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Research Article

SUPERIOR AGRO INDUSTRY BASED ON THE PEOPLE'S ECONOMY AND ITS DEVELOPMENT STRATEGY FOR SUSTAINABILITY

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Abstract
Agroindustry is a processing industry that contributes significantly to the economy of Jambi Province. Agroindustry in Jambi Province is dominated by the plantation sector. Plantations in Jambi Province produce agricultural commodities that are used as raw materials for agroindustry. The purpose of this study is to determine superior agroindustries based on community economics and then formulate appropriate strategies for the sustainable economic development of Jambi Province. The research method applied is secondary data analysis and observational analysis. Meanwhile, the analysis models used are the TOPSIS analysis model to determine leading agro-industries and the TOPSIS-SWOT analysis model to formulate development strategies. The results of the study show that the cooking oil industry was selected as the superior agro-industry. The development strategy for the selected cooking oil industry includes increasing the production capacity of palm oil plantations and CPO factories, establishing a CPO processing industry polytechnic, applying low-cholesterol technology to processed products from CPO, facilitating investment in environmentally friendly CPO factories, and increasing export quotas and controlling domestic consumption. The uniqueness of this research focuses on agro-industry development based on the criteria used in determining leading agro-industries, including business units, labour, production value, investment value, and capital turnover.

Keywords: Agro-Industry, Strategy, Superior, Sustainbility.

INTRODUCTION

The contribution of the processing industry sector to the GDP of Jambi Province in 2021 was 10.22%. Meanwhile, in 2022, the contribution weakened to 10.03% or decreased by 0.19%. Then, in

2023, the contribution of the processing industry sector continued to weaken to 9.97% or decreased by 0.06%. This condition requires the development of the processing industry sector to increase its growth.

In 2021, the processing industry grew by 1.38%. Then, in 2022, it increased by 3.12% and again by 4.16% in 2023. This condition indicates that the processing industry has good prospects for development in Jambi Province. However, there is a gap where industrial growth is not accompanied by an increase in its contribution to the GRDP. This indicates that the potential of the manufacturing industry has not been optimally utilized. Industrial development is essential for advancing the regional economy (Soebagyo & Hascaryo, 2016; Lang et al., 2025) Industry can impact the economy by creating added value for primary products and absorbing the local workforce (Timisela et al., 2020; Yuvanda et al., 2025) Furthermore, the processing industry has a dual impact on the upstream and Downstream industries (Achmad et al., 2020; W. Wu & Hong, 2023)

The processing industry is a leading sector with the potential to generate growth in a region (Chitonge & Kabinga, 2024; Rodchenko et al., 2024). The growth of the processing industry will lead to increased sales of products, employment, and multiplier effects (Achmad et al., 2020; Fajarika et al., 2023; Sibhatu, 2023) Moreover, this processing industry has several advantages, including its ability to absorb a large workforce and create added value from every input or raw material processed (Sharma et al., 2019;Faiz Norrrahim et al., 2022; Syahza et al., 2023). However, conditions in Jambi Province show that this strategic role has not been reflected in increased regional economic contribution, resulting in a gap between theoretical potential and empirical realization.

In terms of commodities, the processing industry that is growing and developing in Jambi Province is the agro-industry. This is related to the growth of the plantation sub-sector in Jambi Province, which also produces agro-commodities used as raw materials for the agro-industry. The agro-based processing industry is the industry that plays a key role in increasing income distribution and developing the regional economy (Gupta & Barua, 2016; Timisela et al., 2020) The industry uses raw materials from plantations or agricultural products. This is evident during the economic downturn, when the agro-industry is in high demand in both domestic and export markets, especially for food and beverage products needed by the community (Cheldieva et al., 2023; Nazarov et al., 2024).

In developing the agro-industry, the Jambi Provincial government, through the Department of Industry and Trade, has designated 5 types of industries within the agro-industry cluster. These five industries are the cooking oil industry, coconut oil industry, ground coffee industry, *cassiavera industry,* and sugar cane industry. However, there has been no scientific assessment to determine which agro-industries are truly superior based on quantitative indicators. This has created a policy gap in setting development priorities. To accelerate the growth of the agro-industry in Jambi Province, it is necessary to establish a superior agro-industry through scientific methods and field conditions. The selected superior agro-industry needs to formulate a development strategy to enhance its role in the regional economy.

