

Enhancing Farmer's Creativity in Dairy Goat Farming (A Case Study in Banyumas District)

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ABSTRACT: Dairy goat farming has played a vital role in maintaining economic and production dynamic of family in rural areas of Banyumas District. Financial capital, human capital and technology have supported growth of dairy goat farming. Creativity enables farmers to develop competitive advantage especially to provide the basis for innovation, productivity and business growth. A total of 50 dairy goat farmers were randomly selected from 5 villages of Gumelar Sub district of Banyumas. Data were collected using questionnaire and personal interviewing. Based on descriptive statistic, dairy goat farmers have low educational attainment (6.6 years). However, the farmers were categorized in productive age (59.4 years), they were involved longer in dairy farm (12.7 years) and farmers' organization (6.3 years). The creativity of dairy farmers in Banyumas District was moderate (71.7). The data depicted that farmers have moderate capacity to generate more idea in solving the problem of their business. Based on Spearman rank Correlation Test, creativity of farmers was significantly related to age of farmers ($P<0.01$), educational attainment ($P<0.01$) and their experience in farmers' organization ($P<0.05$). Improving education of farmers, knowledge of farmers, and their experience in organization would enhance creativity of dairy goat farmers.

Keywords: dairy goat, creativity, education, organizational experience

INTRODUCTION

Entrepreneurship development in rural areas is an alternative to strengthen the growth of rural economic. Dairy goat farming as a form of entrepreneurship needs to be maintained and developed towards better economic growth in rural areas. Increasing competitiveness of livestock commodity which having a superior specification will be able to boost the economy and welfare of the farmer's family. Creativity and innovation as key principles of entrepreneurship should be encouraged to create a competitive business atmosphere. Briefly explained that the development of dairy goat farming based on the principles of entrepreneurship will be able to compete and secure the farming sustainability. Fadaee and Haitham (2014) stated that the concept of entrepreneurship is merged largely with concepts such as creativity and innovation. The relationship between creativity and entrepreneurship is so necessary and interdependent.

Dairy goats farming in the Gumelar Sub District grew rapidly started in 2008 and until 2014 had reached a population 4,565 heads goats of Etawah Cross (PE) and 507 farmers of Etawah Cross (PE). Dairy goat farming is intended for the main production of goat's milk. The success in increasing the production of goat milk is strongly influenced by human resource capability in organizing their productive assets. The success of accessing information from various parties will be able to bring new thoughts and ideas to dairy goats farming. Ability to explore new ideas in the activities of goats farming can drive their business more efficient and competitive.

Business competition and the dynamic of socio-economic in society have rise problems for dairy goat farmers. Those problems could include technical problems of farm management, human

resource issues and problems of marketing. The existence of problems can encourage dairy goat farmers seeking solutions and new ideas to eliminate the impact of problems so that sustainability of dairy goat farming can be sustained efficiently. To survive in the dairy goat industry, farmers are required to respond creatively the changes and problems that arise dynamically. Creativity will be able to encourage farmers more competitive, productive and dairy farm grows well.

Related to this, a study related to creativity dairy goat farmers in Banyumas has the purpose of identifying the creativity level of farmers and the important factors associated with the development of creativity of goat farmers in Gumelar Subdistrict, Banyumas.

MATERIALS AND METHODS

The study of farmers creativity in dairy goat farming has involved 50 respondents which were selected using random sampling method. Respondents were dairy goat farmers in 5 villages of Gumelar Subdistricts. Gumelar sub district as a center of dairy goat development was purposively chosen as area sample, while 5 villages were selected randomly.

The primary data was collected directly from respondents through observation and interview using questionnaire. Observed variables were independent variables, includes: age, level of education, farming experience, and dependent variables, namely: the degree of farmers' creativity. Descriptive statistics were used to describe the degree of creativity of dairy goat farmers. Spearman rank correlation test was used to identify and analyze the factors associated with the enhancing of the creativity of farmers.

RESULTS AND DISCUSSIONS

Profile of Respondents

Gumelar Subdistrict has been identified as the center of PE (etawah cross) development area in Banyumas since year 2007. The region is suitable for the development of dairy goats farming as mentioned by Hendri and Wahizi (2009) that the area with average of rainfall reaches 1,408 mm / year, daily air temperature range between 18-24°C and humidity of 80% was potential for the development of dairy goats farming. There are 1,597 people involved in a dairy goats farming with population of dairy goats was 4,203 heads.

Majority of respondents (dairy goat farmers) in the Gumelar Sub District were categorized in productive age (18-55 years old). It can be also stated that the average age of dairy goat farmers was 49.4 years. Mc Evoy *et al.* (1989) mentioned that productive age has a positive role in improving the performance of the work. Increased the age of human at group of productive age can improve job performance, which in turn can provide more output. Hasnain (2014) stated that the productive age has the ability to absorb more knowledge than younger and older age.

