Strategy for Broiler Chicken Farming Business Development through Improved Supply Chain Management in West Timor Area

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Abstract: The problem in the development business of broiler chicken in the West Timor Region is that the function of supply chain management is not optimal yet. This study aims to analyze the influence of Physical Resources, Economic Resources, and Social Resources on supply chain management and broiler chicken business development strategy. Primary data was retrieved obtained by observation and interview methods on 225 breeders from 514 breeders population in West Timor Region which were determined based on Rumus Slovin and interviews with traders, entrepreneur partners, and Dinas Peternakan while secondary data was using the documentation method. This study was analyzed using the Structural Equation Model (SEM) with AMOS Software, regression analysis, and SWOT analysis. The results showed Supply chain management has a significant effect on business development, while physical, economic, and social resources do not significantly influence business development through supply chain management. This study indicates that the broiler market is not well integrated in the region, so a business development strategy needs as increasing production, market penetration, and utilize technology for broiler farming in West Timor Region
Keywords: Supply Chain Management, Business Development, Broiler Chicken, West Timor Region.

I. Introduction

Currently, the broiler farming industry in East Nusa Tenggara (NTT) is facing significant problems related to the availability of chicken meat. One phenomenon that stands out is the mass sale of frozen chicken meat originating from outside NTT in both traditional and modern markets. Although the entry of frozen chicken meat can reduce fluctuations in broiler prices which tend to be high during 2022, this can harm farmers because low prices are a low incentive factor in developing their business [1].

Data from the NTT Central Statistics Agency (BPS NTT 2022) shows growth in broiler production, but the phenomena previously mentioned indicate a gap between demand and supply. The demand for broiler chickens in NTT is estimated at 3,899,964 heads, while the supply is only 1,129,876 [2]. Public demand for broiler meat increases by around 15.3% annually at the regional level [3].

This gap is caused not only by low production and high demand but also by problems in the supply chain. An efficient supply chain system needs to be improved in the flow of inputs and outputs, including feed input and distribution of ready-to-sell broilers. Producer farmers often cannot sell their broilers directly to the market because they have to rely on actors in a particular network or build their partnership networks. This condition causes the set price to be no longer desired by breeders, delays sales increases production costs, and decreases profits [4].

The gaps in supply chain management and market conditions also allow broiler breeders to develop their businesses. However, in order to be able to optimize market opportunities that are still high, an in-depth understanding of the factors influencing livestock business development is required. A business development strategy considering input and output supply chain management is important in controlling input and output flows and preventing widening gaps [5].

This study aims to analyze the relationship between physical, economic, and social resources with supply chain management and broiler farming business development in NTT. In addition, this study also aims to identify the production costs and income of broiler breeders in one production period, analyze the market integration system that occurs in mainland Timor, as well as business development strategies that can be implemented to increase the production and income of farmers through supply chain management.

II. Materials and Methods

In this study, it was conducted in the West Timor Region of East Nusa Tenggara (Kupang City, Kupang Regency, South Central Timor Regency (TTS), North Central Timor Regency (TTU), Belu Regency, and Malacca Regency) for a period of 9 months from April to December. 2022. This research uses a survey method with a quantitative approach, and the data used is quantitative data that can be measured directly. The study population involved 514 breeders in the West Timor region, which is the center for broiler development, with the sampling technique using the Slovin technique with a sample range of 10-20% of the study population.

Data collection was carried out through survey methods using questionnaires for primary data and literature studies for secondary data, with measurements using a Likert scale. Data analysis was performed using Structural Equation Modeling Analysis Moment of Structural (SEM-AMOS) version 24, exploratory factor analysis using SPSS version 30, and confirmatory factor analysis using AMOS software version 24. In addition, descriptive analysis was also performed to explain the socio-economic characteristics of farmers and the results of questionnaire data, analyze the relationship between variables using correlation techniques, and measure using the AMOS SEM model using a questionnaire and AMOS 23.0 software. Besides that, Supply Chain Analysis, Marketing Margin Analysis, and SWOT Analysis were also carried out.

III. Results

3.1. Overview of Research Locations

The Province of East Nusa Tenggara (NTT) is an archipelago with 1,192 islands, 432 of which have names, and the rest have not been named. Forty-two islands are inhabited, and 1,150 islands still need to be inhabited. Among the 432 islands that have been named, there are 3 (three) major islands, namely Sumba Island (West Sumba, East Sumba, Central Sumba, and Southwest Sumba), Timor Island and its surroundings (Kupang City, Kupang Regency, South Central Timor, Timor Tengah Utara, Belu, Malacca, Rote Ndao, Sabu Raijua), Flores Island (Districts of East Flores, Sikka, Ende, Ngada, Nagekeo, Manggarai, West Manggarai, East Manggarai, Lembata, and Alor).

