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Beef Cattle Smallholder with Partnership System in Indonesia: A Study of Attitude and Motivation of Stakeholders

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Abstract | The majority of beef cattle farming businesses in Indonesia are run using profit-sharing partnership system known as *gaduhan*. Therefore, this research aimed to determine the relationship between farmer attitude and performance, and the effect of motivation on performance in implementing bull and cow farming business partnership systems. A quantitative descriptive and correlative method was used, and the research was conducted in East Java Province, Indonesia. Data were collected by conducting interviews, filling out questionnaires, and performing observations. Subsequently, data were analyzed using the Fishbein, correlation, and simple linear regression analysis methods. The results showed that farmer attitude towards bull and cow farming business partnership systems had a positive score with total attribute scores of 15.01 and 16.81, falling in the good category. Motivation had percentages of fulfilling living needs at 85.67% and 85.53%, in the very strong category. The variable of establishing good relationships with capital owners had percentages of 61.46% and 63.4%, in the strong category. Meanwhile, the variable of achieving increased income had values of 53% and 44.5%, in the quite strong category. Based on the results, attitude, and farmer motivation had a positive relationship with performance in beef cattle farming partnership system. This condition implied that farmer performance was directly proportional to attitude and motivation.

Keywords | Partnership system, Profit sharing, Attitude, Motivation, Performance, Livestock farming business

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INTRODUCTION

Beef cattle is a strategic commodity in Indonesia (Amam and Haryono, 2021a, 2021b), in which the procurement, pricing, and distribution have been regulated by the government (Amam and Soetriono, 2022; Soetriono *et al.*, 2019). On the flip side, the government has made efforts to establish a program for beef self-sufficiency through the reinforcement of various agribusiness and agro-industry systems. This is because attaining beef self-sufficiency in Indonesia with a substantial population, is a formidable task. In the on-farm sector, the government has also made

various efforts through programs and policies, to advance and develop beef cattle farming businesses. One of the regulations used as a benchmark is the empowerment of farmers according to Government Regulation Number 6 of 2013 (Rokhani *et al*., 2023).

The definition of farmer empowerment is contained in Government Regulation Number 6 of 2013, referring to all efforts made by the provincial and district/city government, as well as stakeholders in the field of animal husbandry and health to increase independence, provide convenience and business progress, increase competitiveness. and farmer welfare. One form of empowerment that is beneficial to farming business actors in Indonesia is fostering business partnership (Amam *et al*., 2019a, 2019c). The main problem often faced in the partnership system is the poor performance of farmers, which leads to losses of livestock.

Farming business partnership is outlined in Regulation of the Minister of Agriculture Number 13 of 2017. It is defined as cooperation between farming businesses based on the principles of mutual need, reinforcement, benefit, respect, responsibility, and dependence. Many farming partnerships are conducted by small-scale beef cattle farms that own a minimum of five cattle (<5) for breeding and less than six (<6) for fattening purposes (Amam *et al*., 2020; Amam *et al*., 2021). Farming business partnership is generally carried out with profit-sharing system or in the Indonesian indigenous language called *gaduhan* (Amam, Harsita, *et al*., 2021; Amam and Harsita, 2021; Harsita and Amam, 2021). This is defined as a partnership relationship among farmers (implementers) who manage a cultivation business funded or owned by farming and companies in other fields (Amam *et al*., 2021a; Amam *et al*., 2023b).

In simple terms, profit-sharing partnership system is a cooperative arrangement between two people, namely capital owners and farm keepers (farmers) (Amam *et al*., 2019b). The capital owners are responsible for providing beef cattle male or female, while the farm keepers are in charge of care, including feed and water, meeting all needs, and ensuring proper livestock management (Amam *et al*., 2023b; Amam *et al*., 2023c; Amam *et al*., 2023d). In principle, profit-sharing partnership system for beef cattle commodities consists of two types, including bull and cow. Both are technically different because the main purpose of bull partnership is for fattening, while that of cow is for breeding (Yulianto *et al*., 2020; Zahrosa *et al*., 2020).

