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THE CAPACITY OF TEMPORARY EXTENSION WORKERS (THL) IN INCREASING INNOVATION IDEAS OF LIVESTOCK OWNERS FOR THE ADOPTION OF THE TECHNOLOGY OF BEEF CATTLE FEED

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Abstract

The study aims to analyze the capacity of temporary extension workers (THL) in increasing innovative ideas of livestock owners for the adoption of technology of beef cattle feed. The study was conducted in Bulukumba regency, South Sulawesi Province. All-capture sampling was conducted in which all temporary extension workers were selected as the study samples. The study data were collected using the survey method of interviews using questionnaire, focus group discussion as well as in-depth studies / studied among several key informants. Results of the study revealed that the capacity of temporary extension workers in increasing innovative ideas of livestock owners for the adoption of technology of beef cattle feeds / fed was in the intermediate level , transfer from / to / onto knowledge and skill in the dissemination of subject of livestock feed technology was in the intermediate level and the capacity of temporary extension workers in conducting visits /face-to-face communication and the demonstration of livestock feed technology to livestock owners was in the less level , respectively . Low performance of temporary extension workers in the demonstration of livestock feeds / fed technology to fulfill the need of livestock owners was due to lack of facilities and infrastructure and low accessibility among temporary extension workers to access livestock feed technology . The study suggests to increasing the performance of temporary extension officers in the adoption of livestock feeds / fed technology by increasing extension activities and quality of temporary extension workers through training to improve the adoption of technology of beef cattle feed.

Keywords: Capacity, temporary extension workers, adoption, livestock feed technology.

1. Introduction

As a non-formal education institution, extension that focuses on the transformation of improved behaviors among livestock owners and their families expresses certain challenges to the context of its role and function in which agricultural extension workers that perform their roles and function are hoped to give significant satisfaction with / from farmers and their families. Concerning to this, policies of extension revitalization are an essential thing considering that extension workers are the key mover of the development of agricultural sector. As indicated in the study of Harianto, et al., (2014), extension workers have significant roles in / of / as the development of the husbandry sector in a certain region regarding to the fact that extension workers are the agent of change as the technical implementer in a certain community. Therefore, extension workers should have standard capacity to empower and increase self-sufficiency of livestock owners. However, the main constraint in implementing extension duties are lack of extension officers to fulfill the need of livestock owners in Indonesia. This fact results in job burden of / on targeted extension areas due to the imbalance between

the amount of groups of livestock owners and extension workers. In the year 2016, the total amount of agricultural extension officers throughout Indonesia are 47,898 workers that consist of civil servant extension workers are 25,932 workers (54.14%), temporary extension workers from the Indonesian Budget are 19,083 workers (39.84%) and temporary extension workers facilitated from the Regional Government Budget are 2,883 workers (6.02%), whereas the total amount of villages/village administrations are 78,063 villages all over Indonesia. Based on these figures, the requirement to fulfill one extension officer for one village has not been fulfilled maximally yet, with 30,165 agricultural extension workers are still needed to give extension services (National Center of Agricultural Extension, 2016).

To overcome the shortcoming of extension workers, the central government recruits temporary extension workers from the year 2007 until the year 2009 to assist civil servant extension workers in performing agricultural extension activities. They have duties to assist civil servant extension workers within their job requirements. However, temporary extension workers should conduct to overload job of conducting their regular duties due to lack of civil servant extension workers (Paay, 2012) . On the other hand , standard job to carry out extension activities performed by temporary extension workers bears / bore several constraints that include low frequency of training , inappropriate honorarium and lack of facilities to conduct agricultural extension activities. Concerning to these limitations, temporary extension workers should bear to overload duties to assist civil servant extension workers due to remote areas to give services livestock extension and the discrepancy between the amount of temporary extension workers and targeted farmer groups (Sapar, 2011; Hernanda, 2015).

Capacity is defined as an observed individual capacity that includes knowledge, skill and behavior to finish specified functions and jobs in accordance with defined requirements (Ministry of Manpower and Transmigration of the Republic of Indonesia, 2010). Stone (Brodeur et al, 2011) defines capacity as the ability to apply knowledge, technical skill , and personnel characteristics to produce specified works as the foundation to improve professional extension jobs .

