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Analysis of Strategy for Local Beef Cattle Competitiveness Development in North Sulawesi

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ABSTRACT

Local beef cattle (Ongole Crossbreed) in North Sulawesi are still traditionally raised, making its product competitiveness is low. The purpose of this research is to describe the utilization of production factors increasing the competitiveness of livestock and meat commodities, conduct a feasibility study for its development, and formulate a strategy for developing its competitiveness. This qualitative-descriptive research is a case study model involving 160 respondents purposively selected as the sample. The analytical method was the feasibility test of investment criteria. The strategy formulation was divided into the input stage (to analyze internal and external factors), the matching stage (SWOT matrix and IE matrix), and the decision stage (with a Quantitative Strategy Planning Matrix). The findings indicate that the production factor resources were available with investment criteria requirement and strategic priority.

Keywords: Competitiveness, Feasibility, Local Cattle, Strategy Formulation

INTRODUCTION

North Sulawesi's local livestock and beef commodities are unable to compete with imported cattle, both in terms of quality of meat and price. This gives rise to the gap between consumer needs and the availability of beef in North Sulawesi (Lainawa, 2020).

Since 2012 there has been a decline in production by an average of 13.33% per year. The consumption needs to be increased by an average of 3.38%. This is caused by the traditional rearing system with the grazing system, resulting in incompetitive production with imported beef in terms of quality and price. In fact, from the aspect of support, the production factor is sufficient to make local cattle competitive.

Lainawa (2020) stated that the local beef cattle agribusiness development strategy in North Sulawesi is growing and building. This confirms that the local beef cattle business has industrial appeal with the concept of product development strategies, market development, and market penetration.

In order to realize the concept of the strategy referred to, business development must be directed at a strategy for developing competitiveness in both production and marketing. Therefore, how to make local beef cattle in North Sulawesi can compete.

Strategic management has several benefits. It prevents the occurrence of various kinds of problems inside and outside the company and increases the company's ability to deal with them. It makes the conditions for resistance to a change can be reduced. It enables companies to carry out all of their operational activities more efficiently and effectively.

Also, the involvement of the workforce or company employees in strategy formulation improves employee understanding of productivity rewards in each strategic plan. In the end, it increases work motivation and a sense of togetherness among employees.
All manager decisions tend to be more precise as they are based on careful planning and related aspects. Strategic management will make the management more sensitive to external threats. Companies with strategic management are more profitable than those that do not implement it since overlapping activities will be reduced.

Katuuk, Tewal, Massie, and Lengkong (2019) noted that a strategic management model in the health sector of North Minahasa District is implemented to enhance future organizational performance. Strategic management helps companies adapt quickly to changes and reduce the reluctance of old employees to change. It identifies the company's comparative advantage in an increasingly risky environment. It also provides a clear long-term direction for the company to be pursued.

In the strategic management process, statements related to the determination of the vision (identity), mission (justification/differentiation), and goals (targets/standards) are necessary for response to the declaration of prepeared strategies according to its level (corporate, business and functional) based on on the content, consistency, and coherence of an organization's decision-making process framework for the long term. In this case, organizational structures with various forms (simple, functional, divisional, matrix, strategic business units) play an important role in achieving the policies' objectives.

The financial feasibility analysis is to determine business feasibility. In business planning, data collection of current conditions is an absolute necessity for financial feasibility. Errors in determining production technology assumptions, availability of raw

materials and price fluctuations, the sensitivity of operational costs and labor estimates may lead to inaccurate analysis. If the plan is realized, it has the potential to lose money.

This research aims to describe the production factors in North Sulawesi to support the development of competitiveness of local beef cattle, the investment feasibility criteria (RCR, NPV, IRR, PP), and the development of strategy formulation (EFE, IFE, IE, SWOT, QSPM). Meanwhile, the benefits of the research are that in addition to being a reference source for local beef cattle agribusiness development policies, it is also related to the implementation of the Unsrat college research master plan on priority research for "food security" and the implementation of Unsrat's research master plan vision, namely research based on regional excellence.

LITERATURE REVIEW

To realize the concept of the strategy, the development of local cattle business must have product competitiveness. It is necessary to formulate a strategy on how to increase the competitiveness.

