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Hybrid Corn Agribusiness Development Strategy in Deli Serdang Regency

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ABSTRACT

This study finds the implications of the hybrid corn agribusiness development strategy and provides recommendations for strategies and policies for developing hybrid corn agribusiness in Deli Serdang Regency. This research is crucial for the future development of hybrid corn agribusiness. It employed a quantitative descriptive method. Qualitative research generally employs three design models: descriptive, verification, and grounded research. The research subjects were 60 hybrid corn farmers. The research focused on strategies for developing hybrid corn agribusiness and provided recommendations for strategies and policies for developing hybrid corn agribusiness. This research was conducted in Deli Serdang Regency, specifically in the districts of Tanjung Morawa, Lubuk Pakam, Beringin, and Namorambe. The results suggest that utilizing government support and farmer groups (gapoktan) to obtain quality seeds and utilizing average input prices and input availability can increase hybrid corn production. The hybrid corn agribusiness development strategy shows a value of x> 0, namely 1.67 and a value of y> 0, namely 1.41. This means that the position of the hybrid corn agribusiness development strategy is located in quadrant I. Quadrant I is a quadrant that is bounded by the x-axis and y-axis, both of which are positive and the recommended alternative strategy is an aggressive strategy, namely the SO strategy (Strategy - Opportunity), where this quadrant has the most profitable position because the strengths and opportunities in the position matrix are good so that with the strengths that farmers have in their farming, it is possible to take advantage of existing farming opportunities and develop them.

Keywords: *Strategy, Development, Agribusiness, Hybrid Corn, Deli Serdang Regency*

1. INTRODUCTION

In Indonesia, corn is a food crop that can play a role in agricultural development. In Indonesia, corn is the second most important food commodity after rice and a source of calories or a substitute for rice. It also serves as animal feed. The demand for corn will continue to increase year after year in line with improvements in people's economic standards and the advancement of the animal feed industry. Therefore, efforts to increase production are needed through human and natural resources, land availability, yield potential, and technology. Corn is a crucial agricultural commodity and is interconnected with major industries [1].

The strategy for developing hybrid corn farming is one of the reasons why the demand for food as animal feed continues to increase, while availability is still insufficient to meet this demand. As an alternative staple food, corn is crucial as a primary raw material for the animal feed industry. However, quantitatively, corn imports are not due to limited corn farming land, but rather to low corn productivity. This low productivity is due to the suboptimal application of cultivation technology, weak capital, and farmer motivation [2].

However, several external challenges must be anticipated, such as post-pest and disease outbreaks, price competition from Indonesia, and a dry climate where low rainfall can last for approximately a year. Externally, opportunities for corn development include market opportunities, increasing consumer appetite for corn, and support from financial institutions for the agricultural sector, particularly corn [3]. Besides being consumed as a vegetable, corn can also be processed into various foods. Furthermore, the dried kernels are used as animal feed. This makes corn cultivation very promising, both in terms of demand and selling price [3].

Agribusiness development is an integral part of national development and plays a strategic role for Indonesia, particularly in economic recovery. The food crops subsector plays a crucial role in agribusiness development, not only influencing food security but also significantly impacting Gross Domestic Product (GDP), the provision of industrial raw materials, and increasing exports. At the macro level, this will clearly impact foreign exchange earnings, poverty alleviation, job creation, increased farmer incomes, and overall public welfare. An agribusiness approach is a driving force for the growth of downstream industries, contributing to economic growth and promising economic potential [1].

Hybrid corn is one of the most important food crops after rice, not only contributing to the agricultural sector but also providing various benefits for humans and animals. As a secondary crop, hybrid corn is a highly profitable choice for development in the agribusiness sector, opening up opportunities for economic growth and the welfare of farmers and the community at large. Besides being used directly as food, hybrid corn can be an alternative food choice after rice. Furthermore, corn is used as a raw material in the food and animal feed industries and as an alternative fuel (biofuel) [4].

Farm production is influenced by several factors, including capital, land area, and labor. Capital has a positive relationship, meaning the more capital, the greater the production. The area of land planted will influence the number of crops planted, which in turn can affect the amount of corn produced. The larger the area planted with corn, the greater the production. Labor has a positive relationship, meaning the more labor, the greater the corn production [5].

