

JOSERI

Journal of Sustainable Entrepreneur Regional Industry

| ISSN (Online) xxxx - xxxx |



Article

COMPETITIVE ANALYSIS OF GOAT FARMING INDUSTRY IN SIAK DISTRICT, RIAU PROVINCE

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Article Info

Volume 3 Issue 1
Received: 7 Oktober 2025
Accepted: 7 November 2025
Publish Online: 7 Januari 2026
Online: at
<https://journal.ypmki.com/index.php/joseri>

Keywords:
Business Competition,
Goat Farming Industry,
CR4,
Herfindahl-Hirschman Index (HHI),
Porter's Five Forces

Abstract

This study aims to analyze the competitive conditions of the Goat Farming Industry in Siak District, Siak Regency. The research uses both primary and secondary data, with a sample of 12 goat farming business. This study uses qualitative descriptive analysis to determine the conditions of business competition in the Goat Farming Industry in Siak District Siak Regency using CR4, Herfindahl-Hirschman Index (HHI), and Porter's Five Forces analysis. The CR4 result of 37.68% indicates a monopolistic competitive market structure, as it falls below the 40% threshold. Similarly, the HHI score of 843.65 (below 1,500) confirms a low market concentration, confirm the presence of monopolistic competition. Porter's analysis shows that industry rivalry is high due to the large number of goat farmers in Siak District, Siak Regency. Supplier power is weak, especially as most suppliers come from outside the province. Entry barriers are relatively low, as capital requirements and business complexity are not significant deterrents. The threat of substitute products is minimal, as demand for goat meat remains strong among a dedicated consumer base. Overall, the goat farming industry in Siak operates in a highly competitive.

1. INTRODUCTION

Indonesia is a country with rich natural resources, and has great potential in the livestock sector, supported by biodiversity and favourable geographical conditions. Livestock farming in Indonesia plays an important role in fulfilling national food needs, creating jobs and contributing to the improvement of community welfare and national food security (Widianingrum and Septio, 2023). The contribution of the livestock sector to Gross Domestic Product (GDP) at constant prices in 2024 was IDR189.8 trillion, an increase of 2.76 percent from 2023, while at current prices was IDR349.8 trillion in 2024 (BPS, 2025).

The goat farming sector has many potentials to be developed in Indonesia. Goats are multi-purpose livestock that produce meat, milk, skin, fur, and dung that can be used as manure. Goat farming can also be a source of income and employment for the community (Djunaidi et al., 2022). The goat population in Indonesia from 1983 to 2022 increased with an average growth of 1.99% per year, and in 2024 was 15.710.055 goats. The largest population in 2025 was in East Java Province with 5.033.351 goats (BPS, 2025).

In Siak Regency, goat population in 2019–2024 fluctuated, with significant growth in 2020 (8.77%), slowing down in 2021–2022, declining in 2023 (–4.99%), and recovering in 2024 (2.02%). This indicates

potential recovery in the goat farming sector (Dinas Peternakan, 2025).

Table 1. 1: Goat Population in Siak Regency in 2019-2024

Year	Population of Goats in Siak	Percentage
2019	23.934	2,00%
2020	26.030	8,77%
2021	26.290	1,00%
2022	26.601	1,18%
2023	25.275	-4,99%
2024	25.785	2,02%

Source: Dinas Peternakan, Perikanan dan Kelautan Kabupaten Siak, 2025

According to Porter (1990), competitive advantage is influenced by the company's ability to face five main forces: Threat of New Entrants, Bargaining Power of Suppliers, Bargaining Power of Buyers, Threat of Substitutes, and Industry Rivalry. Competitive conditions in the livestock industry are influenced by local market dynamics, resources, and farmers' management abilities (Hintoro et al., 2021; Agustian et al., 2023).

