

Developing Strategy for Dairy Cattle Business in Boyolali Regency, Central Java, Indonesia

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ABSTRACT

This study was conducted to determine what factors are influential in the development of dairy cattle business and to formulate strategies that can be applied to the business in Boyolali. This research is using mixed methods qualitative and quantitative SWOT analysis. The sampling of the research was done by purposive sampling with 60 respondents dairy farmers and 10 respondents from relevant government agencies and the private sector. Analysis of the data used is *Location Quotient* (LQ), analysis of internal and external factors, and SWOT analysis of qualitative and quantitative. LQ analysis results showed four villages including the basic area of 13 villages in the district Mojosongo. SWOT analysis diagram showing the results of the analysis of the internal factors of 0.33 (x) and external factors of 0.49 (y). The appropriate strategy in the development of dairy farming are in quadrant I, so the focus of the strategy adopted is the strategy of *Strength Opportunity* (SO), using strength to obtain business opportunities and profits in dairy cattle. The strategy applied in these circumstances is to support aggressive growth policies (*Growth Oriented Strategy*). SWOT analysis showed that the strategy for developing the dairy cattle business is to optimize and develop the internal capability of farmers, utilizing the natural resources available to increase business scale dairy cattle, in cooperation with other agencies in the development of feed by utilizing the existing land and provide knowledge and technology to farmers to develop dairy cattle business.

Keywords: Strategy Development, Dairy Cattle Business, LQ Analysis, SWOT Analysis.

INTRODUCTION

Dairy cattle business is a business that has the potential to improve the welfare of farmers. The potential is to support farming business in rural patterns because it can provide direct income and incentives daily. According Suherman (2008), basically the development of dairy cattle has aimed to increase domestic milk production in anticipation of high demand of milk in Indonesia. It provides opportunities for farmers to further increase production, so that dependence on imported milk can be reduced.

Boyolali Regency is one of regencies in Central Java province which has the largest population of dairy cattle. Based on Central Bureau of Statistics of Boyolali (2013), the population of dairy cows in Boyolali is 88,533 heads. The number of dairy cows are scattered throughout the district of Boyolali. The existence potential of the District Mojosongo is the availability of land area, sufficient human resources, the availability of forage for cattle and geographical location strongly supports the establishment of a dairy farm. In fact this potential has not been utilized by farmers in developing cattle business

dairy. Therefore, the business development strategy of dairy cows need to be done with the aim to describe, analyze and find problems solution for dairy business farm in the District Mojosongo.

Generally, dairy farmers in the District Mojosongo still based on small-scale farms. Besides, it is still a lot of local farmers who run their dairy cow business with bad management, so that the business is not economically profitable. The potential resources are the availability of land, climate, geography, resource farmers and abundant natural resources can support the dairy farm itself. Based on the formulation of the problem, the purpose of this research are:

1. Knowing what factors are influential in the development of dairy cattle in the District Mojosongo, Boyolali.
2. Formulate a strategy that can be applied in the development of dairy cattle in the District Mojosongo, Boyolali.

MATERIALS AND METHODS

The primary data obtained from interviews and direct observation with dairy farmers by using questionnaires. Secondary data were obtained through searches of documents that come from relevant agencies such as the Department of Livestock Boyolali, the office of Mojosongo District, Central Bureau of Statistics Boyolali and Livestock Farmers Group. Research location done *purposively*, which is based on consideration of the potential areas, facilities, time and capacity and reach of researchers. Sampling this study using *purposive sampling* that is by giving questionnaires to farmers and relevant government agencies and the private sector.

Data analysis

Location Quotient (LQ). LQ analysis is one approach to economic analysis that identifies the leading commodity base (Hendayana, 2003). Commodity that became the target of this research is the dairy cow population in the District Mojosongo of Boyolali regency. This method is used to analyze the state of a region if the region is a sector bases or non-bases, in this case especially the population of dairy cattle in the district of Boyolali Mojosongo. LQ formula are as follows:

$$LQ = \frac{v_i/v_t}{V_i/V_t}$$

Notes:

LQ = the size of the location quotient

v_i = population of dairy cows in the village

v_t = the number of households in the village

V_i = population of dairy cows in the District Mojosongo

V_t = number of households in the District Mojosongo (Budiharsono, 2001).

The criteria used is when the LQ value of a sector is more than one ($LQ > 1$) it is classified as a sector basis or a source of growth. $LQ = 1$, then the commodities are classified as non bases, or do not have a comparative advantage. $LQ < 1$, this commodity is also included non bases.