Financial and non-financial feasibility analysis is very useful for determining decisions on livestock business development, especially for commercial purposes. According to Nurmalina, Sarianti, and Karyadi (2010), the financial aspect is a budget projection that will estimate gross revenues and expenditures in the future each year with the criteria of Net Present Value (NPV), Revenue - Cost Ratio (R/C), Internal Rate of Return (IRR), and Payback Period (PP). The non-financial aspects include some aspects. Firstly, market and marketing aspects. Kasmir and Jakfar (2010) examined how big the market will be and how big the company's ability to dominate the market, and how the strategy will be implemented Secondly, technical aspect. It deals with production capacity, use of equipment and machinery, location and layout of the most profitable business. It relates to input (supply) and output (production) in the form of tangible goods and services. The third aspect is the management and legal aspect. It concerns with learning about management during development and management during operation. The legal aspect is about studying the form of business entity to use and the guarantees provided when using sources of funds in the form of loans, various deeds, certificates, and permits. The fourth aspect is social, economic, and cultural aspect, studying how much business has a social, economic, and cultural impact on society. The social aspects studied are increasing job opportunities, reducing unemployment, the distribution of employment opportunities, and the influence of business on the surrounding environment. The last aspect is the environmental aspect of the environment to determine the negative and positive impact of an investment.

Competitiveness can be analyzed at three different levels: national level (macro economy), industrial level (meso economy), and company level (micro economy) (Ambastha and Momaya 2004; Bojnec & Ferto in Hitani, Nurliza, & Dolorosa, 2017). Potential sources of feed and local cattle breeds are essential factors as a source of comparative advantage in the beef cattle business in North Sulawesi. Concerning feed, the pattern of maintaining a free or tied herd system, although relying more on forage feed, provides advantages in the easy availability of feed. The availability of agricultural waste as feed is also a source of competitiveness for the beef cattle business.

According to David (2011), External Factor Evaluation Matrix (EFE) enables strategists to summarize and evaluate economic, social, cultural, demographic, environmental, political, governmental, legal, technological, and competitive information. As David (2011) stated, Internal Factor Evaluation Matrix (IFE), a strategy formulation tool,

summarizes and evaluates the main strengths and weaknesses in the functional areas of a business. It also forms the basis for identifying and evaluating the relationships among these areas. Intuitive judgment is required in developing the IFE Matrix, so the emergence of a scientific approach should not be construed as a very powerful technique. A thorough understanding of the factors included is more important than the actual numbers.

The feasibility study analysis of investment criteria consists of Revenue Cost Ratio (RCR), Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period (PP). To determine the eligibility criteria, according to Nurmalina et al. (2010), two things are considered: the financial aspect and the non-financial aspect. According to David and David (2015), IE Matrix positions the various divisions in a nine-cell view. The IE matrix is similar to the BCG matrix in that it involves planning in a schematic diagram. This is why they are called portfolio matrices.

RESEARCH METHOD

This research was conducted in North Sulawesi Province, in April 2021. It is qualitative-descriptive with a case study model, in which the selected event is the actual thing taking place, and the results of previous research related to the time span are not more than two years.

The primary data is collected and obtained directly from parties who are considered to understand the problems of local beef cattle farming in North Sulawesi. They are three academicians of animal husbandry agribusiness researchers from the Faculty of Animal Husbandry, Sam Ratulangi University, three ASNs responsible for animal husbandry at the Office of Agriculture and Animal Husbandry of North Sulawesi Province, and 160 farmers as respondents. The secondary data were collected and obtained from relevant articles or literature, internet and mass media, and the Central Bureau of Statistics. The variables to measure are resource factors of production, financial and non-financial aspects, external and internal environmental factors.

The data analysis applied a four-qualitative stage approach: data collection, data reduction, data display, and conclusion drawing. Qualitative data analysis is an effort made by working with data, organizing data, sorting it into manageable units, synthesizing it, looking for and finding patterns, finding what is important and what to learn, and deciding what to tell others (Bogdan & Biklen in Moleong, 2011, 2017).

According to Miles and Huberman in Sugiyono (2017), activities in qualitative data analysis are data reduction, data display, and conclusion drawing. Creswell in Sugiyono (2010), the steps of qualitative data analysis are providing raw data in the form of transcripts, field notes and the researcher opinion, organizing and storing data to be analyzed, reading all data, coding, compiling themes and data descriptions, constructing between themes, interpreting and giving the meaning of the composed themes.