Siak Regency was chosen because of abundant natural resources, favourable geographical conditions, strong tradition of raising livestock, and proximity to Pekanbaru. Several types of goats found in Indonesia include Kacang, Etawa, Saanen, and Boer goats (Wasiati et al., 2018; Djunaidi et al., 2022). Goats are suitable for development in rural communities due to adaptability, low capital, and economic value. The goat farming industry in Siak District is mostly traditional and small scale, with limited business management. The selling price per head ranges from Rp2,700,000 to Rp3,500,000, showing high price competition among farmers.

This study aims to analyse the competitive factors affecting goat farming in Siak District using Porter's Five Forces analysis, to evaluate the strengths, weaknesses, opportunities, and threats faced by local farmers. The results are expected to contribute to the development of the goat farming sector in Siak and become a reference for other farmers in facing competition.

2. METHODS

This research was carried out in Siak District, Siak Regency, from December 2024 to May 2025, as the region is one of the main goat farming centers in Riau Province. The study population consisted of 12 goat farm owners, and since the total number was fewer than 30, all were used as samples through a saturated sampling or census technique. A qualitative descriptive method was applied, with primary data collected through questionnaires and interviews, and secondary data obtained from government agencies and relevant literature. Data collection involved questionnaires to capture respondents' conditions and interviews to deepen understanding of the problems studied. Operational definitions were used to provide measurable explanations of the research variables. Data were analyzed using descriptive and qualitative approaches to present research findings in narrative form. Furthermore, market structure analysis was conducted through market share, concentration ratio (CR4), and the Herfindahl-Hirschman Index (HHI) to determine the level of competition in the goat farming industry. In addition, Porter's Five Forces Model was employed to assess competitive dynamics, focusing on rivalry among existing firms, the threat of new entrants, substitute products, and the bargaining power of suppliers and buyers, in order to evaluate the intensity of competition and the industry's attractiveness.

3. RESULT AND DISCUSSION

Result

1. Length of Running a Business

Length of business is included in the experience of running a business because, the longer a person runs a business, the more experience he has in running the business. The following is data on the duration of the Goat Farming Industry business in Siak District, Siak Regency.

Table 2. Length of Operation of Goat Farming Industry Businesses in Si ak District, Siak Regency in 2025

No	Years of Operation	Number of Respondent	Percentage (%)
1	1-5	1	8.33%
2	6-10	8	66.67%
3	11-15	3	25%
Total		12	100%

Source: Processed Data, 2025

Based on table 2, the length of establishment of the Goat Farming Industry in Siak District, Siak Regency is 1-5 years as many as 1 business. 8 businesses with a length of establishment of 6-10 years and 3 businesses with a length of establishment of 11-15 years. This shows that more than half of the Goat Farming Industry in Siak District, Siak Regency is a business that is classified as long-established, namely above 5 years. The length of establishment of a business will also affect productivity, expertise, and skills in running a farm, as well as the number or lack of consumer business relationships that are successfully obtained. The longer you pursue the business field, the more knowledge about consumer behavior will increase.

2. Starting Capital

Capital is all forms of wealth that can be used directly or indirectly in the production process. Capital is an important factor for an entrepreneur to start a business because if someone has an idea without capital, the business will not be realized. Capital is also very important so that a business can run well. The following presents the amount of initial capital from the Goat Farming Industry business in Siak District, Siak Regency:

Table 3. Starting Capital for Goat Farming Industry in Siak District

No	Farm Name	Total Initial Capital (Rp)
1	Peternakan Bandhot	16.000.000
2	Peternakan Pak Mustofa	12.000.000
3	Andalan Farm	20.000.000
4	Peternakan Sidojoyo	25.000.000
5	Peternakan Barokah	15.000.000
6	Peternakan Amanah	16.000.000
7	Punggawa Farm	10.000.000
8	Peternakan 3 Saudara	12.000.000
9	Ridho Ternak	15.000.000
10	Peternakan Al-hijrah	22.000.000
11	Peternakan Hikmah	10.000.000
12	Peternakan Mulia Harapan	13.000.000

Source: Processed Data, 2025

Based on table 5.4, it can be seen that the amount of initial capital for each livestock business in Siak District, Siak Regency ranges from Rp. 10,000,000.00 to Rp. 25,000,000.00. the largest amount of initial capital is found in Sidojoyo farm with an initial capital of Rp. 25,000,000.00. a Based on the interview conducted with the owner of goat farming business, the amount of starting capital in a business depends on each individual's capabilities. The more capital a business has, the more goats it will be able to raise.

