



## Factors Affecting Farmer's Participation in Tammekawatang Pasture Development Program of Pinrang Regency, South Sulawesi

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### Abstract

*Tammekawatang Pasture is a communal grazing field in Pinrang Regency, South Sulawesi. Since 2015, the local government has assisted in developing facilities to improve veterinary services, land production capacity, and community empowerment programs through farmers' community institutions. Otherwise, the number of farmers who ignore this facility as well as formed farmer institution, there may be several factors inhibits their participation. Participation is an essential part of farmers and their community empowerment process for improves their prosperity independently. In this context, the farmer institution has important roles in facilitating and accompany this empowerment process. This study aimed to determine the factors affecting the participation of farmers in the grazing empowerment program as a reference to create a more interesting empowerment program. The research was conducted in the Pinrang district of Suppa and Mattirobulu sub-districts with samples of 147 breeders. The collection of research data is done using questionnaires and then analyzed data using the Smart-PLS statistics tool. The result of this research indicates that the factors affecting farmers' participation are the motivation and stakeholder roles.*

**Keywords**— farmer participation, Empowerment program, beef Cattle

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### Introduction

Pinrang is a Regency of South Sulawesi Province that has an excellent agroecosystem for beef cattle development. Due to the tropical climate and environmental condition and strategic marketing accessibility from local and regional consumers. Pinrang District has an advantage in the cattle breeding business because of the availability of extensive land so that the availability of livestock feed can be fulfilled. According to Siregar (2008) stating that the factors affecting the production of cattle are the adequacy of its nutrients. If the cattle suffer from vitamin and mineral deficiency, it will affect the metabolic process that resulted in the resistance of productivity and growth. According to the Central Statistics Agency (2016), two sub-districts that have the largest cattle population in Pinrang District, Suppa District, and Mattirobulu Sub-district. Suppa Subdistrict from 2011 – 2015 increased from 2,616 to 3,085 Tails, and Mattirobulu Sub-district was increased from 2,823 to 3,340 of the tail. The two sub-districts are the region of the Tammekawatang grazing area.

Community involvement in Tammekawatang pasture is one of the very important factors to support the success of the program that is run. Various programs that have been conducted

include making artificial insemination (IB), planting Indigofera, maintenance, and processing of livestock feed (mini Ranch), counseling activities, making compost. The success of the Breeder Empowerment Program can improve farmers' welfare. According to Isbandi (2007), community empowerment is expected to increase society's potential to be able to improve the quality of life for the whole community through activities that lead the community to gain power and ability. Empowerment efforts should be directed and addressed directly to those in need, with programs designed to address problems and as needed.

According to the livestock office of Pinrang District (2016), farmers' data on Tammekawatang grazing is as many as 238 people, but the empowerment program's participation rate is very low. Therefore, it takes an intrusive effort of empowerment strategy initiated by search of information related to factors that affect the farmer's participation.

## Materials and Methods

This research was conducted in May 2018 in the grazing field of Tammekawatang, Pinrang Regency, South Sulawesi. The selection of the location was used because grazing Tammekawatang has two districts with the largest cattle in Pinrang District, namely Suppa District and Mattirobullu subdistrict. Data for this research were collected using semi-guided questionnaire, written consent was obtained from respondents prior to the application of the questionnaire, and structured interviews with 147 farmer samples. Three main objects observed were motivation (X1), perception (X2), stakeholder roles (X3), and participation (Y). The data were analyzed statistically by Structural Equation Modeling (SEM) through SEM-PLS Software version 3.2.7 by SmartPLS.

## Result and Discussion

The structural model indicated three main paths directly to the dependent factor (Y), participation, that two positive correlation: Motivation (X1), and Stakeholder role (X3); and a negative correlation, perception (X2). The motivation and stakeholder roles were both significantly ( $P < 0.01$ ) influenced farmer participation, and their perception appear negatively but with weak probability (Table 1).

Table 1. Path Coefficient Test Results on the Inner Model

Variable relationship	Path Coefficient	Standard Error	T Statistics	P
Motivaion -> participation	0.356	0.118	3.060*	0.001
Perception -> participation	-0.020	0.089	0.257 <sup>ns</sup>	0.408
Stakeholder role -> participation	0.535	0.110	4.853*	0.000

### *Motivation*

Motivation is the behavior element of every individual farmer. Farmers have a community as a fellow breeder who becomes a means to improve farmers' prosperity. Motivation is not the only element that affects the behavior of farmers in an organization. The motivation of each farmer is a complex problem in the organization because the needs and desires of each member of the organization differ from one another (Cony, 2013). The motivation to participation has a line coefficient of 0.353 with a T-Statistic of 3.060 ( $p = 0.001$ ) giving the decision that the farmer's motivation has a significant effect on participation. So it can be concluded that high motivation farmers will increase participation in the empowerment program or other words one of the characteristics of farmers who actively participated came from among the highly motivated farmers. This results in line with the research of Santosa (2004), which states that the

internal factors affecting the participation rate of one of them are motivation. The fact that is not the case in the cattle breeder in high motivation pasture does not guarantee farmers' high participation in the empowerment program.