The analysis of the three stages of strategy formulation comprises EFE and IFE matrices, the Internal-External (IE) matrix, the Strength-Weakness-Opportunity-Threat (SWOT) matrix and the QSPM (Quantitative Strategic Planning Matrix) analysis. According to David and David (2016), in formulating a complete strategy, there are three stages of strategy formulation (framework). Stage I is input, Stage II is matching, and Stage III is decision. Kinnear in Mappigau and Esso (2011) suggested that the weight of each variable is determined by the value of each variable against the total value. Strategy formulation is the development of a long-term plan for the effective

management of environmental opportunities and threats, given the strengths and weaknesses. Taufiqurokhman (2016) illustrated that strategic management is an art and science of formulating, implementing, and evaluating.

RESULTS

General Characteristics of North Sulawesi Agriculture

Agricultural allocation area based on consists of some areas. The first is food crops designated areas, scattered throughout the province. They are in Dumoga, Lolayan and Lolak in Bolaang Mongondow Regency; Bintauna - Bolangitang in Bolaang Mongondow Utara Regency; Dimembe in North Minahasa; Tondano in Minahasa; Tumpaan in South Manahasa; and all regencies and cities that own land with the potential for the development of food crop cultivation.

Second, horticultural allocation areas. They consist of cultivation of upland vegetable crops (cabbage, carrots, potatoes, green beans, leeks) in Minahasa, South Minahasa, Tomohon and in the highlands of Bolaang Mongondow, Modoinding, Modayag, and Passi Bolaang Mongondow Regency (MODASI); rambutan cultivation in South Minahasa and North Minahasa; cultivation of salak fruit in Siau Tagulandang Biaro and Southeast Minahasa; Mango, duku/langsat, durian, and banana cultivation in North Minahasa, South Minahasa, Southeast Minahasa, and Bolaang Mongondow; watermelon cultivation in South Minahasa and Southeast Minahasa; pineapple cultivation in Bolaang Mongondow and South Minahasa; matoa plants cultivation in Bolaang Mongondow, Bolaang Mongondow Selatan, Bolaang Mongondow Timur and Bolaang Mongondow Utara.

Third, agricultural allocated areas. They are agropolitan (meaning agrocity) areas in Klabat Minahasa Utara; Pakistani agropolitan area in Minahasa; Modoinding agropolitan area in South Minahasa; Dumoga agropolitan area in Bolaang Mongondow; the Dagho agropolitan area in the Sangihe Islands; Siau agropolitan area in Siau Archipelago, Tagulandang Biaro; Tombatu agropolitan area in Southeast Minahasa; Rurukan agropolitan area in Tomohon, and livestock areas throughout the province with the development of infrastructure to support land, sea, air transportation networks, water resources networks, energy networks, telecommunications networks, commodity markets, production centers, houses slaughter animals, livestock markets, and marketing networks. The Sustainable Food Agriculture Area (LP2B) with an area of approximately 405,000 Ha, consisting of:

a) Existing rice fields with an area of approximately 52,236.24 Ha, including: 1) Minahasa, approximately 7,576.91 Ha; 2) South Minahasa, approximately 5,390.88 hectares; 3) North Minahasa, with an area of approximately 3,146.09 Ha; 4) Southeast Minahasa, an area of approximately 2,977.78 Ha; 5) Bolaang Mongondow, with an area of approximately 22,099.19 hectares; 6) Bolaang Mongondow Utara, with an area of approximately 5,730.64 hectares; 7) Bolaang Mongondow Timur, with an area of approximately 1,655.75 Ha; 8) Bolaang Mongondow Selatan, with an area of approximately 1,331.63 hectares; 9) Sangihe Islands, covering an area of approximately 9.10 Ha; 10) Talaud Islands, covering an area of approximately 212.14 Ha; 11) Manado City, with an area of approximately 79.96 hectares; 12) Bitung City, with an area of approximately 79.39 Ha; 13) Tomohon City, an area of approximately 675.68 Ha; 14) Kotamobagu City, with an area of approximately 1,271.14 hectares.
b) Reserve paddy fields with approximately 55,124.73 hectares, including: 1) Bolaang Mongondow, approximately 18,818.25 hectares; 2) Bolaang Mongondow Selatan, approximately 8,594.23 hectares; 3) Bolaang Mongondow Timur, approximately 400.69 hectares; 4) Bolaang Mongondow Utara, approximately 5,090.31 hectares;

5) Minahasa, approximately 2,569.55 Ha; 6) South Minahasa, approximately 8,409.32 Ha; 7) Southeast Minahasa, approximately 6,884.42 Ha; 8) North Minahasa, approximately 4,357.96 hectares.

c) Dry land (horticulture, food crops, agropolitan and livestock), scattered throughout the regency/city in North Sulawesi Province.