There are 87 civil servant extension workers in Bulukumba regency . Referring to these figures , the need to fulfill livestock extension workers in Bulukumba regency is not maximally realized to fulfill the requirement of one extension officer for one village as stated in the policies of the Department of Agriculture that results in low work productivity of civil servant extension workers (Abdullah , 2017) . Regarding to such a condition , it is necessary to conduct the study of capacity of temporary extension workers bearing in mind the significant role of temporary extension workers in assisting civil servant workers to empower and enhance self-sufficiency of livestock owners . Good capacity of extension workers increases the self-sufficiency and empowerment of livestock owners to enhance livestock production , income and their prosperity . Based on the study background as stated above , the study aims to analyze the capacity of temporary extension workers for the adoption of technology of beef cattle feeds / fed to livestock owners in Bulukumba regency , South Sulawesi Province.

2. Methods of the Study

This study is a descriptive research to explore basic condition in the context of a socioeconomic phenomenon. The study was performed in Bulukumba regency, South Sulawesi Province. The study sampling was performed using the census method as a sampling technique that collects total samples in a certain population (Sugiyono, 2011) . The census method was used on the basis of the reasons that the amount of population of temporary extension workers is not quite large and to reduce errors of measurement. The process of data collection using the survey method by distributing questionnaire and focus group discussion. The measurement of capacity of temporary extension workers was conducted using the scoring method. The indicators of capacity of temporary extension workers include: a) . Level of knowledge and skill in disseminating the subjects of livestock feed technology , b) skill in identifying the need of livestock owners , c) the ability to implement the extension methods or visit/face-to-face communication , d) the ability to apply the methods of livestock extension demonstration , e) the skill in enhancing the capacity of livestock owners in accessing husbandry information , f) the ability to empower livestock owner groups, g) the skill in evaluating the

extension activities , and j) the skill to draft extension reports . Analysis of the data used descriptive method. Measurement of each item was conducted using the scoring method of the lowest score (1) to the highest score (3). Analysis of the data was done using descriptive approach that includes the determination of frequency and percentage.

3. Results and Discussion

3.1.The Demographic Characteristics of Temporary Extension Workers in Bulukumba Regency

The demographic characteristics of temporary extension workers in Bulukumba regency indicate that the average age of total temporary extension workers in this regency is 38.7 years old (adult level). Younger temporary livestock workers generally have better physical condition than older temporary extension workers, but temporary extension officers at older age have more experiences and bear higher responsibility in performing their duties. In addition, older temporary extension workers consider their decisions not to change their profession regarding the strict competition to gain work field. Older extension workers are not awake of current technology, but they have small opportunity to change their current professions (Wuriani *et al.*, 2014). The Central Government recommended that temporary extension workers with below 35 years old could follow the Selection Test for the Applicants of Civil Servants, whereas, temporary extension workers with above 35 years old could follow the Selection Test for the Applicants of Government Employees with specified Employment Agreement to improve their job status compared to contract extension employees.

Level of education of extension workers affects their ability and skill in understanding and applying subjects of livestock extension, the ability to make creative ideas, the skill in organizing people as well as the capacity to inspiring, motivating and upholding the participation of the local community. Most extension workers in Bulukumba regency are at the higher level of education (52.8%) with Diploma/S1/S2 in agriculture, but 33.3% temporary extension workers were at the category of senior high school, and accordingly, human resources of temporary extension workers should be boosted at future that in line with their current job. According to Ardhian (2008), level of education gives significant impact to absorb innovative ideas, and consequently, it constitutes their thinking pattern.

Motivation is primary aspect to enhance and generate individual's motive to conduct a certain behavior to achieve a defined objective. As indicated from the analysis in this study, temporary extension workers have low motivation (46.0%) for senior high school category, and they have less motivation to advance their level of education that impedes their optimal extension duties. According to Lindner (1998), motivation is defined as psychological process that drive the purpose and direction of behavior, the tendency to conduct to achieve unsatisfied needs, an internal drive to satisfy unfulfilled needs and interests to realize certain needs. Mc Clelland's Achievement Motivation Theory states that employees have internal motivating drivers, and how to realize this potential driving energy is depend on internal motivation and opportunities (Robbins, 1996). There are several factors that motivate someone according to Mc Clelland's Achievement Motivation Theory that include: (1) the need for achievement, (2) the need for affiliation, and (3) the need for power. The need for achievement is a motivating drive that motivates individuals to do better jobs through creativity and mobilize their potential internal energy to achieve maximum achievement. Employees will build their enthusiasm to achieve maximum performance by giving them opportunities. Individuals who have higher achievements will have higher rewards to fulfill their needs. The need for affiliation is a motivating drive that motivates individuals to enhance their improved jobs considering every individual has several needs that include: the need for acceptance by their social environment where they live and work (*sense of belonging*), the need for individuals to gain respects because every individual considers that he or she has important roles (*sense of importance*), the need for achieve better performance and avoid abortive attempts (*sense of achievement*), and the need to do social participation (*sense of participation*). Someone who has the need for affiliation will motivate him/her to drive him or her to release potential energy to finish his or her work maximally.

