 5 years, 16.50% at 6 to 10 years, 12.90% at 11 to 15 years, and 11.80% at 16 to 20 years, respectively.

**Table 1. Distribution of Agricultural Cooperatives in Northern Mindanao Region According to the Cooperative Age**

Number of Years	Frequency	Percent
21 above	172	34.30
1 to 5 years	123	24.50
6 to 10 years	83	16.50
16 to 20 years	65	12.90
11 to 15 years	59	11.80
<b>Total</b>	<b>502</b>	<b>100.00%</b>

In terms of the number of members, Table 2 depicts that there are 75.90% with 15-150 members, followed by 14.10% with 151-300 members, 5.60% with 751 and up members, 3.40% with 301-450 members, and the remaining 1% belongs to 451-750 members, respectively.

**Table 2. Distribution of Agricultural Cooperatives in Northern Mindanao Region According to the Number of Members**

Number of Members	Frequency	Percent
15 to 150	381	75.90
151 to 300	71	14.10
751 and up	28	5.60
301 to 450	17	3.40
601 to 750	3	0.60
451 to 600	2	0.40
<b>Total</b>	<b>502</b>	<b>100.00%</b>

Since the majority of the agricultural cooperatives are micro cooperatives with 363 or 72.30% respondents are within 1-9 employees, followed by 103 or 20.50% with 10-99 employees, 28 or 5.60% with more than 199 employees, and 8 or 1.60% with 100-199 employees, respectively (see Table 3).

**Table 3 Distribution of Agricultural Cooperatives in Northern Mindanao Region According to the Present Number of Employees**

Number of Employees	Frequency	Percent
1 to 9	363	72.30%
10 to 99	103	20.50%
More than 199	28	5.60%
100 to 199	8	1.60%
<b>Total</b>	<b>502</b>	<b>100.00%</b>

The size of the cooperatives in the Northern Mindanao Region is shown in Table 4. Of the 502 cooperatives, 66.70% are micro cooperatives, followed by 22.30% are small cooperatives, 6.00% are large cooperatives, and 25 or 5.00% are medium cooperatives, respectively. The majority of the agricultural cooperatives are micro cooperatives with 72.30% of respondents are within 1-9 employees, followed by 20.50% with 10-99 employees, 5.60% with more than 199 employees, and 1.60% with 100-199 employees, respectively.

**Table 4 Distribution of Agricultural Cooperatives in Northern Mindanao Region According to the Size of Cooperative**

Size of Cooperative	Frequency	Percent
Micro Cooperative	335	66.70%
Small Cooperative	112	22.30%
Large Cooperative	30	6.00%
Medium Cooperative	25	5.00%
<b>Total</b>	<b>502</b>	<b>100.00%</b>

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

The dominance of agricultural cooperatives operating for 21 years and above, with a significant portion having member counts ranging from 15 to 150, predominantly employing 1 to 9 workers, and characterized as micro-cooperatives, reflects the diverse landscape of cooperative structures within the agricultural sector and presents both opportunities and challenges for ensuring business sustainability. While long-standing cooperatives may benefit from established networks, market presence, and accumulated expertise, they also face pressures related to adaptation to changing market dynamics and technological advancements.

Similarly, cooperatives with moderate member counts represent a balance between scale economies and maintaining member engagement, while micro-cooperatives may struggle with limited resources and capacity constraints but offer agility and localized impact. To enhance sustainability, these cooperatives can leverage their longevity, diverse membership bases, and operational flexibility to foster innovation, collaboration, and resilience in the face of evolving economic, social, and environmental pressures (Shrestha et al., 2023; Jayasinghe et al., 2022).

### Level of Business Sustainability

The level of correlation on the business sustainability of the agricultural cooperatives in the Northern Mindanao Region in terms of management of cooperative and enterprise characteristics was measured. It was interpreted using a five-point Likert scale where five (5) is the highest and 1 is the lowest.

Table 5 depicts the management of cooperatives has an overall mean of 4.44 described as strongly influenced business sustainability. Among the two (2) independent variables, the management of cooperatives is the highest as shown in Table 5. Indicator no. 3 on Organizational Leadership ranked first with 4.55. This is followed by indicator no. 1 on the development of eco-accommodating cooperatives at 4.50. Among the lowest are indicator no. 15 on continuing education at 4.37 and indicator no. 9 on invention at 4.36. All the indicators of management of cooperatives have a mean of more than 4.21 which means that each indicator strongly influenced business sustainability.

