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Analysis of Strategic Management for Local Layer Agribusiness Development in North Sulawesi

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ABSTRACT

The strategy for developing local layer agribusiness in North Sulawesi addresses the gap between growing consumption needs and limited product availability. The purpose of this research is to conduct a business feasibility study and formulate a strategy for local layer business development in North Sulawesi. The result of the research states that the development strategy priorities include partnership patterns, fostering human resources (HR) breeders in an integrated manner, encouraging investment growth, increasing the productivity of local layer businesses in rural areas, improving genetic quality, developing culinary businesses, creating production facilities, encouraging the rise of local layer SMEs in the countryside, encouraging the development of science technology and digitization of local layer cultivation in rural areas, vaccination programs, and utilizing unused land for the development of intensification of chicken farming in rural areas.

Keywords: Investment Feasibility, Local Layer, Rural, Strategy Formulation

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INTRODUCTION

The local layer (Gallus domesticus) is very prospective to be developed as a livestock business in North Sulawesi, considering that the need for animal protein from poultry is increasing due to population growth and community income, tourism, and the development of the culinary industry. According to a report by the Director General of Livestock and Animal Health (2018), the contribution of local chicken to national meat needs is only 8.66%. Saptana and Sartika in Ratnawaty, Rubianty, Achadri, & Matitaputty (2020) showed that the local layer business provides sufficient profit. Local layers are indicated from the results of the domestication of red jungle fowls (Gallus gallus) and green jungle fowls (Gallus varius), a family food source cultivated from generation to generation (Iskandar, 2010; Rasyaf, 2011; Yaman, 2010). The availability of adequate resources for production and marketing factors can support the development of these businesses, but they have not been managed optimally. Therefore, a long-term planning strategy is needed for its development.

What is expected is how the concept of production driving force (product-driven), which has been applied in various policies so far, can work together with the concept of building market-driven power. This market-driven concept is a novelty in this study, which is considered to encourage production growth, productivity, and the business competitiveness of the local layer in North Sulawesi. The problem formulation is where is the strategic position and the direction of development of local layer farming in North Sulawesi, and how can the objectives of business development be achieved. This research aims to describe the market driving force resources, ensure financial and non-financial viability, and find a strategy formulation as a model for local layer business development in North Sulawesi. It is to implement the research master plan of UNSRAT college on superior research priorities "Food, Nutrition and Stunting Prevention", and carry out the vision of UNSRAT's research master plan, based on regional excellence, where North Sulawesi is geopolitically located in the Pacific Region with fishery, agricultural products, tourism, mining, and unique regional arts and culture.

The use of strategic management in the analysis of this research is to provide long-term direction to be achieved, assist the adaptation process in policy development, make performance more effective, apply and evaluate agreed strategies effectively and efficiently, create new strategies to adapt to developments in the external environment, review reviewing strengths and weaknesses and observing opportunities and threats as well as innovating products and services so that the market always favors them.

Ideally, the strategic management process for development will be guided by a deep and complete understanding of the market, external environment, and competition. Rahim and Radjab (2016) defined strategic management is a series of managerial actions that determine the company's performance in the long term. It includes environmental monitoring, strategy formulation (strategic planning or long-term planning), strategy implementation, and evaluation and control. Strategic management emphasizes observing and evaluating environmental opportunities and threats by assessing the company's strengths and weaknesses. Originally called business policy, strategic management includes long-term planning and strategy.

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LITERATURE REVIEW

Kalangi and Lainawa (2018) showed that local layer farms in North Sulawesi were not well developed. As a result, the development of the livestock population becomes insignificant with the development of consumer demand. The potential production development is outstanding as it is supported by the availability of adequate resources of production factors. This condition occurs because the development strategy remains traditional development-oriented, namely making the business of raising the local layer as a side business (farming system) despite other ways to develop it, namely a commercial development strategy (agribusiness system). However, the difference between these two systems are not necessarily applicable. It can be formulated in a partnership system with the "cooperative farming" model: joint involvement between farmers, the private sector and the government in corporate ties.

David and David (2015) suggested three essential questions to answer in developing a strategic plan; 1) Where are we now, 2) Where do we want to go, and 3) How do we get there. They added that the strategic management process is dynamic and continuous. Important strategy formulation techniques can be integrated into three decision-making frameworks, starting from the input stage, the matching stage, and the decision stage. David (2011) stated that the strategic management process consists of three stages: (1) strategy formulation, (2) strategy implementation, and (3) strategy evaluation.

Hunger and Wheelen (2012) confirmed that strategy formulation is the development of long-term plans for effective management of environmental opportunities and threats, considering the company's strengths and weaknesses (SWOT). The input stage consists of the EFE Matrix, IFE Matrix, and CPM Matrix. Input tools require strategists to quantify subjectively during the early stages of the strategy formulation process. Making small decisions in the input matrix related to the relative importance of internal and external factors enables strategists to generate and evaluate alternative strategies more effectively. Good intuitive judgment is always needed to determine the appropriate weights and ratings.