3. Capital Source

The source of capital is the origin of funds used in running a business. Sources of capital can be divided into own capital and bank loan capital. Sources of capital can be divided into own capital and bank loan capital. Loan resources can also come from informal sources and formal loans. Formal lending institutions usually serve business loans with a fairly large scale while small businesses are served by informal institutions such as cooperatives or associations.

Based on the results of the research, the source of capital for business owners in the goat farming

industry in Siak District, Siak Regency is 100% privately owned. This indicates the level of independence in starting capital among business owners. Farmers' starting capital comes from personal savings and family funds. Farmers prefer to save money from their monthly sales rather than take out loans from financial institutions, even though the interest rates for small businesses under the KUR (Micro Business Credit) program are low. Farmers choose not to borrow money.

4. Total income per month

Monthly income is one of the important indicators in assessing the welfare of goat breeders. Based on the results of interviews and observations of 12 farmers in Siak District, Siak Regency, it is known that there are variations in monthly income that are influenced by the scale of the business, the number of goats owned, operational costs, and the sale of goats and their derivative products.

Table 5. Monthly income of goat farming Industry in Siak District

No	Farm Name	Monthly Income
1	Peternakan Bandhot	±Rp4.500.000-Rp5.000.000
2	Peternakan Pak Mustofa	±Rp7.000.000-Rp8.000.000
3	Andalan Farm	±Rp5.000.000-Rp6.000.000
4	Peternakan Sidojoyo	±Rp6.000.000-Rp7.000.000
5	Peternakan Barokah	±Rp4.500.000-Rp5.500.000
6	Peternakan Amanah	±Rp4.000.000-Rp5.000.000
7	Punggawa Farm	±Rp5.500.000-Rp6.000.000
8	Peternakan 3 Saudara	±Rp4.000.000-Rp5.000.000
9	Ridho Ternak	±Rp4.000.000-Rp5.000.000
10	Peternakan Al-hijrah	±Rp4.000.000-Rp6.000.000
11	Peternakan Hikmah	±Rp4.000.000-Rp5.000.000
12	Peternakan Mulia Harapan	±Rp5.500.000-Rp6.500.000

Source: Processed Data, 2025

Farmers in Siak District Siak Regency earned a monthly net income of between Rp4,000,000 and Rp8,000,000, after deducting the costs of feed, labor, and other maintenance needs. Some farmers who have a larger number of animals or are involved in selling qurban goats and superior breeds are able to earn more than Rp5,000,000 per month.

Although this income is still classified as lower middle class, farmers stated that this business is quite helpful in fulfilling household needs and is a stable source of additional income, especially for farmers who also manage agricultural land. Income from goat farming also tends to increase at certain moments such as Ramadan and before Eid al-Adha, when demand for qurban goats increases.

5. Market Competition Structure

To find out how high the threat of competition variables on goat farms in Siak District, Siak Regency, it can be seen from how the market structure is, it can be calculated from market share, CR4, and HHI.

a. Market Share

Market share is the percentage of output sold by a business owner and all output sold by a particular industry. Market share is the ratio between the sales value of competitors expressed as a percentage. Based on this figure, the company can determine the position of its market power. The value of market share is between 0% and 100%.

In this study, the calculation of market share and HHI is used to see how strong the competition of Goat Farming businesses in Siak District is which will determine how much threat from industry competitor variables.

