PROFITABILITY PERFORMANCE OF MULTIPURPOSE COOPERATIVES IN CARCANMADCARLAN, SURIGAO DEL SUR

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ABSTRACT: *Profitability is the profit-earning ability which is an essential factor contributing to the survival of cooperatives. This study analyzed the profitability performance of the Multipurpose Cooperatives (MPCs) in CarCanMadCarLan, Surigao del Sur to develop an action plan to improve its performance. It employed quantitative descriptive research through the use of a survey questionnaire as well as the use of a document analysis method. The study participants are the MPCs registered with the Cooperative Development Authority (CDA) and regularly audited. The Profitability Performance Standard for Cooperatives under MC2013-15, Polynomial Regression Analysis, and One-Way ANOVA were used to analyze the gathered data and interpret the results thereof. The findings of the study showed that three out of five (3/5) MPCs need improvement in their profitability performance primarily due to continuous net losses while obtaining external liabilities. Results further showed a significant relationship between profile variables and the profitability performance of the MPC, and there is a significant difference in its profitability performance. The study proposed improvements based on the result of statistical analysis made using Profitability Performance Standards and the significant relationship of variables. Based on the findings and conclusion of the study, the implementation of the proposed improvement is recommended. Future researchers may conduct further studies on the effect of lending as the type of product/services on profitability performance and conduct financial ratio analysis.*

Keywords: profitability, performance, multipurpose cooperatives

1. INTRODUCTION

Multipurpose cooperatives are essential in economic development in rural areas, as they offer diverse services to their members, such as financial assistance, livelihood support, and various business ventures. Unlike single-purpose cooperatives that focus on a specific service, multipurpose cooperatives engage in various activities such as credit and savings, consumer retail, agricultural support, and livelihood programs. This diversification allows them to cater to their members' diverse needs, promote financial inclusion, and contribute to local economic growth. By pooling resources and fostering collective entrepreneurship, these cooperatives enhance the financial well-being of their members while supporting community resilience and self-sufficiency.

The profitability performance of cooperatives is a critical measure of their financial sustainability and operational success. A cooperative's ability to generate sufficient income ensures that it can continue to provide services to its members, expand its operations, and reinvest in community development initiatives. The Philippine Cooperative Development Authority (CDA) has established standard parameters to assess profitability performance, including profitability ratios, earnings per share ratios, profitability growth rates, asset efficiency rates, and rates of interest on share capital. Adherence to CDA standards can be a reliable measure of a cooperative's financial health [1].

In CarCanMadCarLan—the municipalities of Carrascal, Cantilan, Madrid, Carmen, and Lanuza in Surigao del Sur—there is a scarcity of localized studies focusing on the profitability performance of multipurpose cooperatives. Furthermore, there is limited empirical evidence examining the relationship between profitability performance and factors such as capital build-up, number of members, number of employees, and years in operation within this specific regional context. Addressing this gap is crucial for developing targeted strategies to enhance the financial sustainability of cooperatives in CarCanMadCarLan.

Assessing their profitability performance is essential to ensure their sustainability and continued positive impact on their communities. This study aims to fill this gap by evaluating the profitability performance of multipurpose cooperatives in CarCanMadCarLan based on the Philippine CDA Standard Parameters. Additionally, it seeks to analyze the significant relationships and differences between profitability performance and variables such as the amount of capital build-up, number of members, number of employees, and years in operation. The findings are expected to provide valuable insights into the financial dynamics of these cooperatives and inform policy recommendations to strengthen their sustainability and impact on the local economy.

2. METHODOLOGY

This study employed quantitative descriptive research and document analysis methods utilizing the audited Financial Statements of MPCs, including the Statement of Financial Position (Balance Sheet) and Statement of Financial Performance (Income Statement). The collected data were then analyzed using the Profitability Performance Standard under the MC2013-15. It used a purposive sampling technique. The participants are the five MPCs in CarCanMadCarLan, represented by the Treasurer and referred by the President or the Secretary, who are reliable, knowledgeable, and directly involved with safeguarding financial statements.

