Value Chain Model of Sheep-Fattening Business in Langkat District

Comment [WU1]: Shape the title in the form of Analysis of Value Chain Model of Sheep-Fattening Business in Langkat District

ABSTRACT

Aims: Aesigned a value chain model for fattening sheep in the study area.
Study design: This research begins with preliminary studies such as conducting literature studies, problem identification, needs analysis, and system identification. Then conduct field observations and expert interviews. Best practice value chain analysis consists of several steps, which are both descriptive and analytical. Value chain analysis describes the overall market in which a particular value chain operates.
Place and Duration of Study: The research was conducted from November 2022-January 2023 in Sei Bingai District, Langkat Regency..
Methodology: The method used in this study is value chain analysis through mapping Hayami's value chain and added value.
Results: The value chain model for fattening sheep in the research area can be applied to improve performance through efficiency, integration of actors, and distribution channels to deliver to consumers. Based on data processing and analysis results, it is known that the problem of sheep value chain management is a constraint on resource input in the form of a shortage of sheep supply, so Langkat Regency still depends on supplies from other regions.
Conclusion: Mapping a value chain model based on actual business processes requires designing a supply chain solution to address critical aspects that hinder the smooth management of the sheep value chain.

Comment [WU2]: Before this write the research gap

Comment [WU3]: Insert in methodology

Comment [WU4]: Compile with in methodology

Comment [WU5]: It is better if you put the result by number/presennt shortage of sheep supply by how much??

Comment [WU6]: Rewrite b/c w/c seems simply a note

Keywords: Langkat Regency, Risk, Sheep Fattening, Value Added, and Value Chain Model.

1. INTRODUCTION

Comment [WU7]: You are only discuss about your study are why not the data at the world level in general and show the research gap by adding others finding who have opposite idea

Sheep farmers in Langkat Regency have managed their livestock business well [1].. However, the implementation of production requires more intensive handling. More intensive handling of production and marketing processes is often faced with constraints, among the obstacles faced in producing fattening sheep, namely the level of risk in the production process to marketing. *Risk* is an uncertain situation a person or company faces that can have an adverse impact [2].

This research is essential because the results can be used as information for sheep farmers to improve their performance by applying the designed value chain model. The Value Chain can identify each part of the production process and identify which steps can be eliminated or improved so that it is known in which areas some processes provide the most value added to the performance of fattening sheep companies [3]. Value Chain Analysis (VCA) can also assist companies in identifying areas that can be optimized for maximum efficiency and profitability [4]. If the measurement of the value chain is carried out systematically, this can be a guide to measure the strengths and weaknesses within the company's internal [5]. Optimal thorough processing of various company activities in a value chain will create an

advantage over those that stand alone [6]. This condition will ultimately encourage the creation of maximum profit margins. For the government, the results of this study are expected to be helpful for the local and regional governments to be used as a reference in efforts to increase the competitiveness of sheep farmers.

Based on this description, the research results on the added value received between farmers and other link actors in the fattening sheep value chain still provide different conclusions. There needs to be more empirical research that examines the fattening sheep value chain. Therefore, research is necessary to develop a value chain model for fattening sheep in Langkat Regency. This study aimed to design a value chain model for fattening sheep and identify which activities have the highest economic value added to fattening sheep in the study area.

2. METHODOLOGY

Comment [WU8]: Write again b/c this part answer the questions of why, how, where, when, what and so on therefore act accordingly

Research Approach

This research begins with preliminary studies such as conducting literature studies, problem identification, needs analysis, and system identification. Then conduct field observations and expert interviews. Best practice value chain analysis consists of many steps, which are both descriptive and analytical. Value chain analysis usually describes the overall market in which a particular value chain operates.

The descriptive analysis describes the value chain itself. This involves considering who is involved and describing the work, income, profits, and value of the unit's product for those involved in the value chain. The analytical step then involves assessing/benchmarking the performance of the value chain, both to take into account changes over time and potentially also to compare with international competitors. This analysis should also be conducted to assess the critical challenges and factors impacting value added through the chain. Finally, these descriptive and analytical steps can be used to recommend solutions to critical challenges and to define implementation plans to deliver value chain improvements.

The value chain studied starts from cultivation activities and processing in the upstream industry to the downstream industry. Primary raw materials are raw or semi-finished materials that other industries produce [7].