Profit-sharing system of bull partnership entails dividing profit margin by two, resulting in a 50%:50% split between capital owners and farmers (cattle keepers). In this context, profit margin value is obtained from the cost of selling minus the cost of buying bulls. For cow farming partnership, profit-sharing system takes the form of benefits received for the production of calves during the breeding process. When heifers are raised, the first calf will be the right of breeders. Breeders and capital owners then take turns receiving benefits from the calves produced. In contrast, when breeders keep cow that are ready to conceive or currently pregnant, the first calf will be the right of the capital owners. Both parties then share the benefits of the resulting calve in turns. When cow is not productive, fails to get pregnant, and does not produce a calf, profit-sharing system is equated to bull partnership, which is 50%:50%.

Profit-sharing partnership system based on this concept has long been used by Indonesians as a manifestation of local wisdom (Amam *et al*., 2019d; Rusdiana *et al*., 2023). The main problem that often arises in the partnership system is the poor performance of farmers, which leads to losses of livestock. Therefore, this research aimed to determine the effect of farmers motivation on performance, and the relationship between attitude and performance in carrying out bull and cow farming business partnership system. The novelty of the research is that it thoroughly examined profit-sharing partnership system for micro-scale community beef cattle farming commodities in Indonesia. The results are useful as a public policy database which requires academic texts for the foundation. The practical benefit is that the government accommodates the livestock business partnership system through written agreements between farmers and livestock owners. This is crucial as partnership agreements have been made only verbally, leading to the low performance of farmers.

MATERIALS AND METHODS

The research location was determined using purposive sampling in East Java Province, and the methodology entailed descriptive quantitative and correlative methods. The quantitative descriptive method was used to analyze the attitude of farmers using the Fishbein approach. This approach is based on the attributes inherent in the object being observed. Furthermore, the quantitative descriptive method was used to map the motivation of farmers in implementing beef cattle farming partnership system. The correlative method was used to analyze the relationship between attitude (X) and performance (Y), as well as the effect of motivation (Z) on performance (Y). This research used primary data obtained directly from farmers using observation and cross-sectional survey methods. The survey was carried out using interview questionnaires and Focus Group Discussion (FGD).

The research sample was determined purposively with the consideration that farmers had been implementing profit-sharing partnership system for at least 3 years and had more than 2 cattle. A total of 60 respondents met the inclusion requirements, namely 30 partnership farmers each

of male (*for fattening orientation*) and female cattle (*for breeding orientation*). The basic criteria referred to the process of obtaining calves during the maintenance of female cow (breeding orientation), while ownership of two calves was based on the third year. The data were then analyzed using the Fisfbein approach to determine farmer attitude value (Ao) based on the belief (bi) and evaluation score (ei). Farmer attitude value was determined mathematically based on the Fishbein approach:

$$Ao = \sum_{i=1}^{n} bi.ei$$

Table 1: Interpretation scale of farmer attitude values.

Attitude Scale			Interpretation
-40	to	-24	bad
-23,9	to	-8	poor
-7,9	to	8	fair
7,9	to	24	good
23,9	to	40	excellent

Ao represents attitude value towards beef cattle partnership system; bi denotes the believe strength score that the object has attribute i; and ei represents farmer believe evaluation score regarding attribute I, the number of relevant attribute criteria. The interpretation scale for farmer attitude values is shown in Table 1.

Believe (bi) and evaluation (ei) scores were obtained through the use of a questionnaire utilizing a scale ranging from -2 (strongly disagree) to +2 (strongly agree) to give a score to each attribute. The attitude scale range was obtained from the maximum and minimum number (bi or ei) of the attribute indicators, then divided by five intervals (number of answers). Farmer motivation in implementing the male or female beef cattle partnership system was found through Likert scale calculations. The processed data were obtained through a questionnaire with scale intervals of strongly disagree (1), disagree (2), quite agree (3), agree (4), and strongly agree (5). Farmer motivation was determined mathematically based on the Likert scale:

$$score = T \times Pn$$

$$interval\ formula = \frac{100}{total\ score\ (Likert)}$$

$$index\ \%\ formula = \frac{total\ score}{Y \times 100}$$

T represents the total number of respondents who filled out the questionnaire; Pn denotes the choice of Likert score numbers; and Y represents the highest Likert score × number of respondents. Determination of the interpretation scale for farmer motivation values is shown in Table 2.