Profitability Performance Standard under the MC2013-15

$$\text{Profitability ratio} = \frac{\text{Net Operating Surplus}}{\text{Gross Revenue/ Gross Margin}}$$

$$\text{Earnings per share ratio} = \frac{\text{Net Surplus}}{\text{Paid-up capital/Par value}}$$

$$\text{Profitability growth rate} = \frac{\text{EPS, end} - \text{EPS, beginning}}{\text{EPS, beginning}}$$

$$\text{Asset efficiency rate} = \frac{\text{Net surplus}}{\text{Total assets}}$$

$$\text{Rate of interest on share capital} = \frac{\text{Amount allocated for interest on share capital}}{\text{Average paid-up share capital}}$$

Polynomial Regression Analysis was used to determine the significant relationship between the profitability performance of the MPCs in CarCanMadCarLan and the profile variables. Linear regression was initially used but was not able to find any significant relationship, so the researcher proceeded with polynomial regression analysis to obtain a more reliable result.

A one-way ANOVA was used to determine whether there was a significant difference in the profitability performance of the MPC in CarCanMadCarLan.

3. RESULTS AND DISCUSSION

Table 1. Profitability performance

Standard parameter	Standard point	Adjectival rating MPC-A	MPC-B	MPC-C/D/E
Profitability ratio				
30% and above	5 points	E	E	E
25% to below 30	4 points	V/S	V	E
10% to below 25%	3 points	F	S/F	V/S
5% to below 10%	2 points	N	N	F
Below 5%	1 point	N	N	N
In case of break-even or net loss	0 point	N	N	N
Earnings per share				
Php 2.50 and above	5 points	E	E	E
Php 2.00 to below 2.50	4 points	V/S	V	E
Php 1.50 to below 2.00	3 points	F	S/F	V/S
Php 1.00 to below 1.50	2 points	N	N	F
Below Php 1.00 to Php 0.75	1 point	N	N	N
Zero and negative	0 point	N	N	N
Profitability growth rate				
100% and above	5 points	E	E	E
75% and below 100%	4 points	V/S	V	E
50% to below 75%	3 points	F	S/F	V/S
30% to below 50%	2 points	N	N	F
10% and below	1 point	N	N	N
Less than 10%	0 point	N	N	N
Asset efficiency rate				
20% and above	5 points	E	E	E
15% to below 20%	4 points	V/S	V	E
10% to below 15%	3 points	F	S/F	V/S
5% to below 10%	2 points	N	N	F
Below 5%	1 point	N	N	N
Rate of interest on share capital				
Higher than the inflation rate	5 points	E	E	E
Within the inflation rate	4 points	V/S	V	E
2 points below the inflation rate	2 points	N	N	F
3 points or more below the inflation rate	1 points	N	N	N
Net loss	0 point	N	N	N

Source: MC2013-15 Performance report standards for cooperatives

Legend: E – Excellent performance; V – Very Satisfactory Performance;
S – Satisfactory Performance; F – Fair Performance; N – Needs improvement

The profitability performance of MPC was assessed using the CDA Profitability Standard which includes the following parameters: profitability ratio, earnings per share, profitability growth rate, asset efficiency rate, and interest rate on share capital. This part deals with the statistical analysis wherein the formula for each indicator was computed and the points earned based on the computation are shown in the graph. Points earned in every indicator will accumulate up to 100 points.

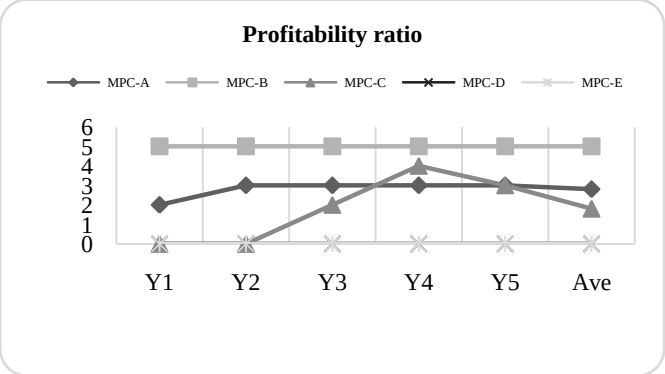

Fig (1) Profitability ratio

The results in Figure 1 highlight that MPC-B exhibited excellent profitability performance, maintaining an average profitability ratio of 75% over five years, exceeding the CDA standard. This indicates that MPC-B has a well-structured revenue generation mechanism with controlled operational costs, ensuring long-term financial sustainability. In contrast, MPC-C, MPC-D, and MPC-E exhibited recurring net losses, suggesting inefficiencies in financial management. A high net operating surplus means a cooperative keeps a large proportion of its revenue as profit, so it is better to have a high net operating surplus than a low or negative net operating surplus [2].

