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The Strategy of Dairy Goat Business Development

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Submitted : June 19th, 2020 ; Revised : July 2nd, 2020; Accepted: July 18th, 2020

Keywords:

dairy goat;
business
strategy; SWOT.

Abstract

The Kuncen Farm Livestock Farmers Group (KTT) was one of the livestock farmers group in Semarang City where the dairy goat commodity has problems in sales and has an impact on the income. The problems included the demand for goat's milk was influenced by people's purchasing power, people's habits of consuming cow's milk, productivity was not optimal, competition factors between goat's milk businesses, marketing, and lack of capital to develop the business. The aims of the research were to analyze the farmers' income, analyze internal factors (strengths and weaknesses) and analyze external factors (opportunities and threats) at the Kuncen Farm KTT. The research method was the census method. The respondents came from 21 members of the Kuncen Farm KTT, members of the Department of Agriculture and the Department of Food Security. Data analysis method by income calculations and analysis of three strategic formulations included the matrix of Internal Factor Evaluation (IFE), External Factor Evaluation (EFE), Internal-External (IE), SWOT and Quantitative Strategic Planning (QSP). The research results were the average farmers' income was 883,864 Rupiah/month and the calculation of the R/C ratio was $1.58 > 1$ which means that the business was economically profitable. Analysis of internal and external factors in the development of dairy goat business had the biggest strength, which was the processing of dairy products, the biggest weakness was no group role in marketing, the biggest opportunity was the

high purchasing power of the people and the biggest threat was the product less attractive. The strategy priority was to inform the community about the benefits of goat's milk in group.

How to Cite (APA 6th Style):

Choirunisa, Z., Santoso, S. I., & Ekowati, T. (2021). The Strategy of Dairy Goat Business Development. *SOCA: Jurnal Sosial Ekonomi Pertanian*, 15(3), 495–505. <https://doi.org/https://doi.org/10.24843/SOCA.2021.v15.i03.p07>

INTRODUCTION

The livestock farmer groups in Indonesia have cultivated commodities, one of them was goats. The breeding of goats can be divided into two benefits, which were to be used as dairy goats and beef goats. Beef goats were reared with a focus on increasing daily weight while in dairy goats was focused on the lactation period of female goats. Dairy goat milk had health benefits including maintaining bone health, making digestion smooth, preventing diabetes and treating respiratory disorders. Dairy goat farmers in Indonesia processed goat's milk into various products to increase selling value, including processed foods such as ice cream, yogurt and candy and as well can be processed for beauty field, such as masks or soap. Pulina et al. (2018) stated that other goat milk-producing countries, especially in the European Union such as France, Greece, Italy and Spain have breeders who although dairy goat breeding was still relatively simple, but in the commercial process of production result was conducted in a modern way by converting milk into cheese (90%) and yogurt.

The dairy goat farmers need to do further business development by analyzing internal and external environmental factors of the business, thus they can determine strategies to increase sales of goat milk products and increase farmers' income. David (2011) stated that the advantage of implementing a business strategy in the financial aspect, such as to improve productivity and increase profitability and profits, in non-financial aspects was to prepare businesses to understand the changes that occurred in preventing future threats.

Based on Utami's research (2016) stated that the development of the PE dairy goat business had the main problems, such as production has not meet market demand and low business capital. Utami (2016) also added that the development of a dairy goat business can be performed in the entire agribusiness subsystem, by building a regional economy where local communities managed the existing resources, local governments and the private sector can collaborate to generate employment in the livestock sub-sector and provide stimulation to develop the livestock sub-sector economic activity in the community.

The innovation of this research was the analysis of internal and external business conditions that affected the income approach of dairy goat farmers. This research was conducted with the aims of (1) analyzing the income of livestock farmer groups (2) analyzing internal factors (strengths and weaknesses) and external factors

(opportunities and threats) faced by livestock farmer groups (3) formulating alternative strategies for business development.