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Table 1. Development of Corn Exports and Imports in Indonesia, January–June 2023–2024

Number	Description	January – June*)		Growth
		2023	2024	2023 – 2024 (%)
1.	**Exports**			
	- Volume (Tons)	137.279	43.697	-68,17
	- Value (USD 000)	50.620	19.187	-62,10
2.	**Imports**			
	- Volume (Tons)	416.022	1.003.099	141,12
	- Value (USD,000)	151.429	295.056	94,85
3.	**Trade Balance**			

	- Volume (Tons) - Value (USD 000)	-278.743 - 100.809	-959.402 -275.870	-244,19 -173,66

*Source: BPS, processed by Pusdatin Note: *)*
June 2024 data, preliminary figures. Data uses HS codes according to the 2022 BTKI classification.

Total corn export performance from January to June 2024 showed a decline in export volume compared to the same period last year. Export volume from January to June 2024 was 43.7 thousand tons, a 68.17% decrease from 2023. Similarly, export value decreased 62.10% to USD 19.19 million. Conversely, corn imports showed a significant increase of 141.12% in volume and 94.85% in value. Total corn imports from January to June 2024 were 1 million tons, equivalent to USD 295.06 million.

Corn exports and imports, according to the Ministry of Agriculture's HS Code, are differentiated by fresh and processed forms. In 2023, fresh corn exports reached 42.62% of Indonesia's total corn exports. Processed corn exports were slightly higher, at around 57.38% of the total export value. Meanwhile, the value of fresh corn imported by Indonesia was approximately 87.07% of the total corn import value in 2023.

Over the past five years, Indonesia's fresh corn exports have fluctuated, with 2022 achieving the highest export performance. In 2022, Indonesia's fresh corn exports reached 162,000 tons (USD 49.93 million). Processed corn exports reached their highest level in 2023, reaching 88.12,000 tons (USD 39.38 million). This value increased 23.65% from 2022, while export volume increased 16.91% compared to 2022.

The specific objectives of this research are: 1) to identify the implications of hybrid corn agribusiness development strategies in Deli Serdang Regency; 2) to provide recommendations for hybrid corn agribusiness development strategies and policies in Deli Serdang Regency. This research is crucial for the future development of hybrid corn agribusiness.

2. LITERATURE REVIEW

2.1 Hybrid Corn

Corn (Zea mays L.) is one of the most important carbohydrate crops after rice and wheat. Corn is widely cultivated in Indonesia for use as food, animal feed, and industrial raw materials. Demand for corn is also increasing along with population growth and the development of the food and feed industry. High-quality seeds are not widely planted by farmers, and corn is usually planted with other commodities, with less intensive crop and environmental management. Corn cultivation provides lower incomes than other food crops, thus discouraging intensification. Corn production can be increased by using superior open-pollinated varieties or hybrids. The current rapid development of the business world does not encourage intensification. Corn production can be increased by using superior open-pollinated varieties or hybrids. The current rapid development of the business world does not encourage intensification.

2.2 Strategy Concept

The definition is a company's long-term goals, as well as the utilization and allocation of all essential resources to achieve those goals. According to [6], a good understanding of the concept of strategy and other related concepts is crucial to the success of the strategy being developed

2.3 Environmental Analysis

According to [7], an organizational environmental analysis is necessary to assess the overall organizational/company environment, which includes both internal and

external factors that can influence the company's progress in achieving its stated goals. In general, the corporate environment consists of two major components: the external environment and the internal environment, as explained below.

1. Internal Environment

Pearce and Robinson state that all companies have strengths and weaknesses in various business functions. Internal environmental analysis identifies strengths and weaknesses that form the basis for a company's strategy. Meanwhile, David states that no company is equally strong or weak in all areas. A company's internal environment is the factors that influence the direction and actions originating from within the company.

According to Pearce and Robinson, strengths are resources, skills, or other advantages relative to competitors and the needs of the market the company serves or seeks to serve. Weaknesses are limitations or deficiencies in resources, skills, and capabilities that seriously hinder the company's effective performance. David states that internal company factors are generally divided into: (1) management, (2) human resources, (3) production and operations, (4) marketing and distribution, (5) capital and finance, and (6) research and development.

2. External Environment

According to Pearce and Robinson, a company's external environment consists of all the circumstances and forces that influence its strategic choices (options) and determine the situation of its competitors. The strategic management model presents this external environment as three interacting segments: (1) the operational environment, (2) the industry, and (3) the remote environment. The remote environment is usually not directly related to a company's operational situation, such as the political, economic, socio-cultural, and demographic situation, as well as technological developments (PEST), which are presented in Table 2.1 as follows:

Table 2. PEST Analysis Tool: List of Phenomena That May Generate Opportunities and Threats

POLITICAL	SOCIAL, CULTURAL AND DEMOGRAPHIC
1. The country's political situation 2. Foreign policy 3. Government regulation and deregulation 4. Tax regulations 5. Subsidy policy 6. Fiscal and monetary policy 7. Labor regulations 8. Import/export regulations, etc.	1. Population growth 2. Lifestyle 3. Attitudes toward product quality 4. Population size 5. Average education level 6. Attitudes toward government 7. Shopping behavior 8. Waste management, etc.
EKONOMOI	**TEKNOLOGI**
1. Inflation rate 2. Gross domestic product trend 3. Credit availability 4. Consumption patterns 5. Currency exchange rates 6. Tax rates 7. Economic growth trends, etc.	1. Development of technology and information 2. Unique technological development trends in industry 3. Development of basic technology 4. Development of societal attitudes towards technology, etc.