3.1.1. Development of Population and Production of Broiler Chickens in NTT

The development of the purebred chicken population in the Province of NTT shows an increase yearly, with the City of Kupang being the main base for the business of purebred chickens in NTT. In addition, Nagekeo Regency and Southwest Sumba Regency also have the potential as broiler production centers. Broiler chickens have the potential to be productive economic businesses because they are easy to breed and have a short harvest period. The effectiveness of rearing broilers affects increasing income. The broiler population in Mainland West Timor dominates in NTT, indicating that the main producers and consumers of broiler chickens are in this area. Broiler chicken farming in production centers in the NTT region can increase local revenue, reduce unemployment, increase community productivity, and provide an affordable source of animal protein. In addition, broiler waste can also be used as fertilizer and handicraft materials.

3.1.2. Respondent Profile Descriptive Statistics

In this study, the respondents who became the sample were broiler farm owners throughout East Nusa Tenggara (NTT), with a total of 225 farmers. Questionnaire distribution data regarding the respondent's identity include gender, age, and recent education. Regarding gender, 189 respondents, or 84%, were male, while 36, or 16%, were female. For the age category, 80 respondents, or 33.5%, were in the age range 17-37 years, 112 respondents, or 49.7%, were in the age range 38-57 years, 28 respondents, or 12.4%, were in the age range 58-77 years, and five respondents or 2.25% were over the age of 78 years. Meanwhile, in terms of last education, seven respondents, or 3.1%, did not finish elementary school; 13 respondents, or 5.7%, finished elementary school; 65 respondents, or 28.8%, finished junior high school; 102 respondents, or 45.3%, finished high school, 38 respondents or 16.8% graduated from university.

3.1.3. Business Profile

Broiler chicken farms in mainland Timor, NTT, especially in Kupang, are generally individual businesses fully controlled by their owners. However, some breeders enter into partnership contracts with companies to produce broiler chickens. This livestock business is included in the scale of smallholder livestock business, with an average number of broiler chickens reared per production period at most 15,000 birds. Capital is important in running this business, and farmers often obtain capital from loans from partnerships, banks, or cooperatives. The capital is used to buy production facilities such as seeds, feed, medicines, and vitamins. Loan payments are generally made after harvest when the partner company will take the chickens ready to be harvested.

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3.1.4. Feasibility Analysis of Broiler Chicken Business

Production costs in the broiler farming business consist of fixed and variable costs. Fixed costs are not affected by the output level and include depreciation and employee salaries. Variable costs vary with production volume and include purchasing seeds, feed, vitamins, medicines, electricity, sawdust, diesel, and firewood. Broiler chicken farm business income can be calculated in terms of gross income and net income. Gross income on broiler farms in the West Timor Region reaches IDR 178,080,000 per production process, while net income is IDR 45,014,225. Business feasibility can be seen through the Return Cast Of Ratio (RCR), which compares gross income with production costs. The RCR of 1.34 indicates that every Rp. 1.00 in production costs generates revenue of Rp. 1.34. With a positive RCR value, broiler farming is feasible to continue because it can provide benefits. The greater the income and the lower the production costs, the more profitable the business will be.

3.1.5. Characteristics of Broiler Chicken Business Profile

The results showed variations in the characteristics of broiler farming businesses depending on location and exploitation. Farms are generally located far from human settlements according to local government requirements. Sales of broiler chicken products are carried out through various channels with different proportions depending on the business scale. The larger the business scale, the more marketing channels are used. Most livestock owners are men (84%), with the dominant age range between 38-57 years (49.7%). Most livestock owners have a high school education (45.3%). This data shows hope for cooperation and synergy between broiler farm owners in overcoming shortages.