Characteristics of Local Beef Cattle Business

The business of raising local beef cattle (Ongole Cross and their descendants) in North Sulawesi has been going on for a long time. There is no definite data on when the people of North Sulawesi raise cattle. However, it is known that in the territory of Indonesia, so far, there have been found three major breeds of beef cattle, namely the Ongole cattle, the Balinese cattle, and the Madurese cattle, and the breeds of several other cattle breeds, including the offspring of PO cattle and Balinese cattle in North Sulawesi, known as the cow "Bacam".

Cattle raising by breeders in North Sulawesi is a side business from their main business in food crop agriculture, horticulture, and plantations. There are three models of cattle raising the breeders carry 1) intensive rearing, where the cattle are housed together with a regular feeding system of 10-20 percent; 2) semi-intensive rearing (20%-50%), where the livestock are grazed during the day on the surrounding plantation or agricultural area, then they are kept in the afternoon and at night; 3) extensive rearing (>50%), a system of care by means of livestock released/grazed throughout the day foraging for their own food in turns from one farm and plantation to another (known as moving cows), then tied up in the evening and at night on trees in grazing land or around houses (see Table 1).

Table 1. Beef Cattle Population by Regency/City in 2018 and 2019

No	Regency / City	2018	2019	Number of Increments
1	Bolaang Mongondow	24,646	25,139	493
2	Minahasa	25,400	25,908	508
3	Sangihe Islands	2,029	2,037	8
4	Talaud Islands	1,677	1,706	29
5	South Minahasa	18,587	18,450	-137
6	North Minahasa	17,636	18,351	715
7	North Bolaang Mongondow	18,221	18,585	364
8	Sitaro Islands	25	26	1
9	Southeast Minahasa	5,089	5,089	0
10	South Bolaang Mongondow	5,763	5,936	173
11	East Bolaang Mongondow	5,354	5,390	36
12	Manado City	3,318	3,325	7
13	Bitung City	2,943	3,061	118
14	Tomohon City	3,965	4,163	198
15	Kotamobagu City	2,032	2,080	48
	North Sulawesi	**136,685**	**139,246**	**2561**

Source: BPS North Sulawesi (2020)

The cows raised by breeders are generally local PO, Bali and their breeds (Bacam). Furthermore, there are also breeders who keep imported cattle, such as Limousin and Simmental cattle. PO and Bacam are distributed almost in all areas of North Sulawesi Province, while Bali cattle are mostly in the Bolmong Regency area, especially in the Dumoga transmigration area. Meanwhile, other areas in the surrounding regencies also have Bali cattle with a very limited number, because their presence is only used as seeds to be mated with PO cows. The development of beef production in North

Sulawesi averages -13.33 percent per year. Meanwhile, nationally, the average rate is 0.72 percent per year.

Table 2. Development of North Sulawesi and National Beef Production

Year	North Sulawesi			National		
	Total Production (ton)	Percentage of Total Production	Growth per Year (%)	Total Production (ton)	Percentage of Total Production	Growth per Year (%)
2012	4,501	18,642	-	508,906	16.59	-
2013	4,565	18,907	1.40	504,818	16.45	-0.81
2014	4,587	18,998	0.48	497,670	16.22	-1.44
2015	3,611	14,955	-21.28	506,661	16.51	1.77
2016	3,431	14,210	-74.50	518,484	16.90	2.28
2017	3,450	14,289	0.62	531,757	17.33	2.50
Total	24,145	100	-93.28	3,068,296	100	4.30
Average	3.45		-13.33	438,328		0.72

Source: Book of Animal Husbandry and Animal Health Statistics 2018 in Lainawa (2020)

Table 2 shows that in orth Sulawesi Province, beef production growth from 2012 to 2017 has decreased, although at the same time at the national level it has increased slowly. The growth rate of beef production in North Sulawesi averages is of -13.33 percent per year. Meanwhile, nationally the average is 0.72 percent per year.

The area of North Sulawesi Province is 15,069 km², with tropical climates influenced by monsoons. The area that receives the most rainfall is the Minahasa area, with an average temperature of 25° C. The average maximum temperature is 30° C and the minimum temperature is 20.4° C. The temperature is influenced by the height of a location, which every 100 meters increase reduces the temperature by about 0.6° C. The area of agricultural land in North Sulawesi Province in 2015 was 1.5 million hectares. The land area is 72% of agricultural land, not rice fields. Non-rice fields are widely used as plantations and fields.