RESEARCH METHOD

The research was conducted at the Kuncen Farm Livestock Farmers' Group in Kuncen Hamlet, Bubakan Village, Mijen Sub-district, Semarang City. The research location was chosen with the consideration that Kuncen Farm was the largest dairy goat farming group in Semarang City with 235 dairy goats (93 PE goats, 137 Jawarandhu goats, 5 Saanen goats) and Kuncen Farm was a livestock farmer group that has achievement including 1st place in the Goat Farmer Group Competition at Semarang City in 2015 and 1st place in the Dairy Goat Farmer Group Competition at Central Java Province in 2015. The study was conducted for 1 month from January to February 2020. The respondents of this research were 2 members of the Department of Food Security Semarang City, 2 members of the Semarang City Agriculture Department and 21 active members of the Kuncen Farm KTT. The primary data collection method was the Forum Group Discussion (FGD), direct observation and interviews, while the primary data collection was obtained from the Kuncen Farm KTT's profile book and recording. The data analysis method for the first aim used income calculation analysis, the second aim was analyzed using the Internal Factor Evaluation (IFE) matrix and External Factor Evaluation (EFE) matrix, and the third aim was analyzed using the Internal-External (IE) matrix, SWOT matrix and Quantitative Strategic Planning (QSP).

RESULT AND DISCUSSION

Income Analysis

The income of active members of the Kuncen Farm Livestock Farmers Group of 18 active members for 1 month can be calculated through an analysis approach by subtracting the returns and production costs. The returns of the Kuncen Farm Livestock Farmer Group was obtained from the total production result and offered price. The production result of goat milk of Kuncen Farm KTT per month was 2,415 L with an offered price of 13,000 Rupiah – 15,000 Rupiah, so that the income obtained was 43,125,000 Rupiah/month. Kuncen Farm KTT's production costs consisted of fixed costs and variable costs. Fixed costs consisted of land tax of 36,000 Rupiah and depreciation of 1,293,950 Rupiah/month. Variable costs consisted of labor, tofu dregs, bloating medicine and anthelmintic, vitamins, and packaging with a total variable cost of 25,762,676 Rupiah/month. The production cost can be calculated as 27,215,450 Rupiah/month. The following was the income calculation of the Kuncen Farm KTT.

Table 1. The Members' Income of Kuncen Farm Livestock Farmer Group

No	Element	Total (Rp)	Average (Rp)
1	Production Cost	27.215.450	1.511.969
2	Return	43.125.000	2.395.833
3	Income	15.909.550	883.864

Source: Processed Primary Data (2020)

The income calculation of the Kuncen Farm Livestock Farmer Group was obtained from the difference between the production cost of 27,215,450 Rupiah and the income of 43,125,000 Rupiah, resulting in an income of 15,909,550 Rupiah/month because of 18 members have dairy goats during lactation, so the income was divided by 18 people and generated an average member income of 883,864 Rupiah/ month. The farmers' income was relatively low, to be able to develop their business, the cause factors included low production, high milk prices in the market and few interested people. Peterson & Prichard (2015) stated that dairy goat farmers in New Zealand get a milk income of around \$416/head with milk production of 37/kg/head or 109 liters for 192 days, this very affected by the long-standing tradition of traditional breeders in New Zealand that adhered to the practice of selecting animals in their environment to be reared, therefore the goat breeds that will produce milk were the best seeds.

Internal Environmental Factor Analysis (Strengths and Weakness)

Buchory & Saladin (2010) stated that the internal business environment was a direct link between business actors and the environment that affected the company. The following was an analysis of the internal environment of the Kuncen Farm Livestock Farmer Group:

a. Management

Management was defined as the parties in a business that implemented the functions of planning, organizing, motivating, dividing tasks and controlling. The organizational structure of the Kuncen Farm Livestock Farmers Group was classified as organized and included as formal organization. Winardi (2003) stated that the purpose of a formal organization was to accommodate individuals in the organization and have a well-defined structure. The strength of the Kuncen Farm KTT in the management aspect was the existence of a clear institution with a division of tasks and authorities in accordance with the abilities and expertise of each member.

b. Marketing

Marketing conducted by members of the Kuncen Farm Livestock Farmer Group was an individual marketing system. The strength of the Kuncen Farm KTT in the marketing aspect was by using an individual marketing systems, each member has his or her own way of marketing techniques, so that consumers can be reached more broadly. The weakness of the Kuncen Farm KTT in the marketing aspect was no group role in marketing, so that farmers who did not have access to consumer information had difficulty in selling their products. Yuzaria & Syahfril (2011) stated that the marketing of goat's milk did not yet have a wide distribution.