3.1.6. Analysis of Margins, Costs, and Profits from Broiler Livestock Marketing in the West Timor Region of NTT

The marketing channel for broiler chickens in the Pasar Besar Province of NTT involves producers (breeders), collectors, retailers, and final consumers. There are two marketing channels in the local market in the Regency of NTT Province: channel I with breeders, collectors, retailers, and consumers, and channel II with breeders, collectors, and consumers. In channel I, sales are made through transactions between collectors and breeders, while in channel II, retailers buy directly from collectors in the market. Marketing margins and marketing costs differ between the two channels. In channel I, the total margin is IDR 35,000 per kilogram, with a marketing cost of IDR 21,000 per kilogram. In channel II, the total margin is IDR 25,000 per kilogram, with a marketing cost of IDR 12,000 per kilogram. The profits obtained by marketing institutions are also different, with channel I providing a profit of IDR 14,000 per kilogram and channel II providing a profit of IDR 13,000 per kilogram. The level of marketing efficiency in Channel I is 19.39%, while in Channel II is 14.45%. In conclusion, the longer the marketing channel, the smaller the margin farmers receive, but the marketing efficiency in Channel I is higher than in Channel II.

3.2. Research Results with AMOS SEM Analysis

The analysis was carried out in two stages, namely estimation metric test to test exogenous and endogenous structural dimensions using confirmatory factor analysis, as well as the estimation of the structural equation model through a complete model to check the validity of the model involving the model fit tests such as normality tests, outlier tests, multicollinearity tests, and multicollinearity tests. The goodness of fit and reliability test on the full structural model.

3.2.1. Confirmatory Factor Analysis

Confirmatory factor analysis is used to identify the most important dimensions in a set of variables, such as Physical Resources, Economic Resources, Social Resources, Supply Chain Management, and Broiler Farmer Productivity, focusing on dimensions with the largest variable estimates compared to other dimensions. The results of the full model analysis can be seen in the following figure:
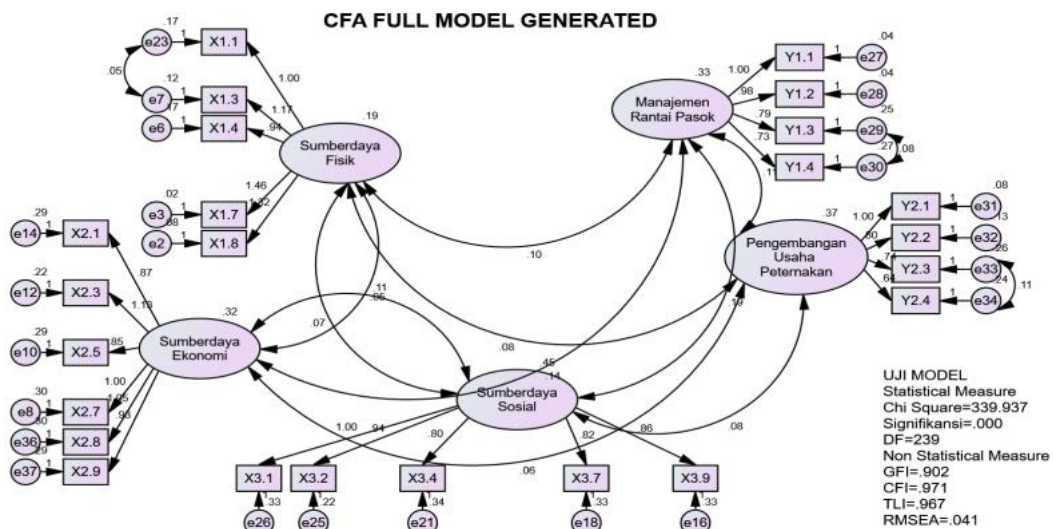
Early SEM Models:
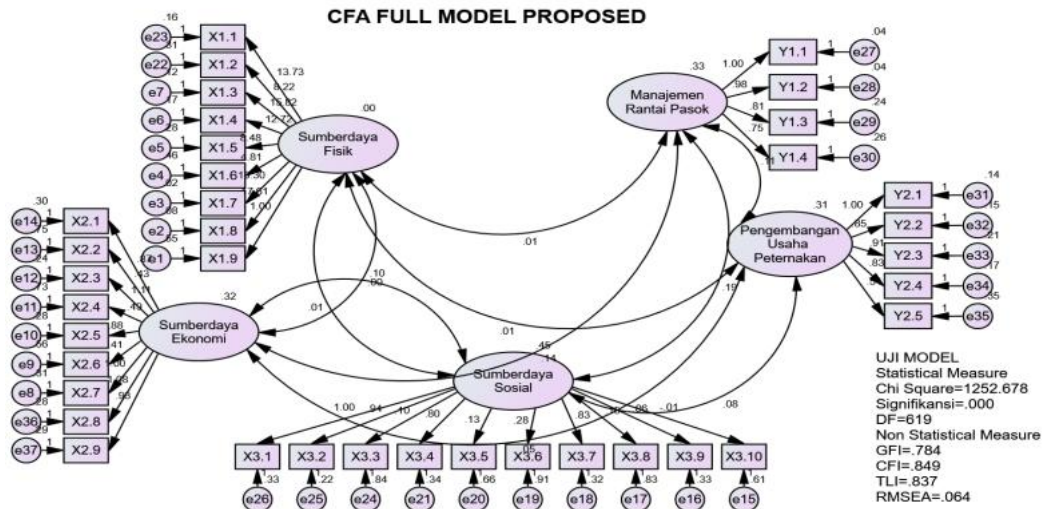
Final SEM Model:

Figure 1 Analysis of Confirmatory Factors Influence of Physical Resources, Economic Resources, and Social Resources on Supply Chain Management and Productivity of Broiler Farmers.

3.3. Validity, Reliability, Normality, and Outliers Test Results
3.3.1. Validity test
The validity test was carried out by correlating item scores with a total score using SPSS Statistics 23 software. The instrument validity criteria were determined based on comparing rcount and rtable. If rcount ≥ rtable with a significance of 0.05, then the instrument is declared valid, and the test results show that all indicators and instruments used in this study are valid.

3.3.2. Construct Reliability test
The variables in this study show a good level of reliability with construct reliability values above 0.7 and variance extracted above 0.5, so it can be concluded that these variables are reliable and valid for further analysis.

3.3.2.1. Endogenous Variable Validity Test Results
Based on the test results using N of 225 and the distribution of R-table significance values of 5% and 1% of 0.130, it can be concluded that the questionnaire items related to Supply Chain Management (Y1) and

livestock business development (Y2) have Rcount(Pearson Correlation) which is greater than Rtable (0.130). Therefore, both variables are declared valid, and no modification is needed.

3.3.2.2. Exogenous Variable Validity Test Results

Based on the test results using N of 225 and the distribution of R-table significance values of 5% and 1% of 0.130, it can be concluded that the questionnaire items related to Physical Resources (X1), Economic Resources (X2), and Social Resources (X3)) has a Rcount (Pearson Correlation) value that is greater than Rtable (0.130). Therefore, the three variables are declared valid and need not be modified.

3.3.3. Data Reliability Test

The reliability test results using SPSS Statistics 23 show that the instrument used in this study has high reliability, indicating the instrument's consistency in providing stable measurement results from time to time.

3.3.3.1. Endogenous Variable Reliability Test Results

Based on the results of the Cronbach's Alpha test output, the average value of Cronbach's Alpha for the four questionnaire questions on the variables used was 0.837. For the five questionnaire questions on the variables used, it was 0.769. According to the reliability criteria from Gulidford, all variable question items used in the research instrument (questionnaire) were declared "reliable" and tested for reliability to be used in further research.

3.3.3.2. Exogenous Variable Reliability Test Results

Based on the results of the Cronbach's Alpha test output, the average Cronbach's Alpha values for the 9-item questionnaire questions on the variables used were 0.852, 0.857 for the 9-item questionnaire questions, and 0.894 for the 10-item questionnaire questions. According to the reliability criteria from Gulidford, all variable question items used in the research instrument (questionnaire) were declared "reliable" and tested for reliability to be used in further research.

3.3.4. Data Normality Evaluation

Based on the output of the multivariate normality test with a multivariate number value (1.663) <2.58, it can be concluded that the data distribution in the research model is not normal and meets the assumptions of normality.

3.3.5. Multivariate Outliers Test

Based on observations of the Mahalanobis distance and its comparison with the chi-square value at a significance level of 0.001, no multivariate outliers were found in this research data. This was obtained after calculating the Mahalanobis distance value from the data, which did not exceed the limit of 1245.408, so it can be concluded that this study did not face multivariate external problems.

3.4. Validity, Reliability, Normality and Outliers Test Results

The goodness of fit test was carried out to evaluate whether the model formed was appropriate or not. In this study, eight indicators passed the goodness of fit test, while only two indicators were stated as Marginal Fit or less suitable. Based on these results, the model can be considered appropriate or fit overall, so no further modifications are needed. However, the final decision still depends on the assessment and decision of the researcher based on the relevant goodness of fit criteria.