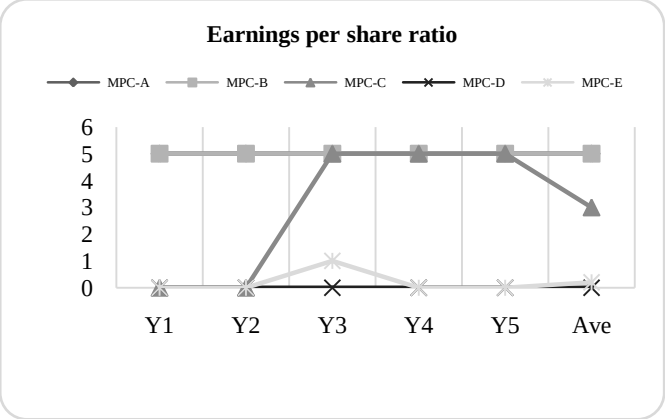

Fig (2) Earnings per share ratio

Earnings per share (EPS) remains a key indicator of cooperative financial health. As depicted in Figure 2, MPC-A and MPC-B performed excellently in the ratio of net surplus to paid-up share capital, reflecting strong financial discipline and effective revenue distribution strategies. On the other hand, MPC-D reported a need for improvement in EPS values, indicating substantial financial distress and declining investor confidence. The earnings per share depends on whether the cooperative is earning profit. The higher the earnings per share, the better, because it means the cooperative is generating more profit for its shareholders.

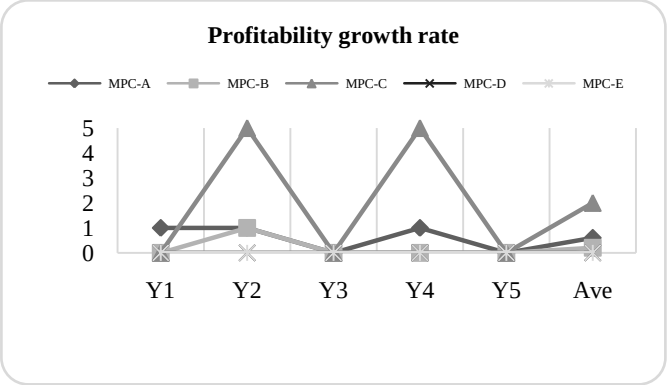

Fig (3) Profitability growth rate

Figure 3 displays the profitability growth rate of Multipurpose Cooperatives in CarCanMadCarLan. MPC-C showed an excellent performance in Year 4 with 348% profitability growth. It has had a satisfactory performance for the five years with a 63% growth rate. However, the growth is unstable. To have a strong financial position and be a reliable cooperative in which to invest, the MPCs must work to increase their profitability growth rate. MPC-D and MPC-E need improvement and have the lowest growth rate in terms of profitability in the five years. Cooperatives' profitability is positively affected by size, liquidity, indebtedness, regional specialization in cooperatives, location economies, and lagging profitability, and negatively affected by age and presence in international markets [3].