Source: David (Santoso, 2008)

According to David, industrial environmental analysis is carried out based on Porter's Competitive Strategy concept, which is often called the five competitive forces. According to Porter, the competitive structure in an industry can be seen as a combination of five forces, namely the threat of new entrants.

2.4 SWOT Analysis

A SWOT analysis is the systematic identification of various factors to formulate a company's strategy. This analysis is based on logic that maximizes strengths and opportunities while simultaneously minimizing weaknesses and threats. The strategic decision-making process is always related to the development of a company's mission, objectives, strategies, and policies. Therefore, strategic planners must analyze the company's strategic factors (strengths, weaknesses, opportunities, and threats) in their current context. This is called a situation analysis. The most popular model for situation analysis is the SWOT analysis.

According to [8]v, the SWOT analysis factors are:

1. Strengths

Strengths are resources, skills, or other advantages relative to competitors or market needs served by change. Strengths are distinctive competencies that provide a company with a comparative advantage in the market. Strengths can be embodied in resources, finances, corporate image, market leadership, buyer-supplier relationships, and other factors.

2. Weaknesses

Weaknesses are limitations or deficiencies in resources, skills, and capabilities that seriously hinder a company's effective performance. Facilities, resources, finances, management capabilities, marketing skills, and brand image can be sources of weakness.

3. Opportunity

An opportunity is a significant favorable situation in a company's environment. Important trends are one source of opportunity. Identification of previously overlooked market segments, changes in the competitive or regulatory environment, technological changes, and improved relationships with buyers or suppliers can provide opportunities for a company.

4. Threat

A threat is a significant unfavorable situation in a company's environment. A threat is a major disruption to a company's current or desired position. The entry of new competitors, slow market growth, increased bargaining power between buyers and suppliers, technology companies, and new or revised regulations can pose threats to a company's success.

2.5 The Concept of Agribusiness

The word "agribusiness" is derived from the word "agribusiness," where "agriculture" means agriculture and "business" means a profit-oriented endeavor or activity. So, simply put, agribusiness is any agricultural endeavor or activity, including anything related to it, that is profit-oriented.

[9] outlines several definitions of agribusiness as a system according to experts, namely:

1. Arsyad et al. state that agribusiness is a unified business activity encompassing one or all of the production chain, processing, and marketing, related to agriculture in the broadest sense. Agriculture, in the broadest sense, is any business activity supported by agricultural activities.
2. E. Paul Roy views agribusiness as a process of coordinating various subsystems. Coordination is a management function that integrates various subsystems into a system.
3. Wibowo defines agribusiness as referring to all activities, from procurement, processing, distribution, to marketing, of products produced by a farm or agro-industry, which are interrelated.

According to [9], agribusiness, from an economic perspective, is the business of providing food. A macro-analytical approach views agribusiness as a unit of an industrial system and a commodity at a regional or national level. Meanwhile, a micro-analytical approach views agribusiness as a company unit operating within one agribusiness subsystem, one or more subsystems within a single commodity line, or more than one commodity line.

Agribusiness studies profit-generating strategies by managing aspects of cultivation, raw material supply, post-harvest operations, processing, and marketing. This definition allows us to define the scope of agribusiness as encompassing all agricultural activities, starting with the manufacture and distribution of production inputs (the manufacture and distribution of on-farm supplies), on-farm production, and marketing of farm products and their products. These three activities are closely interconnected, so disruptions in any one activity will impact the smooth running of all business activities. Because agribusiness is described as a system consisting of three subsystems, plus an additional supporting institutional subsystem.

According to [9], conceptually, an agribusiness system can be defined as all activities, from the procurement and distribution of production inputs to the marketing of products produced by farming and agro-industry, which are interrelated. Therefore, the agribusiness system consists of several subsystems, namely:

1. Upstream Agribusiness/Agroindustry Subsystem

This subsystem encompasses the procurement of agricultural production inputs, including seeds, seedlings, animal feed, fertilizer, pest and disease control, credit institutions, fuel, tools, machinery, and agricultural production equipment. The actors involved in the procurement and distribution of production inputs include individuals, private companies, the government, and cooperatives. This subsystem is crucial given the need for integration between these various elements to achieve agribusiness success. Industries that provide agricultural production inputs are also referred to as upstream agroindustry.