3.5. Bootstrap Method Hypothesis Test

After the structural model was declared fit through the goodness of fit test, the significant influence between the independent and dependent variables was analyzed using the AMOS SEM bootstrap method. In this analysis, several indicators (X1.2, X1.5, X1.6, X2.2, X2.4, X2.6, X3.3, X3.5, X3.6, and X3.8) are omitted in Confirmatory Factor Analysis process because the loading factor value is below 0.6. The greatest influence is seen between the Social Resources variable on Supply Chain Management, with a beta value of 0.36. Meanwhile, the smallest effect occurs between the Social Resources and Livestock Business Development variables, with a beta value of only 0.04.
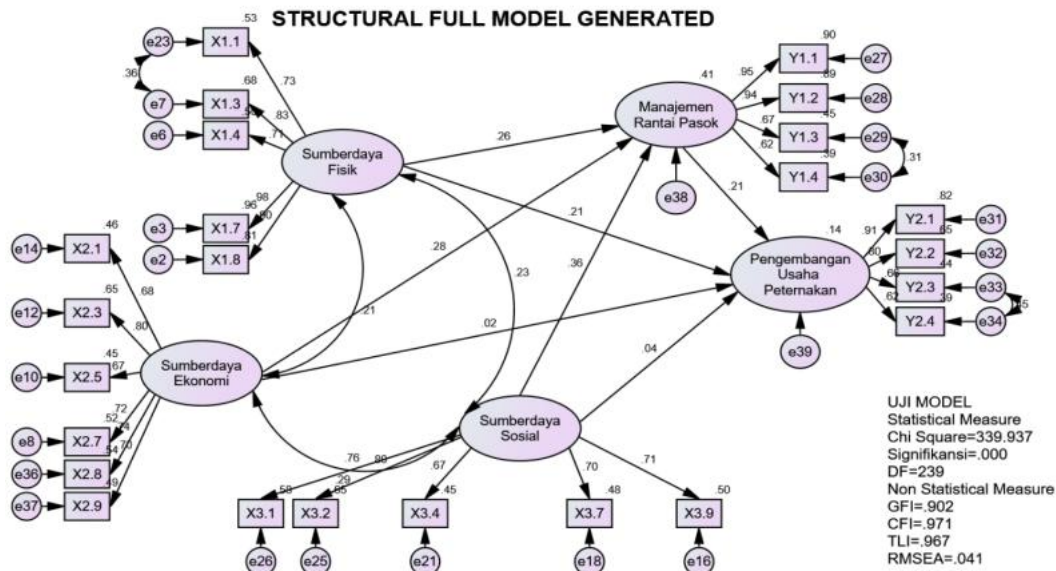

Figure 2 Structural Full Model Generated

To determine the significance level of the influence relationship between variables can be seen in the table below:

Table 1 Regression Weights: (Group number 1 - Default model)

Model	Estimate	S.E.	C.R.			P
Physical Resources --> Supply Chain Management			0.339	0.075	4.518	***
Economic Resources --> Supply Chain Management			0.284	0.063	4.495	***
Social Resources --> Supply Chain Management			0.306	0.055	5.599	***
Supply Chain Management --> Business development			0.224	0.094	2.378	0.017
Physical Resources --> Livestock business development			0.288	0.099	2.898	0.004
Economic Resources --> livestock business development			0.019	0.083	0.228	0.820
Social Resources --> Livestock business development			0.04	0.074	0.542	0.588

Source: primary data processed by SEM AMOS (2022).

Table 1 shows no significant effect between economic resources on livestock business development and social resources on livestock business development. However, there is a significant influence between physical resources, economic resources, and social resources on supply chain management. In addition, there is a significant influence between supply chain management and physical resources on livestock business development. The greatest influence is seen between social resource variables on supply chain management, with a beta value of 0.36. Meanwhile, the smallest effect occurs between social resource variables and livestock business development, with a beta value of only 0.04.

IV. Discussion

4.1. Effect of Physical, Economic, and Social Resources on Supply Chain Management
4.1.1. Effect of Physical Resources on Supply Chain Management

The results of hypothesis testing show that physical resources have a significant effect on supply chain management, with a significant probability value (less than 0.05) and a positive estimate value. This aligns with previous research showing a similar relationship between physical resources and supply chain management. The

managerial implications of these findings are the importance of land ownership and transportation in broiler farming to improve supply chain governance, facilitate information distribution, establish relationships with stakeholders, and improve the quality of supply chain management as a whole [6].