Table 6. Market Share Calculation of Goat Farming Industry in Siak District

No	Farm Name	Sales April 2025	Market Share
1	Peternakan Bandhot	11	7.29%
2	Peternakan Pak Mustofa	14	10.14%
3	Andalan Farm	10	7.25%
4	Peternakan Sidojoyo	13	9.42%

5	Peternakan Barokah	11	7.97%
6	Peternakan Amanah	10	7.25%
7	Punggawa Farm	12	8.70%
8	Peternakan 3 Saudara	10	7.25%
9	Ridho Ternak	12	8.70%
10	Peternakan Al-hijrah	12	8.70%
11	Peternakan Hikmah	10	7.25%
12	Peternakan Mulia Harapan	13	9.42%
Total		138	100,00%

Source: Processed Data, 2025

From the calculation of the market share of the Goat Farming Industry in Siak District, Siak Regency in Table 5.6, the highest market share based on sales concentration is obtained for Peternakan Pak Mustofa with a market share of 10.14%. Meanwhile, there are 4 farms that have the lowest market share or the lowest level of sales concentration, namely Andalan Farm, Peternakan Amanah, Peternakan 3 Saudara and Peternakan Hikmah with the same market share of 7.25%. This competition can be caused by the capacity of the cages, the financial condition and the number of sales of each farm.

b. Concentration Ratio CR4

To see the business competition of an industry is by measuring the level of industry sales concentration with CR4 and HHI (Hefindahl-Hirschman Index). Where CR4 describes the market structure while the use of HHI to know an industry is in what market structure. It is calculated by summing up the squares of market shares of all businesses in an industry. The concentration ratio commonly used is CR4 with the formulation (Lipczynski et al., 2013).

Table 1. Calculation of CR4 Market Share of Goat Farming in Siak District

No	Total Sales/Months	Market Share
1	Peternakan Pak Mustofa	10.14%
2	Peternakan Sidojoyo	9.42%
3	Peternakan Mulia Harapan	9.42%
4	Punggawa Farm	8.70%
Total		37.68%

Source: Processed Data, 2025

$$CR4 = MS1 + MS2 + MS3 + MS4$$

$$CR4 = 10.14\% + 9.42\% + 9.42\% + 8.70\%$$

$$= 37.68\%$$

Table 5.7 shows the calculation of CR4 (Concentration Ratio 4), which measures market concentration based on the total market share of the four farms with the largest sales volume in Siak District. The farm with the largest market share is Peternakan Pak Mustofa with a contribution of 10.14%, followed by Peternakan Sidojoyo and Mulia Harapan Farm, each with a market share of 9.42%, and Punggawa Farm with a market share of 8.70%.

Combined, these four farms hold a market share of 37.68% of total goat sales in Siak District. This shows that the level of market concentration is relatively low, as there is no full dominance by one or two business actors.

c. Herfindahl-Hirschman Index (HHI)

While for HHI, this measure is based on the total number and size distribution of firms in the industry. Calculated by summing the squares of the market shares of all companies in an industry with the following formulation :

Table 8 Calculation of Market Share and HHI of Goat Farming Industry in Siak District

No	Farm Name	Market Share (%)	HHI
1	Peternakan Bandhot	7.29%	63.52
2	Peternakan Pak Mustofa	10.14%	102.82
3	Andalan Farm	7.25%	52.56
4	Peternakan Sidojoyo	9.42%	88.74

5	Peternakan Barokah	7.97%	63.52
6	Peternakan Amanah	7.25%	52.56
7	Punggawa Farm	8.70%	75.69
8	Peternakan 3 Saudara	7.25%	52.56
9	Ridho Ternak	8.70%	75.69
10	Peternakan Al-hijrah	8.70%	75.69
11	Peternakan Hikmah	7.25%	52.56
12	Peternakan Mulia Harapan	9.42%	88.74
TOTAL		100%	843.65

Source: Processed Data, 2025

Based on Table 5.8, the calculation of the Herfindahl-Hirschman Index (HHI) in the goat farming industry in Siak District, Siak Regency, shows an HHI value of 843.65. This value is below the threshold of <1,500, indicating that the market structure of the goat farming industry in the region is unconcentrated and competitive. This means that there is no significant dominance by one or a few business actors, so market competition is relatively healthy and open.