Qualitative and Quantitative Analysis SWOT. The development strategy of commodity dairy cattle can be obtained by referring to the identification of the *strengths, weakness, opportunity* and *threats* of a SWOT analysis. Qualitative primary data that have been obtained subsequently presented descriptively and tested using SWOT matrix. This SWOT matrix clearly describe how external opportunities and threats facing the

company can be solved with the strengths and weaknesses of the company (Rangkuti, 2001). SWOT Analysis is used to determine the influence of internal and external dairy cattle business on the strengths, weaknesses, opportunities and threats as well as the formulation of development strategies based on the potential of the region.

RESULTS AND DISCUSSION

This research was conducted in the District Mojosoongo, Boyolali Regency. This district has the potential to be developed into a business based regional dairy cattle with consideration of location and geographical conditions. The type of ruminants which most widely cultivated in farm community at Mojosoongo subdistrict is dairy cattle that as many as 15.247 individuals (BP3K Mojosoongo, 2015).

Analysis LQ. LQ method is used to analyze the state of a region if the region is a sector of bases or non bases, in this case especially the population of dairy cattle in the district of Boyolali Mojosoongo. Examples of the calculation is to take a sample of the village, the village of Singosari example, in Table 1 mentioned that the village of Singosari obtain LQ value of 4.38. The value obtained from the calculation formula LQ by knowing the value v_i , v_t , V_i and V_t . The population of dairy cows in the village of Singosari (v_i) as many as 4092 animals, the number of families living in the village of Singosari (v_t) 1055 people, the population of dairy cattle in the district Mojosoongo (V_i) of 15,312 head and the number of families in the District Mojosoongo 17,286 people. According to the calculation results *Location Quotient* (LQ), from 13 villages in Sub Mojosoongo there are 4 villages including the base area. Base area business population of dairy cattle in the district Mojosoongo can be seen in Table 1.

Table 1. Areas with a base value of $LQ > 1$ in the District Mojosoongo of Boyolali

No.	Village	Value (LQ)
1	Singosari	4.38
2	Tambak	2.22
3	Madu	4.78
4	Karangnongko	2.06

Sources: Primary data processed, 2015.

Method *Location Quotient* (LQ) aims to identify a leading commodity and commodity analysis is a method that exist in a region is included in the base area or non bases. This theory is used to analyze and determine the diversity of the economic base. The theory of the economic base is one approach that can be used in the identification of potential sectors that can become the motor of growth and development of the region (Darmawansyah, 2003). According to Sandy (2008), LQ value obtained through comparison of the livestock population in one village to village.

Qualitative Analysis SWOT. According Rangkuti (2001), the SWOT matrix clearly describe how external opportunities and threats facing the company can be solved with the strengths and weaknesses. Alternative business development strategy can be formulated using SWOT matrix, using SWOT matrix can clearly illustrate the internal factors that exist in the dairy cattle business development combined with external factors, so as to produce an alternative formulation of enterprise development strategies. SWOT matrix has four parts the possibility of alternative strategy is a combination and blend of internal and external factors, namely SO strategy or strategies Strengths and Opportunities (*Strength-*

Opportunity), Strategy WO or weakness and Opportunities (*Weakness-Opportunity*), Strategy ST or Strength and threats (*Strength-threats*) and Strategy WT or Weaknesses and threats (*Weaknesses-threats*).

Table 2. SWOT matrix dairy cow business development in District Mojosoongo

Internal Factors	Strenght-S	Weakness-W
	<ul style="list-style-type: none"> • Raising a good experience • Interactions between the public good and is familial • Availability of labor • Age productive farmers • The availability of land as a base forage provider • Availability of abundant agricultural waste • he role of milk collectors in the marketing of milk farmers • Transportation access support 	<ul style="list-style-type: none"> • Education farmers still low • Availability of access to credit and the confidence level is still low • Owners of dairy cows is still low • Lack of optimal utilization of agricultural waste • Maintenance patterns are still modest • Fluctuations in the price of feed in the form of concentrates, pollard and tofu • Milk quality affect the selling price
External Factors		
Opportunity-O	So-Srategy	Wo-Strategy
<ul style="list-style-type: none"> • The small number of milk processing industry • Climatic conditions suitable for dairy cattle • The availability of means of transportation • Create employment opportunities • The development of milk processing technology • Widespread IB technology in society 	<ul style="list-style-type: none"> • Optimize and develop the internal capability of farmers. • Utilization of natural resources available to increase business scale dairy cattle. • In cooperation with other agencies in the development of feed by utilizing the existing land. • The provision of knowledge and technology to farmers to develop dairy cattle business. 	<ul style="list-style-type: none"> • The introduction of the milk processing technology to farmers. • Implement the program extension and advisory accompanied by demonstrations so as to improve the ability of farmers. • The provision of knowledge and technology regarding the use of agricultural waste to farmers in order to take advantage of existing agricultural waste properly. • Facilitate access to banks to increase capital breeders.
Threat-T	St Strategy	Wt Strategy
<ul style="list-style-type: none"> • Their agricultural land conversion • Feed prices fluctuate • The absence of a business partnership with relevant government and private sectors • The absence of the application of milk processing technology • The weak institutional breeders 	<ul style="list-style-type: none"> • Establish a business partnership with the government and third parties by utilizing the rural community interaction that is familial and cooperation. • Develop the skills of human resources and improve efficiency in order to master the patterns and increase productivity in the business of dairy cattle 	<ul style="list-style-type: none"> • Improving the management of the business, strengthen the role and Functions herd. • In cooperation with other agencies to develop the dairy cattle business. • The need for evaluation and guidance in improving the skills of farmers.

