

The Role of farmer group on development of beef cattle business.

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The role of farmer group on development of beef cattle business

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Abstract. This current work aimed to analyze the role of farmer group on development of beef cattle business. Our study was conducted in Takalar, Province of South Sulawesi. Farmers who are member of farmer group were randomly selected as respondents according to Slovin's formula for determining sample size. Data collection was performed using surveys, i.e. interview (based on a prepared questionnaire), focus group discussion, and in-depth study with key informant. The results showed that farmer group displayed a noticeable contribution at moderate level (>50%) based on following indicators, including activity planning for productivity improvement through utilization of natural resources, management of financial capital and development of beef cattle business. In addition, the members of farmer group are gear to make the group capable of improving their knowledge, skills and behavior, through looking for current information related to apply technologies assisting the farmer group to be better, more profitable, and independence, leading to a better life and welfare. Hence, there is a need to improve and optimize the role of farmer group starting from base level.

1. Introduction

Beef cattle farming in agribusiness system seems to offer more significant contribution over other animal farming sectors, since it produces high valuable products (beef, milk, leather, compost) and employment, as well as relates to social-culture values and traditions of the local communities. With regard to development of beef cattle farming business, the role of farmer group needs to consider in order to improve farming practices that are efficient and cost-effective. For this reason, strengthening the economical aspect of the farmers can be an effective option in supporting the development of farmer group. Hence, an effective approach is required to encourage farmers for accessing available programs continuously with emphasis on enhancing their sense of belonging, participation, creativity development, and supports from community; thus, the use and development of the program in presence of community's participation can occur simultaneously. This approach is directed to promote formation of animal farmer groups and collaboration among the groups, which in turn can raise their productivity.

Based on Regulation of Ministry of Agriculture (No. 82 67/ Permentan/ SM.050/12/2016) about guidance of farmer group assistance, farmer group refers to group of farmers/animal farmers/planters formed by farmers based on their similar interest, social and environmental condition, economy and resource, commodity, and respect to increase and develop the business of each member. Meanwhile, Mardikanto [1] stated that animal farmer group defines as the group of farmers comprised of both

adults and teenagers (male and female) that are formally associated in a certain group caused by similar interest and need under supervision of group's leader.

Farmer group plays pivotal roles since it serves as a place in which business relationship and collaboration with other relevant counterparts are established as well as becomes a medium in which transfer of technology and information may occur intensively. Therefore, Agency for Agricultural Extension and Human Resource Development (*BPPSDMP - Badan Penyuluhan dan Pengembangan Sumberdaya Manusia Pertanian*) determined that performance of farmer group is classified according to 5 fundamental aspects known as *panca kemampuan kelompok tani (pakem poktan)*. This has been supported with other approaches to strengthen the roles of farmer group. Nevertheless, existence of animal farmer groups in Polongbangkeng Utara has less effectively improved the productivity of their farming practices.

To deal with this challenge, an effective approach is needed to make the group more accessible continuously for members, enabling them to interact each other. This leads to significant effects on their performance in terms of knowledge and management in animal farming business. This present work is essential to carry out, which aims at fostering contribution of the farmer group to development of beef cattle farming business.

2. Method

This present work was conducted from April to July 2018 and located in beef cattle farming group in Polongbangkeng Utara, Takalar, Province of South Sulawesi. The location was considered suitable for our objectives due to presence of active beef cattle farmer groups and extension agents. The number of respondents was randomly determined according to Slovin [2], with amount of 30 livestock farmers. Data were collected using survey method including questionnaire, focus group discussion, and in-depth study to several key informants.

The role of farmer group was assessed by a scoring method, using assessment of farmer group class as indicator according to *pakem poktan* principles. The indicator included (i) planning activity, focusing on the use of existing natural resources, (ii) collaboration among groups, and (iii) use of technology and collaborative actions within the group, which is based on Regulation of Agency for Agricultural Extension and Human Resource Development (No 168/Per/SM.170/J/11/2011).