Location and Time of Research

This research will be carried out from November 2022 to January 2023 in Sei Bingai District, Langkat Regency, because this area is one of the areas with great potential in developing a sheep farming business.

Variable Operational Parameters

The parameters observed in this study were the structure of the value chain and added value in the fattening sheep business in Langkat Regency. The indicators used in this study are based on existing literature and adapted to the conditions and circumstances in the field. The variables are Main Activities, which consist of Inbound Logistics, Operations, Outbound Logistics, Marketing, and Sales; Supporting Activities consisting of Firm Infrastructure, Human Resources Management, Technology Development, and Procurement.

Population and Sample

The population in this study were all sheep farmers in Langkat Regency. In this study, sampling was carried out by census or as a whole. The census method is also known as the complete enumeration method, in which all individuals are investigated or interviewed as respondents [8].

Data collection technique

Data collection activities include several techniques, namely semi-structured interviews, document analysis, informal discussions, and direct observation [9]. The interviews involved decision-makers and experts responsible for the fattening sheep system in Langkat District. [10]. The interviewees were selected for their direct involvement in critical sheep-fattening industry value chain activities in designing, implementing, and controlling several projects and evaluating the business's sustainability. This data collection technique is considered appropriate for investigating the value chain of the sheep-fattening industry.

3. RESULTS AND DISCUSSION

3.1. Actors Involved and Activities in the Value Chain

The first step is to identify which stakeholders are involved in the value chain of the sheep processing industry. Perpetrators were identified through direct observation and interviews with related agencies, farmers, community leaders, experts, traders, and sheep managers. The actors and institutions involved in the sheep value chain can be seen in Figure 1.

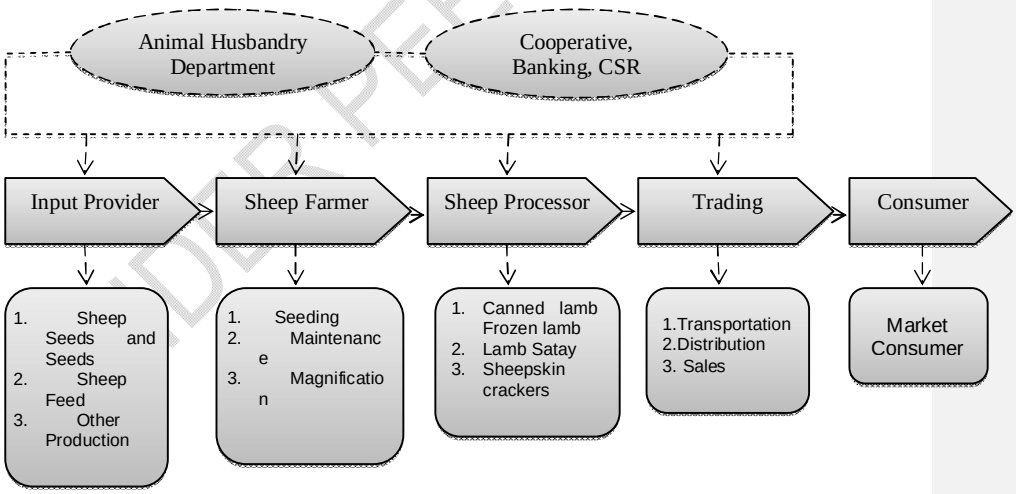

Figure 1. Actors and Institutions involved in the Sheep Value Chain in Langkat District

The activities carried out by the actors/actors involved in the sheep commodity value chain have a coordinated relationship and need each other. Therefore, value chain activities in the value chain commodity business involve not only the main activities but also supporting

activities that are directly or indirectly involved. The actors involved include input supply providers, cultivators, fish processors, collectors, consumer retailers, and agencies/institutions related to the sheep commodity business in No

Comment [WU9]: This map is good but you did not use in nuber how much no of sheep sold in which market is very important

