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Relationship Between Farmers Characteristic and Income from Beef Cattle with The Traditional Profit-Sharing

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ABSTRACT

This study aimed to determine the relationship between farmers' characteristics and income from beef cattle with the traditional profit-sharing system (tesang) in South Sulawesi province. This study was conducted in the province of South Sulawesi from April to July 2014. Quantitative methods were used in this research. The data were analyzed and described using Spearman's rank. Samples consisted of beef cattle breeders who used a traditional breeding system, namely a profit-sharing system (tesang), in Barru Regency and Bone Regency. The results showed the beef cattle breeders' income from the enlargement system (expense) at the 6th month maintenance periods to be higher than breeding the cattle period and farmers characteristic are length of farming duration and number of beef cattle have relationship strong with income from beef cattle traditional profit sharing-system

KEY WORDS

Beef cattle, characteristics of farmers, income, profit-sharing system, tesang.

INTRODUCTION

Recently, the demand for beef has increased dramatically. This has happened because there has been an increase in both the population and in the per capita income in Indonesia. The existing beef supply is not enough to fulfill the demand for beef. Therefore, livestock development is directed at improving the quantity and quality of beef production, increasing revenue, expanding employment and providing opportunities for rural communities. Ranch farming requires hard work, perseverance, and the strong will of farmers to reach their goals.

According to [1], the success to be reached will spur the farmers to continue maintaining the cattle and it is becoming their main job. [2] said that every farmer has a business capacity which depends on land, capital, livestock ownership and management systems that lead to different revenues. A demand for cattle greater than the supply is an opportunity for business development of local beef cattle, so there is an effort to improve its productivity. The beef cattle business has contributed to farmers' incomes. The management and maintenance of beef cattle are ways to increase household income [3]. To achieve the required high efficiency in the business, integrated business management from upstream to downstream and oriented agribusiness with partnerships will provide a reasonable profit on an ongoing basis. According to [4] said the development of beef cattle does not

lie in technical issues alone but involves some non-technical aspects that are interrelated. This means that the development of beef cattle will likely be realized if it is supported by the development of capital, marketing and social economics.

The beef cattle business is a business that has been established with the primary purpose of generating farm products to meet the community's demand for its animal protein needs and it aims to generate profits. The motivation for beef cattle breeders to use a profit-sharing system (tesang) in South Sulawesi province is that it can increase their income. The main things to be considered in the application of the tesang profit-sharing system in South Sulawesi Province are the following:

1. Between the capital owners and beef breeders, there had to be a trust that was built up for the implementation of this system. There was no written agreement. All agreements were executed only on an oral agreement between the owners and breeders. Usually beef breeders have a low-income level; therefore the capital owners help them.
2. Before livestock owners entrust their cows to people for breeding, they usually have been considering several aspects such as kinship, breeding experience and the availability of forage to meet the needs of the cattle.
3. There is no limit of time to the application of the tesang system.
4. The profit-sharing will be distributed equally both to the capital owner and beef breeders. Meaning that in the first year if the female cattle produced a calf, then it would be owned by the proprietor; for the second calf in the next year, the calf would belong to the beef breeder or vice versa.
5. This partnership will finish if the capital owner does not want to give some money again, or if the beef breeder has many cattle from the tesang system. [5]

Beef cattle breeding are an important additional source of income to sustain the needs of farming families, especially in rural areas. The main focus of the business is largely breeding or the enlargement of tillers, and there are only a few beef breeders who specialize in cattle fattening [6]. Therefore, in a modern or traditional profit-sharing system, both capital owners and beef breeders get the same benefit. The partnership pattern is usually established between farmers and companies (investors) with some models [7]. Contract farming is characterized by a contract between farmers and firms that process and/or market the farmers' crops [8]. This also performed on a system of production and supply of agricultural produce or livestock [9]. Maintenance of beef cattle with a partnership system is expected to enhance national beef production, which until now has not been able to meet the increasing needs of the community.

