

PROFITABILITY LEVEL AND THE ROLE OF FAMILY FACTORS RESOURCES FOR DEVELOPING BUSINESS RESOURCE DAIRY COWS IN GETASAN SEMARANG DISTRICT

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ABSTRACT

This study aims to analyze the profitability of the business and the role of family resource factors for the development of dairy cattle in Getasan Semarang District. The study was conducted in October - November 2009. The study uses survey methods. Sample locations were taken on a purposive based on livestock density, taken 3 villages namely solid, medium and less. Each village as many as 30 farmers sampled at random, so that overall there are as many as 90 samples. Primary data collected by interviews with farmers. Data were analyzed using descriptive statistics and multiple linear regression model. The results showed that the level of profitability from operations of 15.96%, profitable business, because it is larger than KUPS loan interest rate of 6% per year. The role of family resources factors consisting of breeder age, educational level, family size, business experience, the number of lactating cows, the number of non-lactating cows and the outpouring of time working jointly significant ($P < 0.01$) against the development of cow dairy. The R^2 (coefficient of determination) of 0.834, which means that the development effort as much as 83.4% of dairy cattle is influenced by the role factors family resources (FFR) and the remaining 16.6% is explained by other factors outside the model.

Key words: Profitability of the business, family resources, dairy cow

INTRODUCTION

Dairy cattle business is one area in farms that have a very strategic and prospective value. This condition is caused by the demand for milk by a society that continues to increase due to population growth, economic improvement and community awareness of the importance of nutritious food. Many factors affect the low production and productivity of dairy cows, among other internal factors influenced by zootechnical and business technology, aspects of capital, human resources and external factors influenced by price and marketing distribution (Boediyana 2009). Results of research by Thau (2004) showed that the factors that influence the technical efficiency of dairy operations in households affected by education level, family annual income, business experience, attitude toward technology, training / exercises that followed, credit assistance, extension, function of cattle and dairy cattle incentives. As for the dairy cattle business development potential of natural resources, human and support facilities to support the development of dairy cattle (Nuraeni and Purwanta, 2004). The role of factors family resources (FFR) in dairy cattle breeding business is very important, considering the work done is still being traditional and odd. Family resources such as livestock assets, business experience, education level, flow time is a factor FFR is to be managed properly and need to be improved. Increasing the role and quality of dairy cattle FFR is expected to run the business more productive, and sustainable profitable. This study aims to measure the profitability of the business and assess the role of the FFR for development of dairy cattle. The expected benefits are as basic policy decisions for more profitable business development and basic considerations in increasing the role of the FFR for development of dairy cattle.

RESEARCH METHOD

The study was conducted in District landmark, Semarang Regency, Central Java. The experiment was conducted in October to November 2009. The method used in this research is survey method (Singarimbun and Effendi, 1995). Sample location of the village taken by "purposive" based on livestock density. Samples are taken randomly breeder of 90 samples. The primary data obtained from interviews with dairy farmers based on the questionnaire that had been prepared. While the secondary data obtained from relevant agencies ie Getasan Office, Department of Animal Husbandry and Fisheries Semarang District and the Central Bureau of Statistics (BPS), local. Data were analyzed descriptively and statistically. Analysis of cost, revenue and operating income using the concept of calculation according to the instructions Soekartawi (1993), namely: $\Phi = TR - TC$, where: Φ = Income, TR = total revenue and TC = total cost, the next level of profitability is formulated as follows: Profitability = (Net revenues: Cost of Production) x 100%. The role of family resource factors were analyzed with multiple linear regression model according to the instructions Ghozali (2005), namely: as the dependent variable (Y) is the production of milk, and independent variables in a row is (x1, age rancher), (x2, level of education), (x3, the number of family members), (x4, the experience of breeders), (x5, the number of lactating cows), (x6, the number of non-lactating cows), and (x7, an outpouring of work time). Statistical test with F test used to test the role of FFR for development of dairy cattle with a significant level of 5%. While the t test was used to analyze the partial effects of independent variables (FFR) to the dependent variable (the development of dairy cattle).

RESULTS AND DISCUSSION

Overview of Research Sites Getasan, Semarang regency is one area in Semarang district, potential for development of dairy cattle. The number of dairy cattle population there were 13,315 head, is the largest population among the districts that are cash cows (Badan Pusat Statistik Kabupaten Semarang, 2008). This region has an average daily temperature of 23°C, including a cool area so it is suitable for dairy cattle business. According Sudono *et al.* (2003) that the air temperature is good for the business of dairy cows ranges from 23 – 28°C. The population there are as many as 47,844 people, and more than 52% in the productive age. This condition is very supportive to the development of dairy cattle. Factors may influence the age of physical labor, the power of innovation, adoption, and more dynamic. Livelihoods of the majority (85.6%) on agriculture and livestock, while the rest work as traders, industrial workers, civil servant / Armed Forces, retirees and others. Most of the livestock population of dairy cattle (13.315 head), cattle (339 head), sheep (562 head), sheep (454 head) and poultry (1423 head).

Overview Factors Family Resource Farmers Business operated by dairy cows, beef cattle dairy farmers are still traditional, but the orientation of the business was aiming at the principal business. In general, the business managed by family members as workers. Average milk production per cow per day as much as 9.05 liters / head / day on a scale of cattle ownership lactation average of 4.43 birds. A complete picture of family resource factors can be seen in Table 1.