However, there is one farm with the largest market share, Peternakan Pak Mustofa, which contributes an HHI value of 102.82. Despite having a larger market share than other farms, its contribution to total HHI is still within reasonable limits and does not indicate a monopoly or oligopoly. This reflects that all goat farming businesses have relatively balanced opportunities to grow, with a competitive business climate and minimal barriers to competition. This condition can encourage innovation, production efficiency, and sustainable growth in the goat farming sector in Siak District.

6. Porter's Five Forces Model Analysis

The main problem faced by Goat Farm Owners in Siak District, Siak Regency is the high level of competition between business actors. This intense competition can be analyzed through several key variables that affect market dynamics, such as the threat of new entrants, the bargaining power of buyers and suppliers, the threat of substitute products, and the intensity of competition among existing business actors. These factors indicate that although the industry is dominated by small-scale players, the competitive market structure requires each player to have a strategy in doing business, production efficiency, and product innovation in order to survive and grow under the pressure of competition.

7. Competitive Industry Variables

Competitor variables are one of the most important factors for business owners to establish their business. This competitor variable can be seen from the number of similar industries/similar to the industry to be established. If a business owner wants to win the competition, they must create a competitive strategy or something more different from existing competitors.

a) Number of Goat Farm Competitors

Based on the research conducted, it is known that there are 12 goat farming units in Siak district, Siak district. This indicates that the activity of the Goat Farming industry in Siak District is quite high. The following is a list of Goat Farming Industry businesses in Siak District, Siak District:

Table 5. 2: Year of Establishment of Goat Farming Industries in Siak District

No	Business Name	Established Year
1	Peternakan Bandhot	2016
2	Peternakan Pak Mustofa	2012
3	Andalan Farm	2020
4	Peternakan Sidojoyo	2018
5	Peternakan Barokah	2017
6	Peternakan Amanah	2019
7	Punggawa Farm	2014

8	Peternakan 3 Saudara	2018
9	Ridho Ternak	2017
10	Peternakan Al-hijrah	2016
11	Peternakan Hikmah	2018
12	Peternakan Mulia Harapan	2013

Source: Processed Data, 2025

Based on table 5.9, there are 12 goat farming business units spread across Siak District, Siak Regency. The year of establishment of these farms is quite varied, starting from 2012 to 2020. This variation in the year of establishment shows that the goat farming industry in the region has developed gradually, with a significant increase in the number of business actors, especially from 2016 to 2019. This phenomenon reflects that the goat farming sector in Siak District has a strong attraction. The different years of establishment can also reflect the level of experience and readiness of each farm in facing competition.

b) Product differentiation

Product differentiation is the activity of designing a series of differences that distinguish a company's offer from competitors' offers (Sahetapy, 2013). Product differentiation can be divided into shape, features, performance quality, conformity quality, durability, reliability, and easy to repair. In other words, product differentiation is the activity of modifying products to be attractive. In the livestock industry, a form of product differentiation that is often done can usually be in the form of differences in the types of goats sold and the results of crossbreeding. With the difference in goat breeds this can increase sales.

Based on interviews with 12 goat farm owners in Siak District, Siak Regency, it is known that all farms have not yet implemented a product differentiation strategy. All farms tend to sell the same type of local goats, namely peanut goats, which are generally intended for the needs of sacrificial aqiqah and medium-scale events. Meanwhile, imported goats such as etawa goats and boer goats have not been utilized as the main product due to the high price, imported goats are only used as broodstock for crossbreeding purposes to improve the genetic quality of local goats. The lack of product variety as well as the similarity in the types of livestock offered indicates the low level of market diversification efforts, which has the potential to limit the competitiveness of each farm in an increasingly competitive market.

c) Total Sales

Total sales is one of the factors that can affect the competition variable, which is to see how many goats can be sold by goat farms in Siak district, Siak Regency.