Strategy in this situation is defined as the process of matching stages made by an organization between its internal resources and skills with the opportunities and risks created by external factors. It deals with the ability of entrepreneurs to analyze both internal and external environments (Prasetyaningtyas, Maarif, Sobir, & Hermawan, 2019). The matching stage of the strategy formulation framework consists of five techniques: SWOT Matrix, SPACE Matrix, BCG Matrix, IE Matrix, and Grand Strategy Matrix. This tool relies on information derived from the input stage to match external opportunities and threats with internal strengths and weaknesses. Matching internal and external key success factors is the key to generating viable alternative strategies effectively.

At the decision stage, an analytical approach with the power of intuition provides the basis for making strategy formulation decisions. The matching technique reveals viable strategic alternatives. Many of these strategies may be proposed by various stakeholders such as managers and employees, experts or practitioners who participate directly in the analysis and strategy choice activities. Additional strategies that can result from the match analysis can be discussed and added to the list of viable alternative options.

In looking at the feasibility criteria for developing local layer farms, there are at least two aspects that must be considered: financial aspects and non-financial aspects,

where each of these is interrelated to meeting the eligibility criteria. The financial aspect is a budget projection that will estimate gross revenues and expenditures in the future each year. In the study of the financial aspect, it is calculated how much funds are needed to build and operate business activities. The funds needed are in the form of fixed capital and working capital.

According to Nurmalina, Sarianti, and Karyadi (2010), there are several investment criteria that can be seen in financial analysis which can be used to state whether a business is feasible or not. Net Present Value is the present value of the income stream generated by the investment.

There are three criteria for measuring investment feasibility according to the Net Present Value (NPV) method. They are:

a) NPV equal to zero (NPV = 0) means the business is not profitable or not detrimental.
b) NPV greater than zero (NPV > 0) means that the business is profitable.
c) NPV is less than zero (NPV < 0) means that the business is not feasible to run or provides a loss.

Revenue Cost (R/C) Ratio is the ratio between total revenue and total cost of business activity. An investment or business activity is feasible if the R/C is greater than one and inappropriate if the R/C is less than one (Nurmalina et al., 2010). There are three criteria for measuring investment feasibility according to the revenue cost ratio method, namely:

a) The R/C Ratio is equal to one (R/C = 1) means that the business is neither profitable nor detrimental (break-even business)
b) The R/C Ratio is more than one (R/C > 1) means that the business is profitable or feasible to run.
c) The R/C Ratio is less than one (R/C < 1) means that the business is not profitable or not feasible to run.

Internal Rate of Return (IRR) is a measure of discounted project benefits, using a discount rate to obtain the net present value of the additional net benefit flows, or the additional profit flows to zero. The maximum interest that the project can pay on the resources used by the project to cover investment and project operational expenditures is still in the principal position. Payback Period (PP) is an assessment technique of the period (period) of return on investment in a project or business.

David (2011) stated that the strategic management process consists of three stages: strategy formulation, strategy implementation, and strategy evaluation. The formulation includes defining the company's mission, determining achievable goals, developing strategies, and establishing policy guidelines. According to David and David (2015), important strategy formulation techniques can be integrated into three decision-making frameworks, namely the input stage, the matching stage and the decision stage.

David (2011) stated that External Factor Evaluation Matrix (EFE) enables strategists to summarize and evaluate economic, social, cultural, demographic, environmental, political, governmental, legal, technological, and competitive information.

Internal Factor Evaluation Matrix (IFE) summarizes and evaluates the main strengths and weaknesses in the functional areas of a business, and 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 potent technique. A thorough understanding of the factors included is more important than the actual numbers.

RESEARCH METHOD

This research was conducted in North Sulawesi Province in March 2021. The design was a qualitative survey with a case study model. Bogdan and Biklen (1982) stated that a case study is thet research that seeks to describe a particular setting, object, or event.

The primary data comes from parties considered to understand the problem of local layer agribusiness in North Sulawesi, which consists of 200 local layer farmers, 20 fresh local layer traders in traditional markets and super markets, 20 free-range chicken culinary traders, three academics of livestock agribusiness researchers from the Faculty of Animal Husbandry of Sam Ratulangi University, and three ASNs responsible for the local layer farm project at the Service Office Agriculture and Animal Husbandry of North Sulawesi Province. Meanwhile, the secondary data were collected and obtained from relevant articles or literature, the internet, mass media, and the Central Bureau of Statistics.

Based on data from the Central Statistics Agency of North Sulawesi in 2018, the population of North Sulawesi in 2017 was 2,461,028 people. It is estimated that 54% of the population work in the agricultural sector. Based on the results of the 2018 agricultural census survey, the number of agricultural households is 263,371 with a total number of household members 922,611 people.