The source of capital for developing a beef cattle business in North Sulawesi can be obtained from formal financing such as banks or other financial institutions with official credit agreements between creditors and debtors (farmers), and non-formal financing obtained from family associations (Rukun Keluarga), *mapalus*, or farmer-owned funds. Formal financing consicts of commercial loans with interest in the market and program loans whose interest is subsidized by the government.

One form of capital in the cattle business considered helpful for breeders is the People's Business Credit (KUR). The government has facilitated the KUR with an interest rate of 6%. The Special KUR for people's animal husbandry is is intended to drive the traditional economic sector in rural areas managed by the people for fattening, dairy, and livestock breeding. The KUR channeling banks are Bank BRI, Bank Mandiri, BNI (Bank Negara Indonesia), BTPN (National Pension Savings Bank), BCA (Bank Centeral Asia), BTN (Bank Tabungan Negara), Bank Bukopin, and Bank Sinarmas.

DISCUSSION

Financial and Non-Financial Analysis

The result of the calculation shows the value of B/C ratio is 1.33. This implies that every sacrifice of 1 unit cost will be followed by an increase in profit of 1.33 units. This confirms that local beef cattle farms in North Sulawesi are feasible to be developed. The analysis results show that ten local beef cattle raising businesses in North Sulawesi obtained NPV with a DF of 30% of IDR 1,130,276. This means that the local beef cattle business is feasible to be developed because it has a positive value.

Mayulu, Ergi, Haris, and Soepriyadi (2020) showed that the IRR value obtained in the smallholder beef cattle business is 71%, which means that the business is feasible to run until the highest interest rate of 15.65% because it is at IRR 0. The return on investment is greater than the prevailing interest rate.

The Payback Period value of beef cattle business in North Sulawesi is 2.97 years (2 years 9 months 7 days). This indicates that all investment costs invested in the business development plan will be returned in the second year, ninth month, seventh day. This shows that it is less than 10 years, so it is worth running.

By the market aspect, North Sulawesi's local livestock and beef cattle commodity is a product with good marketing prospects because until now the respondents' preference for this commodity is quite good, where out of 100 respondents, 20 stated that they really like it, 62 like, 11 hesitated, six dislike, and one dislike very much.

By technical aspects, the land and location of local beef cattle farms in North Sulawesi meet the technical requirements. Respondents stated that from their years of experience raising local cattle for generations, they had never experienced any significant problems in terms of using the land for the location of the ranch, even though the maintenance system used was grazing on agricultural and plantation lands. they rely on artificial reproduction, in addition to the artificial insemination program carried out by the government. As for the provision of feed, North Sulawesi agricultural land is widely available forage that grow naturally and planted by farmers, and the leftover agricultural products.

From socio-economic aspects, the local beef cattle business in North Sulawesi is inseparable from the social conditions of rural communities as agricultural labor. This condition, in the years of experience raising local cattle, contributes to their economic income and community welfare. In addition to increasing income from the agricultural sector because it can save the use of labor to cultivate agricultural land and distribution of agricultural products, as well as income from livestock business.

External and Internal Environmental Factor Analysis

The results of identifying external environmental factors (opportunities and threats) and internal environmental factors (strengths and weaknesses) are presented in Table 3.

Table 3. EFE Matrix Analysis (External Factor Evaluation)

Opportunity		Weight (%)	Rating	Score	Priority / Ranking
1	Government policies that support the implementation of beef cattle farming	0.100	1.000	0.100	VII
2	Natural reproduction	0.100	1.000	0.100	VII
3	The development of supermarkets, restaurants, hotels, meatball traders that support the product distribution system	0.106	3.000	0.318	I

4	Pacific region's strategic trading position	0.094	2.000	0.188	V
5	Livestock digitization	0.100	2.000	0.200	IV
6	Law of the Republic of Indonesia No. 19 Year 2013 concerning Protection and Empowerment of Farmers	0.100	1.000	0.100	VII
7	Agroecosystem support	0.139	2.000	0.278	II
8	The potential for agricultural, plantation and agro-industrial waste has not been optimally utilized	0.100	1.000	0.100	VII
9	Potential human resource farmers in rural areas	0.111	2.000	0.222	III
10	Partnership concept	0.050	3.000	0.150	VI
TOTAL				1.756	

