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The Significant Role of Organizational Size on the Level of Non-Financial Performance Among Livestock and Poultry Agribusiness Firms in Northern Mindanao, Philippines



Abstract: - This study assessed the level of Non-Financial Performance among livestock and poultry agribusiness firms in Northern Mindanao, Philippines and ascertained the significant role of organizational size. The study employed complete enumeration and used the responses of 307 farm workers in the provinces of Bukidnon, Misamis Oriental, Misamis Occidental and Camiguin Island. Descriptive-correlational research design was employed to accomplish the research objectives. Pre-tested questionnaire with Cronbach alpha of 0.979 was used to gather the data through personal interview. Descriptive statistics was used to describe the organizational size measured in terms of the number of employees and the level of non-financial performance among agribusiness firms. Analysis of variance (ANOVA) plus a post hoc test was performed using the Tukey test to assess the significance in the difference of the level of non-financial performance with respect to organizational size. Results revealed that the level of non-financial performance is high. Non-financial performance of livestock and poultry agribusiness firms significantly differs when grouped according to organizational size. It is recommended that multigroup comparison can also be made between micro, small, medium and large firms and between other agribusiness sub-sectors (cereal crop, fruit crop and vegetable crop production and processing; cooking oil production, sugar, starch and coffee production and processing).

Keywords:

INTRODUCTION

Agribusiness denotes activities related to agriculture that place growers, farm workers, marketing agents, and consumers within an open system that create products, transform these products with superior customer value, transport, deliver and distribute the same to the targeted markets and consumers. The conversion of agricultural farming into a flourishing agribusiness sector requires knowledge and skills to develop abilities in utilizing available farming technologies, training and retooling new techniques in farming, establishing stable supply chains, creating agricultural infrastructure and support, and capitalizing in research and development. Such activities can diversify farming system, increase the value of agricultural commodities, and facilitate rural development program in attaining inclusive growth in the countryside. Having said that, agribusiness sector is expected to be a principal contributor to the development of rural economy in particular and Philippine economy in general.

Agribusiness industries in Northern Mindanao is an ideal location for investment. In fact, region X is considered the food basket of Mindanao. Ordonez (2018) postulates that agribusiness is all about establishing a well-coordinated supply chain from farm to fork for agriculture to be lucrative. Further, Villegas (2018) claimed that there are very few for-profit business ventures that can eradicate Philippine poverty more effectively than agribusiness. The livestock and poultry industry as an agribusiness venture is an example of a thriving business in Northern Mindanao. In 2022, the Gross Domestic Product (GDP) of the Philippines increased about 7.6 percent. The agriculture and fishing sector which accounted for 8.9 percent of the GDP, recorded a Gross Value-Added growth rate of 0.47 percent. However, the Gross Regional Domestic Product (GRDP) of Northern Mindanao grew by 7.2 percent in the agriculture sector (Philippine Statistics Authority, 2023). Despite the increase in production performance, Northern Mindanao still experienced relatively high prices in agricultural commodities like rice, meat and poultry products, sugar, coffee, cooking oil and even fruits and vegetables. This could be attributed to the farming techniques in the region, majority of which are traditional. There is a need to upgrade the technology from human-intensive to machine intensive production system to be more innovative and be considered competitive in the borderless economy.

In the Philippines, literatures that analyzes the influence of organizational size towards organization's non-financial performance is nonexistent. This paper seeks to add in the body of knowledge by presenting empirical evidence of the role of organizational size to the agribusiness firms' level of non-financial performance.

On the other hand, lowest rating among the items was given to the increase in employees' pride in one's work. This could mean that farm workers were not happy and satisfied with their wages. Some of them (laborers) even received below the minimum wage rate but they have no other choice. Most of the farm workers were "no read-no write" and did not have the privilege to go to school. As observed, farm workers even married at an early age with a lot of children to feed. Further, the distance of farm to the basic government services like schools and hospitals added to them inability to develop themselves.

Non-Financial performance when agribusiness firms are grouped according to organizational size

It is revealed in table 2 that livestock and poultry agribusiness firms in the region regardless of the size of the organization has high non-financial performance with an over all mean of 4.16. It is worthwhile to mention that medium-sized firms with employees of 100-199 has the highest rating ($\mu=4.21$) for the non-financial performance followed by small-sized firms with employees ranging from 10 – 99 ($\mu=4.20$) and the lowest rating came from micro-sized firms ($\mu=4.07$).