From the existing data, we deliberately selected (purposive sampling) four districts with the largest number of agricultural business households and household members, namely Bolmong Regency, Minahasa Regency, South Minahasa Regency and Southeast Minahasa Regency. For each district, 50 respondents were selected with the criteria of raising more than 50 free-range chickens with more than three years of experience raising livestock. Furthermore, 20 respondents were selected from Manado City and Kotamobagu City, selling fresh local chicken and local chicken culinary. A total of 50 respondents were selected from regencies, 25 respondents from cities. Thus, the total number of farmer respondents is 250.

The research variables consist of resource production factors, financial aspects, non-financial aspects, external environmental factors and internal environmental factors. The data analysis applied a four-stage qualitative analysis approach, starting from the data collection, data reduction, data display, and conclusion drawing.

According to Bogdan and Biklen (1982) and Moleong (2017), 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 decide what to tell others.

According to Miles and Huberman (1984), Patton (1987), and Sugiyono (2017), activities in qualitative data analysis are data reduction, data display, and conclusion drawing. According to Creswell (2015) and Sugiyono (2010), the steps of qualitative data analysis are providing raw data in the form of transcripts, field notes and the views of the researchers themselves, organizing and storing the 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 following analysis is the three stages of strategy formulation by formulating a complete strategy in the strategy formulation stage (framework). Stage I is input, stage II is matching, and stage III is decision. To determine the eligibility criteria, Nurmalina et al. (2010) highlighted two essential aspects: financial and non-financial aspects. Hunger and Wheelen (2012), Pearce and Robinson (2013) stated that strategy formulation is the development of a long-term plan for the effective management of environmental opportunities and threats, given the strengths and weaknesses. As stated by Suci (2015), Amir (2016), Taufiqurokhman (2016), and Widya (2020), strategic management is an art and science of formulating, implementing, and evaluating.

RESULTS

Characteristics of the Research Area

North Sulawesi is a province located at the northern tip of Sulawesi Island with the capital city Manado. North Sulawesi is bordered by the Maluku Sea and the Pacific Ocean to the east, the Maluku Sea and Tomini Bay to the south, the Sulawesi Sea and Gorontalo province to the west, and the province of Davao del Sur (Philippines) to the north.

According to BPS North Sulawesi statistical data in 2020, the population of North Sulawesi in 2019 was 2,506,981 people with an area of 15,271 km2. North Sulawesi has an archipelago of 287 islands, 59 of which are inhabited. The administrative area of North Sulawesi is divided into 4 cities and 11 regencies, namely Manado City, Bitung City, Kotamobagu City, Tomohon City, Bolaang Mongondow Regency, South Bolaang Mongondow Regency, East Bolaang Mongondow Regency, North Bolaang Mongondow Regency, Sangihe Islands Regency, Siau Islands Regency Tagulandang Biaro, Talaud Islands Regency, Minahasa Regency, South Minahasa Regency, Southeast Minahasa Regency and North Minahasa Regency with 1,664 villages.

North Sulawesi is divided into two zones, the southern zone in the form of lowlands and highlands and the northern zone, which includes the islands. The exclusive economic zone of North Sulawesi reaches 190,000 km2 with a coastline of 2,395.99 km and a forest area of 701,885 hectares. The North Sulawesi region also has volcanoes.

The climate of North Sulawesi is tropical, which is influenced by monsoon winds. From November to April, the west wind blows and brings rain to the north coast, from May to October, there is a change in the dry south wind.

Rainfall is uneven, with annual figures ranging from 2,000-3,000 mm, and the number of rainy days between 90-139 days. The area that receives the most rainfall is the Minahasa area. Meanwhile, the average air temperature is 25°C. The average maximum air temperature was recorded at 30°C, and the average minimum air temperature was 20.4°C. The temperature is influenced by the altitude of a location with the calculation that every 100-meter increase reduces the temperature by about 0.6°C.

Agricultural Characteristics of North Sulawesi

The agricultural sector, including the livestock sub-sector is a strategic sector and plays an essential role in the regional and national economy of North Sulawesi and the survival of the community. Its contribution to GDP provides employment and domestic food. Awareness of this role causes most people in rural areas to make agriculture still their main business activity even though they are now industrialized countries.

In this regard, the control of agricultural land, capital, availability of farmers' human resources, good management skills and mastery are the demands to lead to the development of production, productivity, and market competitiveness. On the internal side of the agricultural sector, the various characteristics of farming itself have not fully supported this development.

Agricultural production in North Sulawesi Province has excellent potential to be increased. The increase in production can be achieved by increasing the planted area through increasing the planting index (IP) and the use of unused land widely spread in North Sulawesi, development and rehabilitation of infrastructure such as irrigation networks, area expansion, land improvement/rehabilitation. Increased productivity can be achieved through the application of reliable cultivation methods, as well as the use of safe fertilizers and pesticides.

As for horticultural commodities, the challenge now is how to make North Sulawesi Province a center for potato seeding in eastern Indonesia, which is not an exaggeration considering that most of the horticultural needs of vegetables in eastern Indonesia are supplied from horticultural areas.