Threat		**Weight (%)**	**Rating**	**Score**	**Priority / Ranking**
1	Climate change has an effect on high mortality	0.059	2.000	0.118	VII
2	The influence of foreign cattle markets (exporting countries) on local cattle markets	0.080	2.000	0.160	VI
3	Draining of local cattle (productive female cattle) due to high consumption	0.080	2.000	0.160	VI
4	Transfer of Land Functions	0.106	2.000	0.212	IV
5	Decrease in the labor force in the animal husbandry sub-sector	0.096	2.000	0.192	V
6	Modernization of farmers' social change is slow	0.112	2.000	0.224	III
7	The price of feeder and imported beef is cheaper than local beef	0.128	2.000	0.256	II
8	Potential of fishery products	0.096	2.000	0.192	V
9	The perspective of livestock farmers as an agricultural labor force and as an attractive force for deforestation	0.138	2.000	0.276	I
10	The mechanism for slaughtering cattle results in decreased quality of local beef	0.106	2.000	0.212	IV
TOTAL				2.002	
Total Score (Opportunity + Threat)				**3.758**	

Based on the results of the analysis of the evaluation of external factors presented in Table 3, the rankings or priorities for developing the competitiveness of local cattle include the development of supermarkets, restaurants, hotels, meatball traders, Agro-ecosystem support, potential human resources for rural farmers, digitization of livestock, North Sulawesi's strategic trading position, partnership concepts, potential agricultural, poor plantation and agro-industry waste management, natural mating reproduction, and Law of RI no.19 of 2013.

Furthermore, the threat factors are the livestock farmer's perspective, cheeper prices of feeder and imported beef, slow modernization of social change, land functionalization, the potential for fishery products, drainage of local cattle, foreign cattle markets (exporting countries), and climate change.

The total score on the EFE analysis is 3.758, which is in the very high category. This means that the formulation in the EFE matrix is very good to be used as a study concept for developing the competitiveness of local cattle in North Sulawesi.

Table 4. IFE Matrix Analysis (Internal Factor Evaluation)

Strength		Weight (%)	Rating	Score	Priority / Ranking
1	Community socio-cultural support	0.072	3.000	0.216	VIII
2	Law of the Republic of Indonesia No. 16. Year 2006. concerning Agricultural, Fisheries and Forestry Extension Systems	0.072	3.000	0.216	VIII
3	"Plasma Nutfah" of local beef cattle seed sources that are owned is quite numerous and varied as well as adaptive to environmental conditions	0.089	3.000	0.267	V
4	The potential for high local forage diversity as a source of animal feed	0.106	3.000	0.318	IV
5	Development of reproductive technology	0.083	3.000	0.249	VI
6	There are quite a lot of agro-industry businesses as a source of feed waste	0.078	3.000	0.234	VIII
7	As a characteristic of the livestock business model in rural areas	0.122	3.000	0.366	III
8	High motivation of breeders to make beef cattle business an independent business	0.089	3.000	0.267	V
9	The availability of human resources for farmers in rural areas is adequate	0.139	3.000	0.417	II
10	The existence of institutions that facilitate breeders (farmer groups, cooperatives, customary pastoral institutions	0.150	3.000	0.450	I
Sub Total				3.000	

Factor Weakness		Weight (%)	Rating	Score	Priority / Ranking
1	The business scale is still small	0.089	1.000	0.089	IV
2	The business scale is still small	0.106	1.000	0.106	I
3	The supply route is not yet organized, which is burdensome for breeders	0.100	1.000	0.100	II
4	Limitations of livestock breeds and limited businessmen or breeder groups of breeders..	0.106	1.000	0.106	I
5	The farmer institutional system is not yet functioning	0.100	1.000	0.100	II
6	Her skills are still limited	0.106	1.000	0.106	I
7	Still rely on family capital	0.106	1.000	0.106	I

8	The price of concentrate feed raw material fluctuates and tends to increase, even difficult to obtain in the field	0.094	1.000	0.094	III
9	Biosecurity is still weak for Brucellosis, Antrax, digestive tract diseases and SE	0.094	1.000	0.094	III
10	The business pattern is still traditional (extensive)	0.100	1.000	0.100	II
Sub Total				1.001	
Total Score (Strength + Weakness)				**4.001**	

The calculation process begins by determining the Attractiveness Scores (AS), which are defined as numbers indicating the relative attractiveness of each strategy in a particular set of alternatives. The AS is determined by evaluating each of the key internal or external factors. Specifically, it should be assigned to each strategy to indicate the relative attractiveness of one strategy over another, taking certain factors into account. The range for the Attractiveness Score was 1 = not attractive, 2 = somewhat attractive, 3 = moderately attractive, 4 = very attractive. Next, the Total Attractiveness Value is calculated by multiplying the key factor Weight values that have been obtained from the IFE and EFE Matrix calculations with the Attractiveness Scores (AS) in each row.