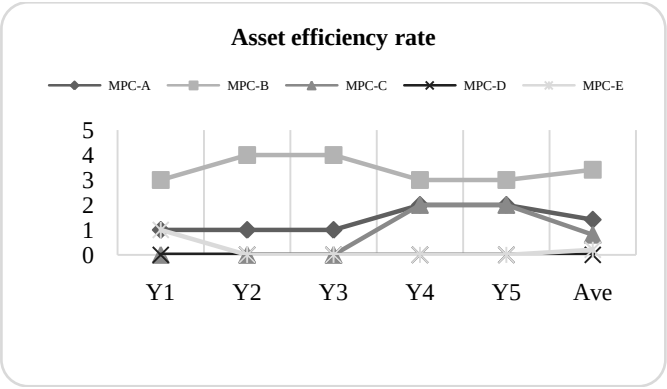

Fig (4) Asset efficiency rate

Figure 4 highlights that MPC-B showed satisfactory and fair performances in Year 5 and Year 4, respectively and had very satisfactory performances in Year 3 and Year 2 having a result of 3, 3, 4, 4, and 3 from Year 5 down to Year 1. MPC-D and MPC-E showed zero (0) standard points in those years when they incurred net losses. MPC-A has a positive result however profitability position of the cooperative concerning assets still needs to be improved. The average asset efficiency rate for MPC-A, MPC-B, MPC-C, MPC-D, and MPC-E is 5%, 14%, 2%, 5%, and 1%, respectively. A higher asset turnover ratio is preferred since it signifies efficiency in the use of its resources to generate sales. On the contrary, a low asset turnover ratio means the MPC cannot produce enough revenue at the end of the year. Asset efficiency ratio significantly affected profitability and earnings per share ratios [4].

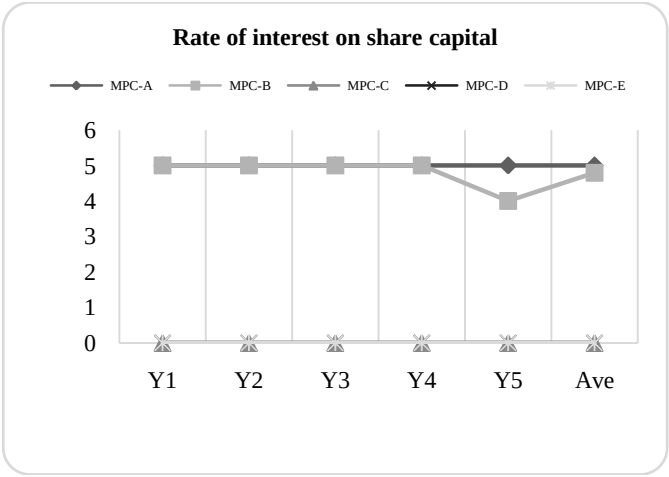

Fig (5) Rate of interest on share capital

Figure 5 depicts five (5) consecutive standard points for MPC-A because it earned a net surplus for five years. The higher the net surplus of the cooperatives, the higher the interest on share capital can be distributed and vice versa. If the cooperatives incurred a net loss during the year, no interest on share capital may be distributed which happened to MPC-C, MPC-D, and MPC-E which earned zero (0) points for five years which means the MPCs need improvement. The average rate of interest on share capital for MPC-B is 12% and MPC-A is 10%. The other three MPCs have zero average results for the five years. Profitability attracts investors and lenders and improves solvency levels. It also enhances the confidence level of the customers through goodwill.

Ho1. At a 0.05 significance level, it was hypothesized that there is no significant relationship between the profitability performance of the MPCs in CarCanMadCarLan when grouped according to the profile variables.

The researcher initially examined the relationship of variables through linear regression but provided a very poor result. None of the variables turned out to be statistically significant. Hence, the researcher proceeded with using polynomial regression to fit a polynomial line. The use of alternative proxies for the independent variables was also observed to test the extent to which it may provide different results. Finally, squaring the capital build and number of members delivered a better result.

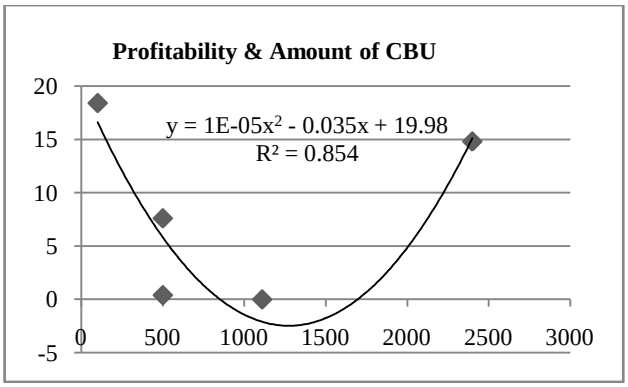

Fig (6) Profitability performance and amount of capital build-up (CBU)

Figure 6 illustrates the regression result of the relationship between profitability performance and the amount of capital build-up. The regression displays an R2 of 0.8542, which implies a high correlation and that the profitability performance has a significant relationship with the amount of CBU. This suggests that the increase or decrease in the amount of capital build-up will significantly affect the profitability performance. Thus, the hypothesis is rejected and we conclude that the amount of CBU significantly influences MPCs' financial performance as measured by profitability performance.