For superior livestock commodities, the challenge to increase production is beef cattle, without leaving other regional superior commodities, namely pigs, free-range chickens and ducks. For beef cattle development, North Sulawesi Province focuses on developing PO cattle which have long been cultivated in the districts of Minahasa, Bolaang Mongondow, South Minahasa, North Minahasa, Southeast Minahasa, East Bolang Mongondow, North Bolaang Mongondow, and other non-regional areas.

The classic problem faced by farmers is the limited working capital, so they cannot apply agricultural technology optimally in addition to the threat of limited farmer resources due to the declining interest of the younger generation working in the agricultural sector.

The State of Village local layer Farming Business in North Sulawesi

Rural communities maintain local layers as a family food source for eggs, meat, and savings. In North Sulawesi, in general, local layer farming is still carried out in the traditional way. The livestock is only released to look for their food, and later at night, some livestock are caged and some are just left to find shelter in tree plants around the farmers. Based on observations in rural areas, only 20% of farmers provide free-range chicken coops. Even so, native chicken farmers are one of their sources of income that are relied on to meet family consumption needs and income.

The demand for local layers of both meat and eggs is relatively high. This happens because the culinary business continues to develop. It is also related to taste, where some consumers prefer free-range chicken meat to purebred chicken. This is the driving force for high selling prices, which is above IDR 70,000 on average. Not to mention for the needs of chicken contests, the average selling price of local layer for contests reaches hundreds of thousands of rupiahs.

In terms of production, according to Iskandar (2010), the average egg production of a local layer reaches 20% (73 eggs per year) in semi-intensive maintenance and about 30% (110 eggs per year) in intensive care. The average weight at the age of three months of local layers in intensive rearing reached 0.80 kg/male and 0.70 kg/female. Apart from being sold live, carcasses and carcass pieces (thighs, breasts, wings, claws, head, liver, gizzard, intestines, heart) can also be sold with their selling price.

Some farmers in rural areas in North Sulawesi have not been able to develop a model/business for hatching local layer eggs. The productivity is low because the presence of brooding properties constrains the biological ability of local layers to produce eggs. The egg production in one year is difficult to be above 50 eggs. After producing eggs in one cycle of laying eggs (ovulation), the chickens will stop and rest.

The population of local layer in North Sulawesi in 2021 reach 2,571,213; Bolaang Mongondow Regency of 379,633, Minahasa of 757,712, Sangihe Islands of 111,935, Talaud Islands of 34,382, South Minahasa of 276,035, North Minahasa of 147,878, North Bolaang Mongondow of 45,462, Siau Tagulandang Biaro of 78,165, Southeast Minahasa of 101,120, South Bolaang Mongondow of 62,506, East Bolaang Mongondow of 66,125, Manado City of 77,116, Bitung City of 177,144, Tomohon City of 167,000, and Kotakotamobagu City of 89,000.

DISCUSSION

Characteristics of Local Chicken Farms in North Sulawesi

Local layers in North Sulawesi are classified into four types: broiler, layers, dual-purpose, and fighter. All villages in North Sulawesi are raising free-range chickens based on the percentage of the respondent number: 71% raising them by simply releasing them (without making drums), 21% making simple cages, and 8% making semi-permanent drums. This makes the productivity of local layers North Sulawesi relatively low, between 25-35% of the total population of other poultry, especially purebred chickens. The types of local layers mostly cultivated are local layers (vegetable chicken), *nunukan*, *white kedu*, *black kedu*, *pelung,* and other types. North Sulawesi local layers have high adaptability because they can adapt to various existing environmental and climatic situations.

Based on the research by the North Sulawesi Agricultural Technology Research Institute (2016), local layers raised intensively produce eggs of around 105-151 eggs/year, while the traditional maintenance only 30-60 eggs. The weight of eggs for intensive rearing reaches 45.27 grams compared to the traditional method with a weight of only 37.5 grams. Also, the weight of chickens at 12 weeks of age can reach 708.0 grams compared to the traditional maintenance weight of only 425.19 grams.

Iskandar (2010) stated that the average egg production of local layers is 20% (73 eggs per year) for semi-intensive maintenance and about 30% (110 eggs per year) for intensive maintenance. The average weight at the age of three months of free-range chickens in intensive care reaches 0.80 kg/male and 0.70 kg/female. Of the total population of local layers, according to the 2021 Central Statistics Agency report, the local layer population in North Sulawesi in 2018 was 2 445,652; 2,505,891 in 2019, and 2,571213 in 2020.

Financial and Non-Financial Analysis

Financial Analysis

A feasibility study by Aziz (2019) was conducted with the method of Net Present Value (NPV), Revenue Cost Ratio (RCR), Internal Rate of Return (IRR), Break Event Point (BEP), Return on Investment (ROI), and Payback Period (PP). The results are shown in Table 1.

Table 1. Results of Financial Feasibility Analysis of Local Layer Super Livestock Business for 10 Years

No	Eligibility Criteria	Research result
1	Net Present Value (NPV	186,568,517
2	Revenue Cost Ratio (RCR	1.59
3	Internal Rate of Return (IRR)	135.82%
4	Return on Investment (ROI)	43%
5	Payback Periode (PP)	0.50

Table 1 shows that Net Present Value (NPV) is IDR 186,568,517, Revenue Cost Ratio (RCR) of 1.59, Internal Rate of Return (IRR) of 135.82%, Return on Investment (ROI) Value) of 43%, and Payback Period (PP) of 0.50.