To develop an agro-based industry, it is necessary to determine which industry is superior (Sergeeva & Vasyukova, 2021; Marthalia et al., 2024), thus it can be developed according to market demand and public tastes (Hsu et al., 2021; Bigliardi & Filippelli, 2022). The determination of superior agro-industry must be carried out using a method based on the advantages of each industry categorized within the agro-industry (Gandhare & Akarte, 2022). Previous research Wijaya, (2017) used the LQ method to determine superior food commodities, followed by using SWOT IFAS EFAS in developing a strategy for the development of selected superior commodities. Furthermore, another research (Wu et al., 2010) determine the superior agro-industry using the *Technique for Others Preference by Similarity to Ideal Solution* (TOPSIS) method. The TOPSIS method is recommended because it is very helpful in making important decisions that cannot be determined directly. The decisions are made based on the selected criteria to determine which agro-industry is the superior one (Esfandiari & Rizvandi, 2014). The criteria for determining superiority include workforce, production value, and investment value (Fiati et al., 2019; Yuvanda et al., 2022). However, there has been no research that specifically combines the TOPSIS and SWOT methods to determine leading agro-industries in Jambi Province. This indicates a methodological gap in previous research.

From the calculation results of determining superior agro-industry using the TOPSIS method, the selected superior agro-industry will be obtained for development. The selected superior agro-industry will be developed using appropriate strategies and targets. The analysis model for strategy determination combines TOPSIS analysis with SWOT (Yang, 2010). The TOPSIS-SWOT analysis will produce the best strategy for developing the selected superior agro-industry that impacts the regional economy. The

novelty of this research focuses on the formulation of an agro-industry development strategy based on the results of the TOPSIS analysis.

The criteria used include business units, employment, production value, investment value, and turnover. These five criteria are used in the TOPSIS model to determine the superior industry and, at the same time, as a reference in formulating strategies in the SWOT model. Thus, this study closes the strategic gap due to the absence of a strategic formulation based on the objective ranking results of the TOPSIS method.

RESEARCH METHOD

Methods were employed in this research, including the secondary data analysis research method and the observational research method. The secondary data analysis research method was used to identify the superior agro-industry and its development strategies. Meanwhile, the observational research method was used to observe the superior agro-industry to accelerate its development in Jambi Province. Using this method, in-depth research was also carried out through exclusive interviews with stakeholders. The data collection technique in this research utilized secondary data from agro-industries published by the Jambi Provincial Department of Industry and Trade in 2023. This means that the research focuses on secondary data without sampling primary data.

The analysis model used to determine the superior agro-industry is the TOPSIS (*Technique for Order Preference by Similarity to Ideal Solution)* model. The TOPSIS analysis model used an approach where the selected option not only has the closest measure of the right way positive but also has the farthest measure of the right way negative. After the superior agro-industry was selected, the TOPSIS-SWOT analysis model was applied. The analysis model was formulated into the following table 1.

Table 1. SWOT Analysis Based on the Results of TOPSIS Criteria

Criteria	Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
Business Units	S1.1	W1.1	O1.1	T1.1
Workforce	S2.2	W2.2	O2.2	T2.2
Production Value	S3.3	W3.3	O3.3	T3.3
Investment Value	S4.4	W4.4	O4.4	T4.4
Turnover	S5.5	W5.5	O5.5	T5.5

In the next stage, strategy formulation was conducted using the TOPSIS-SWOT analysis model, which is presented in the following table 2.

Table 2. TOPSIS-SWOT Strategy Analysis

Criteria	TOPSIS-SWOT Strategy
K1	K1 criteria based on SWOT
K2	K2 criteria based on SWOT
K3	K3 criteria based on SWOT
K4	K4 criteria based on SWOT
K5	K5 criteria based on SWOT

RESULTS AND DISCUSSION

Determination of leading agro-industry

To determine the superior agro-industry in Jambi Province, the TOPSIS analysis model was employed. This TOPSIS analysis model uses 7 stages to determine the superior agro-industry. The seven stages include:

Stage 1. Determination of the Weight of Superior Agro-industry Criteria

The determination of the criteria contained in Table 3 was based on the dominant production factors impacting the agro-industry. Meanwhile, the weight was determined by referring to the amount of contribution. The determination of the superior criteria is contained in Table 3.