Research variables were evaluated through assessing indicator from each variable/sub-variable. Likert scale was used to evaluate qualitative variable, consisting of three levels, with score of 1, 2, and 3. The score was then averaged for all parameters, as well as for all indicators and sub-variables. All data collected from survey were then tabulated and analyzed descriptively (mean, percentage, frequency), using SPSS ver. 12.1 software.

3. Results and discussion

3.1. Characteristic of respondents

Characteristic of respondents in beef cattle farmer group was surveyed, including age, education degree, number of cattle, and membership period. As a result, the percent distribution of interviewed respondents by age was depicted in figure 1.

Based on data, the interviewed farmers were mostly at productive age, reaching up to 80%. This indicates that farmers are relatively easy to accept innovative changes on their animal farming activities [3]. The relation between farmers' age and their productivity has been well understood, in which workers at productive age tend to have higher productivity, and in contrast, productivity tends to slide with age. Chamdi [4] found that young animal farmers (age of 20-45 years) seemed to be more responsive to the new technologies and were much easier to be influenced.

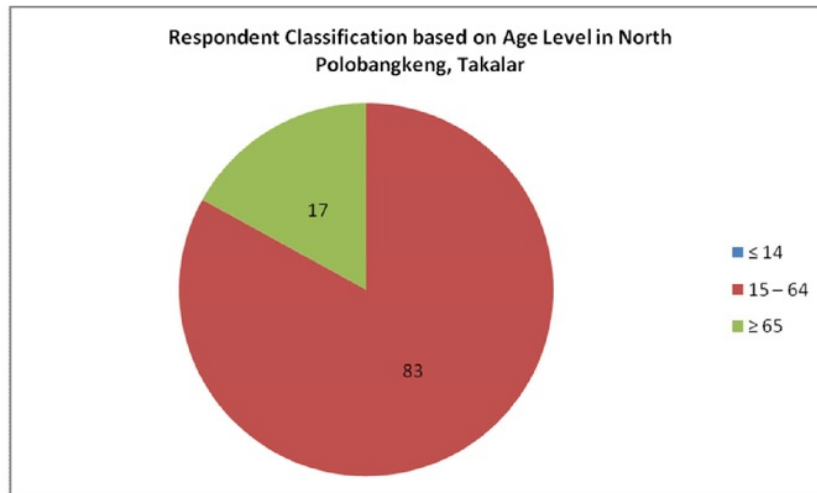


Figure 1. Percent distribution of respondents by age

Regarding to educational level of respondents, only half of them (50%) completed or did not finish education at elementary school, while 15% of the respondents completed middle and high school (recognized as SLTP and SLTA, respectively). As a result, the percent distribution of interviewed respondents by educational was depicted in figure 2.

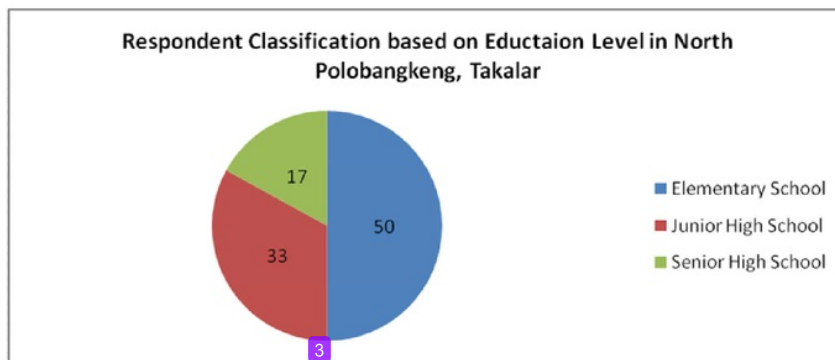


Figure 2. Percent distribution of respondents by educational level

The result showed that, this suggests that respondent's education is categorized as low, and this is assumed as a main constraint for farmers to develop their livestock production. Arifah [5] stated that educational level was highly essential for understanding new ideas, which help farmers to have broader knowledge and reduce their traditional manners. Meanwhile, Syafaat *et al* [6] reported that farmer's education positively related to the quality of human resource, which is then linked to the increase in their productivity. In short, educational level displays one of the most important aspects in influencing decision of accepting new innovations. Farmers with a higher education level are expected to have better insight on selecting new technologies for their livestock business. Additionally, they

also seem to have faster response on using innovation. Conversely, those with lower educational level face difficulties and take longer for implementing a new technology-based improvement on their livestock production.