The Net Present Value (NPV) value is positive, indicating that the development of the local layer business is profitable. The Revenue Cost Ratio (RCR) value obtained is 1.59, meaning that every IDR 1 cost incurred by the farmer in the business of Local layer super gives an income of IDR 1.59. With an RCR value greater than one, it can be concluded that economically, the development of the free-range chicken business is feasible to run.

The IRR value obtained was 135.82%. This value is irrational because it is greater than 100%, and the value of Absolute Cash Inflow (cash receipt) at the beginning of the period is greater than the amount of cash outflow before being converted to Present Value (PV). This condition occurs because the basic concept of IRR is PV cash outflow = PV cash inflow.

The return on investment (ROI) value obtained is 43%, meaning that the Local layer super business is feasible to be developed because it is very profitable. The Payback Period (PP) value is 0.50, meaning that the investment in the business will return in a period of five months.

Wantasen, Anis, and Dalie (2018) conducted a financial analysis of the super domestic chicken breeding business in South Bolaang Mongondow Regency using investment appraisal criteria. The Net Present Value (NPV) at the interest rate or discounted factor is 12%, which is planned for five years of IDR 7,635,528,420.

This NPV value is greater than zero (NPV>0), implying that the business plan for super-local layer breeding in Bolaang Regency, South Mongondow is profitable and feasible. Based on investment criteria, a business is feasible if the NPV value is greater than 0 (Wantasen et al., 2018).

The interest rate of 25% resulted in a positive NPV value of IDR 3,604,162,241, while the interest rate of 30% resulted in a negative NPV value of IDR -605,377,356. The calculation results of NPV values are a requirement to obtain the value of the Internal Rate of Return (IRR). Using the calculation formulation, the IRR value was obtained by 26.37%. This means that the native chicken breeding business is financially feasible to run and develop because it has an IRR is greater than the social discounted rate.

The interest rate is an input factor in every form of business, including the free-range chicken business that uses bank services to raise capital. The ups and downs of interest rates affect the performance of the livestock industry.

ROI analysis results from Wantasen et al. (2018) show that slowly starting in the second year, the local layer breeding business has provided an ROI value of 12.46%, which means every IDR 1 invested provides an additional investment value of IDR 0.1246. At the end of the fifth year, every IDR 1 investment expenditure provides an additional investment value of more than half (54.91%). Therefore, the investment made is considered very profitable from a financial point of view.

The calculation of the payback period is presented in Table 2. The payback period shows how long (in several years) investment will be able to return. The payback period shows the ratio between initial investment and the annual cash flow.

Table 2. Calculation of Payback Period for Local Layer Breeding Business Year

Year	Description	Payback Period
Investment of Proceed Year I	18.166.029.000-10.033.429.000	Payback Period = 2 years + (1,7/6,9 x 1 year) = 2,55 years. Project life 5 years
Remaining Proceed Year I	8.132.600.000-6.352.232.750	
Remaining Proceed Year III	1.780.367.250-6.974.895.460	

Source: Wantasen et al. (2018).

Non-Financial Analysis

The marketing concept for local layer agribusiness in North Sulawesi is based on the marketing management philosophy, which believes that achieving the targets of the producers depends on determining the needs, desires of the target market, and delivering customer desired satisfaction. The technical aspects are related to the provision of seeds, feed, production, disease control, drums, and post-harvest. The requirements for seedlings must be healthy and not defective from several indicators, such as seedling origin, seed type, seed age, and superior seed selection. The Rooster has a healthy condition, a tall and large body (according to age), clean, dense, and shiny feathers, a slightly long body, straight legs that are not deformed, has a handsome appearance, active, a high sexual appetite, an easy erection, and a loud “crowing” voice. The hen has a healthy body condition, not deformed, clean, shiny and deep feathers and normal genitals, and a clear "cackling" voice. This selection is rarely carried out by breeders in North Sulawesi, so there are many unfavorable native chicken seeds found.

Local layer feed should be divided into coarse feed, fine feed, and substitute feed. Technical aspects in production management can be assessed from several indicators, namely mortality, feed conversion, average cumulative weight, determining the age of harvest, and an index of achievement that shows the success rate of breeders in conducting their business. Disease control includes cage sanitation, feed sanitation, housing environmental sanitation, and worker sanitation. Technical aspects in cage management are assessed from several indicators, namely floor, roof, feeding area, drum size, and drinking area. The post-harvest aspect is assessed from the indicators of the marketing system and the highest scoring price, meat production, promotion, and sales price.

Table 3 show the analysis results of the chemical composition of Kampung Chicken Meat from Leke, et al. in Najoan, Elly, Leke, and Bagau (2018).