2. Cultivation/Farming Subsystem

Farming produces agricultural products in the form of food, plantation crops, fruits, flowers and ornamental plants, livestock, animals, and fish. The actors in this subsystem are producers, including farmers, livestock breeders, fish farmers, ornamental plant entrepreneurs, and others.

3. Downstream Agribusiness/Agroindustry Subsystem

This subsystem encompasses the processing and marketing (trade) of agricultural products and their derivatives. This subsystem encompasses a series of activities, from collecting farm products to processing, storing, and distributing them. Some farm products are distributed directly to consumers domestically or internationally. Others undergo further processing before being distributed to consumers. The actors in this subsystem include product collectors, processors, traders, distributors to consumers, canneries, and others. Industries that process farm products are called downstream agroindustry. These industries play a crucial role when located in rural areas, as they can drive the rural economy by absorbing and creating jobs, thereby increasing the income and well-being of rural communities.

4. Subsistem Jasa Layanan Pendukung Agribisnis (Lembaga Penunjang)

Subsistem jasa layanan pendukung agribisnis (lembaga) atau supporting institution adalah semua jenis kegiatan yang berfungsi untuk mendukung dan melayani serta mengembangkan kegiatan sub-sistem hulu, sub-sistem usahatani dan sub-sistem hilir. Lembaga-lembaga yang terkait dalam kegiatan ini adalah penyuluh, konsultan, keuangan dan penelitian. Lembaga penyuluhan dan konsultan memberi layanan informasi yang dibutuhkan oleh petani dan pembinaan teknik produksi, budidaya pertanian dan manajemen pertanian. Untuk lembaga keuangan seperti perbankan, model ventura, dan asuransi yang memberikan layanan keuangan berupa pinjaman dan penanggungan risiko usaha (khusus asuransi). Sedangkan lembaga penelitian baik yang dilakukan oleh balaibalai penelitian atau perguruan tinggi memberikan layanan informasi teknologi produksi, budidaya, atau teknik manajemen mutakhir hasil penelitian dan pengembangan.

5. Agribusiness Support Services Subsystem (Supporting Institutions)

The agribusiness support services subsystem (institutions) or supporting institutions comprise all types of activities that function to support, serve, and develop the activities of the upstream subsystem, the farming subsystem, and the downstream subsystem. Institutions involved in these activities include extension workers, consultants, financial institutions, and research institutions. Extension and consulting institutions provide information services needed by farmers and guidance on production techniques, agricultural cultivation, and agricultural management. Financial institutions, such as banks, venture capital firms, and insurance companies, provide financial services in the form of loans and business risk coverage (specifically insurance). Meanwhile, research institutions, whether run by research centers or universities, provide information services on the latest production technology, cultivation, and management techniques resulting from research and development.

2.6 Agribusiness Development

Agribusiness development is one of the prioritized sectors in development programs. This is because agribusiness is a sector recommended in the national development program as a leading sector in supporting public welfare. Agribusiness development is beneficial for sustainable development because this sector is a leading sector and benefits the people, especially rural farmers who have advantages, as this

sector is a primary support sector for the people's needs. Although not yet supported by definite and consistent laws, this sector remains resilient during times of crisis.

According to [10], the role of agribusiness as a primary source of growth for private consumption agro-industry has been relatively low-burdening on the state budget and has also contributed to capital formation. Therefore, agribusiness development does not conflict with the principle of economic independence, and in fact, supports it. Another important aspect is that the market for agribusiness products relies more heavily on the domestic market.

To develop agribusiness in the future, the challenges faced by small-scale agribusinesses include economics, management, technology, human resources, and infrastructure. Therefore, developing agribusiness must begin with small-scale agribusinesses first. Most importantly, the legal aspect involves multi-stakeholder agreements. Small businesses are considered the weaker party in an unequal position compared to large businesses, and therefore must be fostered through empowerment through partnership agreements.

Future development of the agribusiness sector will face a number of significant challenges stemming from the demands of domestic economic development, changes in the international economic environment, whether due to economic liberalization or fundamental shifts in the international agribusiness product market, and challenges in legal frameworks. Indonesian agribusiness has ample room for development and potential market support. The prospects for agribusiness development as a leading sector can be seen from the supply side, supported by the country's rich biodiversity, which can produce a large number of commodities and agribusiness products.