**Table 5. Management of Cooperative**

Management of Cooperatives	Mean	Interpretation
<b>Aspiration to Sustain the Business- 4.50</b>		
1. The management has the desire to develop the eco-accommodating cooperative.	4.50	The development of eco-accommodating cooperatives strongly influenced sustainability.
2. The management has the desire to support the eco-accommodating cooperative.	4.44	Support of eco-accommodating cooperatives strongly influenced sustainability.
3. The management is fully aware of the responsibility to create a development plan of activities to sustain the life of the organization	4.55	Organizational leadership strongly influenced business sustainability.
<b>Opportunity Seeking – 4.42</b>		
4. The management assesses and seeks after applicable and practical income and benefits creating exercises/open doors for network advancement, new business sectors, and undertaking.	4.39	Strategic management strongly influenced business sustainability.
5. The management sees	4.43	Market sensitivity

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

the significance of being observant.		strongly influenced business sustainability.
6. The management explores in the business environment for the many opportunities that the cooperative can spot on.	4.43	Opportunity-seeking influenced business sustainability
<b>Willingness to take Risks – 4.43</b>		
7. The management bravely faces challenges to improve the business execution of the cooperative.	4.45	Risk-taking strongly influenced business sustainability
8. The management sees things as positive problem that will not affect the operation of the cooperative.	4.40	Optimism strongly influenced business sustainability
<b>Innovativeness and Creativeness – 4.40</b>		
9. The management seeks after the advancement of novel thoughts or items to develop economical business execution.	4.36	Invention strongly influenced business sustainability
10. The management sees the significance of being creative in terms of thinking "outside the box" for the development of products.	4.41	Creativity strongly influenced business sustainability
11. The management sees the significance of being creative in terms of thinking "outside the box" for the services of the cooperative.	4.42	Innovativeness strongly influenced business sustainability
<b>Entrepreneurs Education, Training, and Business Experience – 4.45</b>		
12. The management sees the pertinence of training to create quality in the business execution of the cooperative.	4.47	Training strongly influenced business sustainability
13. The management sees the pertinence of education to create quality in the business execution of the cooperative.	4.48	Education strongly influenced business sustainability
14. The management sees the pertinence of experience to create	4.46	Work experience strongly influenced business

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

quality in the business execution of the cooperative. 15. The management sees the significance of going to further studies to enhance managerial skills in the operation of the cooperative.	4.37	sustainability  Continuing education strongly influenced business sustainability
<b>Overall Mean</b>	<b>4.44</b>	<b>Management of cooperative strongly influenced business sustainability</b>

Table 6 illustrates the summary of the average mean distribution of management of cooperatives and revealed an overall average mean of 4.44 described as *Strongly influenced business sustainability*.

Among the five (5) main indicators, aspiration to sustain the business has the highest average mean of 4.50 and described as *Strongly influenced business sustainability*. The lowest of the indicators is opportunity seeking with an average mean of 4.42 described as *Strongly influenced business sustainability*.

**Table 6. Summary of the Average Mean Distribution of Management Cooperative**

Indicator	Average Mean	Interpretation
Aspiration to sustain the business	4.50	Strongly influenced business sustainability
Opportunity seeking	4.42	Strongly influenced business sustainability
Willingness to take risks	4.43	Strongly influenced business sustainability
Innovativeness and creativeness	4.40	Strongly influenced business sustainability
Entrepreneurs' education, training, and business experience	4.45	Strongly influenced business sustainability
<b>Overall average mean</b>	<b>4.44</b>	Strongly influenced business sustainability

The results indicating an average mean distribution of management of cooperatives with an overall average mean of 4.44, described as strongly influencing business sustainability, shed light on the critical role of effective management practices in ensuring the long-term viability of agricultural cooperatives. Among the five main indicators, aspiration to sustain the business emerges with the highest average mean of 4.50, indicating its profound impact on business sustainability. This highlights the

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

significance of having a clear vision and commitment to sustainability goals within cooperative management. Conversely, opportunity seeking, although scoring slightly lower with an average mean of 4.42, still significantly influences business sustainability, highlighting the importance of seizing strategic opportunities to drive cooperative growth and resilience. These findings underline the multifaceted nature of management in fostering sustainable outcomes within agricultural cooperatives and emphasize the need for holistic approaches that encompass both visionary aspirations and strategic opportunism (Tang et al., 2023; Akhtar et al., 2022).

Table 7 shows that the overall mean for enterprise characteristics is 4.35 which is strongly influenced business sustainability. Among the top three (3) indicators for this independent variable are indicator no. 1 on financial management at 4.55, followed by indicator no. 2 on financial reporting at 4.49, and indicator no. 9 on customer satisfaction on services at 4.42. Indicator no. 5 on advanced technological systems at 4.18 and indicator no. 6 on advanced technological innovations at 4.16 were rated lowest with moderately influenced business sustainability interpretation.