Table 10. Numbers of Goat Sales in Siak District, Siak Regency

Farm Name	April 2025 Sales (Goats)
Peternakan Bandhot	11
Peternakan Pak Mustofa	14
Andalan Farm	10
Peternakan Sidojoyo	13
Peternakan Barokah	11
Peternakan Amanah	10
Punggawa Farm	12
Peternakan 3 Saudara	10
Ridho Ternak	12
Peternakan Al-hijrah	12
Peternakan Hikmah	10
Peternakan Mulia Harapan	13

Total**138**

Source: Processed Data, 2025

From table 5.10 above, it can be concluded that sales in goat farming businesses in Siak district, Siak district tend to be similar with a small difference. It can be seen that total sales reached 138 goats with a relatively even distribution among the businesses. Mr. Mustofa's farm recorded the highest sales of 14 goats, followed by Sidojoyo Farm and Mulia Harapan with 13 goats each. Meanwhile, five farms (Andalan Farm, Amanah, 3 Saudara, and Hikmah) recorded the lowest sales of 10 goats.

8. Supplier Variables

Supplier variables are important factors that must be considered by a business owner in setting up a business. Raw materials are a factor in this supplier variable. With the availability of adequate raw materials, business owners can increase their production capacity and can increase their target market. If the availability of raw materials is lacking, then this indicates that the supplier's bargaining power is strong. According to Porter, there are several factors that affect supplier variables in the porter Five Forces analysis such as the number of raw materials needed, the difficulty of access to suppliers, the scarcity of raw materials, and the price of raw materials.

a) Quantity of raw materials

Based on the results of research through interviews with farmers in Siak District, it was revealed that all existing farms are still unable to meet market demand independently from their own livestock. This is due to several key factors, namely: (1) the scale of the business is still traditional with limited livestock ownership, (2) limited land that is inadequate for cage development, and (3) low reproductive productivity due to maintenance management that is still very dependent on nature.

Table 11. Number of goat breeding purchases in Siak District

Farm Name	Purchase of goat puppies for rearing
Peternakan Bandhot	6 tails
Peternakan Pak Mustofa	7 tails
Andalan Farm	5 tails
Peternakan Sidojoyo	6 tails
Peternakan Barokah	6 tails
Peternakan Amanah	5 tails
Punggawa Farm	6 tails
Peternakan 3 Saudara	5 tails
Ridho Ternak	6 tails
Peternakan Al-hijrah	6 tails
Peternakan Hikmah	5 tails
Peternakan Mulia Harapan	6 tails

Source: Processed Data, 2025

Based on table 5.11 above, it can be seen that all farms in Siak District, Siak Regency are still unable to meet market demand independently from their own livestock, thus forcing farmers to buy 5-8 goat puppies per month to be raised and then sold when they are old enough.

b) Difficulty Level of Access to Suppliers

Based on the results of research through questionnaires that have been answered by Goat farm owners, obtaining puppies is relatively easy, but there are areas of origin of puppies that are quite difficult to access to raw materials. This can be seen in the table below:

Table 12. The origin of goat breeding and indicators of difficulty in accessing stock in the goat farming industry in Siak District

Origin of Goat Seeds	Difficulty Indicator
West Sumatra	Easy
North Sumatra	Easy
Lampung	Easy

Jambi	Easy
West Java	Easy
Central Java	Medium
East Java	Medium

Source: Processed Data, 2025

Based on table 5.12, goat breeder seeds for the goat farming industry in Siak District, Siak Regency tend to be easy to obtain. Of the 12 respondents, goat farm owners in Siak district, Siak district tend to buy goat breeding seeds from the same area, but there are areas that are difficult to access such as Central Java and East Java due to long distances causing high delivery costs to the location of the farm

c) Price of goat breeding seeds

Based on the results of research through questionnaires that have been answered by business owners of the goat breeding industry in Siak district, Siak district, the price of goat breeding seeds tends to be almost the same with a price range of Rp1,000,000-Rp1,500,000 per 3-monthold goat puppy.