3. METHODS

This study used a quantitative descriptive method. Qualitative research generally employs three design models: descriptive, verification, and grounded research. The subjects were 60 hybrid corn farmers, who were the object of the study, focusing on strategies for developing hybrid corn agribusiness and providing recommendations for strategies and policies for developing hybrid corn agribusiness in Deli Serdang Regency. Data were presented descriptively, qualitatively and quantitatively, using a strategic management approach, and then presented in tabulations, charts, and descriptions. Qualitative descriptive analysis was used to understand the company's environment and identify its strengths, weaknesses, opportunities, and threats. Quantitative analysis was used using the IFE matrix, the EFE matrix, the IE matrix, and the SWOT matrix. The sampling technique used was a purposive sample with questionnaires for data collection. The data used in this study were primary data. This research was conducted in Deli Serdang Regency, specifically in the districts of Tanjung Morawa, Lubuk Pakam, Beringin, and Namorambe. The research was conducted from September to December 2024.

4. RESULTS AND DISCUSSION

4.1 Internal Factor Evaluation Results

Once the internal factors have been identified, they can be grouped into strengths and weaknesses based on their respective scores. If an internal factor scores 1 or 2, it is considered a weakness, and if it scores 3 or 4, it is considered a strength.

The score for a factor indicates the existing condition of that factor in the development of a hybrid corn agribusiness. The weight of a factor indicates its importance in the development of a

hybrid corn agribusiness. The higher the weight, the greater the importance of that factor in the development of a hybrid corn agribusiness, as shown in Table 1.

Table 1. IFAS Matrix

Factor Intenal	Rating	Weight	Scoring
			Rating x Weight
Strength (S)			
1. Hybrid Corn Production	3	0,22	0,66
2. Farmer Experience in Farming	3,5	0,26	0,91
3. Land Area	3	0,22	0,66
4. Seeds Used and Availability of Superior Seeds	4	0,30	1,20
Total Strength	**13,5**	**1,0**	**3,43**
Weaknesses (W)			
1. Farmer Mastery of Cultivation Techniques	2	0,28	0,56
2. Farmer Capital			
3. Labor Used	1,5	0,21	0,32
4. Amount of Input Used	2	0,28	0,56
	1,5	0,21	0,32
Total Weaknesses	**7**	**1,0**	**1,76**
Total (Strengths)			**3,43**
Total (Weaknesses)			**1,67**

Sumber: Data Primer Diolah, Tahun 2025

Table 1. shows that the internal strength factor score for hybrid corn production is 3 and has a weighting of 0.22. This indicates that the existing conditions for hybrid corn production are unfavorable, and farmers believe that hybrid corn production has little impact on the development of the hybrid corn agribusiness.

The internal factor of farmer experience in farming has a score of 3.5 and a weight of 0.26. This indicates that the internal factor of farmer experience is considered important in farming and can be a factor in agribusiness development in the research area, because from the experience of farmers, farmers can learn and improve their skills in hybrid corn farming.

Land area is an internal strength factor, with a score of 3 and a weight of 0.22. This indicates that the existing land area is poor or relatively small, and farmers consider this factor to have little impact on the development of the hybrid corn agribusiness.

The internal factors of seed strength and seed availability scored 4, the highest score among the internal factors, and the highest weighting, at 0.30. This indicates that the seeds used by hybrid corn farmers are good, and they consider this a very important factor.

The internal factor of farmers' weakness in mastering cultivation techniques has a score of 2.5 and a weighting of 0.28. This means that farmers' mastery of cultivation techniques is good, and they believe that their mastery of cultivation techniques has a significant impact on the development of the hybrid corn agribusiness.

Farmer capital is an internal weakness factor, with a score of 1.5 and a weighting of 0.21. This indicates that farmer capital is insufficient for food crop farming, and farmers consider this factor to be highly influential in the development of hybrid corn agribusiness.

The internal weakness factor is that the workforce used has a score of 2.5 and a weight value of 0.28. This indicates that the condition of the workforce used is not good and is caused by the number of workers needed being insufficient due to a lack of funds to hire the required workforce. However, the skills of the workforce are considered quite good.

The internal factor of weakness, the amount of input used, scored 2 and had a weighting of 0.21. This indicates that the amount of input used is quite good and is considered important by farmers. Farmers understand the importance of using farm inputs (seeds, fertilizers, pesticides, and

agricultural equipment) according to recommended dosages and timings, although some farmers still do not follow the recommended dosages and timings due to limited capital.