**Table 7. Enterprise Characteristics**

<b>Enterprise Characteristics</b>	<b>Mean</b>	<b>Interpretation</b>
<b>Financial Management – 4.52</b>		
1. The cooperative sees the significance of cash flow management including inflation and interest rates in the operations.	4.55	Financial management strongly influenced business sustainability
2. The cooperative gives priority to the regular reporting of the finances for management decisions.	4.49	Financial reporting strongly influenced business sustainability
<b>Research and Development – 4.29</b>		
3. The cooperative sees the significance of research and development initiatives to assess business sustainability.	4.33	Research and development on sustainability strongly influenced business sustainability
4. The cooperative sees the importance of research and development initiatives to improve the products and services.	4.25	Research and development on products and services strongly influenced business sustainability
<b>Advanced Technology – 4.17</b>		
5. The cooperative employs advanced technological tools (or systems) to improve service products.	4.18	Advanced technological systems moderately influenced business sustainability
6. The cooperative integrates advanced technological innovations to support	4.16	Advanced technological innovations moderately

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

production efficiency.		influenced business sustainability
<b>Skills Development – 4.37</b>		
7. The cooperative gives priority to employees' skills development to enhance the quality of services.	4.34	Employees skills development strongly influenced business sustainability
8. The cooperative gives importance to member's skills development to enhance the quality and production.	4.39	Members skills development strongly influenced business sustainability
<b>Customer Satisfaction – 4.42</b>		
9. The cooperative considers customer satisfaction in the services as relevant in the development of business sustainability.	4.42	Customer satisfaction in services strongly influenced business sustainability
10. The cooperative considers customer satisfaction in the products as relevant to the development of business sustainability.	4.41	Customer satisfaction with products strongly influenced business sustainability
<b>Overall Mean</b>	<b>4.35</b>	<b>Enterprise characteristics strongly influenced business sustainability</b>

There are five (5) main indicators under enterprise characteristics, these are financial management, research and development, advanced technology, skills development, and customer satisfaction. Among these indicators, financial management has the highest mean of 4.52 which means it strongly influences business sustainability. Customer satisfaction at 4.42, skills development at 4.37, and research and development at 4.29 which means that these indicators strongly influenced business sustainability. While advanced technology at 4.17 is the lowest it only means it moderately influenced business sustainability.

The results reveal a comprehensive picture of the influence of various enterprise characteristics on business sustainability within agricultural cooperatives. Notably, financial management emerges as the top-performing indicator with the highest mean of 4.52, indicating its strong influence on sustainability. Effective financial management is crucial for ensuring optimal resource allocation and financial resilience, thereby underpinning the cooperative's ability to navigate economic uncertainties and capitalize on growth opportunities. Similarly, customer satisfaction, skills development, and research and development, with means of 4.42, 4.37, and 4.29 respectively, demonstrate their significant roles in driving business sustainability through enhanced competitiveness, innovation, and stakeholder engagement. However, the slightly lower mean of 4.17 for advanced technology suggests a moderate influence on sustainability, highlighting the need for cooperatives to further invest in cutting-edge technologies to enhance operational efficiency and facilitate adaptation to evolving market demands (Chen et al., 2023; Wu et al., 2022).



## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

**Table 8. Summary of the Average Mean Distribution of Enterprise Characteristics**

Indicator	Average Mean	Interpretation
Financial management	4.52	Strongly influenced business sustainability
Research and development	4.29	Strongly influenced business sustainability
Advanced technology	4.17	Strongly influenced business sustainability
Skills and development	4.37	Strongly influenced business sustainability
Customer satisfaction	4.42	Strongly influenced business sustainability
<b>Overall average mean</b>	<b>4.35</b>	<b>Strongly influenced business sustainability</b>

### Business Sustainability of Agricultural Cooperatives

Business sustainability is dominant for agricultural cooperatives as they play a vital role in ensuring the resilience and longevity of the agricultural sector. These cooperatives serve as crucial vehicles for smallholder farmers to access markets, resources, and technology while promoting social cohesion and economic development in rural communities. Embracing sustainable practices such as organic farming, efficient resource management, and fair trade not only enhances the environmental stewardship of these cooperatives but also fosters economic stability and social equity. Recent studies highlight the significance of integrating sustainability principles into cooperative business models, highlighting its positive impacts on financial performance, market competitiveness, and stakeholder relationships (Smith et al., 2023; Martinez-Carrasco et al., 2022).

### Correlations: Management of Cooperatives to Business Sustainability

Table 9 shows that the Management of Cooperatives is significantly correlated to Business Sustainability: People (.408) means weak and positive relationships between the variables tested, and Profit (.620) means strong. The significant correlation between the management of cooperatives and business sustainability, particularly the strong correlation with profit ( $r = .620$ ) and the weaker but still positive correlation with people ( $r = .408$ ), emphasizes the critical role of effective management in fostering sustainable practices within agricultural cooperatives.