Table 3. Determination of Superior Criteria

Criteria	Code	Weight	Cost/Benefit
Business Units	C.1	0.200	Benefit
Workforce	C.2	0.133	cost
Production Value	C.3	0.333	Benefit
Investment Value	C.4	0.067	cost
Turnover	C.5	0.267	Benefit

Based on Table 3, the Production Value (C.3) criterion has the largest weight of 0.333, indicating that production value is the most dominant factor in determining leading small industries. The Turnover (C.5) and Business Units (C.1) criteria have weights of 0.267 and 0.200, respectively, making them important indicators of benefits. Meanwhile, Workforce (C.2) and Investment Value (C.4) are categorized as costs, with weights of 0.133 and 0.067 respectively. The relatively small weight values for these two criteria illustrate that the lower the labour requirements and investment value, the higher the level of business efficiency.

Stage 2. Superior Agro-industry Values

After determining the weight and nature of each criterion as shown in Table 3, the next step is to collect and present the actual value data for each agro-industry group. This data is needed as a basis for the calculation process to determine the leading small industries. Each agro-industry group is assessed based on five criteria: number of business units (C.1), number of workers (C.2), production value (C.3), investment value (C.4), and turnover or sales value (C.5). These values will be normalized and combined with the criteria weights to obtain the final score for each industry. At this stage, the value of each criterion was tabulated based on the data obtained from the Jambi Provincial Department of Industry and Trade in the form of 5 agro-industry groups. The tabulation of the data is contained in Table 4.

Table 4. Agro-industry Group Criteria Values

GROUP	Code				
	C.1	C.2	C.3	C.4	C.5
Cooking Oil Industry	1	196	160.000	12.000.000.000	25.600.000.000.000
Coconut Oil Industry	4	201	103.000	3.408.750.000	4.236.699.000.000
Ground Coffee Industry	1	221	1.000	650.000.000	216.000.000.000
Cinnamon Industry	4	103	6.900	9.600.000.000	1.104.000.000.000
Sugar Cane Industry	4	1555	50.710	3.704.800.000	912.780.000.000
	Benefit	cost	Benefit	Cost	Benefit

Table 4 shows that there is quite significant variation between agro-industry groups. In terms of Business Units (C.1), the Coconut Oil Industry and Cinnamon Industry have the largest number of business units with a value of 4, while the Cooking Oil Industry and Ground Coffee Industry only have 1 unit. In terms of labour (C.2), the Sugar Cane Industry stands out with 1,555 workers, although this criterion is categorised as a cost, so a higher value indicates a greater need for labour. The production value (C.3), which is a benefit, shows that the Cooking Oil Industry and Coconut Oil Industry have the highest production levels compared to other groups. Meanwhile, in terms of investment (C.4), the Cooking Oil Industry appears to have the largest investment value, which is actually a burden because this criterion is a cost. Conversely, the Ground Coffee Industry has a relatively small investment value.

In terms of turnover (C.5), which is also a benefit, the Cooking Oil Industry and Coconut Oil Industry show very high performance, indicating greater market capacity and sales levels.

Stage 3. Normalized Matrix R

The next step is to normalise the data to standardise the scale between criteria so that final calculations can be made. Normalisation is necessary because each criterion has different units and magnitudes, such as the number of business units, workforce, production value, investment, and turnover. In addition, the nature of the criteria also differs, where some are benefits (the greater the better) while others are costs (the smaller the better).

The normalisation process is carried out using formulas that correspond to the characteristics of each criterion. For benefit criteria, the normalised value is calculated based on the proportion of the value to the maximum value. Conversely, for cost criteria, the calculation is based on the inverse of the maximum value or the minimum value, depending on the method used.