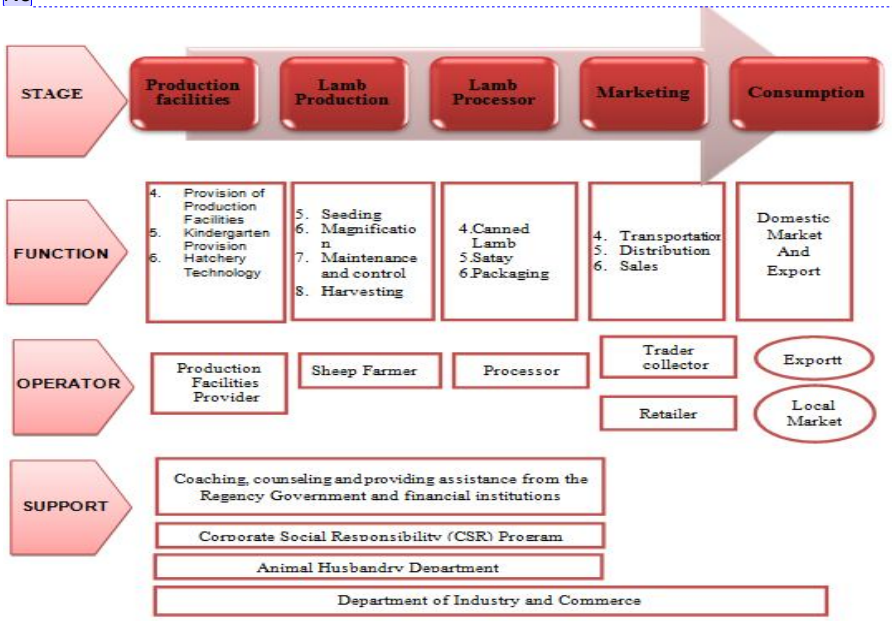

Figure 2. Value Chain of Sheep Fattening Business in Langkat District

The Livestock Service Office and the Industry and Trade Service indirectly support these stages. For more details on the actors involved in the sheep processing value chain, see Table 1.

Table 1. Roles and Actors Involved in the Sustainable Sheep Processing Value Chain

No.	Actors	Role
1.	Sheep Farmer	Play a role in sheep production, which is carried out in such a way that it can take place sustainably at a reasonable level by taking into account ecological health, minimizing side effects that disrupt diversity, ecosystem structure, and function, and managing and carried out fairly and responsibly, by-laws and regulations locally, nationally and internationally to meet the needs of present and future generations.
2.	Sheep Breeding Group	It is a forum for cooperation between sheep breeders and other parties so that they can face various challenges and problems and have a good bargaining position to achieve sustainable sheep fattening development.
4.	Traders and exporters	Playing a role in the sustainable distribution (marketing) of sheep with increasing export values and high selling prices.

5.	**Supporting Actor**	
	a. Financial institutions,	As the access to capital for the development of fattening sheep business
	b. Agency for the Assessment and Application of Technology	Play a role in the application of sustainable sheep-fattening resource management technology to help improve the management of fattening sheep resources
	c. Certification bodies, both international and national.	Act as guarantor for aquaculture sheep fattening products to fulfill food safety, fish health, welfare, and socio-economic and environmental responsibility.

3.2. VALUE CHAIN MODEL DESIGN IN SHEEP-FATTENING BUSINESS

Comment [WU10]: Is good but you did not use in nuber how much no of sheep sold in which market is very important

A supply chain mapping was prepared based on the business process analysis approach and discussion of the case for developing a fattening sheep business and the development of porter's value chain. This mapping method is mutually supportive and complementary to detail further the flow of activities in the chain of actors for all related parties. The supply chain has advantages in terms of an integration strategy for all stakeholders in all supply chain lines from upstream to downstream, thereby increasing the efficiency and effectiveness of industrial systems. The value chain model of the sheep-fattening business through the integration of business actors can be seen in figure 3.