### *Perception*

Perception is the brain's ability to translate the stimulus or process to solve the stimulus into the human senses. Human perception is a difference in viewing angles in sensing. There is one that perceives the excellent or positive perception and a negative perception that will affect the visible or real human action. Perception also links with a person's way of viewing a particular object in different ways by using a sensory device, then attempting to interpret it. The perception of both positive and negative is similar to the file that is neatly stored in the realm of our unconscious mind. The File will soon appear when there is a trigger to trigger it. There is an incident opening it. Perception results from brain work in understanding or assessing what is happening around it (Agustina, 2016).

This research proves that the characteristics of the farmers have no significant influence on participation. Farmers who participate high or low are not characterized by a certain level of perception of empowerment programs. The results were not in line with the research of Slamet (2003) and Triastuti (2006), which states that the internal factors affecting the participation rate of one's are perception. This positive perception can be directly related to the program, namely, artificial insemination, HPT processing, counseling material, or that is positive towards the target program or in the situation experienced by farmers such as place, time, and farmer participants Empowerment Program. A descriptive breeder's perception of this empowerment program is more positive and supportive. High participation is limited to farmers with positive perception only but who have the usual perception of it and potentially actively participate.

The perception of Breeder's program on participation has a line coefficient of -0.020 with a T-Statistic of 0.257 ( $P = 0,408$ ), giving the perceived farmer's perception not significant to participation. The direction of the path coefficient of both positive and negative tested is not significant cannot be used as a clear direction of the influence of the two variables being tested. So that high participation can happen to farmers in either high or low perception conditions on this empowerment program.

Perception of the grazing program is also seen from whether the farmer knows the grazing program or not and how it views or judges the grazing program. To know the grazing program's view or assessment seen from whether the breeder considers the grazing program useful or not, and whether the grazing program is necessary or not. Other than that, Breeder's program's perception can also be known from how the trust of the Pasture Program System and the belief to develop it. Trust in the Pasture program system, and the belief to develop it can be known from his opinion whether to believe or not to the system that applies in the grazing program.

## ***Stakeholder role***

Stakeholders are individuals, groups of organizations of either men or women who have interests, are engaged or influenced (*positive* or *negative*) by an Activity development program (Thamrin, 2009). The stakeholder role of the participation has a line coefficient of 0.535 with a T-Statistic of 4.853 ( $P = 0,000$ ), giving the decision that stakeholders' role has a significant effect on participation. The participation of stakeholders in the livestock program will increase the participatory breeder in the empowerment program. This research proves that the role of stakeholders has a significant influence on farmer participation.

High-participating breeders characterized the breeder who matched the government's role for the program. The role of stakeholders from local governments, village governments, or community leaders can be shaped down directly to give direction, actively follow the program's sustainability, and follow-up the course. This results in line with Murialti's research (2010) that external factors affecting participation rates are stakeholder roles. Stakeholders who have an interest in this program are local governments, village governments, community/indigenous figures, and consultants/facilitators.

Local governments realize that Pinrang is an excellent region to serve as a place for the development of beef cattle. Due to the support of climate suitability and access to various areas of consumers is easier. Pinrang District has an advantage in the cattle breeding business because of the availability of extensive land so that the availability of livestock feed can be fulfilled. Implementation of the empowerment program in the form of grazing aims to solve the problem of lack of provision of beef needs.

Local Data shows that the potential for livestock development is still high and appears to be the potential to thrive. 2 sub-districts have the largest beef cattle population in Pinrang District, Suppa subdistrict, and Mattirobulu sub-district. In the District Suppa from 2011–2015 increased by 17.9% or averaged 4.5% per year from 2,616 to 3,085 of the tail. In the district, Mattirobulu increased by 18.3% or averaged 4.6% from 2,823 to 3,340 of tails (The livestock office of Pinrang District, 2016). The two sub-districts are the region of the Tammekawatang grazing area. The factor affecting cattle production is the adequacy of its nutrients, as it affects the metabolic process (Siregar, 2008). As a stakeholder, local governments are continually striving to empower the potential of 238 farmers to be divided into 11 groups with total livestock of 1,793 tails. It is hoped that active participation in the empowerment program. However, the reality in the field is not all farmers have a high participation rate. There are differences in the spirit of participating in the program in the IB Program (artificial insemination).

## **Conclusion**

Based on the collection of data sourced from respondents' responses, which are then recapitulated and analyzed, it is concluded that the factors affecting farmers' participation in the Empowerment program are factors of motivation and stakeholder role.

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