Table 1. Description of Respondents Farmer Family Resource Factor

No.	Description FFR (n = 90)	Average and Standard Deviation
1.	Age (years, x1)	48.72 +/- 11.79
2.	Education level (old tahn, x2)	6.64 +/- 2.17
3.	Number of family members (men, x3)	4.64 +/- 1.36
4.	Raising long (years, x4)	9.05 +/- 4.55
5.	Number of lactating cows (ST, x5)	4.43 +/- 1.64
6.	Total non-lactating cows (ST, x6)	1.10 +/- 0.88
7.	Outpouring of work time (HKP, X7)	0.49 +/- 0.14

Based on Table 1. The above shows that the average age of farmers in the productive category, is still relatively low level of education (primary school to junior high school), number of household members 4-5 people, old farming an average of 9, 05 years, the number of lactating (4.43 ST) and non-lactating (1.10 ST) or have a ratio of 75.16%. According Sudono *et al.* (2003) Comparing the ideal is enough, because the effort to keep the ratio of dairy cattle at least 60%. Outpouring of family labor o, 49 HKP / day or an average flow time of 3.43 hours per day working. Business Profitability Analysis of Dairy Cow Level Profitability analysis to measure how big the business efficiency of dairy cows which is run based on the ratio of revenue and production costs incurred. The results showed that the level of profitability still quite profitable, that is equal to 15.96% per year, bigger than the borrowing rate KUPS (business credit of breeder cow) that is equal to 6% per year. The ratio of revenue and costs to produce value 1.16, positive and greater than 1, which means the level of revenues or expenditures greater than Rp 1,- costs, will generate revenue of Rp 1.16, -, which means that viable and developed. A complete calculation of costs, revenues, earnings, operating profitability can be seen in Table 2.

Table 2. Business Profitability Analysis of Dairy Cattle in the Study Sites

No.	Component	Amount (Rp / year)
1.	Production costs	35,832,653
2.	Revenue	41,522,972
3.	Income	5,717,768
4.	Profitability (3 / 1 x 100%)	15.96%
5.	R / C ratio (2 / 1)	1.16

Based on Table 2. Showed that the cost of production Rp 35,832,653, allocated under on feed for Rp 30,898,872 (86.23%), depreciation of capital goods Rp 1,527,453 (4.26%) and others (electricity, water, IB and drugs) amounted to Rp 3,407,685 or equivalent (9.51%). On the revenue of Rp 41,522,972, from selling of milk Rp 33,460,194 (80.58%) male calf and value added amounted to Rp 8,062,777 (19:42%). Profitability of enterprises amounted to 15.96% in favor, but still relatively small.

Role of the Family Resource Factor Dairy Cattle For Business Development. Based on research results indicate that the role of family resource factors that peasant farmer owned dairy cow jointly highly significant ($P < 0.01$) effect for the development of dairy cattle. This condition indicates that the business needs to consider aspects of dairy cattle FFR in terms of quantity and quality aspects. The results can be seen in Table 3.

Table 3. Role of Factor FFR for Development of Dairy Enterprises

No.	Factor FFR	Regression Coefficient	Sign
1.	Age (x1)	-0.038	ns
2.	The level of education (x2)	0.084	ns
3.	Number of family members (x3)	0.211	ns
4.	Length of breeding (x4)	0.142	ns
5.	Number of lactating cows (x5)	9.590	**)
6.	Total non-lactating cows (x6)	-0.094	ns
7.	Outpouring of work time (X7)	-3.750	ns
8.	F value.	59.01	**)
9.	R ²	0.834	

Description: **) were significantly ($P < 0.01$)

ns = non significant

Based on Table 3. showed that the factor FFR consists of breeder age, educational level, family size, length of breeding, the number of lactating and non lactating cows and the outpouring of time

working together affect the development of dairy cattle business. Number of factors influence cattle partial lactation were significantly ($P < 0.01$) against the development of dairy cattle. Regression coefficient of 9.590 lactation number of livestock, which means that every addition of a lactating cow will be able to increase milk production. Research Bessant (2008), the scale of ownership of more than 5 birds can be relied upon as the principal source of livelihood. Operating a dairy farm is the main product produced milk, so the number of lactating cattle should continue to be considered for the sustainability of production is guaranteed. Based on the development of national dairy industry has outlined the need to increase the number of lactating cows on the farm above 60-10 lactating cows. In addition to increasing the level of business productivity should also be considered FFR. This condition is consistent with research Thau (2004) that the technical efficiency of dairy cattle business is strongly influenced by education and business experience. The R^2 (coefficient of determination) of 0.834 which means that for 83.40% of dairy enterprise development can be explained by FFR and the remaining 16.60% caused by other factors outside the model.

CONCLUSION

Based on the results of research can be concluded that the level of profitability from operations of 15.96%, and the value of R / C of 1.16 business profitable and feasible to be developed. The role of family resources are very real factors influence the development of dairy cattle. The R^2 (coefficient of determination) of 0.834, which means that the development effort as much as 83.4% of dairy cattle is influenced by the role of FFR and the remaining 16.6% is explained by other factors outside the model. These results indicate that the role of FFR need to be considered both from the aspect of quantity and quality.

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