3.2. Capacity of Temporary Extension Workers for the Adoption of Technology of Beef Cattle Feed

Results of the study showed that capacity of temporary extension workers in Bulukumba in increasing innovative ideas of livestock owners for the adoption of technology of beef cattle feed were assessed in the following indicators:

Level of knowledge and skill of temporary extension workers in disseminating the subjects of livestock feed technology was 50% (less level), but their skill in identifying the need of livestock owners was 67% (intermediate level). These scores are related to the establishment of organizing team that consists of head and members in which each livestock breeder involve in doing participation in analyzing potential areas for each village and agroecosystem to formulate and implement programs of extensions to gain opportunities livestock feed raw materials. Temporary extension had formulated efforts to involve whole participation among livestock breeders, and hence, representatives of livestock owners gain opportunity to boost their potential areas in community discussion. Such efforts are in line with the study of Van de Ban and Hawkins (1996) in which extension involves the conscious use of communication of information to help people form sound opinions and make good decisions. The ability of temporary extension workers to implement the extension methods or visit/face-to-face communication was 55% (less level). This score indicated that the ability of temporary extension workers to do visit/face-to-face communication was in the less level. In addition, the ability of temporary extension workers to apply the methods of livestock extension demonstration was 45% (less level). This is because one temporary extension worker should service two villages due to limitation of amount of extension workers. This condition gives overload work of extension to temporary extension owing to remote areas of villages that need more operational cost and time-consuming to do extension programs. Referring to this condition, extension demonstration programs are sometimes should be combined together with other extension programs to support cost of extension demonstration program. In addition, they face some limitations to increase their opportunity to develop their knowledge and skill as they should deliver more time to service more villages. Ideally, one extension worker should service one village to prepare temporary extension workers to develop their knowledge and skill. The logical consequence for this condition was reported in the study of Mardikanto (1993) that programs of extension should be serviced by qualified extension workers. The imbalance between their overload duties and given rewards makes less frequency of visits. Results of the field survey indicated that the Central Government derived from the National Budget provides honorarium for 10 months, and the rest (honorarium for 2 months) is under the responsibility of each regional government (regency), and sometimes honorarium for two months are not given due to limitation of budget. This situation is compatible with the study conducted by Firmansyah *et al.*, (2015), in which salary and operational allowance of temporary extension workers are not compatible with their overload work in supporting their main duties maximally, such as presenting information to targeted remote villages. Therefore, it is imperative for the Central Government to formulate and implement efforts to increase the performance of temporary extension workers by adding their honorarium in accordance with the Decree of Minister of Finance.

Capacity level of temporary extension workers in accessing information was high (65%). They are quite knowing that subjects of extension could be downloaded from internet networks, but they have less knowledge on cyber extension provided by the government as the source of extension information. This is because they seldom utilize technology of information about / on extension activities. Only some temporary extension officers utilize cellular telephone to access information to provide subject to extension, and the rest temporary extension officers sometimes perform discussions each other. But actually the case is the extension officers should learn and utilize technology of information as indicated in the study of Nuryanto (2008) in which they should have accessibility to access information and innovative ideas and information technology considering to the fact that livestock owners need information technology for decision making .

Capacity of temporary extension officers in evaluating extension activities and drafting reports was 50% (less level). This is due to the fact that they do not understand that activities of livestock extension should report independently . In addition to that , they do not comprehend that the report on

extension activities is the evidence of their responsibility for conducting extension activities. Arrangement of extension reports / reported is only considered as the formal requirement to gain honorarium and operational cost that they do not focus maximally on the arrangement of extension reports. Reporting activities on extension services is conducted occasionally only . Regarding to this , they should increase their knowledge on how to make good reports / reported on / to extension activities through non-technical training activities . It is hoped that through the training , the capacity of temporary extension workers in the form of knowledge , skill and behavior to do their roles and function could be increased in accordance with job specifications . This is in line with the study of Stone (Brodeur et al , 2011) that capacity of extension of applying knowledge , technical competence, and personal characteristics could make good performance to be used as the basis in improving professional performance among temporary extension workers . Better capacity of temporary extension officer could enhance the productivity of livestock owners in managing their entrepreneurship optimally in the form the rise of income and prosperous life among livestock owners. According to Van den Ban and Hawkins (1999) , behaviors of human being are related to their past experience, and it is also compelling to livestock owners. Responses of livestock owners to the performance of temporary extension workers are related with their past experience. Livestock owners are still holding their trust to temporary extension workers as they could assist livestock owners, increase their insights, and facilitate given resources. Based on this fact, capacity level of temporary extension workers in Bulukumba regency was classified in the less level. Therefore, capacity of temporary extension workers should be boosted in improving productivity and income of livestock owners or farmer groups at villages.