Table 5. Normalized Matrix R

Group	C.1	C.2	C.3	C.4	C.5
Cooking Oil Industry	0.19	2.91	199.50	49517.87	3196531.70
Coconut Oil Industry	0.76	2.98	128.43	14066.17	529013.38
Ground Coffee Industry	0.19	3.28	1.25	2682.22	26970.74
Cinnamon Industry	0.76	1.53	8.60	39614.30	137850.43
Sugar Cane Industry	0.76	23.05	63.23	15287.82	113973.84
Weight	0.200	0.133	0.333	0.067	0.267

Table 5 shows the normalised results of all criteria values for each agro-industry group. After normalisation, all criteria values are on a uniform scale so that they can be combined with the criteria weights. It can be seen that some industry groups have different advantages in certain criteria. For example, the Coconut Oil Industry and Cooking Oil Industry obtained high normalised values for the turnover criterion (C.5), which indicates large market capacity. In terms of production value (C.3), the Cooking Oil Industry appears to dominate with the highest normalised value of 199.50.

Conversely, for cost-related criteria such as labour (C.2) and investment (C.4), lower values indicate greater efficiency. The Ground Coffee Industry and Cinnamon Industry have relatively small normalisation values for cost criteria, indicating that these two groups operate with more efficient cost intensity. The weight of each criterion listed at the bottom of the table will be used in the next stage, namely the calculation of the weighted matrix, to produce a final score that determines the ranking of leading small industries.

Stage 4. Standardized Matrix of Superior Agro-industry

After the normalisation process has been carried out to standardise the scale of each criterion, the next step is to calculate the Standardised Matrix or weighted matrix. This matrix is obtained by multiplying the normalised value of each criterion by the criterion weighting that was determined in the previous step. This weighting is important in order to adjust the level of importance of each criterion, so that criteria that have a greater influence in determining leading industries contribute more significantly to the final score.

From the results of the normalized matrix R, it was followed by the normalization of the superior agro-industry, as shown in Table 6.

Table 6. Standardized Matrix of Superior Agro-industry

GROUP	Code				
	C.1	C.2	C.3	C.4	C.5
Cooking Oil Industry	0.038	0.386	66.433	3317.697	853473.963
Coconut Oil Industry	0.151	0.396	42.766	942.433	141246.574
Ground Coffee Industry	0.038	0.436	0.415	179.709	7201.187
Cinnamon Industry	0.151	0.203	2.865	2654.158	36806.065
Sugar Cane Industry	0.151	3.065	21.055	1024.284	30431.014

The results in Table 6 show the contribution of each criterion after being multiplied by its weight. The Cooking Oil Industry appears to have a very high weighted score in the criteria of Production Value (C.3), Investment Value (C.4), and especially Turnover (C.5), indicating that this industry has enormous production capacity and market potential. The Coconut Oil Industry also shows high weighted values for the criteria of turnover and production value, indicating that the coconut industry has strong economic performance. The Ground Coffee Industry has relatively low values for most criteria, especially for production value (C.3) and turnover (C.5), placing it below the previous two industries. Meanwhile, the Cinnamon Industry has moderate performance, especially in terms of production value and turnover, but shows better efficiency in the labour criterion (C.2) because its weighted value is relatively small.

The Sugar Cane Industry shows a high score in labour (C.2), which reflects the high demand for labour, but its turnover and production value are not as high as the cooking oil or coconut industries. This indicates that although the sugar cane industry is large in terms of labour, its economic contribution is not yet comparable to other industries. This Standardised Matrix will be used to calculate the total score and determine the final ranking of leading small industries, which will be presented in the next stage.

Stage 5. Determination of Positive and Negative Ideal Solutions

The next stage in the TOPSIS method is to determine the Positive Ideal Solution (PIS) and Negative Ideal Solution (NIS). PIS (A^+) describes the best value for each criterion, namely the maximum value for the benefit criterion and the minimum value for the cost criterion. Conversely, NIS (A^-) is the worst value, namely the minimum value for the benefit criterion and the maximum value for the cost criterion.

Determining the PIS and NIS is very important because both serve as reference points for measuring how close or far each agro-industry is to the ideal condition. By comparing the standardised values in Table 6 with the ideal values in this table, the distance of the industry from the best and worst solutions can be calculated. These values will then determine the preference scores and final rankings.