Table 2. Level of Non-Financial Performance among Agribusiness Firms according to Organizational Size

Organizational size	Frequency	%	Mean	Qualitative Description
1 - 9 micro	121	39	4.07	High Performance
10 - 99 small	176	57	4.20	High Performance
100 - 199 medium	10	3	4.21	High Performance
Total	307	100	4.16	High Performance

Test of Significance in the Difference of non-financial performance according to organizational size

Differences in farm workers' assessment regarding organization's non-financial performance based on organizational size were tested using One-way ANOVA. The results indicate that the perception of respondents regarding the overall non-financial performance among livestock and poultry agribusiness firms differ significantly when the firm's data were analyzed according to the size of the organization ($F(2,304) = 4.960$, $p=.008$). The F-stat values were less than 0.05 thereby underscoring the variation across the firm's organizational size about the organization's non-financial performance among livestock and poultry agribusiness firms in Northern Mindanao. Furthermore, the partial ETA squared value of .032 means that organizational size accounts for some 3.2% of the variance in non-financial performance of livestock and poultry agribusiness firms in the region.

This further means that when the respondents are grouped into organizational size, measured according to the number of employees namely: micro with 1-9 workers; small with 10-99 workers; and medium with 100-199 workers, their level of assessment regarding the overall non-financial performance differ significantly.

Table 3. One-way ANOVA results for test of significance in the difference of non-financial performance according to organizational size

	Sum of Squares	Df	Mean Square	F	p-value	Partial ETA squared
Between Groups	1.313	2	.657	4.960	.008	.032
Within Groups	40.238	304	.132			
	41.551	306				

Levene's Test $F(2,304) = 8.103$, $p = .000$

The findings suggest that non-financial performance of livestock and poultry agribusiness firms in Region X is significantly different when they are grouped according to organizational size measured in terms of the number of employees in the firm. Therefore, the decision is to reject the null hypothesis which states that there is no significance in the difference of the organization's non-financial performance when livestock and poultry agribusiness firms are grouped according to organizational size. This finding is consistent with the contention of Yang et al. (2015) who concluded that firm size is a more important performance determinant in the regional and local firms.

A Tukey test or Tukey's Honest Significant Difference Test, a post hoc test in Table 4 revealed that the livestock and poultry agribusiness firms' non-financial performance significantly differ between micro firms and

small firms ($p = .006$). However, there were no differences between micro firms and medium firms ($p = .468$) as well as between small and medium sized firms ($p = .998$). A Tukey test was used in this post hoc test because the data used met the assumption of homogeneity of variances as depicted in Levene's test ($F(2,304) = 8.103, p = .000$).

Table 4. Tukey's Honest Significant Test of Multiple Comparison

(I) Size	(J) Size	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1-9	10-99	-.1334*	.04296	.006	-.2346	-.0322
	100-199	-.1408	.11971	.468	-.4228	.1411
10-99	1-9	.1334*	.04296	.006	.0322	.2346
	100-199	-.0074	.11827	.998	-.2860	.2711
100-199	1-9	.1408	.11971	.468	-.1411	.4228
	10-99	.0074	.11827	.998	-.2711	.2860

Based on observed means.

The error term is Mean Square(Error) = .132.

*. The mean difference is significant at the .05 level.

The result of the Tukey's test revealed that there is significance in the difference of non-financial performance when livestock and poultry agribusiness firms are grouped according to organizational size. This implies that small firms with 10-99 farm workers which comprise 57% of the total respondents and micro firms with 1-9 farm workers which comprise 39% of the respondents has difference in non-financial performance that is considered significant.

CONCLUSION

1. The level of organization's non-financial performance among livestock and poultry agribusiness firms in Northern Mindanao, Philippines is considered high.
2. Non-financial performance of livestock and poultry agribusiness firms significantly differs when they are grouped according to organizational size.
 - a. micro-sized firms and small sized firms have different non-financial performance;
 - b. micro-sized firms and medium sized firms have the same level of non-financial performance; and
 - c. small-sized firm and medium sized firm have the same level of non-financial performance.

RECOMMENDATION

The study is only limited to the livestock and poultry agribusiness firms in Region X. Other sectors of the agribusiness industry (cereal crop, fruit crop and vegetable crop production and processing; cooking oil production; sugar, starch and coffee production and processing) is also worth exploring. It is acknowledged that differences among agribusiness sub-sectors may give different impact of the results; hence those issues might be addressed by future researches in that direction.

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