In term of livestock ownership, number of cattle owned by a household ranged from 1 to 10 cattle. As a result, the percent distribution of interviewed respondents by number of cattle was depicted in figure 3.

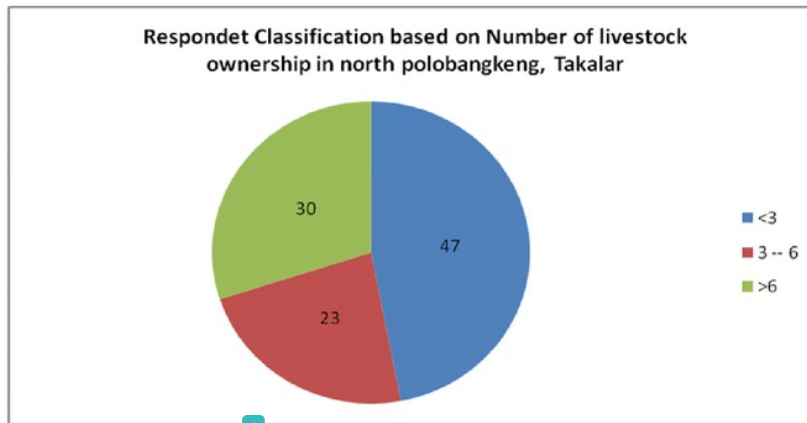


Figure 3. Percent distribution of respondents by number of cattle

Based on Data, that specifically, almost a half of the respondents (47%) had <3 cattle, while a fifth of the respondents (20%) had ≥6 cattle. The farmer's livelihood still depends mostly on livestock and farming activities. The high number of animal farmers is due to availability and accessibility of natural resource such as forage, climate and weather, which are conducive for animal farming.

Group of animal farmers in Polongbangkeng Utara consisted of various membership conditions, including active or non-active members (mainly because of too old and absence of younger farmers). The length of membership affects farmer's knowledge and skill in managing farming practices. Percentage distribution of respondents by membership duration is depicted in figure 4.

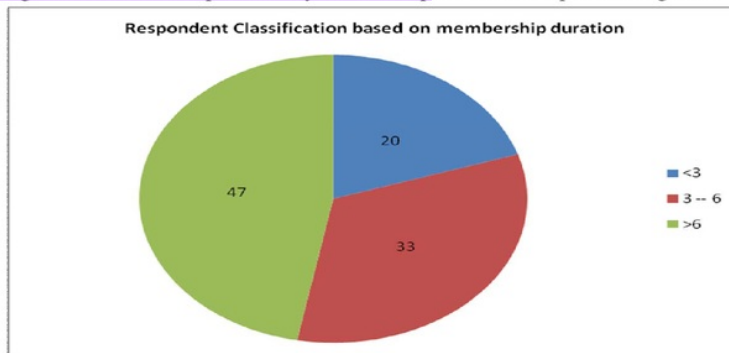


Figure 4. Percentage distribution of respondents by membership duration

Characteristics of the farmers in the farmer group are highly essential since they closely relate to assistantship programs, which remarkably determine the acceptability of the program. Based on data, service programs introduced to the farmers should be addressed to young and highly educated farmers with a sufficient experience. These features seem to be in approximate to early adopters in which they show a rapid adoption to the current innovations. This can be an attempt to choose innovative farmers and early adopters as the main target of extension service, with the aim of improving its efficiency and efficacy. In contrast, old farmers with low educational level and experience require an appropriate extension service method. As reported by Mardikanto[3], they were often less responsive to adopt new technologies, because of possible disadvantageous effects following the technology adoption. They are gear to adopt innovation that has been implemented by other community members. For this reason, they are inappropriate to be main target of the extension service. Thus, the program was first introduced to young and highly educated farmers, and those already adopted the innovation. Subsequently, the program was then introduced to the old farmer group.