In beef cattle breeding, some business partnerships consist of maintenance, feeding, profit-sharing, the lease of cages and contract price [10]. In developing countries such as in Indonesia, profit-sharing was applied. In this case, investors are a vehicle for making productive investments, while for beef breeders; they are a vehicle for creating jobs for families. However, there are many disadvantages to a partnership system because the benefit is not optimal, especially regarding harmony and balance in getting the value-added business. Partnership instruments need to refer to the creation of a balance, harmony, and skill. The relationships, mutual benefits, and mutual strengthening of the partnership actors are very important in a profit-sharing system [11].

Patterns of partnership or cooperation have already existed in the community of farmers/breeders for a long time. Business partnerships, especially concerning cattle among farmers/ranchers, is often known as "tesang" which comes from the Bugis language. Tesang can be interpreted simply as someone who gives capital which is then developed by others. Tesang is usually applied to farms with revenue-sharing mechanisms between farmers and capital owners, but the implementation and types of agreements vary. Diversity and the implementation of agreement forms (oral-written) cannot be separated from the customs prevailing in a region. Results of operations will be divided in accordance with the agreement between financiers and farmers/ranchers. Usually, there is no bond or letter of agreement to conduct the business cooperation. Cooperation between the owners of capital and Pa'teseng is only oral and based on mutual trust. Typically, beef breeders are already well known to investors. The general rule is that it is based on profit-sharing, trusting each other, and an informal agreement between the investors (owners of cattle) and the breeder. Profit-sharing was based on the number of calves and the calves' selling points. The tesang system shows that the value of trust (confidence) and norms have a very important effect on farmers and investors [6]. Therefore, it is necessary to know the income of beef cattle breeders from the traditional profit-sharing system (tesang) in the province of South Sulawesi.

Methodology:

This research was conducted for 4 months from April 2014 to July 2014. The locations of this research were the Barru and Bone regencies, province of South Sulawesi. The data were qualitative. The source of data was the income of farmers from the tesang system, while the secondary data were from relevant agencies. The data were analyzed descriptively using income analysis. Samples were 50 cattle breeders who did tesang for more than 5 years.

RESULTS AND DISCUSSION

Characteristics of Respondents:

Results show that the age of respondents is in the range of 26–64 years. This means that the respondents had the ability to raise beef cattle. This result agrees with that of [12] who stated that age is one factor which affects the productivity of a person. Someone who is at a productive age produced a higher level of productivity than someone beyond a productive age. This is accordance with the opinion of [13] that the age of farmers is closely related to the adoption of technological innovations essential to improving productivity. Farmers who were of a productive age have enough power to manage the cattle. [14] argued that the younger a person, the faster they are in accepting change from the outside such as those related to knowledge and skills in farming.

The highest percentage of respondents' level of education was an elementary school (38%). This agrees with the findings of Roesalli et al., who stated that education was an activity or learning process to improve certain capabilities [14]. The level of the education was also important in determining whether or not someone could easily absorb and understand the knowledge. In general, people with a higher education will have a better knowledge base. It is in accordance with the opinion of [15] that a low level of education will affect the ability of farmers to manage beef cattle farming, especially with respect to the acceptance of new technologies and business innovation in the future. The level of education of farmers is an indicator of the quality of the population and is a key variable in the development of human resources. The adequate education of farmers will facilitate the adoption of innovation and technology in beef cattle farming. This is also in line with the opinion of [16] that the educational levels of farmers will affect the systems of thinking, learning, and the intellectual level. Through formal and informal education, the farmers will have extensive knowledge and insight into making it easier to respond to an innovation which is beneficial to their business.

Raising the level of experience is also the knowledge that is achieved in conducting maintenance and also having a beef cattle farm. Table 1 shows the experience of raising cattle for the beef cattle breeders who did the profit-sharing system was about 30–40 years, but experience of 1–10 years raised knowledge to the highest percentage (48 %), is not in accordance with the opinion of [12] that the longer the increase in experience, the more knowledge is achieved, so the skills in running the farm increase which is in accordance Natasukarya et al. with the idea that livestock experience can enhance the skills of farmers in maintaining and developing the beef cattle business [17].