4.1.2. Effect of Economic Resources on Supply Chain Management

Economic resources, including natural, human, artificial, and social resources, significantly influence supply chain management. This finding is consistent with previous research, including a study conducted by [7]. The greater the potential economic resources of broiler livestock business actors, such as education level, family involvement, health status, and technology transfer, the more supply chain management activities related to relationships, collaboration, and process integration will be better and more sustainable. The managerial implication of this research is the importance of economic resources, especially education and technology transfer, in improving the supply chain governance of broiler farming businesses. Supply chain management activities can run well when supported by the economic resources of livestock business actors, who play a strategic role in technology transfer and education. By implementing technology transfer supported by the education of livestock business actors, supply chain management can make a significant contribution to broiler farming businesses [8].

4.1.3. The Influence of Social Resources on Supply Chain Management

Social resources, which include the level of trust between families, cooperation between families, and the intensity of cooperation activities for low-income families, significantly influence supply chain management. This finding is in line with previous research, including the study conducted by [9], which concluded that social resources significantly affect supply chain management. Social resources significantly affect supply chain management, indicating that increasing individual social resources will improve supply chain management in broiler development. The managerial implication of this research is the importance of social resources in supporting supply chain management activities, where relationships with other farmers are the main drivers in the supply chain management of broiler farming businesses. Supply chain management activities must be connected to interactions between broiler livestock business actors, village officials, suppliers, and financial institutions, which are part of social resources. In this context, the intensity of relations between livestock business actors, relations with village officials, and relations with financial institutions in the exchange of information and mutually beneficial cooperation will increase the effectiveness of supply chain management activities for broiler chicken businesses in East Nusa Tenggara [10].

4.2. The Effect of Supply Chain Management on Livestock Business Development

Research has shown that good supply chain management practices have a significant effect on farmer productivity, which in turn will affect livestock business development. Effective management of information-sharing activities, collaboration and long-term relationships with stakeholders can increase the broiler chicken population, the number of workers, the number of cages, and the income of broiler farming businesses in East Nusa Tenggara. This finding is in line with previous research, including a study conducted by [11], which concluded that supply chain management has a significant effect on livestock business development. This indicates that an orientation to effective processes and customers, supported by farmer commitment and initiative, is an important requirement for achieving competitive advantage and increasing company productivity [12]. The managerial implication of this research is the importance of implementing supply chain management in developing broiler chicken farming businesses in East Nusa Tenggara, which will have a positive impact on the growth of the chicken population, increasing the number of workers, increasing the number of cages, and increasing the income of business actors [13].

4.3. Effect of Physical, Economic and Social Resources on Livestock Business Development
4.3.1. Effect of Physical Resources on Livestock Business Development

A quality physical work environment significantly influences the development of a livestock business. This study shows that physical resources, such as large landholdings, adequate transportation fleets, water sources, and adequate feed access, positively affect broiler chicken populations, the number of workers, the number of livestock entrepreneurs, and income. This is in line with previous research conducted by [14], which concluded that physical resources significantly influence livestock business development. The managerial implication of this study is the importance of paying attention to land ownership and transportation in broiler farming because these two factors are very important components of physical resources. Adequate land ownership and transportation can significantly develop a livestock business in East Nusa Tenggara [15].

4.3.2. The Effect of Economic Resources on Livestock Business Development

Livestock business development is an indicator of the ability of factors of production to produce output. However, this study shows that economic resources do not significantly affect livestock business development. On the other hand, supply chain management activities have a more important role in broiler farming business development. This is different from the findings of previous studies [16], which concluded that economic resources significantly affect farmer productivity. The managerial implication is that economic resources such as education, family involvement, health status, and technology transfer can only significantly develop broiler farming businesses with the support of good supply chain management activities. Therefore, broiler livestock businesses need to consider the strategic role of supply chain management in developing livestock businesses [17].

4.3.3. The Effect of Social Resources on Livestock Business Development

Social resources are important in developing livestock businesses by creating good relationships and a conducive working environment. However, this study shows that social resources have little effect on the development of broiler farming businesses. This is different from the findings of previous research [18], which concluded that social resources have a significant positive influence on livestock business development. The managerial implication is that social resources can only develop a broiler farming business directly with the support of good supply chain management activities, including establishing long-term relationships with stakeholders, close cooperation, and integrated integration between poultry business actors. Broilers. Therefore, broiler chicken business actors must implement good supply chain management to enhance business development [19].