The total weighted score of strengths is 3.43, which is greater than the total weighted score of weaknesses, which is 1.76. The difference in the weighted score of strengths and weaknesses is 1.67. The difference in the weighted scores is the x value, which will determine the position of hybrid corn agribusiness development in the SWOT position matrix.

4.2 External Factors

Table 2. EFAS Matrix

Factor External	Rating	Weight	Scoring Rating x Weight
Oppurtunity			
1. Demand for Hybrid Corn	4	0,30	1,20
2. Average Input Prices and Input Availability	3,5	0,27	0,95
3. Farmer Group Support	3	0,23	0,69
4. Government Support	2,5	0,19	0,48
Total Chances	**13**	**1,0**	**3,32**
Threats			
1. Agro-Industry Infrastructure and Supporting Facilities	2	0,27	0,54
2. Bargaining Position			
3. Unstable Weather Changes	2	0,27	0,54
4. Competition with Imported Food Products	2	0,27	0,54
	1,5	0,19	0,29
Total Threat	**7,5**	**1,0**	**1,91**
Total (Opportunities – Threats)			**3,32**
Total (Opportunities – Threats)			**1,91**

Source: Processed Primary Data, 2025

The external factor of demand opportunities for food crop commodities in the research area has a score of 4.00 and a weight of 0.30, which means that the existing conditions for demand for hybrid corn commodities are very good and are considered quite important by farmers.

The external factor of input price opportunities averaged a score of 3.5 and a weighting of 0.27, indicating that the average price of farm inputs (seeds, fertilizers, pesticides, and medicines) received by farmers was quite good and considered important to them. Farmers understood the importance of using farm inputs according to recommended dosages, but some farmers did not understand the importance of using farm inputs according to recommended timing.

The external factor of Gapoktan support opportunities has a score of 3 and a weight of 0.23. This indicates that Gapoktan support exists well and is considered important to farmers. Limited capital and capabilities mean that farmers desperately need Gapoktan support.

The external factor of government support opportunities scored 2.5 and had a weighting of 0.19. This indicates that government support is favorable and farmers consider it crucial for hybrid corn agribusiness development. Farmers expect continued government assistance.

The external factor of hybrid corn selling price opportunities at the farm level has a score of 3.5 and a weight of 0.19. This indicates that hybrid corn selling prices at the farm level are quite favorable and considered important by farmers. This contributes to the high selling price of hybrid corn at the farm level.

The external threat factor of infrastructure and supporting facilities for the agro-industry has a score of 2.00 and a weighted value of 0.27. This indicates that the infrastructure and supporting facilities are in poor condition, but are considered important by farmers. Public transportation is inadequate, and a partnership-managed hybrid corn agro-industry is still lacking, although roads are paved.

The external factor of bargaining power threats had a score of 2.00 and a weighting of 0.27. This indicates that farmers' bargaining power is poor. This is due to the soybean farming system not being agribusiness-based and the lack of market information in the research area.

The external factor of unstable weather threats scored 2.00 and had a weighting of 0.27. This indicates that the agricultural extension workers in the study area have implemented sustainable programs, but some of these programs have been unsuccessful. This is due to the agricultural extension workers' lack of knowledge in eradicating hybrid corn pests and diseases in the study area.

The external factor of the threat of competition with imported food products has a score of 1.5 and a weighting of 0.19. This indicates that competition with imported products poses a significant threat to the economy of local food farmers. To increase interest among entrepreneurs in the hybrid corn processing industry using local raw materials, full government involvement is essential.

Table 3. Combining the Evaluation Matrix of Internal and External Strategic Factors for Hybrid Corn Agribusiness Development

Strategic Factors	Rating	Weight	Score (Rating x Bobot)
Internal Strategy Factors			
Strength (S)	3	0,22	0,66
1. Hybrid Corn Production	3,5	0,26	0,91
2. Farmer Experience in Farming	3	0,22	0,66
3. Land Area	4	0,30	1,20
4. Seeds Used and Availability of Superior Seeds			
Total Strength Score	**13,5**	**1,0**	**3,43**
Weaknesses (W)			
1. Farmer Mastery of Cultivation Techniques	2	0,28	0,56
2. Farmer Capital			
3. Labor Used	1,5	0,21	0,32
4. Amount of Input Used\	2	0,28	0,56
	1,5	0,21	0,32
Total Weakness Score	**7**	**1,0**	**1,76**
Difference (Strengths – Weaknesses)			**1,67**
External Strategic Factors			
Oppurtunity (O)			
1. Demand for Hybrid Corn	4	0,30	1,20
2. Average Input Prices and Input Availability	3,5	0,27	0,95
3. Farmer Group Support			
4. Government Support	3	0,23	0,69
	2,5	0,19	0,48
Total Chance Score	**13**	**1,0**	**3,32**
***Threats* (T)**			
1.Agro-Industry Infrastructure and Supporting Facilities	2	0,27	0,54
2. Bargaining Position			
3. Unstable Weather Changes	2	0,27	0,54
4. Competition with Imported Corn Products	2	0,27	0,54
	1,5	0,19	0,29
Total Threat Score	**7,5**	**1,0**	**1,91**
Difference (Opportunities – Threats)			**1,41**