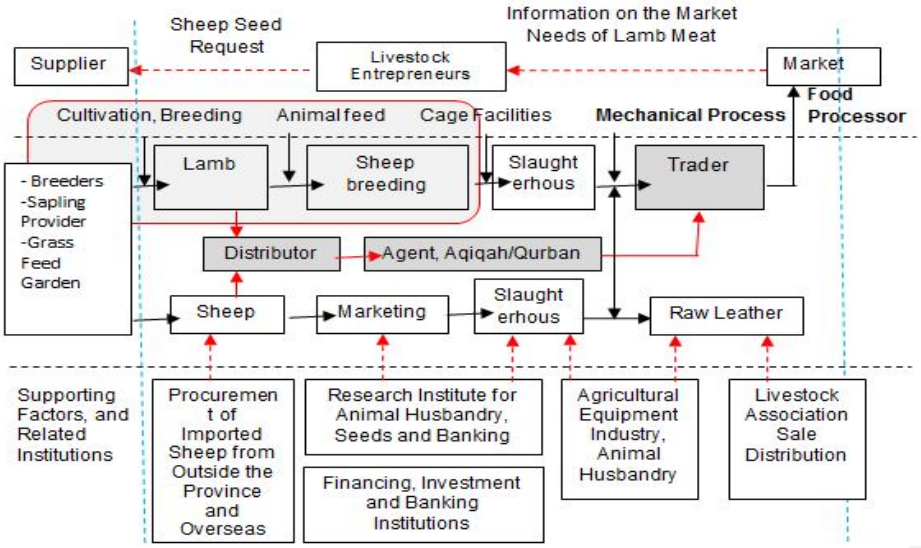

Figure 3. Value Chain Model of Sheep-Fattening Business Through Integration of Business Actors

The sheep fattening Value Chain Model and related positions and business actors are as follows.

1. Focus as a breeder in the blue block - Sheep Breeding Cultivation Unit, Maintenance, Development, and Support of the animal feed industry.

2. Position in channel distribution: backward farming land, cooperation with sheep breeders ← Sheep Farming → Market Research, cooperation with traders, and easy access to distribution of goods to consumers.
3. Main core: Procurement of sheep seeds and maintenance of sheep fattening.

Mapping the flow of business processes in the value chain management method helps facilitate the discussion of problems by reviewing the roles of each related party. Understanding problem mapping in support of value chain management flow facilitates identification and orientation to address problems according to the relationship between parts of a business unit. The results of mapping the sheep value chain model can be applied to improve performance through efficiency, integration of actors, and distribution channels to deliver to consumers. Based on data processing and analysis results, it is known that the problem of sheep value chain management is a resource input constraint in the form of a shortage of sheep supply. Hence, the Langkat Regency still depends on supplies from other regions.

4. CONCLUSION

The conclusions of this study are: The value chain model for fattening sheep in the study area can be applied to improve performance through efficiency, integration of actors, and distribution channels to deliver to consumers. Based on data processing and analysis results, it is known that the problem of sheep value chain management is the existence of resource input constraints in the form of a shortage of sheep supply so that Langkat Regency still depends on supplies from other regions..

Comment [WU11]: Rewrite again

Comment [WU12]: Ignore this part

REFERENCES

1. Marisa, J., Sitepu, S. A., & Kurniawan, R. 2022. Organizational Culture and Integration of the Sheep Supply Chain. Throne Media Group.
2. Lam, Mimi E. 2016. "The Ethics and Sustainability of Capture Fisheries and Aquaculture." Journal Of Agricultural And Environmental Ethics 29 (1): 35–65. Https://Doi.Org/10.1007/S10806-015-9587-2
3. Marisa, J., Sitepu, S. A., & Rianto, A. A. 2022. Analysis of Actors and Activities in Value Chain Business Sheep Faulting. In Proceeding International Conference Of Science Technology And Social Humanities (Vol. 1, Pp. 69-76).
4. Lim, Guanie. 2016. "Value Chain Upgrading: Evidence From The Singaporean Aquaculture Industry." Marine Policy 63:191–97. Https://Doi.Org/10.1016/J.Marpol.2015.03.016.
5. Sutama, 2012. Livestock-Based Agribusiness. Young Entrepreneur Library, Bogor.
6. Judi, A. M., Baihaqi, I., and Prasetyawan, Y. 2014. Value Chain Analysis for Increasing the Added Value of the Processing Industry in Fishery Commodities in Tarakan Using the AHP and Hoq Approach, 1–6.
7. Lim, Guanie. 2016a. "Value Chain Upgrading: Evidence From The Singaporean Aquaculture Industry." Marine Policy 63:191–97. Https://Doi.Org/10.1016/J.Marpol.2015.03.016
8. Sitepu, S. A., Marisa, J., & Hidayat, R. 2023. Service Per Conception On Sheep In Langkat District. Asian Journal Of Advances In Agricultural Research, 21(1), 48-51.
9. Sudjana, 2013. Statistical Methods. Tarsito. Bandung.
10. Sitepu, S. A., & Marisa, J. 2019. Increasing Business Income Of Dairy Goat Crossbreed Etawah Farming In Payageli Village Deli Serdang District. Journal Of Saintech Transfers, 2(1), 102-106.