9. Buyer Variables

According to (Porter, 1990), buyer variables can be influenced by various factors such as the number of buyers, and product prices in the market.

a) Number of Buyers and goat quality in market

The number of buyers in a business can affect the performance of an industry, be it a small industry to a large industry. Based on the results of research through questionnaires that have been answered by business owners of the Goat Farming industry in Siak District, Siak Regency, the following is the average number of buyers per month in the goat farming industry in Siak District, Siak Regency:

Table 13 Number of Buyers in the goat farming industry in Siak District

Farm Name	Number of Buyers Per Month (People)
Peternakan Bandhot	±8-10
Peternakan Pak Mustofa	±10-12
Andalan Farm	±8-10
Peternakan Sidojoyo	±10-12
Peternakan Barokah	±8-10
Peternakan Amanah	±8-10
Punggawa Farm	±10-12
Peternakan 3 Saudara	±8-10
Ridho Ternak	±10-12
Peternakan Al-hijrah	±10-12
Peternakan Hikmah	±8-10
Peternakan Mulia Harapan	±10-12

Source: Processed Data, 2025

Based on table 5.13, goat farming businesses in Siak district tend to have similar buyers ranging from 8-12 buyers per month, some buyers buy goats with more than 1. With the quality of products on the market according to buyers of good quality as evidenced by healthy goats and have been vaccinated in accordance with the rules of the Livestock Service of Siak district. It can be concluded that the goats marketed by goat farming businesses in Siak district, are products that are able to compete in the market.

b). Product prices in the market

Before marketing a product, business owners need to set the price of their products. Because price is an element in trade and business competition. consumers will look for the most affordable prices but still pay attention to product quality. The price of goats in the Siak district of Siak district is quite competitive in each business. The price of a slaughter-worthy goat that is over 1 year old is

sold at a relatively similar price by the owner of the goat farm because price is also a factor in quite intense competition. From the results of the research, the price of goats in the Siak district of Siak district is sold at a price of Rp2,500,000-Rp3,200,000 depending on the weight, age and type of goat.

10. Newcomer Variable

Variable new entrants are a threat to livestock business owners. If new entrants have good product quality, relatively affordable prices, have differentiation and uniqueness and innovation, of course consumers will move from old producers to new producers. The entry barriers for new entrants at this time are capital and land because capital is the main factor for entrepreneurs in establishing an industry. If a newcomer has a large enough capital and is able to find a suitable and strategic location, then of course the newcomer will win the competition. According to (Porter, 1990), there are several indicators that can influence the entry of new entrants into an industry, namely investment costs (capital)

a) Starting Capital

Based on the results of interviews with goat farm owners in Siak district, the following are the investment costs of goat farm owners in Siak District, Siak Regency.

Table 3. Total initial capital for goat farming in Siak District

No	Farm Name	Total Initial Capital (Rp)
1	Peternakan Bandhot	16.000.000
2	Peternakan Pak Mustofa	12.000.000
3	Andalan Farm	20.000.000
4	Peternakan Sidojoyo	25.000.000
5	Peternakan Barokah	15.000.000
6	Peternakan Amanah	16.000.000
7	Punggawa Farm	10.000.000
8	Peternakan 3 Saudara	12.000.000
9	Ridho Ternak	15.000.000
10	Peternakan Al-hijrah	22.000.000
11	Peternakan Hikmah	10.000.000
12	Peternakan Mulia Harapan	13.000.000

Source: Processed Data, 2025

Based on table 5.14 it can be seen that the amount of initial capital for each livestock business in Siak District, Siak Regency ranges from Rp. 10,000,000.00 to Rp. 25,000,000.00. the largest amount of initial capital is found in Sidojoyo farm with an initial capital of Rp. 25,000,000.00. a Based on the interview conducted with the owner of goat powder business, big or small amount of initial capital in business lies on each ability. The more capital a business has, the more goats it will breed.