The total Attractiveness Score indicates the relative attractiveness of each alternative strategy, by considering only the influence of the closest internal or external key success factors. The higher the total score, the more attractive the alternative strategy (taking into account only the closest key success factors). The sum of the Total Attractiveness Scores (TAS) reveals which strategy is the most attractive from each set of alternatives. A higher score indicates a more attractive strategy, considering all relevant internal and external factors that may influence strategic decision level. The degree of difference between the Total Attractiveness Values of a given set of alternative strategies indicates the relative preference of one strategy over another.

Based on the analysis results in Table 5, the rankings or priorities for developing the competitiveness of local cattle are community socio-cultural support, Law. No. 16. 2006, the germplasm system, high diversity of local forage, development of reproductive technology, agro-industry businesses, high motivation of breeders, the availability of adequate human resources, and facilitating institutions.

The weakness factors include small business scale, expensive industrial feed, poorly organized Supply lines, limited livestock breeds and limited entrepreneurs or groups of breeders, unfunctional farmers' institutional system, limited farming skills, family capital dependency, fluctuating prices of concentrated feed raw materials, weak biosecurity, and traditional business patterns.

Based on the EFE-IFE analysis, alternative policy strategies are formulated for developing the competitiveness of local cattle in North Sulawesi. They are 1) mapping and potential development of pasture-based livestock areas, integration and cut and carry base (Forage Production Zone); 2) developing local beef cattle (PO) industry; 3) empowering farmers by making breeders the backbone of local beef cattle business development; 4) intensifying the local cattle grazing system based on legumes, corn, rice and spices typical of North Sulawesi; 5) strengthening the field of livestock

mechanization and digitization; 6) branding of local PO type cattle; and 7) developing the local culture of “mapalus” cattle farming.

The total score on the IFE analysis of 4.001 falls into the very strong category. This means that the formulation in the IFE matrix is very good to be used as a study concept for the development of the competitiveness of local cattle in North Sulawesi.

Results of Internal-External Matrix Analysis (IE)
The Internal-External (IE) Matrix is used to determine the strategic position of developing the competitiveness of local beef cattle in North Sulawesi.

Table 5. Internal-External Matrix (IE) of Local Beef Cattle Farming Business in North Sulawesi

Total nilai IFE				
Total EFE Value	**Strong 3.0-4.0**		**Moderate 2.0-2.99**	**Weak 1.0-1.99**
	High 3.0-4.0	**I (Grow and Build)**	II ((Grow and Build)	III (Keep and Maintain)
	Moderate 2.0-2.99	IV (Grow and Build)	V (Keep and Maintain)	VI (Harvest or Divest)
	Low 1.0-1.99	VII (Keep and Maintain)	VIII (Harvest or Divestment)	IX (Harvest or Divest)

Table 5 shows the two key dimensions of the total IFE weight score on the x-axis and the total EFE weight score on the y-axis. The strategic position of beef cattle farming in North Sulawesi is included in Cell I, where this can be explained as grow and build. This explains that the beef cattle farm agribusiness in North Sulawesi has a high industrial attractiveness. This means that local beef cattle competitiveness must be oriented towards developing the beef cattle industry with an intensification pattern.

The Analysis Results of SWOT Matrix
The SWOT analysis results conducted by Lainawa (2020) include an aggressive/growth strategy. This strategy uses internal strength to take advantage of opportunities. They are 1) by a commercialization business, set prices, build distribution networks, and promotions; 2) by a business process with a partnership pattern of stakeholders (farmers, private sector and government) with corporate farming; 3) by creating reliable human resources for farmers who master technology and information and management systems; 4) Stimulating investors with easy regulations, and 5) selling fresh meat products in a packaged form guaranteed (safe, healthy, intact and halal).

The diversification strategy includes production and marketing strategies. This is to get benefits by minimizing weaknesses and taking advantage of existing opportunities. It includes 1) increasing and strengthening the capacity (quality) of animal husbandry, human resources and animal health; 2) increasing the role of higher education institutions in developing technology and human resources for breeders; 3) innovating by creating brands for competitive beef food products (learn from beef Wagyu); 4) developing a pattern of intensive (modern) cattle raising; and 5) building village animal

market facilities with the characteristics of local wisdom supported by price and livestock health regulations.