Source: Processed Primary Data, 2025

The total weighted score for opportunities is 3.32, which is greater than the total weighted score for threats, which is 1.91. The difference between the weighted scores for opportunities and threats is 1.41. This difference in the weighted scores for external factors is the y value that will determine the position of hybrid corn agribusiness development in the SWOT matrix.

4.3 Determining the Position Matrix for Hybrid Corn Agribusiness Development Strategy

When the internal factor evaluation matrix is combined with the external factor evaluation matrix, the strategic position for hybrid corn agribusiness development can be determined. The strategic position for hybrid corn agribusiness development is analyzed using a position matrix, resulting in coordinates (x, y). The x value represents the difference between internal factors (strengths and weaknesses), the y value represents the difference between external factors (opportunities and weaknesses), and the y value represents the difference between external factors (opportunities and threats). Table 4.3 shows the x value as 0.58 and the y value as 1.13. The combined coordinate positions of the internal and external factor evaluation matrices can be seen in Figure 4.1 below.

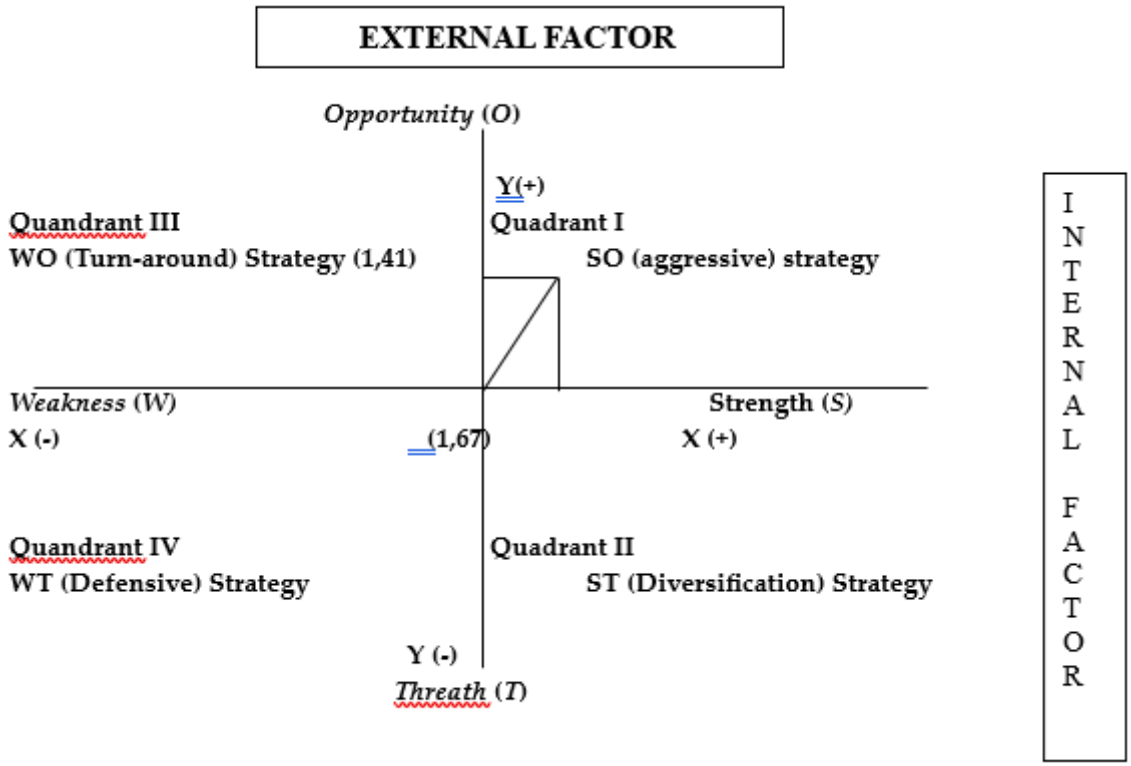

Figure 1. Hybrid Corn Agribusiness Development Strategy Position Matrix

The position matrix of the food crop agribusiness development strategy in Figure 4.1 shows the value of $x > 0$, namely 1.67 and the value of $y > 0$, namely 1.41. This means that the position of the hybrid corn agribusiness development strategy is located in quadrant I. Quadrant I is a quadrant that is bounded by the x-axis and y-axis, both of which are positive and the recommended alternative strategy is an aggressive strategy, namely the SO strategy (Strategy - Opportunity), where this quadrant has the most profitable position because the strengths and opportunities in the position matrix are good so that with the strengths that farmers have in their farming businesses, it is possible to take advantage of existing farming opportunities and develop them.