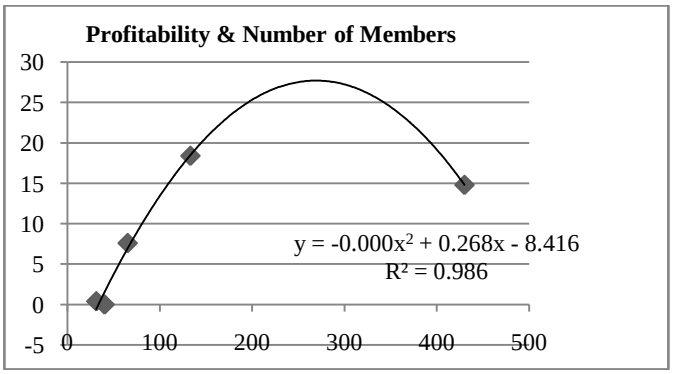

Fig (7) Profitability performance and number of members

In Figure 7, the estimate of R2 of 0.9865 suggests a high correlation and marks a significant relationship between the number of members to profitability performance. This denotes that the changes in the number of members significantly affect the profitability performance of the MPCs. With the number of members, profitability performance will also increase. However, MPCs should look into the continuing increase in the number of members since this would pull the profitability performance down if not well managed.

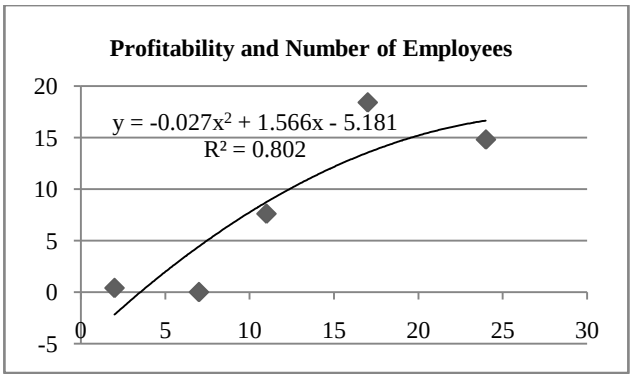

Fig (8) Profitability performance and number of employees and staff

The regression graph shown in Figure 8 displays the relationship between the number of employees and profitability. It exhibits an R2 of 0.8021, which implies a high correlation. This suggests a significant relationship between the number of employees and staff and profitability performance. The increase in the number of employees and staff of MPCs will significantly affect profitability performance.

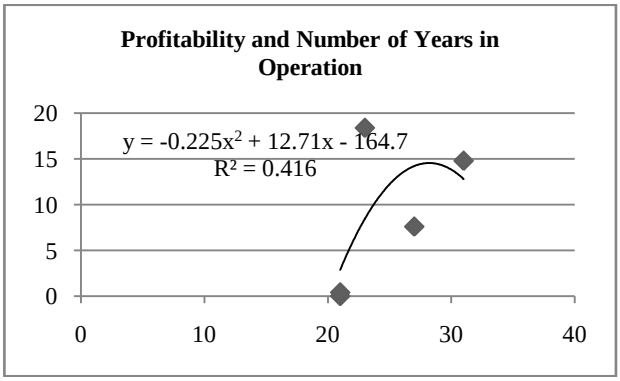

Fig (9) Profitability performance and number of employees and staff

Figure 9 shows the relationship between the number of years in operation and profitability performance. The graph portrays an R2 of .4162, which is a moderate correlation. This suggests a substantial relationship between the number of employees and staff and profitability performance. This means that the longevity of MPCs in operation substantially affects their profitability performance. Being in operation for an extended period is not a guarantee that a continuous increase in profitability will be achieved. Other variables should also be considered such as, but not limited to, good governance, financial management, and marketing strategies.