Educational attainment of dairy goat farmers was categorized low and indicated by average length of study was just 6.6 years. This illustrates that the average dairy goats' farmers have only passed from basic education (primary school). The relatively low education may inhibit the absorption of knowledge. Caloghirou *et al.* (2004) stated that individual skills refer to the level of education and training of the workforce, and the experience acquired in a given field of knowledge over time. However, dairy goat farmers in Gumelar subdistrict, Banyumas has sufficient experience to keep the dairy goat farming at the average of 12.7 years. Experience can provide adequate supplies for farmers to improve their farming culture. Smith (2001) stated that more training and farming experience can translate knowledge into a production of output more effectively. Development of dairy goat farmers was supported by the existence of the farmers group. The farmer has been involved in the group for average of 6.3 years with a range of 4-8

years. Involvement in group of farmers can encourage farmers to interact socially and gained a lot of knowledge and experience. Hotho *et al.* (2012) illustrated that social interaction is a prerequisite for the subsidiary absorptive capacity as it enables employees to participate in the transformation of new knowledge to the local context and the development of local applications.

Role of Different Variables to Enhance Creativity

Entrepreneurship is crucial values in the development and sustainability of dairy goat farming in Gumelar subdistrict, Banyumas. Sustainability of farming must be supported by having entrepreneurial spirit and creativity value of each farmer. Bilton (2007) stated that creativity provides the basis for innovation and business growth which can result in a competitive advantage for the organization. Creativity is the ability of farmers to find a new idea or combine new ideas with existing ideas to solve problems. Performance of farmers in creating new ideas, looking for new experiences and frequently to put questions to other farmers when problems occur would help them to develop their farming and increase the production of dairy goats. West (2002) mentioned that creativity is more on idea generation.

There are 3 major components to evaluate creativity of dairy goat farmers, namely (1) originality in thinking (2) happy to ask questions (3) always want to look for new experiences. Based on these components that are translated in the questionnaire, it appears that the dairy goat farmers in the Gumelar Sub district have moderate level of creativity with a score of 71.7. The context of score shows that dairy goat farmers tend to active enough in asking for something in particular efforts to resolve the problem on its dairy farming, seeking new experiences, especially thinking in formulating the feed to increase milk production. High value of investment in the dairy goat farming requires farmers to be careful and always think creatively for their business development. Farmers have always thought to sustain their high investment is embedded in the business dairy goats. Eddy (2009) stated that people who are creative and innovative are able to develop and maintain their business.

Increasing levels of farmers' creativity would bring more new ideas in solving problems related to the issue of good dairy goat management such as the issue of feed, reproduction and processing. Personal characteristics of farmers and environmental conditions can contribute to strengthening the level of creativity of dairy goat farmers. Enhancing the individual creative performance is a step when organizations are necessary to achieve competitive advantage (Oldham and Cummings, 1996). Zhou and George (2001) stated that individual characteristics can affect a person's creativity. Based on the Spearman rank correlation analysis demonstrated that the creativity of farmers was significantly related to age of farmers ($P < 0.01$), educational attainment ($P < 0.01$) and their experience in farmers' organizations ($P < 0.05$). The higher the education that is owned by farmers can significantly increase the level of creativity of farmers. Soekartawi (2008) states that a low education level is generally less enjoys new things so that the mental attitude to increase knowledge less.

Farming experience possessed by dairy goat farmers is an important factor in strengthening the creativity of farmers. The ability of farmers in understanding farm flow and character of their farm would be an important value in finding ways and means to solve problems. Longer experience possessed by farmers would be able to raise the competence and confidence of farmers to develop new ideas in the face of business barriers. King and Gurland (2007) stated that the experience in conducting activities may make someone more competent and can then perform with more ideas to solve problems. Instead of age have a negative relationship with creativity. It means getting old of dairy goat farmers would tend to be stagnant for business challenges, will not be effective and flexible in exploring new ideas to face the challenges of the dairy goat industry. Carmen *et*

al (2008) stated that that age have a significant negative relationship with creativity in conditions which creative support was low.

CONCLUSIONS

Based on the above it can be concluded that the dairy goat farmers in the Gumelar sub district have sufficient creativity level as an important factor in maintaining their business. Age, education and experience in groups of farmers are important factors to increase the level of creativity. Creativity of dairy goat farmers can be increased through increased knowledge of farmers and strengthening the intensity groups' interaction. Improving education of farmers and their experience in farmers group would enhance creativity of dairy goat farmers.

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