c. Finance

The business capital owned by the Kuncen Farm Farmers Group was joint capital and personal capital. The weakness of the Kuncen Farm KTT in the financial aspect was relatively low income of farmers which had an impact on limited business development capital because the profits from the income can only be used for daily needs.

d. Production

The production process included seed selection, feeding, sanitation, maintaining livestock health, milking and cultivation. The strength of Kuncen Farm KTT in the production aspect was the abundance of feed because in the environment around Bubakan Village there were still a lot of vacant lands overgrown with grass. The weakness of Kuncen Farm KTT in the production aspect was relatively small number of goat breeders that caused low production to meet demand capacity.

e. Human Resource

The members of the Kuncen Farm KTT came from various educational levels including elementary, junior high school and senior high school. The management division of the Livestock Farmer Group was based on the ability and experience of the members. The strength of the Kuncen Farm KTT in the HR aspect was members had a high desire to learn, this was proved by the high enthusiasm in participating in trainings that held by Agriculture Department Semarang City. The weakness of the Kuncen Farm KTT in the HR aspect was the lack of member participation and the dairy goat business was only a side job.

Based on the analysis of internal environmental factors, it can be formulated in The following Internal Factor Evaluation matrix:

Table 2. IFE (Internal Factor Evaluation) Matrix

No	Internal Strategic Factor	Average Weight	Average Rate	Score
Strength				
A	Clear Institutions	0,105	3,60	0,377
B	Individual Marketing	0,097	3,28	0,317
C	Processed Milk	0,111	3,52	0,389
D	Abundant Feed	0,089	3,92	0,350
E	Members' high interest in learning	0,092	3,72	0,341
Weakness				
F	Members' lack participation	0,105	1,48	0,156
G	No group role in marketing	0,096	1,32	0,127
H	Limited income for business development capital	0,105	1,76	0,185
I	Goat brood-stock relatively low	0,104	1,64	0,171
J	Just a side job	0,096	1,56	0,150
Total		1,00		2,563

Source: Processed Primary Data (2020)

The calculation results showed that the IFE matrix analysis produced a total weighted score of 2,563. The weights were obtained from the average of the pairwise

comparison matrix of internal factors. The total weighted value was included in the average category and means that the Kuncen Farm Livestock Farmer Group had a standard or average response in taking advantage of strengths and minimizing weaknesses. Yuananda (2013) stated that the total value in the IFE table of 1.00 – 1.99 was a weak internal position, the total value of 2.00 – 2.99 was the average consideration position and the total value of 3.00 – 4.00 was a strong position. The main strength in the internal environment of the Kuncen Farm Livestock Farmer Group was indicated by the highest weighted value among other factors, which was the processing of dairy products with a weighted value of 0.389. The main weakness was indicated by the lowest weighted value among other factors, which was no group role in marketing with a value of 0.127.

External Environmental Factor Analysis (Opportunity and Threat)

Buchory & Saladin (2010) stated that the external environment of the company/organization was the strength that arise and were beyond the reach and apart from the company's operational situation.

a. Economic

BPS (2020) stated that the Semarang city has an economic growth that increased every year as proved in 2019 by 6.86%, higher than in 2018 at 6.52%. The economic growth was shown by the high level of people's purchasing power in Semarang city. The opportunity of the Kuncen Farm KTT in the economic aspect was the people's high purchasing power in Semarang city which has an impact on the higher level of consumption, especially in terms of food.

b. Social, Culture and Demography

People who have a desire to consume dairy goat's milk products were people who already know information about the benefits of goat's milk which was health benefits. The opportunity for the Kuncen Farm KTT lied in the social and demographic aspects, such as the benefits of goat's milk for health that were sought by the community and the Semarang City which was the provincial capital, so that it has a high population. The threat at the Kuncen Farm KTT lied in the cultural aspect of the community where Indonesian people have a habit of consuming cow's milk instead of goat's milk. Cyrilla et al. (2016) stated that until now, cow's milk was still favored by the people in Indonesia with a consumption rate per person of 1.8 L/week and goat's milk of 0.1 – 0.3 L/week.