4.4. Market Integration Analysis
Market Integration in Kupang City

Analysis of market integration in Kupang City was conducted at two market levels, namely, from breeders to wholesalers and from wholesalers to retailers. The analysis results show that market integration for broiler meat commodities from breeders to wholesalers only occurs sometimes, with a parameter b2 value of 0.309. This shows that price changes at the wholesaler level only cause price changes of 0.309% at the farmer level. However, market integration from wholesalers to retailers is going well, with a parameter b2 value of 0.907. This means that price changes at the retail level can be transmitted by 0.907% at the wholesaler level. The estimation results also show that the price in the previous period has a greater influence than the current price, both at the farmer and wholesaler levels. The IMC value for market integration from wholesalers to retailers is 0.362, indicating a good level of market integration. However, market integration from breeders to wholesalers could have improved, with an IMC of -59.668. The model used in this analysis can explain most of the price variations, with an R^2 value of 0.947 for integrating the wholesaler-breeder market and 0.999 for integrating the wholesaler-retailer market.

Market Integration in Atambua City

Analysis of market integration in Atambua City was carried out at two levels, namely, the level of breeders to wholesalers and the level of wholesalers to retailers. The analysis results show that market integration between broiler breeders and wholesalers could be better, with the contribution of prices from wholesalers in the previous period, which is smaller than prices from farmers in the previous period. In addition, market integration between wholesalers and retailers could be better. This is due to factors such as pricing by large livestock companies and costs of production, supply, and distribution to non-production areas. Efforts are needed to increase transmission and better access to market information to increase the integration of the broiler market in Atambua City.

4.5. Business Development Strategy Analysis

Analysis of broiler farming business development strategy consists of internal and external factors. This internal and external analysis was carried out to compile the Internal Factor Evaluation (IFE) matrix, the External Factor Evaluation (EFE) matrix, and the Internal-External (I-E) matrix.

4.5.1. Identification of Internal Factors

Internal factor analysis was carried out to identify the strengths and weaknesses in the broiler farming business on the Timor mainland, East Nusa Tenggara (NTT). Strength factors include a strategic location with good access to water, access to marketing, far from settlements, allowing development, relatively easy maintenance, ownership of large cages, long business experience, and skilled labor. However, there are also weak factors such as breeders' low managerial and skill levels, dependence on loan capital, inadequate access to

financial institutions, poor quality seeds, and lack of information to innovate. Even though there are weaknesses, the strength factor score (1.70) is higher than the weakness (0.57), indicating the potential for developing broiler farming businesses in mainland Timor, NTT.

4.5.2. Identification of External Factors

External factor analysis identified opportunities and threats in the Timor mainland NTT broiler farming business. Opportunity factors include the level of demand that continues to increase, increasing public awareness of consuming chicken meat, developments in technology and information, and the ease of marketing their products. However, there are also threat factors such as chicken diseases, limited feed availability, fluctuations in chicken prices, uncertain climate influences, and competition between breeders. Even though there are threats, the opportunity factor score (2.62) is higher than the threat (0.78), indicating that there are great opportunities for the development of broiler farming businesses on the mainland of Timor, NTT.

4.5.3. Internal-External (IE) Matrix Analysis

Based on the IE matrix analysis, the IFE weight score is 2.27, and the EFE weight score is 3.40 indicating the development strategy needed for the broiler farming business in mainland Timor NTT is a growth and development strategy (Growth and Build). The recommended strategy is market penetration by expanding the marketing area and business development by expanding broiler chicken farms or opening new cages in new areas.
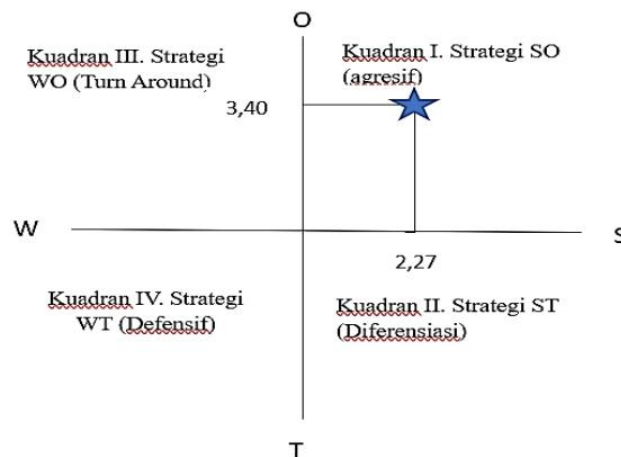

Figure 3 IE Matrix Curve

4.6. SWOT analysis

The SWOT matrix can help farmers identify SO (strengths-opportunities), WO (weaknesses-opportunities), ST (strengths-threats), and WT (weaknesses-threats) strategies in developing broiler farming businesses on the Timor mainland.