Table 2: Interpretation scale of farmer motivation values.

Percentage (%)	Criteria
0-20	very weak
21-40	weak
41-60	fair
61-80	strong
81-100	very strong

The relationship between farmer attitude (X) and performance (Y) was determined using correlation analysis. In general, correlation analysis aims to determine the direction, significance, and strength of the relationship. This test used contingency correlation (C) because the research was non-experimental, assessing the statistical relationship between the observed variables. Contingency correlation is a simple correlation for nominal variables with the following mathematical formula:

$$C = \frac{X^2}{X^2 \div n}$$

$$x^2 = \frac{(n_{ij} - e_{ij})}{e_{ij}}$$

$$e_{ij} = \frac{\text{total rows} \times \text{total columns}}{\text{total observations}}$$

C represents contingency coefficient; x^2 denotes chi-square; n is the number of data; n_{ij} is observer frequency (attitude); and e_{ij} is expected frequency (performance). Farmer performance was measured based on the indicators of business capital utilization, profit, ability to raise livestock, livestock health management, housing and environmental management, decision-making, integrity, cultural rules, length of collaboration, and efforts to improve business. The effect of farmer motivation (Z) on performance (Y) for those who implement a partnership system to produce bull and cow commodities was analyzed using simple linear regression with the mathematical equation:

$$Y = \beta 0 + \beta 1 Z + \varepsilon$$

Y represents farmer performance; Z is motivation; β0 and β1 represent regression coefficient; and ε is random error. The regression method for making predictions used a mathematical relationship between the dependent (Y) and independent variable (X).

RESULTS AND DISCUSSION

Farmer Attitude Towards Beef Cattle Farming Business Partnership System

The definition of attitude in this context is a form of farmer expression towards beef cattle farming partnership system (Aquilani *et al.*,2022; Aravindakshan *et al.*,2020; Bhat *et al.*,2023).

Table 3: Farmer believe, evaluation, and attitude towards beef cattle farming business partnership system.

Attribute	Indicator	(bi)		(ei)		(Ao)		Attitude	
		Bull	Cow	Bull	Cow	Bull	Cow	Bull	Cow
Financial resources accessibility	Savings	0.88	1.77	0.12	1.75	0.11	3.10	1.44	2.14
	Cattle Ownership	-0.28	1.83	-1.18	1.4	0.33	2.56		
	Fulfillment of Needs	1.63	1.67	1.65	1.22	2.69	2.04		
	Income	1.68	1.42	1.58	0.62	2.65	0.88		
Physical resource accessibility	Availability of Livestock Feed	1.28	0.85	1	-0.18	1.28	-0.15	1.07	0.33
	Living Needs	1.37	1.45	1.28	0.95	1.75	1.38		
	Land Ownership	-0.18	0.42	-0.9	-0.57	0.16	-0.24		
Social resource accessibility	Relationships With Other Farmer	1.7	1.73	1.75	1.7	2.98	2.94	2.01	2.41
	Relationships With Animal Health Officials	0.52	0.83	0.55	0.88	0.29	0.73		
	Relationship with Community	1.7	1.9	1.63	1.88	2.77	3.57		
TOTAL		10.30	13.87	7.48	9.65	15.01	16.81		
Interpretation						Good	Good		

It can be ascertained by gauging the trust and evaluation levels demonstrated in the form of approval or disapproval towards beef cattle farming partnership system. The believe value was obtained from farmer view before implementing the farming business partnership system (Bodner *et al.*, 2023; Carof and Godinot, 2018; Dixon *et al.*, 2023). On the other hand, the evaluation value was obtained from farmer view after implementing the farming business partnership system as a keeper of beef cattle, both bull, and cow. Farmer believe (bi), evaluation (ei), and attitude (Ao) scores towards beef cattle farming business partnership system are shown in Table 3.

The results in Table 3 showed that there were significant differences in farmer believe between bull and cow farming partnership systems. Specifically, farmer believe score was higher in cow (13.78) compared to bull farming partnership (10.3), as determined by the total attribute score. The strength of farmer believe level in each attribute indicator in bull and cow farming business partnership systems is shown in Figure 1.