c. Politic, Government and Law

Semarang City government supports in the agricultural sector for livestock commodities was performed by the Semarang City Agriculture Department. Semarang City Agriculture Department through the Second Amendment of the Strategic Plan (P-RENSTRA) Semarang City Agriculture Department of 2016-2021 had operational programs and activities to increase livestock production that including counseling on the quality of nutrition and animal feed, increasing livestock population, improving facilities and infrastructure of livestock production, artificial insemination services and inspection on animal origin materials. The opportunity for the Kuncen Farm KTT in the government political and legal aspects was the existence of a policy from the Department of Agriculture to provide subsidies for goat seeds, cages and production equipment to farmer groups in Semarang City. The threat at

the Kuncen Farm KTT was related to the absence of government regulatory policies regarding the conversion of livestock land to residential land in Mijen Sub-district in the future.

d. Technology

The Kuncen Farm Livestock Farmer Group applied technology in its business sector by intensively cultivating livestock including using stilts cages, providing vaccines and herbal medicines that were made by themselves, processing milk products into pasteurized milk, using social media to promote their products and processing waste. Competitor Strength, the opportunity for the Kuncen Farm KTT in the technological aspect was to increase the selling value by processing waste into organic fertilizer or manure for own use or sale.

e. Competitor Threat

The Kuncen Farm Livestock Farmers Group was the only farmer group in Semarang City that cultivated dairy goats, but it was not possible to predict the entry of newcomers in the future. The opportunity for the Kuncen Farm KTT was it did not yet have competitor, therefore it can covered a wider range of consumers. The threat at the Kuncen Farm KTT was the goat's milk products sold by the Kuncen Farm KTT have unattractive packaging, so it must be improved thus not losing competitiveness with other similar products and the second threat was that goat's milk had a relatively expensive price.

Based on the analysis of external environmental factors, it can be formulated in the following External Factor Evaluation matrix:

Table 3. External Factor Evaluation Matrix

No	Internal Strategic Factor	Average Weight	Average Rate	Score
Opportunity				
A	High people's purchasing power	0,105	3,60	0,377
B	Milk benefit for health	0,097	3,28	0,317
C	Semarang City is the province capital	0,111	3,52	0,389
D	No competitor	0,089	3,92	0,350
E	Goat processed waste was worth selling	0,092	3,72	0,341
Threats				
F	Expensive price of goat milk	0,105	1,48	0,156
G	Strange taste of goat milk	0,096	1,32	0,127
H	Conversion of livestock land	0,105	1,76	0,185
I	Un-attractive product	0,104	1,64	0,171
J	Low market distribution	0,096	1,56	0,150
Total		1,00		2,563

Source: Processed from primary data (2020)

The results of the EFE (External Factor Evaluation) Matrix in Table 3 can be seen that the total weighted score was 2.350. The weights were obtained from the average pairwise comparison matrix of external factors. The total weighted value was included in the average category and mean that the Kuncen Farm Livestock Farmer Group had a standard or average response in taking advantage of opportunities and

avoiding threats. The main opportunity that had the most influence in the external environment of the Kuncen Farm Livestock Farmer Group was indicated by the highest weighted value among other factors, which was the high purchasing power of the community with a weighted value of 0.289. The main strength with the second largest weighted value was that there were no competitors with a value of 0.267. The main weakness was shown by the lowest weighted value among other factors, which was low product distribution in the market and less attractive products with an equal value of 0.206.

The Formulation of Alternative Strategies

The formulation of business development strategies was conducted using analytical tools, which was the Internal-External matrix, SWOT and QSPM matrix. The analysis results can be seen in the following matrix

The internal adjustment (strengths and weaknesses) and external (opportunities and threats) used the Internal-External (IE) and Strength-Weakness-Opportunity-Threat (SWOT) matrix analysis tools.

**Table 4. IE Matrix of Kuncen Farm Livestock Farmer Group
Total Value of Weighted IFE**

		Strong 3,0 – 4,0	Medium 2,0 – 2,9	Weak 1,0 – 1,99
Total value of weighted EFE	High 3,0 – 4,0	I	II	III
	Average 2,0 – 2,99	IV	V	VI
	Low 1,0 – 1,99	VII	VIII	IX

Source: Processed Primary Data (2020)

The IE matrix results of the Kuncen Farm Livestock Farmer Group had a position in area V. That position mean hold and maintain position. Ardian et al. (2017) stated that the position of cell V in the IE matrix showed the position of survival and business achievement, so that the right strategy was an incentive strategy, which was market penetration and product development. The area V position means that the Kuncen Farm KTT had the potential to develop businesses and the products of the Kuncen Farm KTT have reached the community. The way to deal with the business position was to increase the range of product sales and give more promotions.