Table 2 SWOT Matrix of Broiler Farming in Mainland Timor, East Nusa Tenggara

IFE EFE	(*Strenghts–S*)	(*Weakness-W*)
	1. Strategic location of the cage 2. Maintenance is not so difficult 3. Ownership of a spacious cage 4. Business experience owned 5. Skilled workforce	1. Low level of education 2. Limited capital 3. Equipment for cages that are still conventional 4. The quality of seeds (DOC) is not maximized 5. Lack of information about innovation in doing business

(Opportunities-O)	**SO Strategy**	**WO Strategy**	
1. Increasing demand for chicken meat 2. The population continues to increase 3. Increased consumption of chicken meat 4. Advances in technology and information 5. Open market opportunities 6. Ease in marketing production results	1. Increasing the production capacity of broiler chickens (S3, S5, O1, O2, O3). 2. Market penetration through the opening of stables in new areas (S4, O5, O6) 3. Maximizing owned cultivation technology (S1, S2, O4)	1. Conduct discussions with the workforce as a means of exchanging ideas regarding technological advances and cultivation techniques (W1, W3, W5, O4) 2. Improving access to capital so that development can be carried out (W2, O1, O2, O3) 3. Improving the cultivation technique used (W1, W4, O4) 4. Improve marketing techniques to be more profitable (W5, 05, 06)	
(Threats-T)	**ST Strategy**	**WT Strategy**	
1. Outbreaks of disease in broilers 2. Feed dependence on partnerships 3. Fluctuating selling prices 4. Uncertain climate change many farm businesses are similar	1. Maintaining the quality of production results (S1, S2, S5, T1, T3, T4) 2. Develop a competitive strategy (S4, T5) 3. Maximizing the use of broiler feed (S4, S5, T2)	1. Need to be careful when cultivating (W3, W4, T1, T4) 2. Increasing the ability of breeders to cultivate (W5, T5)	

Based on the SWOT matrix that has been evaluated, four strategies can be used in the development of broiler farming businesses on the Timor mainland, namely the SO (Strength-Opportunity), WO (Weakness-Opportunity), ST (Strength-Threat) and WT (Weakness) strategies. -Threats). However, based on the analysis, the most suitable strategy is the SO strategy, which involves leveraging the company's internal strengths to take advantage of external opportunities. The SO strategy includes increasing broiler production capacity, market penetration through the opening of coops in new areas, and utilizing existing cultivation technology.

V. Conclusions

Based on data analysis using IBM AMOS 23 software and a review of the background and results of previous research, several conclusions can be drawn: 1) Physical resources and social resources significantly affect the supply chain management of livestock business in East Nusa Tenggara. 2) Supply chain management has a significant influence on livestock business development, which has an impact on income, number of workers, and market share. 3) Physical, economic, and social resources do not significantly influence the development of livestock businesses in the region. 4) The broiler market needs to be better integrated, with a better level of integration in Kota Kupang. 5) The strategy that can be implemented in developing a broiler farming business on the Timor mainland is the SO (Strength-Opportunity) strategy, which involves increasing production capacity, market penetration through opening new cages, and utilization of cultivation technology

In general, the results of the study show that the development of broiler farming businesses in Kupang City, Kupang Regency, South Central Timor (TTS) Regency, North Central Timor Regency (TTU), Belu Regency and Malacca Regency is quite good with the variables Physical Resources, Economic Resources, Social Resources, Supply Chain Management, and Breeding Business Development which have a significant influence. However, adding other variables that can potentially affect supply chain management is recommended so that livestock business development can increase significantly. In addition, future research can consider moderating variables to strengthen the relationship between supply chain management and livestock business development and make a greater contribution to the sustainability of livestock businesses in East Nusa Tenggara. Other suggestions include increasing extra behavior within the organization, strategic planning to

improve organizational justice, and implementing SO (Strength-Opportunity) strategies in increasing production, market penetration, and utilization of cultivation technology. For further research, conducting a more comprehensive study with a larger subject and involving other factors that can have a stronger influence on farmer productivity is recommended.

VI. References

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