The number of family members shows the number of people who became dependents of the respondents. Table 1 shows the number of family respondents from 1 to 8 and families of 3–4 people have the highest percentage in beef cattle ranching with the tesang system (66 %). The number of dependents affects livestock businesses; this is in accordance with the opinion of Soekartawi who states that an increase of one family member is able to increase the cattle business and productive activities performed by members of the family to earn either cash or in kind [18]. It is in accordance with the opinion of Mahmud that the number of family members can influence the business activity of farmers because they can supply available manpower to assist with the activities [15]. Also, the greater the number of family members, the greater the family need to be met. Thus, it will encourage farmers to obtain additional income through other business.

Table 1: Characteristics of respondents based on frequency distribution

Variable	Description	Frequency (Person)	Percentage (%)
Age (Year)	25-34	8	16
	35-44	19	38
	45-54	17	34
	55-64	6	12
Education	Elementary School	19	38
	Junior High School	15	30
	Senior High School/ Vocational School	15	30
	Bachelor Degree / S1	1	2
Raising Experience (Year)	1-10	27	54
	11-20	13	26
	21-30	5	10
	31-40	5	10
Dependents Total (Person)	1-2	2	4
	3-4	33	66
	5-6	14	28
Livestock Total (a Cattle)	7-8	1	2
	1-4	46	92
	5-9	4	8

Source [5]

The majority ownership concerning number of cattle is on a scale of 1–4 individuals (92 %). This means that the respondents still have cow(s) but only in limited numbers, which is in line with the opinion of [17] that

small-scale farms have limitations in capital and business management in addition low ownership numbers because generally raising cattle beef is a sideline. In accordance with this opinion, [13] describes that the number of beef cattle owned is an indicator of the success of a cattle business. With an increasing in the number of cows that can be sold per year, the income will increase.

Beef Cattle Breeders' Income from the Traditional Tesang Sharing System:

In Bugis, for those who inhabit most regions in the province of South Sulawesi, the term for sharing agreements is commonly referred to as "tesang/teseng". Although the term is the same for ethnic Bugis and ethnic Makassar, the implementation and agreements tend to vary due to the understanding of them, and the traditions prevailing in society are also different, namely the granting of a cow's parent, being that cattle given by the owner of the cow to breeders to be maintained, i.e. an adult female cow or female cows that have been infertile. With regard to distribution, if a cow gives birth to a calf in the first year it is given to the owner, whereas in the second year, it is given to the breeder or otherwise in accordance with oral agreements until the fifth year. The second pattern is the system whereby livestock owners or owners of capital give the cost to dairy farmers to keep bulls. Usually, aged bulls begin to count as "tesang" and start being raised, namely at the age of 1 year. After the maintenance time of 6 months to two years of by the breeder, eventually the two sides—livestock owners (investors) and breeders—will equally benefit from the sale of cattle while the capital to buy cows will be returned to the owner of the cow [5]. Some of the agreements were concluded between breeders (maintainers) and the owners of the capital (cow) as a form of revenue sharing after the cows were either sold and dead or stolen, as cattle losses are shared in the absence of demand between the two sides. However, regarding who will bear the cost of maintenance is usually not discussed in the agreement, resulting in the cost of production being nearly all, or mostly borne, by farmers. This has an impact on the loss of maintenance for beef cattle-borne by farmers without them knowing because farmers have never analyzed the costs of production in light of the outcome that farmers get after the sale of cattle [6].

Both of the systems are applied to the results of tesang in the province of South Sulawesi. The income of the first pattern is given to the female parent (farming). Table 2 shows the systematizing applied to the cultivation of beef cattle in Barru indicates a higher scale of business which kept the earned income of farmers also increasing. This is in accordance with the opinion of Soekartawi that the income from the cattle business is strongly influenced by the amount livestock owned by farmers themselves, so the more the total number of cattle, the higher net income earned [18]. Revenues from beef cattle business are less profit for small farming households because the land used is limited.