The next analysis used a SWOT matrix analysis tool, to be able to determine the best alternative strategy that can be conducted for the business development of the Kuncen Farm KTT. Rinaldi et al. (2019) stated that there were 4 groups of strategies, each of which has a goal, such as the SO (Strength-Opportunity) strategy was a strategy formulated by considering the strengths owned, to be able to take advantage of existing opportunities, the WO (Weakness-Opportunity) strategy was a strategy formulated by looking at opportunities to minimize weaknesses, the ST (Strength-Threats) strategy was a strategy that formulated by using the strengths owned to minimize existing threats, and the WT (Weakness-Threats) strategy was a

strategy that formulated to reduce the weaknesses owned and avoid existing external threats. It was important to consider the selection of strategies, based on the position of business conditions that have been formulated in the IE matrix, the analysis results can be seen in the following matrix

Table 5. SWOT Matrix

	<p>Strenght</p> <ol style="list-style-type: none"> 1. Clear institutions 2. Individual marketing 3. High capital obtained high profit 4. Abundant feed 5. High interest in learning 	<p>Weakness</p> <ol style="list-style-type: none"> 1. Members' low loyalty 2. Absence of group role in marketing 3. Limited income for business development capital 4. Less goat broodstock 5. Only side job
<p>Opportunity</p> <ol style="list-style-type: none"> 1. People's high purchasing power 2. Health benefit of goat milk 3. Province capital 4. No competitor 5. Worth selling of goat processed waste 	<p>S-O Strategy</p> <ol style="list-style-type: none"> 1. Develop product to be secondary product 2. Inform people in group about the benefit of goat milk 	<p>W-O Strategy</p> <ol style="list-style-type: none"> 1. Utilize production house to process milk product routinely as group activity 2. Collect group capital for production and marketing in group
<p>Threats</p> <ol style="list-style-type: none"> 1. Expensive price of goat milk 2. Strange milk taste 3. Land conversion 4. Un-attractive product 5. Low distribution of product in the market 	<p>S-T Strategy</p> <ol style="list-style-type: none"> 1. Plant feed by themselves on an empty land 2. Improve packaging quality 	<p>W-T Strategy</p> <ol style="list-style-type: none"> 1. Accommodate members' production 2. Improve partnership with agent or supplier and bond an official partnership

Source: Research Data 2020

The next analysis, to determine the best strategic priorities for the development of the Kuncen Farm KTT was using the QSPM (Quantitative Strategic Planning Matrix) analysis tool. The QSP matrix analysis showed that, of the eight alternative strategies that have been formulated, the highest total attractive score obtained was 7,160 and the lowest was 6,469. The following were the priority strategies chosen by respondents based on the level of the most attractive strategy:

Table 6. Alternative Strategies for Business Development of Kuncen Farm Livestock Farmer Group

Priority	Strategy	TAS Value
I	Inform people in group about the benefit of goat milk	7,160
II	Develop product to be secondary product	6,805
III	Improve product quality and packaging	6,759
IV	Plant feed by themselves	6,691
V	Utilize production house to process milk product routinely as group activity	6,673
VI	Improve partnership with agent or supplier and bond an official partnership	6,563
VII	Accommodate members' production	6,472
VIII	Collect group capital for production and marketing in group	6,469

Source: Research Data 2020

CONCLUSION

The conclusion of this research was the dairy goat business of the Kuncen Farm Farmers Group was profitable and feasible to operate. Based on the analysis that conducted, the right strategy to be performed was a market penetration strategy, including increasing the number of workers, increasing spending on advertising, offering products and promoting extensively and product development strategies by increasing product restoration and modifications and services.

RECOMMENDATION

This research used respondents such as the Department of Agriculture, the Department of Food Security and members of the Kuncen Farm Livestock Farmer Group with the aim of getting one voice in the identification of environmental and external factors, suggestions that can be considered were in further research to design indicators of internal and external environmental factors. The external environment then presented respondents with more specific characteristics that were engaged in business policies, such as the Department of Trade and BPOM to facilitate farmers to make it easier to manage business permits and product permits.

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