Table 7. Farthest Distance Values and Closest Distance Values

PIS AND NIS	C.1	C.2	C.3	C.4	C.5
PIS (A+)	0.151186	0.20304287	66.43308894	179.7086086	853473.963
NIS (A-)	0.037796	3.06535592	0.415206806	3317.697389	7201.186563

Table 7 shows that for benefit criteria such as C.1, C.3, and C.5, the PIS (A^+) value is the highest among all alternatives, while the NIS (A^-) value is the lowest. For example, for the turnover criterion (C.5), the PIS value reaches 853,473.963 which comes from the Cooking Oil Industry while the NIS value is only 7,201.187. This shows a large gap in sales capacity between industries. For cost criteria such as labour (C.2) and investment (C.4), the opposite pattern occurs: the PIS value is the smallest because the lower the cost, the better. In C.2, the PIS value is 0.203, while the NIS value reaches 3,065. The investment value (C.4) shows a considerable difference between the ideal value (179,708) and the worst value (3,317,697), indicating variations in investment efficiency between industries.

The next stage presents the results of relative value calculations based on the D+, D-, and V parameters for each industry group. These calculations are performed to measure the relative proximity of each industry to ideal and non-ideal solutions according to the method used. From the results of determining the distance magnitude, it was continued by the determination of the relative values. The results of the determination of relative values are contained in Table 8.

Table 8. Calculation of Relative Values

GROUP	D+	D-	V
Cooking Oil Industry	3137.989	846272.779	0.996306
Coconut Oil Industry	712227.8	134066.437	0.158416
Ground Coffee Industry	846272.8	3137.98988	0.003694
Cinnamon Industry	816671.6	29612.3134	0.034991
Sugar Cane Industry	823043.4	23342.7733	0.027579

Based on the results in Table 8, there is a significant variation in V values between industry groups. Higher V values indicate that the industry is closer to the ideal solution. This information is an important basis for drawing conclusions and formulating strategic recommendations in the next section of the analysis

Stage 7. Determination of Superior Agro-Industry Decisions

After obtaining the relative values (V) of each industry group in the previous stage, the next step is to determine the final ranking based on the proximity of each alternative to the ideal solution. This ranking describes the overall performance position of each industry, so it can be used as a basis for strategic decision-making.

The decision-making to determine the selected superior agro-industry was based on the results of the relative value analysis to obtain ranking decisions. The results of the ranking decisions are contained in Table 9.

Table 9. Determination of Ranking Decision

GROUP	RANK
Cooking Oil Industry	1
Coconut Oil Industry	2
Ground Coffee Industry	5
Cinnamon Industry	3
Sugar Cane Industry	4

Based on the results of determining the superior agro-industry using the TOPSIS model, the cooking oil industry was selected as ranked 1. The cooking oil industry is based on a derivative industry from CPO factories, while CPO factories are derivatives of the oil palm plantations in Jambi Province.

Development strategies for selected agro-industry

To formulate a development strategy for the cooking oil industry, which was selected as a superior agro-industry, the TOPSIS-SWOT analysis model was applied. In determining the SWOT analysis, criteria based on the TOPSIS determination were used, as listed in Table 10.

Table 10. SWOT Analysis Based on TOPSIS Criteria

TOPSIS Criteria	Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
Business Units	The development of open business units is due to the carrying capacity of the plantations and the CPO output from the PKS Factory	The number of business units is limited to only one because the factory must be supported by the plantation of the CPO factory	Opportunities for investment to build a new business in the form of factories	Licensing and availability of human resources from current processing technology and special areas for CPO derivative factories
Workforce	The workforce for factory operations is widely available	Limited human resources with special expertise in processing CPO derivatives	Development of skilled human resources through the establishment of CPO processing industry polytechnics	The interest of prospective workers to develop themselves in the field of CPO derivative processing techniques is low
Production Value	The potential production value increases along with the increase in oil palm plantations and CPO factories	Cholesterol levels from CPO derivative products are still high compared to corn products	The use of CPO derivative processing technology through 3-4 filters can lower cholesterol levels	The issue of high cholesterol in CPO derivative products affects consumer buying interest
Investment Value	Investment value tends to increase in line with factory expansion and market demand	The investment value is influenced by global issues of cholesterol and environmental damage due to plantation	High market demand and ease of licensing are provided to investors	Environmental and cholesterol issues hinder the growth and development of factories in addition to political instability