As shown in Figure 1, by implementing beef cattle farming partnership system, the relationships with the community and other farmers were good. Therefore, it became the highest attribute indicator selected for bull partnership system with a score of 1.7 (very high category). Beef cattle farming business partnership system was founded on the belief that farmer could increase access to social resources. This system could strengthen social capital because beef cattle raised by farmers became a binding factor in the business as well as a form of trust from the capital owners.

Farmer believe attribute with the lowest score was cattle ownership with a score of -0.28 (medium category). Furthermore, the indicators of income and availability of forage in bull partnership system were better than those in cow partnership system. This was because the main objective of running a bull farming partnership was to increase income from beef cattle fattening, rather than obtaining benefits in the form of calves.

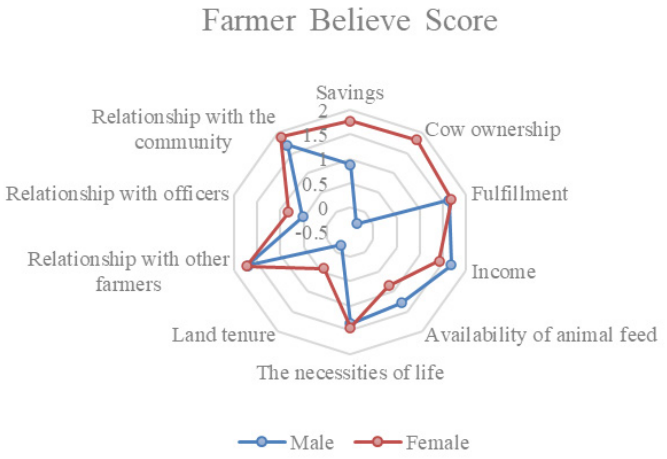

Figure 1: Strength of Attribute Indicators Based on Believe Scores.

Figure 1 shows that farmer believe in cow partnership system on the attribute of gaining relationships with the community had the highest score of 1.9 (very high category). Cow ownership attribute had the second highest score of 1.83 (very high category) because the main goal of farmer was to obtain calves from the breeding process. The lowest attribute selected by farmers for cow partnership system was land ownership with a score of 0.42 (high category). Based on the results, ownership, and savings in cow outperformed those in bull partnership system. This is potentially due to farmers considering calves as a form of savings, which can be sold for financial gain when needed (Fote *et al.*, 2020; Ghahramani and Bowran, 2018; Gibon *et al.*, 1999; Gouttenoire *et al.*, 2011).

Data in Table 3 show the difference in farmer evaluation of bull and cow farming partnership systems based on the total attribute indicator scores. Cow outscored bull partnership system with a higher evaluation score of 9.65, compared to 7.48. Farmer evaluation level for each attribute indicator in bull and cow farming partnership systems is presented in Figure 2.

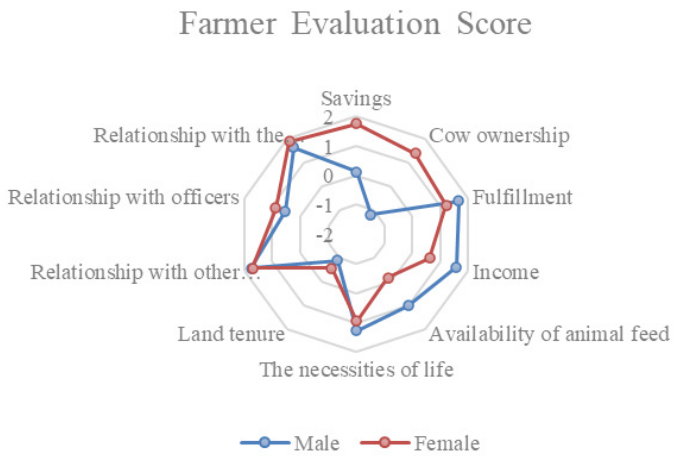

Figure 2: Strength of Attribute Indicators Based on Evaluation Scores

The strength of attribute indicators in Figure 2 shows that by implementing a cow farming partnership system as farm keepers, farmer received benefits in the form of good relationships with others. The highest indicators selected by farmers for bull partnership system was fulfilling needs with scores of 1.75 and 1.65 included in the very high category. The lowest indicator score was ownership with a score of -1.18, in the low category. In bull partnership system, the evaluation attributes that had superior differences compared to those in cow partnership system were income and availability of livestock feed. Bull showed swifter growth than cow due to greater feed allocation for the production of meat (Jouan *et al*., 2021; Lal, 2023; Liu, 2023).