Table 2. Relationship between profitability performance and the profile variables

Variables	R^2	P-value	Decision
Amount of capital build-up (CBU)	0.85	0.00	Reject Ho
Number of Members	0.99	0.00	Reject Ho
Number of employees and staff	0.80	0.05	Reject Ho
Number of years in operation	0.42	0.32	Accept Ho

Source: Financial Performance of Multipurpose Cooperatives in CarCanMadCarLan

*Note: **R^2** value <0.20 = slight, almost negligible relationship; 0.20 – 0.40 = low correlation, definite but small relationship; 0.40 – 0.70 = moderate correlation, substantial relationship; 0.70 – 0.90 = high correlation, marked relationship*

Table 2 presents the relationship between profitability performance and the profile variables. It can be gleaned that the independent variables such as the amount of capital build-up, number of members, and number of employees and staff have an R2 value of 0.85, 0.99, and 0.80, respectively. The result implies that the three variables have a high correlation and significant relationship with profitability performance. The p-value displays zero (0) for the number of CBUs and members. Number of employees shows a p-value of 0.05. This implies that the increase or decrease of these profile variables significantly affects profitability performance. The number of years in operation obtained an R2 of 0.4162 and a p-value of 0.32, a result higher than the significant level of 0.05, thus leading to the non-rejection of the hypothesis. This result does not support the result of the study of Selcuk, E. A. (2016), and Tadesse, T., & Kassie, T. (2023), that the number of years in operation affects profitability performance [5, 6].

Ho2. At 0.05 level of significance, it was hypothesized that there is no significant difference in the profitability performance of the MPC's in CarCanMadCarLan.

Table 3. The significant difference in the financial performance

Variables	Df effect	SS Effect	MS Effect	F	P-value	Decision
Profitability performance	4	1380.16	345.04	45.88	0.00	Reject Ho

Source: Financial performance of multipurpose cooperatives in CarCanMadCarLan

Table 3 displays the significant difference in the profitability performance of the MPCs in CarCanMadCarLan. A one-way ANOVA between subjects was conducted to compare the profitability performance of MPCs. All the variables obtained p-values of 0.00 which are lower than the significance level of 0.05. This suggests we reject the hypothesis that there is no difference between the means and conclude that a significant difference does exist. The significant difference was due to the size of MPCs in CarCanMadCarLan. The size of cooperatives is measured based on the amount of assets of the MPCs. MPC-A is a medium coop, MPC-B belongs to a small coop, and MPC-C/D/E is a micro cooperative. Since we found statistically significant results, post hoc tests were run to confirm where the differences occurred between MPCs and which of the MPCs differed. According to modern cooperative studies, financial and operational decisions are critical to profitability [7].

Proposed improvements

Improvements focused on the input variables covered in the study. Regarding the amount of capital build-up (CBU), the MPC may undergo selling through or buying from the cooperative to promote patronage and services. This is most easily achieved when cooperatives provide services valued by members and offer competitive prices and prompt payment. As to the number of members, the MPC may reward members proportionate to their use or purchases rather than the amount of their investment to provide meaningful benefits. Regarding the number of employees and staff, compensating skills training and education, specifically in bookkeeping and management. Funding attendance to conferences, training, and seminars, which will further enrich the cooperatives to meet goals and objectives, may be implemented to provide career growth opportunities. The result of the statistical analysis was the basis for coming up with improvements in financial performance. It should be noted that there is always the possibility that other variables not covered in the study influenced the results.

4. CONCLUSION

In light of the above findings, it can be concluded that MPC-B had satisfactory performance since it managed its receivables and liabilities well and consistently earned a net surplus for five years. Conversely, MPC-A, MPC-C, MPC-D, and MPC-E need improvement in their profitability performance, primarily on the profitability ratio and growth, asset efficiency rate, and rate of interest on share capital. The study's results also showed no significant relationship between the number of years in operation and the profitability performance of the MPCs. Moreover, the data presents sufficient evidence of a significant difference in the financial performance of MPCs in CarCanMadCarLan regarding profitability performance.

5. RECOMMENDATION

Based on the findings and the study's conclusion, implementing the proposed improvement as presented in this study is recommended. Future researchers may study the impact of digital banking on cooperatives and how government policies affect cooperative profitability. Furthermore, a significant relationship between profitability performance and employee and member satisfaction may be further studied.

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