This suggests that healthy management practices, such as strategic planning, transparent governance structures, and efficient resource allocation, are instrumental in driving financial success and promoting social well-being within cooperatives. The strong correlation with profit highlights the direct impact of management decisions on the economic viability and long-term sustainability of cooperative enterprises, while the positive but weaker correlation with people suggests that management practices also influence aspects of social capital, human resource management, and community engagement. These findings emphasize the importance of investing in managerial capacity-building initiatives and adopting best practices in cooperative governance to enhance overall business sustainability and maximize positive outcomes for both stakeholders and the environment (Njuki et al., 2023; Sekabira et al., 2022).

**Table 9. Correlations: Management of Cooperatives to Business Sustainability**

		Management of Cooperatives	People	Profit
Management of Cooperatives	Pearson Correlation	1	.408**	.620**
	Sig. (2-tailed)		.000	.000
	N	502	502	502
People	Pearson Correlation	.408**	1	.406**
	Sig. (2-tailed)	.000		.000

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

	N	502	502	502
Profit	Pearson Correlation	.620**	.406**	1
	Sig. (2-tailed)	.000	.000	
	N	502	502	502
	N	502	502	502

### Correlations: Enterprise Characteristics to Business Sustainability

Table 10 shows that Enterprise Characteristics are significantly correlated to Business Sustainability: People (.576) means moderate and positive relationships between the variables tested, and Profit (.595) means moderate. The significant correlation between enterprise characteristics and business sustainability, with moderate and positive relationships observed for both people ( $r = .576$ ) and profit ( $r = .595$ ), highlights the importance of certain organizational traits in driving sustainable outcomes within agricultural cooperatives.

These findings suggest that specific characteristics such as organizational culture, size, diversity, and innovation capacity play crucial roles in influencing the social and economic dimensions of sustainability within cooperatives. The moderate and positive correlation with people indicates that factors such as employee engagement, inclusivity, and social responsibility initiatives contribute to building social capital, fostering community resilience, and enhancing stakeholder relationships. Similarly, the moderate correlation with profit underscores the impact of enterprise characteristics on financial performance, market competitiveness, and long-term viability. These insights emphasize the need for cooperatives to strategically leverage their organizational characteristics to enhance business sustainability through targeted interventions in areas such as human resource management, innovation adoption, and value chain integration (Chen et al., 2023; Hossain et al., 2022).

**Table 10. Correlations: Enterprise Characteristics to Business Sustainability**

		Enterprise Characteristics	People	Profit
Enterprise Characteristics	Pearson Correlation	1	.576**	.595**
	Sig. (2-tailed)		.000	.000
	N	502	502	502
People	Pearson Correlation	.576**	1	.406**
	Sig. (2-tailed)	.000		.000
	N	502	502	502
Profit	Pearson Correlation	.595**	.406**	1
	Sig. (2-tailed)	.000	.000	
	N	502	502	502

## CONCLUSIONS

Based on the findings of the study, the following conclusions are drawn:

The majority of the cooperatives have been operating for 21 years and above, more have members from 15 to 150, the majority have 1 to 9 employees, and the majority are micro-cooperatives. The prevalence of agricultural cooperatives in operation for 21 years and more, along with a notable portion hosting member counts ranging from 15 to 150 and mainly employing 1 to 9 workers, emphasizes the diverse array of cooperative models within the agricultural domain, presenting both prospects and hurdles for ensuring long-term business sustainability. Established cooperatives enjoy advantages stemming from their entrenched networks, market standing, and accrued expertise, yet must contend with the challenges of adapting to shifting market dynamics and technological advancements.

The results indicating an average mean distribution of management of cooperatives described as strongly affecting business sustainability, shed light on the critical role of effective management practices in ensuring the long-term viability of agricultural cooperatives. Among the five main indicators, aspiration to sustain the business indicates its profound impact on business sustainability. This highlights the significance of having a clear vision and commitment to sustainability goals within cooperative management.

The results reveal a comprehensive picture of the influence of various enterprise characteristics on business sustainability within agricultural cooperatives. Notably, financial management emerges as the top-performing indicator with the highest mean of 4.52, indicating its strong influence on sustainability. Effective financial management is crucial for ensuring optimal resource allocation and financial resilience, thereby underpinning the cooperative's ability to navigate economic uncertainties and capitalize on growth opportunities.

## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

The Management of Cooperatives is significantly correlated to Business Sustainability: People means are considered weak and positive relationships between the variables tested, and Profit means are described as strong. There is a significant correlation between the management of cooperatives and business sustainability, particularly the strong correlation with profit. The Enterprise Characteristics are significantly correlated to Business Sustainability, People means are described as moderate and positive relationships between the variables tested, and Profit means are described as moderate. The significant correlation between enterprise characteristics and business sustainability, with moderate and positive relationships observed for both people, highlights the importance of certain organizational traits in driving sustainable outcomes within agricultural cooperatives.

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## Analysis of the Factors Affecting the Business Sustainability of Agricultural Cooperatives in Northern Mindanao

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