In cow partnership system, farmers rated the attribute of obtaining benefits through a good relationship with the community and savings highest, indicated by scores of 1.88 and 1.75, respectively, included in the very high category. The lowest attribute selected was land ownership with a score of -1.57, included in the very low category. Figure 2 shows that the indicators of ownership and savings in cow outperformed those in bull partnership system. This is potentially due to farmers considering calves as a form of savings, which can be sold for financial gain when needed (Moraine *et al*., 2014; Niloofar *et al*., 2023; Onakuse, 2023).

Data in Table 3 shows that farmer attitude towards the attributes of bull and cow farming partnership system each had a positive score with total attribute scores of 15.01 and 16.81, respectively, included in the good category. The priority objective for bull partnership system was fattening, while for cow partnership system, it was farming. The strength level of farmer attitude towards the attributes of bull and cow farming partnership systems is presented in Figure 3.

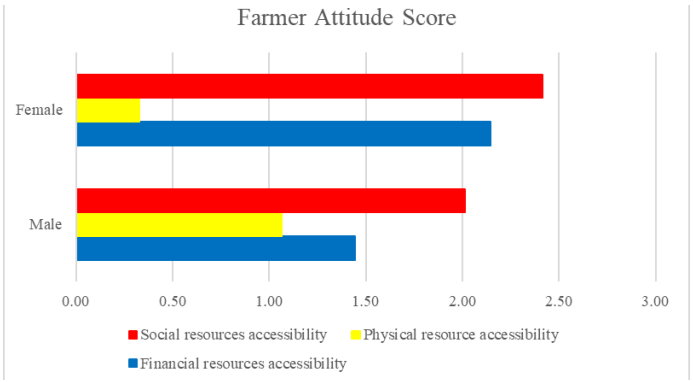

Figure 3: Strength of Attribute based on Attitude Scores.

Figure 3 shows that farmer attitude towards the physical resource accessibility attribute of bull was greater compared to cow partnership system. These physical resources included residential houses, cattle pens, transportation facilities, communication facilities, information facilities, household electricity, land ownership, land use, water availability, and feed availability. Farmer attitude towards the attributes of bull and cow farming partnership systems each had positive values. According to previous research, farmer attitude toward the attributes of financial and social resource accessibilities in cow partnership system were higher than those in bull (Rao *et al*., 2023; Reidsma *et al*., 2023; Ryschawy *et al*., 2012).

Farmer Motivation for Beef Cattle Farming Business Partnership System

Motivation is defined as encouragement and strength that arises in farmers to implement beef cattle farming partnership system with specific goals, including fattening and breeding. This included fulfilling needs, gaining relationships with stakeholders, and achieving business progress. The first motivation for beef cattle partnership system was to fulfill needs in the context of family, children school, and secondary. The results for farmer motivation scores of bull and cow farming partnership systems toward the fulfillment of needs are shown in Table 4 and 5.

Table 4 shows the fulfillment of needs variable in bull partnership system with the indicators of family, children school, and secondary. The total average percentage was 85.67% and was included in the very strong category. Among the three indicators, fulfilling children's school needs had the highest score at 284 with a percentage of 94.7%. This indicator was the highest motivation for farmers to implement bull partnership system (Sneessens *et al*., 2019; Sraïri and Ghabiyel, 2017).

Table 6: Farmer Motivation in Implementing bull Partnership System on the Variable of Relationships with Stakeholders.

Indicator	(1)		(2)		(3)		(4)		(5)		Total score	Percentage (%)
	F	%	F	%	F	%	F	%	F	%		
Capital owners	-	-	20	33.3	24	40	10	16.7	6	10	182	60.7
Extension officers	26	43.3	34	56.7	-	-	-	-	-	-	94	31.3
Government	39	65	21	35	-	-	-	-	-	-	81	27
Local communities	-	-	-	-	-	-	24	40	36	60	276	92
Other farmers	-	-	-	-	-	-	11	18.3	49	81.7	289	96.3
Average											184.4	61.46

F: Frequency.