The hybrid corn plants in the research area are in quadrant I, meaning the hybrid corn plants have good strengths. However, hybrid corn farmers have not yet capitalized on existing opportunities, resulting in underdevelopment. Therefore, an aggressive strategy is needed, namely expanding and maximizing growth by exploiting existing opportunities and strengths (a strength-opportunities strategy).

4.4 Determining Alternative Hybrid Corn Development Strategies

The next stage is determining alternative hybrid corn development strategies. The SWOT matrix is compiled based on internal strengths and weaknesses, and external opportunities and threats. Based on the SWOT matrix, four main strategies can be identified: the strengths-opportunities (SO) strategy, the weaknesses-opportunities (WO) strategy, the strengths-threats (ST) strategy, and the weaknesses-threats (WT) strategy. These strategies are shown in Table 4.4 below.

Table 4. Determining Alternative Hybrid Corn Development Strategies

INTERNAL / **EXTERNAL**	**Strength (S)**	***Weakness* (W)**
	1. Hybrid Corn Production (S1) 2. Farmer Experience in Farming (S2) 3. Land Area (S3) 4. Seeds Used and Availability of Superior Seeds (S4)	1. Farmers' Mastery of Cultivation Techniques (W1) 2. Farmer Capital (W2) 3. Labor used (W3) 4. Total Input Usage (W4)
***Opportunity* (O)**	**STRATEGY (SO)**	**STRATEGY (WO)**
1. Demand for Hybrid Corn (O1) 2. Average Input Prices and Input Availability (O2) 3. Farmer Group Support (O3) 4. Government Support (O4)	1. Leveraging farmer group support to provide quality seeds to farmers (S5, O1) 2. Leveraging government support in providing capital to expand hybrid corn farming areas (S3, O2) 3. Leveraging average input prices and input availability to increase hybrid corn production (S1, O4) 4. Leveraging farmer group support to increase farmer experience in hybrid corn farming (S4, O1)	1. Leveraging farmer group support to improve farmers' mastery of hybrid corn cultivation techniques (O1, W1) 2. Leveraging government support in the form of capital assistance for farmers (O2, W2) 3. Leveraging demand for hybrid corn products to increase farmers' capital (O3, W2) 4. Leveraging average input prices to make farmers more effective in using inputs (O2, W4) 5. Leveraging soybean selling prices to improve labor mastery of cultivation techniques (O5, W3)
***Threath* (T)**	**STRATEGY (ST)_**	**STRATEGY (WT)**
1. Agro-Industry Infrastructure and Supporting Facilities (T1) 2. Bargaining Position (T1) 3. Unstable Weather Changes (T1) 4. Competition with Imported Food Products (T1)	1. Improving infrastructure and supporting facilities for the agro-industry to increase hybrid corn production (S1, T1). 2. Increasing knowledge in dealing with unfavorable weather changes to increase production (S1, T3). 3. Leveraging farmers' experience in hybrid corn farming to maintain their bargaining position (S4, T2).	1. Improving infrastructure and supporting facilities for the agro-industry to support the workforce (W3, T1) 2. Improving farmers' ability to cope with weather changes to enhance their mastery of cultivation techniques (W1, T2) 3. Improving farmers' mastery of cultivation to maintain their bargaining position for food products (W1, T3)

CONCLUSION

1. Utilize government support and farmer groups (gapoktan) to ensure farmers obtain quality seed assistance and utilize average input prices and input availability to increase hybrid corn production.
2. The hybrid corn agribusiness development strategy shows an x value > 0, namely 1.67, and a y value > 0, namely 1.41. This means the hybrid corn agribusiness development

strategy is positioned in quadrant I. Quadrant I is the quadrant bounded by the x-axis and y-axis, both of which are positive. The recommended alternative strategy is an aggressive strategy, namely the SO (Strategy - Opportunity) strategy. This quadrant has the most advantageous position because the strengths and opportunities in the position matrix are good, so with the strengths possessed by farmers in their farming, it is possible to utilize existing farming opportunities and develop them.

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