Table 3. Chemical Composition of Local Layer Meat

Chicken Breed/ Gender	Cut of Meat	Chemical Composition			
		Water	Protein	Fat	Ash
Local Layer	Breast meat, thighs, skin (%)	79.92	18.37	1.22	0.41
Local Layer	Breast meat (%)	73.12	23.88	0.61	0.75
Male Local Layer	Non breast meat (%)	76.12	20.58	2.43	0.5
Local Layer	Breast meat (%)	73.3	22.70	0.80	-
Local Layer	Thigh meat (%)	74.60	19.10	4.40	-

Management Aspects of Business Feasibility

Local layer livestock in North Sulawesi is characterized by their respective functions in management. The management functions include planning, organizing, implementation/actuating, and supervision/controlling). Legal aspects examine legal requirements that must be fulfilled before running a business. For this reason, the government's decision to stipulate legal provisions and investment licensing to maintain public order at large for investment in local layer farming can be made because of the administrative service facilities available.

In terms of social, economic, and cultural aspects, the investment in local layer farming in North Sulawesi provides opportunities for increased income and community welfare. The environmental aspect means that before a business is run, it is necessary to conduct a study on environmental impacts.

Results of IFE Matrix and IFE Matrix Analysis

Table 4 presents the identification results of the external environment (opportunities and threats), the internal environment (strengths and weaknesses), and a reduction process are carried out into a chart of key external factors and internal factors, based on the need for a three-stage formulation analysis. .

Table 4. EFE Matrix (External Factor Evaluation)

	Opportunity Factor	Weight (%)	Rating	Score	Priority / Ranking
1	Regulation of the Minister of Agriculture of the Republic of Indonesia. No.13 / Permentan / PK.240 / 5/2017 concerning the Animal Husbandry Business Partnership	0.113	1.000	0.113	V
2	National food needs and the food independence program	0.091	1.000	0.091	VII
3	Local demand for livestock, meat, and eggs of local layer has increased	0.103	3.000	0.309	I
4	The demand for livestock commodity exports has increased	0.098	2.000	0.196	IV
5	Development of agricultural digitization technology	0.098	2.000	0.196	IV
6	Law No.19 of 2013 concerning Protection and Empowerment of Farmers	0.103	1.000	0.103	VI
7	Agroecosystem Support	0.098	2.000	0.196	IV

8	Law No.16 of 2006 concerning Agricultural, Fisheries, and Forestry Extension Systems	0.103	1.000	0.103	VI
9	Potential Human Resource Farmers in Rural Areas	0.112	2.000	0.224	III
10	Investment interest in the livestock sub-sector is increasing	0.082	3.000	0.246	II
TOTAL				1.777	

Threat Factor		**Weight (%)**	**Rating**	**Score**	**Priority / Ranking**
1	Climate change has an effect on high mortality	0.102	2.000	0.204	V
2	Competition and liberalization	0.091	2.000	0.182	III
3	Dependence on means imported production	0.112	2.000	0.224	IX
4	Transfer of land functions	0.110	2.000	0.220	VIII
5	Decrease in the labor force in the animal husbandry sub-sector	0.097	2.000	0.194	IV
6	Modernization of farmers' social change is slow	0.107	2.000	0.214	VII
7	The local chicken farm development budget is limited	0.106	2.000	0.212	VI
8	Potential of fishery products	0.079	2.000	0.158	I
9	Potential of other poultry products	0.113	2.000	0.226	X
10	Low competitive products	0.084	2.000	0.168	II
TOTAL				2.002	
Total Score (Opportunity + Threat)				**3.779**	

The weight value is obtained from the respondent by assessing each of the internal key factors, starting from:

- a value of 1 if the main key factor is not more important than the comparison key
- a value of 2 if the main key factor is as important as the comparison key,
- and a value of 3 if the main key factor is more important than the keycomparison factor

Table 5 shows the IFE Matrix.

Table 5. IFE Matrix (Internal Factor Evaluation)

Strength Factor		**Weight (%)**	**Rating**	**Score**	**Priority / Ranking**
1	Source of business income	0.101	3.000	0.303	III
2	Agricultural extension	0.093	3.000	0.279	VII
3	Access to capital can be reached	0.084	3.000	0.252	VIII
4	Potential land available	0.098	3.000	0.294	V
5	Development of reproductive technology	0.114	3.000	0.333	II
6	Agricultural waste as animal feed is available	0.096	3.000	0.288	VI
7	Characteristics of rural livestock business models	0.083	3.000	0.249	IX
8	The social condition of rural	0.096	3.000	0.288	VI

	communities is supportive				
9	The availability of human resources for farmers in rural areas is adequate	0.119	3.000	0.357	I
10	Culinary business potential	0.100	3.000	0.300	IV
Sub Total				2.943	