Table 7: Farmer Motivation in Implementing cow Partnership System on the Variable of Relationships with Stakeholders.

Indicator	(1)		(2)		(3)		(4)		(5)		Total score	Percentage (%)
	F	%	F	%	F	%	F	%	F	%		
Capital owners	-	-	17	28.3	29	48.3	6	10	8	13.3	185	61.7
Extension officers	28	46.7	32	53.3	-	-	-	-	-	-	92	30.7
Government	17	28.3	43	71.7	-	-	-	-	-	-	103	34.3
Local communities	-	-	-	-	-	-	15	25	45	75	285	95
Other farmers	-	-	-	-	-	-	14	23.3	46	76.7	286	95.3
Average											190.2	63.4

F: Frequency.

Table 5 shows the fulfillment of needs variable in cow partnership system with the indicators of family, children school, and secondary. The total average percentage was 85.53% and included in the very strong category. Among the three indicators, fulfilling the family living needs had the highest score at 286, with a percentage of 95.3%. This indicator was the highest motivation for farmers to implement cow partnership system because the calves could be sold for a gain, including financing farming business (Tichit and Bernués, 2014; Tiemann and Douxchamps, 2023).

Table 4: Farmer Motivation in Implementing bull Partnership System on the Variable of Fulfilment of Needs.

Indicator	(1)		(2)		(3)		(4)		(5)		Total score	Percentage (%)
	F	%	F	%	F	%	F	%	F	%		
Family life	-	-	-	-	-	-	21	35	39	65	279	93
Children school	4	6.7	-	-	-	-	-	-	56	93.3	284	94.7
Secondary need	-	-	5	8.3	27	45	23	38.3	5	8.3	208	69.3
Average											257	85.67

F: Frequency

The second motivation of farmers who implemented cow partnership system was to gain relationships with stakeholders. This included the relationships with capital owners, extension officers, government, surrounding communities, and other farmers. The results for farmer motivation scores in bull and cow partnership systems towards gaining relationships with stakeholders are shown in Table 6 and 7. Table 6 shows that the variable of farmer gaining relationships with stakeholders in bull partnership system, with a total average percentage of 61.46 was included in the very strong category. Among the five indicators, the highest score was in the indicator of relationships with other farmers at 289 with a percentage of 96.3%. In contrast, the weak indicators comprised the relationships with government and extension workers, each having respective percentages of 27% and 31.3%. Farmers did not receive adequate support and assistance from the government, particularly concerning the management of beef cattle farming partnership (Torres-Miralles *et al.*, 2022; Veysset *et al.*, 2014).

Table 5: Farmer Motivation in Implementing cow Partnership System on the Variable of Fulfilment of Needs.

Indicator	(1)		(2)		(3)		(4)		(5)		Total score	Percentage (%)
	F	%	F	%	F	%	F	%	F	%		
Family life	-	-	-	-	-	-	14	23.3	46	76.7	286	95.3
Children school	6	10	-	-	-	-	14	23.3	40	66.7	262	87.3
Secondary need	-	-	3	5	24	40	21	35	12	20	222	74
Average											256.7	85.53

F: Frequency

Table 7 shows that the variable of farmers gaining relationships with stakeholders in cow partnership system, with a total average percentage of 63.4% was included in the strong category. Among the five indicators, the highest score was in the indicator of relationship with other farmers at 286 with a percentage of 95.3%. In contrast, the lowest indicators comprised the relationships with government and

Table 8: Farmer Motivation in Implementing Bull Partnership System on the Variable of Achieving Business Progress.

Indicator	(1)		(2)		(3)		(4)		(5)		Total score	Percentage (%)
	F	%	F	%	F	%	F	%	F	%		
Award	6	10	30	50	24	40	-	-	-	-	138	46
Farming knowledge and experience	-	-	-	-	60	100	-	-	-	-	180	60
Average											159	53

F: Frequency.

Table 9: Farmer Motivation in Implementing Cow Partnership System on the Variable of Achieving Business Progress.