3.2 Farmer's Contribution to Development of Beef Cattle Business

The result the role of farmers on development of beef cattle business that is depicted in figure 5 showed was categorized as "less contributed", especially related to planning activity for the use of existing natural resource to improve livestock productivity, fund management, and development of beef cattle business.

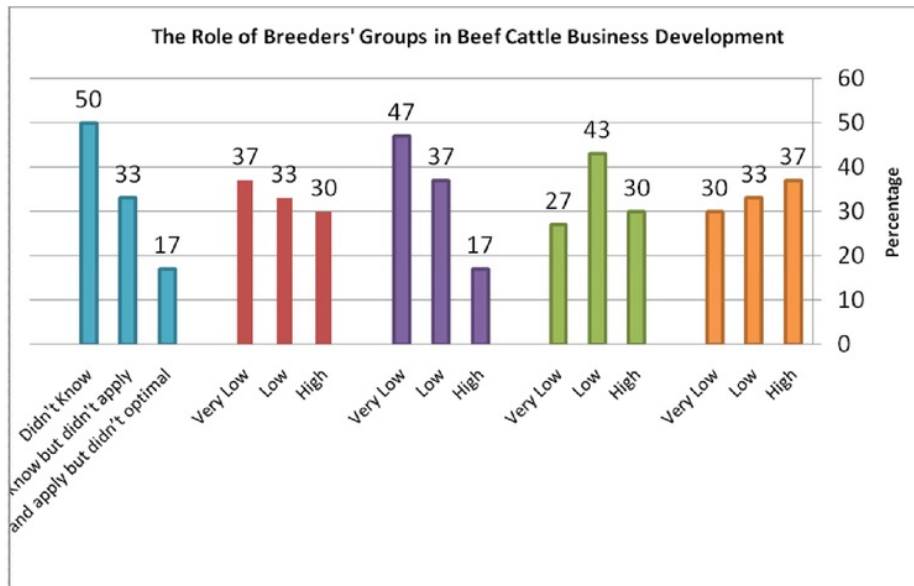


Figure 5. Contribution of farmer group to development of beef cattle business

Based on data, that this can be understood that beef cattle farmer groups in Polongbangkeng Utara are still in early stage, thus they have still major constraints such as lack of fund and knowledge on management and technology. On the other hand, there is a good interaction and collaboration among farmers. Hence, the group plays important role in increasing farmer's knowledge, skill, and attitude, through collecting information on technology implementation meaningful for developing their beef cattle business, being more profitable and independent, which brings better life and welfare. Based on Regulation of Ministry of Agriculture No. 82 Year 2013, farmer group can serve as a place for strengthening collaborative works among farmers in a farmer group and between the groups, as well as with other counterparts. This collaboration is expected to enhance efficiency and improve their resilience against threat, challenge, resistance, and distraction, as well as make it more financially profitable. This is in agreement with Abdullah[7], that development of animal farmer group was conducted through nurturing farmers' awareness that the group was from farmers, by farmers, and for farmers. Additionally, the attempts to develop farmer group should be based mainly on member participation, thereby fostering equality, transparency, responsibility, accountability, and collaboration, being a new concept to empower the farmers [8].

4. Conclusion

Animal farmer group showed less contribution to the planning activity of using natural resource for increasing productivity, finance management, and development of beef cattle business. To improve role of the farmer group required supports from government mainly rising member's knowledge on

beef cattle farming activities from upstream to downstream, through cooperation and partnership with other counterparts, ultimately capable of increasing activities of beef cattle farmer group.

5. Acknowledgment

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