Weakness Factor		**Weight (%)**	**Rating**	**Score**	**Priority / Ranking**
1	The business scale is still small	0.097	1.000	0.097	V
2	Industrial feed is still expensive	0.107	1.000	0.107	III
3	Marketing support facilities and infrastructure are still lacking	0.092	1.000	0.092	VII
4	Limitations of livestock breeds and limited business people or farmer groups engaged in breeding	0.091	1.000	0.091	VIII
5	The farmer institutional system is not yet functioning	0.090	1.000	0.090	IX
6	Limited skills	0.111	1.000	0.111	II
7	Family capital dependency	0.090	1.000	0.090	IX
8	Farmers do not have good access to the components of production facilities, technology, and price information.	0.094	1.000	0.094	VI
9	Livestock mortality is still high	0.100	1.000	0.100	IV
10	Business patterns still survive in the traditional (extensive) way	0.122	1.000	0.122	I
Sub Total				0.994	
Total Score (Strength + Weakness)				**3.937**	

According to David (2011), David and David (2015), a value of 4 means "superior response", a value of 3 is "response is above average", a value of 2 is "average response", and a value of 1 is "poor response". Meanwhile, the weighted score is obtained from the multiplication of the key factor weights with the rank (score).

Results of Internal-External Matrix Analysis (IE)
Based on Table 6, the Internal-External (IE) Matrix is used to determine the strategic position of the village chicken business development in North Sulawesi.

Table 6. Internal-External Matrix (IE) of Village Poultry Business in North Sulawesi

Total IFE value				
Total IFE 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 Divestment)
	Low 1.0 - 1.99	VII (Keep and Maintain)	VIII (Harvest or Divestment)	IX (Harvest or Divestment)

Based on 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 local layer farming in North Sulawesi is included in Cell I, categorized as grow and build. This explains that the local layer business in North Sulawesi has high industrial attractiveness.

Results of the SWOT Matrix Analysis

SO strategy analysis (aggressive/growing) deals with how to encourage a change in business patterns towards a commercial direction to increase production, encourage investment growth, improve the genetic quality of competitiveness, develop integrated human resources for breeders, and develop infrastructure marketing (livestock market, supply lines). WT strategy (defensive) is about how to develop a partnership business pattern (the concept of a cooperative farming system), by making three stakeholders (government, private sector, and farmers) in a corporate bond, avoiding farmers to not feel alone. Furthermore, to make the existing agricultural, institutional functions effective, it is necessary to instill an entrepreneurial spirit among members and encouraging the existence of MSMEs and cooperatives, streamline the role of extension towards modernization, open access to bank capital, and promote the role of the government and private sector in developing livestock vaccination programs.

ST strategy (differentiation) concerns with how to reduce the dependence on imports of agricultural production facilities - especially for seeds and hatching machines, diversify culinary products for local layer commodities by involving cooking experts to create new culinary products made from raw meat and eggs of local layer, encourage the rise of small-scale village chicken businesses in rural areas, encourage the development of special science and technology native chickens, and increase the government's development budget for the local layer development program.

WT strategy (defensive) is making farmers the backbone of the development of native chicken farms, making regulations governing agricultural land management, encouraging the development of agricultural production facilities, increasing business efficiency to obtain production effectiveness in competitive advantage, and making effective use of multimedia in outreach on local layer farms.

Results of the QSPM (Quantitative Strategic Planning Matrix) Analysis

Rumelt (1994) identified four benchmarks to test strategy consistency, consonance, advantage and feasibility. Table 7 presents QSPM calculations.

Table 7. Results of QSPM Matrix Analysis

Strategy Implementation	Total Attractiveness Score (Total Attractiveness Scores - TAS)	Priority
Development of partnership pattern (cooperative farming system)	14.090	I
Fostering human resources for breeders in an integrated manner and making farmers the backbone of the development of native chicken farms	14.084	II
Encouraging investment growth for local layer in rural areas	13.480	III
Improvement of the genetic quality of local layers (product brand)	13.420	IV

Developing a culinary business with various local layer products	13.410	V
Reducing dependence on imported production facilities	13.303	VI
Encouraging MSME in the local layer business	13.210	VII
Encouraging the development of local layer science and technology and the digitalization of local layer farming in rural areas	12.974	VIII
Local layer mass vaccination program	12.848	IX
Utilizing idle land for intensification of local layer in rural areas which are managed jointly in farmer groups	12.841	X

According to Table 7, analysis of QSPM Matrix showed that strategy implementation such as the development of partnership pattern (cooperative farming system) was Priority I with total attractiveness scores of 14.090, rather than priority X, such as utilizing idle land for intensification of the local layer in rural areas managed jointly in farmer groups.

CONCLUSIONS

The strategic position of developing local chicken farming in North Sulawesi is in a state of growth and development. This indicates that the local chicken farming business in North Sulawesi has industrial appeal and the opportunity to develop into a commercial business venture. The direction of developing local chicken farms in North Sulawesi is towards developing production, productivity, and competitiveness. The carrying capacity of the resources of production factors allows growth to be fulfilled.