11. Substitute Variable

Substitute products are various products that can be used as other alternatives or as a substitute for a product that has almost the same use. Based on the primary data that has been processed, it can be concluded that there are no direct substitute products for products sold by 12 goat farms in Siak District, Siak Regency. This is due to the characteristics of the market for goat products that have a special segment, especially for the needs of aqiqah, qurban, and traditional events and feasts that are commonly carried out by the community.

Although in theory there is an upward substitution, namely cattle, cattle have a relatively higher price so that it is not affordable by most people for daily needs and religious purposes such as qurban. Thus, the threat of substitute products in the goat farming industry in this region can be said to be low, because goats remain the main choice in meeting the needs of this specific market. "According to (Porter, 1990), the threat of substitution is low if alternative products cannot replace the main function of the product offered or are not in accordance with consumer preferences.

Discussion

1. Market Structure Analysis of Goat Farming Industry Businesses in Siak District, Siak RegencyMarket Structure.

The goat farming industry in Siak District, Siak Regency is categorized as monopolistic competition. The CR4 concentration ratio of 37.68% and the HHI value of 843.65 indicate that the market is not dominated by a small number of firms but is shared among many competitors. This structure is characterized by low entry barriers, high competition, and consumers who can easily access information about prevailing prices.

2. Rivalry Among Existing Firms

Rivalry among farms is quite strong due to the presence of 12 goat farming businesses operating at similar scales. Prices of goats are almost uniform across these farms, which forces each business to compete not through pricing but through service, accessibility, and promotion. This condition makes competition in the market highly intensive and dynamic.

3. Bargaining Power of Suppliers

Suppliers in this industry have weak bargaining power because livestock inputs such as goat stock and feed are widely available from outside the province. Although local farms cannot yet meet demand independently, the large number of suppliers ensures that prices remain stable and farmers are not pressured. As a result, suppliers do not significantly influence the profitability of farms.

4. Bargaining Power of Buyers

Buyers' bargaining power is also relatively weak, even though they can easily compare prices and choose between farms. This is because goat prices are already standardized and affordable across businesses, leaving little room for negotiation. The accessibility of farms and the use of social media promotion give buyers more options, but they cannot push prices down significantly.

5. Threat of New Entrants

The threat of new entrants is considered high because establishing a goat farm requires relatively low capital and minimal product differentiation. Although challenges exist, such as finding suitable land away from residential areas, newcomers with sufficient resources can still easily enter the industry. This condition forces existing farmers to innovate in order to maintain their market position.

6. Threat of Substitute Products

The threat of substitutes is low because goats serve a unique demand, particularly for aqiqah, qurban, and traditional events. Although cattle could theoretically replace goats, their much higher price makes them less accessible for most consumers. Consequently, goats remain the preferred option, and substitution does not pose a serious risk to the industry.

4. CONCLUSION

The goat farming industry in Siak District, Siak Regency is characterized by monopolistic competition, supported by a CR4 value of 37.68% and an HHI of 843.65. Based on Porter's Five Forces analysis, competition among existing farms is high due to the presence of 12 farms with similar market shares. Supplier power is weak since goat stock is easily available from multiple sources. Buyer power is also low, as goat prices remain affordable and negotiations are minimal. The threat of new entrants is strong due to low barriers to entry, while the threat of substitutes is weak because goats fulfill specific cultural and religious demands that cannot be easily replaced.

5. ACKNOWLEDGMENTS

In this research, the author has been assisted by several parties involved and related to the results of this study. The institution where the author serves Riau University, through the Institute of research and service of this college. Riau University has provided support so that the author can continue to work in studying economics according to his field of expertise.

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