Table 2: Revenues cattle breeders of sharing tesang with pattern I (culturing system) in Barru, Province of South Sulawesi

Total Of Respondents	Scale Enter Prises (a cattle)	The Average Total Cost (IDR/Year)	Average Receipts (IDR/Year)	Average Income (IDR/Year)	Average Income (IDR/ A Cattle/ Year)
6	1-3	6.567.440	11.964.285	5.396.845	899.475
16	4-6	9.497.395	19.875.000	10.377.604	1.153.067
2	7-9	10.338.958	31.500.000	21.161.042	1.410.736

Source[6]

While in the second pattern, the results show, for the income of beef cattle farmers who apply the tesang pattern, the system costs of business enlargement for the maintenance of cattle in the district of Bone. Table 3 shows that in regard to the income of beef cattle breeders using the system, the maintenance costs in a period of 6 months are higher than the 24-months maintenance period. Ranchers' losses were caused by the number of cattle, not by the length of the maintenance period, which reached 24 months, resulting in ballooning costs of production and revenues from cows that have been sold but are not able to cover all production costs. For farmers, on the other hand, who have the advantage due to the number of cows maintained for the length of the maintenance period, the income is higher than total cost production. There are very large income differences so that farmers benefit a lot or a little. This is consistent with the opinion of Sirajuddin that income earned in a cattle business is the amount of revenue received minus all expenses and depreciation of business execution [19].

Table 3: Revenues cattle breeders of sharing tesang on system cost (pattern II) in Bone Regency, Province of South Sulawesi

Total of Respondents (Person)	Total Of Cattle Sold (a cattle)	Long Maintenance (Month)	Average Receipts (IDR/ a cattle)	Average Total Cost (IDR/ a cattle)	Average Income (IDR/ a cattle/ period)
6	6	6	12.562.500	10.926.535	1.635.965
12	29	12	13.468.518	12.252.800	1.215.718
2	4	24	15.500.000	15.195.752	304.248

Source[6]

In the implementation of the maintenance of the beef cattle system, tesang is certainly breeders' main reason; namely, the maintenance of the bulls is a faster way to generate cash compared to tesang cows taking relatively longer to make money because they have to wait two years for the cow to be owned solely and sometimes it is years before the first calf will be the capital of the owners. In the course of raising them, breeders require not only the bulls but also cash. The better way of maintaining them is fast weight gain; the faster the weight gains of cattle, the higher the sales will be. In addition to other reasons that the bull breeders maintain animals, there are prestige factors among the farmers in the village. Some breeders who do not keep the bulls in the cage feel they rank lower than the breeder bulls.

Although the income is not high, ranchers don't think whether it will be beneficial or not with respect to revenue. What is important for them is that the bulls have to be maintained, and farmers already feel lucky when the cattle have been sold and they earn money from the sales and profit from the division of the cattle.

The Relationship between the Characteristics of farmers and Their Income:

Table 4 shows the correlation between the farmers' characteristics and the income from the tesang system associated with the duration of farming and the number of beef cattle owned by the farmer. The number of family members' characteristic is very weak because the value is less than 0.2. The Spearman Rank correlation value is negative for age and shows that the tesang system is not related to the age of the farmer. The negative value of the level of education for the farmers shows that a low education level will result in a low income; this is also associated with the adoption of innovations in the beef cattle business. Tesang is capital rural the people. According [20] that the availability of capital for rural people, especially beef cattle farmers is very limited. Therefore, external financing is very helpful in run breeding cattle. Financing may include internal and external financing

Table 4: The relationship between the characteristics of farmers and income in tesang system

No	Description	The Value of Rank Spearman Correlation	Interpretation of correlation level (Guilford)
1	Age	-0.059	Very weak
2	Education	-0.235	Very weak
3	Family member	0.016	Very weak
4	Length of farming duration	0.895	Strong
5	Number of beef cattle	0.98	Strong

Conclusion:

The income of beef cattle breeders who did tesang (traditional profit-sharing system) in the province of South Sulawesi is quite high concerning maintenance with a cost system for a 6-month period of IDR 1.635.965/tail, while the culture system is on a business scale of 7–9/tails IDR 1.410.736/tail/year. The characteristics of farmers including age, education and family members in general, are less closely related (weak) with the income earned from the tesang system. The duration of farming and the number of beef cattle owned by the farmer, on the other hand, show a positive relationship with income of beef cattle farmers who apply the tesang system in the South Sulawesi province. In order to increase the income of beef cattle farmers, the number of cattle being raised should be increased.

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