To achieve the development objectives, the strategic options are a partnership with a cooperative farming system pattern, integrated human resource development for breeders by making breeders the backbone, encouraging investment growth in rural areas, improving genetic quality as a local chicken product brand, developing culinary businesses, reducing import dependence, encouraging MSMEs in rural areas, encouraging the development of local chicken science, technology, and digitalization in rural areas, livestock vaccination, land use, and intensification of local chickens in rural areas with the role of farmer groups.

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REFERENCES

Amir, M. T., (2016). *Strategic management: Concepts and applications.* Jakarta: PT. Rajawali Pers.

Aziz, F. F. (2019). Analysis of financial feasibility of local layer super livestock business (Case study on Suparlan Farm in Jojog Village, Pekalongan District, East Lampung Regency). *Forum for Animal Husbandry Journal, 3*(1), 7-18.

Bogdan, R. C., & Biklen (1982). *Qualitative research for education: An Introduction to theory and methods*. Boston London: Allyn and Bacon, Inc.

Creswell, J. W. (2015). *Qualitative research and research design: Choosing among five approaches*. Yogyakarta: Yogyakarta Student Library Publisher.

David, F. R. (2011). *Strategic management: Concepts and cases* (13th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

David, F. R., & David, F. R. (2015 *Strategic management: Concepts and cases* (15th ed.). Harlow Essex: Pearson Education Limited.

Director General of Livestock and Animal Health (2018). *Animal husbandry and animal health statistics book.* Ministry of Agriculture of the Republic of Indonesia.

Hunger, J. D., & Wheelen, T. L. (2012). *Strategic management and bussiness policy: Toward global sustainability* (13th ed.). New York: Pearson.

Iskandar, S. (2010). *Local layer farming business: Series on Improving the benefits of animal genetic resources*. Bogor: Ciawi Animal Research Institute.

Kalangi, J. K. J., & and Lainawa, J. (2018). *Analisis formulasi strategi pengembangan usaha peternakan ayam kampung di Sulawesi Utara*. Paper presented at Seminar Nasional PERSEPSI III: Strategi dan Kebijakan Pengembangan Bisnis Peternakan dalam Mendukung Kedaulatan Pangan Nasional, 6-7 September 2018.

Najoan, F. H. M., Elly, J. R. Leke., & Bagau, B. (2018). Provincial local poultry development prospects North Sulawesi. *Proceedings of the National Seminar on Local Poultry Development in Indonesia.*

Nurmalina, R., Sarianti, T., & Karyadi A. (2010). Business feasibility study. Bogor: Department of Agribusiness Faculty of Economics and Management Bogor Agricultural University.

Moleong, L. J. (2017). *Qualitative research methodology* (Revised ed.). Bandung: PT. Rosdakarya Youth.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). USA: Sage Publications.

Patton, M. Q. (1987). *Qualitative research and evaluation methods.* New York: SAGE Publication.

Pearce, J. A., & Robinson, R. B. (2013). *Strategic management: Formulation, implementation, and control*. Jakarta: Salemba Empat.

Prasetyaningtyas, S. W., Maarif, S., Sobir, R., & Hermawan, A. (2019). The use of soft system methodology in evaluating the business strategies in organic farming: The case from Yogyakarta, Indonesia. *Asia Pacific Journal of Management And Education, 2*(2), 1-110

Rasyaf, M. (2011). *Raising local chickens*. Jakarta: Self-Help Publishers.

Rumelt, R. (1994). *Fundamental issues in strategy*. Boston: Havard Business School Press.

Suci, R. P. (2015). *The essence of strategic management*. Sidoarjo: Publisher Zifatama Publisher.

Sugiyono. (2010). *Understanding qualitative research*. Bandung: CV. Alvabeta.

Sugiyono. (2017). *Qualitative research methods: For research that is explorative, interpretative, interactive and constructive.* Bandung: CV. Alvabeta.

Rahim, H. A. R., & Radjab, E. (2016). *Strategic management*. Makasar: University of Muhammadiyah Makassar Library and Publishing Institute.

Ratnawaty, S., Rubianty, A., Achadri, Y., & Matitaputty, P. R. (2020). Development local layer superior post-covid-19 pandemic research and development agency in Kupang Regency, East Nusa Tenggara. *Proceedings of the Seminar on Technology and Agribusiness of Animal Husbandry VII-Webinar: Prospects of Animal Husbandry in the New Normal Era after the COVID-19 Pandemic, Faculty of Animal Husbandry, Jenderal Soedirman University, 27 June 2020*

Taufiqurokhman. (2016). *Strategic management*. Jakarta: Faculty of Social and Political Sciences, Universitas Prof Dr Moestopo Beragama.

Wantasen, E., Anis, S. D., & Dalie, S. (2018). Analysis of financial feasibility of local layer in Bolaang Mongondow Selatan Regency. *Proceedings of the National Seminar on Local Poultry Development in Indonesia.*

Widya, R. (2020). *Strategic management 4.0.* Jakarta: Publisher PT Adya Berkah Mulia.

Yaman, A. (2010). *Raising superior local chickens for 6 weeks of harvest*. Jakarta: Self-Help Publishers.