Sources: Primary data processed, 2015.

Quantitative Analysis SWOT

SWOT analysis is conducted qualitatively supported with quantitative SWOT analysis. This SWOT analysis is used to determine the influence of internal and external dairy cattle business on the strengths, weaknesses, opportunities and threats. This of course is based on quantitative research methods, as well as the formulation of development strategies based on the potential of the Districts Mojosoongo. Dairy cattle business development consists of internal and external factors that have been identified.

Based on the explanation above table obtained a total score of factors external strategy opportunities (*opportunity*) of 3.54 and strategic factors external threats (*threats*) by 3.05. The weighted average *opportunity* - the weighted average of *threats* = 3.54 to 3.05 = 0.49. The results of the weighted average is a point coordinate axis "y" on the diagram SWOT analysis, namely in the analysis of business development quadrant position in the District Mojosoongo dairy cows.

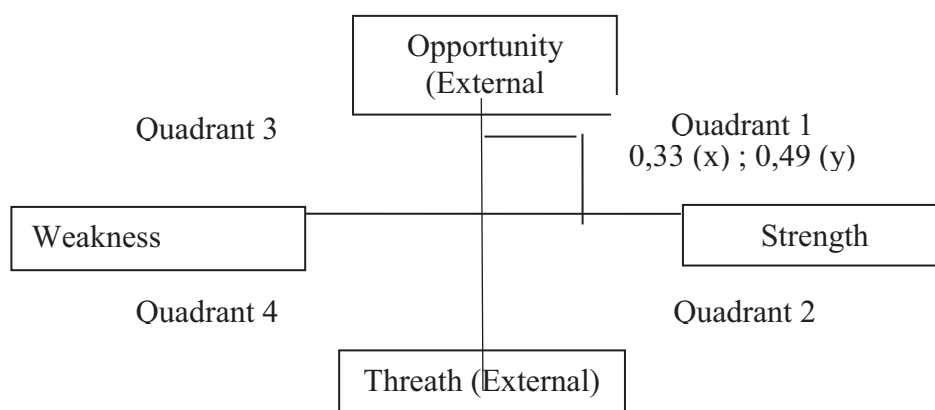


Figure 1. SWOT analysis diagram

Internal and external factors determine the position of the dairy farm development in District Mojosoongo, Boyolali. The results of the total score obtained from the analysis of internal factor is the total score of the power of minus total score of 0.33 and a weakness that the external factor of 0.49, this result comes from a reduction in the total score of opportunities with a total score of threats. The appropriate strategy in the development of dairy cattle and benchmark assessments for business development in the District Mojosoongo dairy cows are in quadrant 1. Run strategy in quadrant 1 is the most advantageous situation. The strategy should be applied in these circumstances is to support aggressive growth policies (*Growth Oriented Strategy*), namely to use force to obtain business opportunities and profits in dairy cattle. In accordance with the opinion of Rangkuti (2006) which states that in quadrant 1 is a very favorable situation. The focus of the strategy should be applied in this condition is a strategy *Strength-Opportunity* (SO) which is a strategy that uses the power to take advantage of opportunities.

CONCLUSIONS

Based on the results of research and discussion undertaken on enterprise development strategy of dairy cows in the Mojosoongo District, Boyolali using analysis of internal and external factors as well as a SWOT analysis it was concluded that benchmark assessment for business development in the District Mojosoongo dairy cows are in quadrant I, the focus of the

strategy adopted the strategy of *Strength Opportunity* (SO). The strategy should be applied in these circumstances is to support aggressive growth policies (*Growth Oriented Strategy*).

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