Indicator	(1)		(2)		(3)		(4)		(5)		Total score	Percentage (%)
	F	%	F	%	F	%	F	%	F	%		
Award	33	55	27	45	-	-	-	-	-	-	87	29
Livestock knowledge and experience	-	-	-	-	60	100	-	-	-	-	180	60
Average											133.5	44,5

F: Frequency.

extension workers, each with respective percentages of 34.3% and 30.7%. The extension workers' role in providing education to farmers was not perceived due to the paucity of beef cattle business education activities or programs, particularly those related to the partnership system. This situation underscores the limited role of extension workers in educating farmers (Yulianto *et al*., 2020; Zahrosa *et al*., 2020).

The third motivation of farmers who implemented beef cattle farming partnership system was to attain business growth, which included earning awards and gaining farming knowledge and experience. The results for farmer motivation scores in bull and cow partnership systems towards achieving business progress are shown in Table 8 and 9.

Table 8 shows the variable of farmers achieving business progress in bull partnership system with the indicators of earning awards and farming knowledge with the total average percentage of 53%, included in the medium category. Among these indicators, the highest score was in gaining farming knowledge and experience at 180 with a percentage of 60%. This condition shows that in bull partnership system, farmers' workload was greater compared to cow due to higher feed requirements and emphasis on fattening (Amam and Harsita, 2019a; 2019b).

Table 9 shows the variable of farmers gaining business progress in cow partnership system with the indicators of receiving awards as well as farming knowledge and experience with the total average percentage of 44.5%, included in the medium category. Among these indicators, the highest score was in gaining farming knowledge and experience at 180 with a percentage of 60%. The indicator for earning award was in the weak category because it only had a percentage of 29%. This small percentage was partially attributed to the larger number of cow compared to bull partnership system. The indicator of farmers receiving awards in bull partnership system was 46%, higher than cow of 26%. When bulls were well-fed and healthy, farmers would earn the respect of capital owners and the surrounding community. This is because the feed given to bulls is typically superior to that given to cow. The primary objective of the partnership system for raising bulls was to enhance income derived from beef cattle fattening process. As bull grows at a faster pace than cow, more feed is often consumed.

Table 10: Correlation Analysis of Farmer Attitude with Performance in Bull Partnership System.

Correlations			
		Attitude	Performance
Attitude	Pearson Correlation	1	.387**
	Sig. (2-tailed)		.002
	N	60	60
Performance	Pearson Correlation	.387**	1
	Sig. (2-tailed)	.002	
	N	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

Relationship between Farmer Attitude and Performance in Beef Cattle Farming Partnership System

Performance can be defined etymologically as the culmination of a person's work achievements. This refers to the successful execution of tasks assigned to attain desired objectives. Good farmer performance is expected to have a positive effect on beef cattle farming partnership system, leading to satisfaction among capital owners with profit-sharing system. The relationships between farmer attitude and performance in bull and cow partnership systems are shown in Table 10 and 11.

Table 10 shows that the significance value of farmer attitude and performance in bull partnership system was 0.002. This implied that farmer attitude was positively correlated with the performance since the value was less than

0.005. Furthermore, the Pearson correlation value between farmer attitude and performance was 0.387, indicating a positive correlation. In other words, the higher the value of attitude, the greater the performance, and vice versa.

Table 11: Correlation Analysis of Farmer Attitude with Performance in Cow Partnership System .

Correlations			
		Attitude	Performance
Attitude	Pearson Correlation	1	.382**
	Sig. (2-tailed)		.003
	N	60	60
Performance	Pearson Correlation	.382**	1
	Sig. (2-tailed)	.003	
	N	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

Table 11 shows that the significance value of farmer attitude and performance in cow partnership system was 0.003. This implied that farmer attitude was positively correlated with the performance since the value was less than 0.005. Furthermore, the Pearson correlation value between farmer attitude and performance was 0.382, indicating a positive correlation. In other words, the higher the value of attitude, the greater the performance, and vice versa.

The relationships between farmer attitude and performance in bull and cow partnership systems were both positive, but there were differences in the value of the strength. In bull partnership system, the relationship had a Pearson correlation value of 0.387, which was stronger compared to cow partnership system with a value of 0.382. Generally, when the Pearson correlation value approaches 1, the relationship between the variables becomes stronger.