4. Conclusion and Suggestions

From the discussion as stated above, it was concluded that level of knowledge and skill of temporary extension workers in disseminating the subjects of livestock feed technology was 50% (less level), their skill in identifying the need of livestock owners was 67% (intermediate level) , the ability to implement the extension methods or visit/face-to-face communication was less than 50% and the skill to draft extension reports was also less . Therefore, it was concluded that capacity of temporary extension workers in Bulukumba regency was classified at less level. It means that they have inappropriate capacity to fulfill their roles and duties maximally. Low level of capacity of temporary extension workers due to their overloads / overloaded work to service targeted areas and lack of facilities and financial support provided by the government as indicated in inappropriate honorarium. Consequently, capacity of temporary extension workers should be improved by increasing training for temporary extension workers to enhance productivity income and prosperous life among livestock owners at villages.

The study suggests to increasing the performance of temporary extension officers in the adoption of livestock feeds / fed technology by increasing extension activities and quality of temporary extension workers through training to improve the competence to understand methodology and learning and teaching process, developing leaning experience to improve knowledge , skills and behavior of livestock owners and increase entrepreneurship and providing facilities used for activities of livestock extension activities.

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References

Abdullah, (2017). Analysis of the Determining Factors on the Performance of Extension Officers for the Transfer of Livestock Feed Technology. *American-Eurasian Journal of Sustainable Agriculture*. 11, Number 5 Sept-Oct 2017

- Brodeur CW, Higgins C, Gonzalez S. G, Craig D. D & Haile T. (2011). Designing a competency-based
- Firmansyah, Amanah S, Sadono D. 2015. Motivation, Job Satisfaction, and Performance of Forestry Extension Officers in Cianjur Regency, West Java. *Extension Journal*, 11(1): 11-22 (in Indonesian language).
- Harianto, E., Surahmanto & Putu A. (2014). The performance of Agricultural Extension Workers as the Informants, Facilitators and Assisting Workers in Increasing Bali Cattle (*bos sondaicus*) in Muna Regency, Southeast Sulawesi Province. *AGRIPLUS*, Vol. 24 : 232-239 (in Indonesian language).
- Hernanda TAP. (2015). The Performance of Agricultural Extension Workers in Komerling Ulu (OKU) Regency, South Sumatera Province [Master Thesis]. Bogor (ID): Postgraduate Program, Bogor Institute of Agriculture (in Indonesian language).
- Mardikanto T. (1993). *Extension to Agricultural Development*. Sebelas Maret University. Press.Surakarta (in Indonesian language)
- Nuryanto BG. (2008). Competence of Extension Workers for the Development of Agriculture in West Java Province. [Dissertation]. Bogor (ID): Postgraduate Program Program. Bogor Institute of Agriculture (in Indonesian language)
- Paay P. (2012). Strategies in Improving the Performance of Temporary Extension Workers in Merauke Regency [Master Thesis]. Makassar (ID): Postgraduate Program, Hasanuddin University, Makassar (in Indonesian language)
- National Center of Agricultural Extension, 2016. Agriculture Information Management System. Agency of Agricultural Extension and Human Resources, Ministry of Agriculture. [accessed in 2016, 18th January]. <https://app2.pertanian.go.id/simluh>. (in Indonesia language).
- Robbins SP. (1996). *Organization Behaviors*. 1st edition. Jakarta: Prenhallindo (in Indonesian edition).
- Sapar. 2011. Factors Affecting the Performance of Agricultural Extension Workers and Their Impacts to the Competence of Cacao Farmers in Four Regional Areas of South Province [Dissertation]. Bogor (ID): Postgraduate Program, Bogor Institute of Agriculture (in Indonesian language).
- Van den Ban AW, Hawkins HS. (1999). *Agricultural Extension*. Yogyakarta: Kanisius (translated in Indonesian Language)
- Wuriani, Zakso A. & Suib M. (2014). Contribution of Individual Characteristics and Professional Commitment on the Satisfaction of Lecturers at Midwifery Study Program. *Learning and Teaching Journal*. 3(8): 1-15.