Differentiation strategy is used to utilize the strength by minimizing threats. The points are 1) regulating land management by providing opportunities for beef cattle farmer groups to become HGU users, especially in production centers; 2) making regulations to form farmer institutions; 3) stimulating investors to build a beef processing industry; 4) developing a beef cattle business with the principle of independent capital (capital is obtained from farm income); and 5) increasing research and counseling.

Defensive strategy is to minimize weaknesses and threats by 1) strengthening the farmer institutional system to have high bargaining power, 2) developing commercial businesses while maintaining local characteristics as social capital; 3) developing a beef cattle breeding business by building a Village Breeding Center (VBC); 4) developing white PO cattle as a competitive mainstay product; and 5) improving agricultural education for young people in rural areas.

Results of the QSPM (Quantitative Strategic Planning Matrix)
Table 7 presents the calculation of QSPM. It is carried out based on the input from the weight of the internal external matrix and the strategic alternatives at the matching stage. Based on the results of the calculation of Lainawa (2020), the following results were obtained.

Table 7. Results of the QSPM Matrix Analysis

Strategy Implementation	Priority
White ongole breed “PO” branding with the label “Minahasa Beef” and “Mongondow Beef”	I
Empowerment of the young generation of farmers as the backbone of local beef cattle development in North Sulawesi	II
Developing a culinary business creativity for local beef products	III
Development of local feed utilization technology	IV
Development of local beef product differentiation	V
Focus on potential production and marketing segments	VI
Providing land use space to farmers for the development of a beef cattle business which is regulated through regulations.	VII
Implementing a beef cattle agribusiness partnership business pattern that involves farmers, the private sector and the government in one corporate bond.	VIII
Implementing a digitization system	IX
Strengthen farmer institutions and the role of private and independent agricultural extension agents in cultivation technology innovation and reproductive technology-IB	X

According to Lainawa (2020), the choice of strategies based on priority rankings is:
1) Improving the competitiveness of beef cattle agribusiness in North Sulawesi by making white PO (Peranakan Ongole) cattle the mainstay of North Sulawesi's branded business products
2) Developing the PO cattle product processing industry for both local and export markets
3) Developing the culinary business of local beef products (PO)
4) Developing a beef cattle farming business pattern that is entrepreneurship-oriented, leading to sustainable business development by considering risks

5) Empowering farmers in rural areas as the backbone of the development of the beef cattle industry regulated through regulations and government budget support
6) Developing a partnership by involving stakeholders, especially three important elements (farmers, private and government) in one corporate bond of beef cattle farming business
7) Providing space for land use (utilizing unused land) to farmers in rural areas
8) Preparing the young generation of farmers in rural areas with the latest education and training
9) Building a market network for beef cattle livestock products (rural animal markets) along with other supporting infrastructure
10) stabilizing farmer institutions and increasing the role of agricultural extension to increase the capacity of beef cattle breeders, innovation of cultivation technology and reproductive technology.

CONCLUSION

Local beef cattle farms in North Sulawesi have the potential to develop their production and market competitiveness. The development of competitiveness is directed to ensure that local cattle farms are superior in the industry by cost advantage, product differentiation, and focus. The strategic priorities are branding local cattle, empowering young generations of farmers, creativity in the culinary business of local beef products, developing local feed technology, differentiating local beef products, focusing on potential production and marketing segments, utilizing idle land for farmers regulated by regulations, business patterns. partnerships and digitalization systems, empowerment of farmer institutions and increasing the role of extension workers. North Sulawesi has the potential of agricultural resources that strongly support the development of competitive beef cattle production, so it has the feasibility of long-term investment.

The results of identifying the external environment (opportunities and threats) and the internal environment (strengths and weaknesses) indicate the strategic position of the beef cattle business towards product competitiveness, which is described as growing and building. This means that the development of competitiveness through the development of agribusiness has a high industrial attractiveness. Thus, the direction of strategy development is to increase production, expand, and penetrate the market.

To achieve the strategic objectives, four strategic steps are carried out: aggressive/growth strategies, diversification strategies, differentiation strategies and defensive strategies with the formulation of commercialization, partnership patterns of stakeholders (farmers, private and government) in a corporate farming, creation of reliable human resources for farmers, stimulating investors, food security (safe, healthy, whole, and halal), strengthening the capacity of livestock and animal health human resources, role universities in developing technology and human resources for breeders, creating competitive beef product brands, developing traditional cattle markets, land management, strengthening farmer institutions and cooperatives, building beef processing industries, building a “village breeding center, preserving local livestock (white PO type) as a mainstay product, and developing human resources for the younger generation of farmers in rural areas.

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