Effect of Farmer Motivation on Performance in Beef Cattle Farming Business Partnership System

The effect of farmer motivation on performance in beef cattle farming business partnership system was analyzed using a simple linear regression test to ascertain the existence and magnitude of this effect. The results obtained in the tests are presented in Table 12 and 13.

Table 12 shows that the value of F-count = 24.319 with a significance level of 0.000 < 0.005. This suggested that the regression model could be used to predict farmer performance. In other words, motivation (Z) provided significant effects on performance (Y). Furthermore, the magnitude of the correlation or relationship value (R) was 0.544. From the output, the coefficient based on (R Square) was 0.295. This value implies that the effect of farmer motivation (Z) on performance (Y) in implementing bull partnership system was 29.5%.

Table 12: Effect of Farmer Motivation on Performance in Bull Partnership System.

Model Summary and ANOVA[a]						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.544[a]	.295	.283	1.731	24.319	.000[b]

a: Dependent Variable: Performance; **b:** Predictors: (Constant), Motivation.

Table 13: Effect of Farmer Motivation on Performance in Cow Partnership System.

Model Summary and ANOVA[a]						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	1406[a]	1165	1151	11887	11.457	.001[b]

a: Dependent Variable: Performance; **b:** Predictors: (Constant), Motivation.

Table 13 shows that the value of F count = 11.457 with a significance level of 0.000 < 0.005. This suggested that the regression model could be used to predict farmer performance. In other words, farmer motivation (Z) provided significant effects on performance (Y). The magnitude of the correlation or relationship value (R) was found to be 0.406 and from the output, the coefficient based on (R Square) was 0.165. This value implies that the effect of farmer motivation (Z) on performance (Y) in implementing bull partnership system was 16.5%.

Farmer motivation in implementing bull and cow partnership systems impacted performance. The magnitude of the effect differed between the two systems, with a greater impact in bull partnership system than in cow. This is because business progress and the pursuit of awards had a significant effect on farmer performance, making it easier to regain trust as farm keepers in profit-sharing partnership system.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, farmer attitude towards bull and cow partnership systems were positive with a score of 15.01 and 16.81, respectively. From the attribute of physical resource accessibility, attitude in bull was superior to that in cow partnership system. However, when viewed from the attribute of financial and social resource accessibilities, attitude in cow partnership system was superior to that in bull. Farmer motivation in bull partnership system towards fulfilling needs was 85.67% (very strong), gaining relationships with stakeholders was 61.46% (strong), and achieving business progress was 53% (medium). In cow partnership system, farmer motivation in fulfilling needs was 85.53% (very strong), gaining relationships with stakeholders was

63.4% (strong), and achieving business progress was 44.5% (medium). Furthermore, attitude and performance had a positive relationship in both systems. The relationship was higher in bull partnership system compared to that of cow. There was a positive effect between farmer motivation and the performance in beef cattle farming business partnership system. Motivation in bull partnership system had a greater effect on the performance (29.5%) compared to cow (16.5%). These results underscored the need for special regulations governing the partnership system for male (fattening) and female beef cattle (breeding).

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NOVELTY STATEMENT

This research is that it thoroughly examined the profit sharing partnership system for micro-scale community beef cattle farming commodities in Indonesia. It is useful as a public policy database considering that public policy requires academic texts as its foundation. Apart from that, it is also beneficial for the development of science considering that the development of science is obtained from research findings.

AUTHOR'S CONTRIBUTIONS

Amam Amam: Head of research project, writing-review and editing, and investigation, conceptualizations, writing-original draft.
Ebban Bagus Kuntadi: Writing-review and editing, writing-original draft, methodology, formal analysis, validation.
Ahmad Zainuddin: Methodology, writing-review and editing, and investigation.
Ana Nurcholis Shobirin: Writing-original draft, methodology, sample collection, software, and formal analysis.
Supardi Rusdiana: Writing-review and editing, writing-original draft, and validation.

All authors have read, reviewed, and approved the final manuscript.

Conflict of Interest

The authors have declared no conflict of interest.

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