TOPSIS Criteria	Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
		expansion and politics		
Turnover	Sales increased due to rising domestic and export demand	The government restricts exports as domestic prices and demand increase	The government guarantees minimum prices and subsidizes prices for consumers who cannot afford it	Export quotas are limited to meet domestic demand, but selling prices are controlled by the government

Based on the SWOT analysis results in Table 10, the formulation of a development strategy based on the TOPSIS-SWOT Plus analysis was conducted, which underwent in-depth analysis. The results of the cooking oil industry development strategy selected as the flagship of the agro-industry are presented in Table 11.

Table 11. TOPSIS-SWOT Plus Development Strategy Formulation

Criteria	TOPSIS-SWOT Plus Development Strategy
Business Units	Increasing the number of business units is necessary to enhance the carrying capacity of oil palm plantations and CPO factories through the ease of licensing and the availability of skilled human resources as well as special areas for CPO derivative manufacturers
Workforce	The limitation of skilled human resources is overcome through the establishment of CPO processing industrial polytechnics and the provision of scholarships for prospective local workers who are interested
Production Value	Production value can be increased through the use of technology that can lower cholesterol levels in the processed products of CPO derivatives
Investment Value	Campaigns against the issue of cholesterol and environmentally friendly companies due to the increased investment in CPO derivative processing manufacturers need to be carried out, in addition to providing ease of licensing and the availability of special areas for investment in environmentally friendly CPO factories
Turnover	The release of export quotas is necessary to increase strengthening as export demand and prices increase, while domestic prices and consumption need to be controlled

The cooking oil industry was selected to be developed into a superior agro-industry in Jambi Province. The industry needs to increase it's carrying capacity through the strategy of developing oil palm plantations and CPO factories as the main source of raw materials for the cooking oil industry. For the development of the cooking oil industry, it is also necessary to establish a polytechnic with a CPO processing industry study program (Jalani & Zainal, 2024; Sihombing & Purwoko, 2025). To support the establishment of polytechnics, financial aid in the form of scholarships for prospective local workers is needed (Wang et al., 2023).

Furthermore, the development of the cooking oil industry requires low-cholesterol technology (Hails et al., 2020). The use of low-cholesterol technology for the processed products of CPO derivatives is necessary to address consumers' concerns who state that cooking oil products derived from CPO contain high cholesterol (Plasek et al., 2021; Urugo et al., 2021). Meanwhile, Lim et al., (2021) stated that it is necessary to use Industry 4.0 technology and features for the CPO industry, thus the industry can be sustainable and achieve higher production standards. Furthermore, noted that developing the CPO derivative industry through cooking oil requires supporting instruments such as simplified licensing and the availability of regional infrastructure. In addition, Yamin et al., (2018); Rizkya et al., (2019) also noted the need for developing agricultural facilities and infrastructure.

To support the cooking oil industry, increased investment is necessary for environmentally friendly CPO factorie (Yuan & Zhang, 2020; Karauwan et al., 2025). The developed CPO factory must be environmentally friendly according to consumer demands. Moreover, institutional development is also needed to support the development of the cooking oil industry. In line with this thinking (Fadhil et al.,

2018; Kulaykin & Markov, 2020; Shafirov et al., 2021) stated that the role of institutions in developing the quality management system of the agro-industry needs to be strengthened. In addition, government support in financing the construction of CPO factories and their derivative industries is also needed (Achmad et al., 2023; Zamzami et al., 2025).

To increase the turnover of the cooking oil industry, it is necessary to strengthen exports (Luckstead & Devadoss, 2019) and control domestic consumption (Daivadanam et al., 2018). The government, through the Ministry of Trade, must control cooking oil prices to ensure the turnover of the cooking oil industry (Nendissa & Pellokila, 2025). The government can control this by subsidizing cooking oil prices (Jongwanich & Park, 2011; Zhang et al., 2023). According to Yang et al., 2021; Liu et al., 2024, providing subsidies will encourage the growth and development of the cooking oil industry.

The novelty of this research focuses on the development of industries based on the criteria used in determining the superior agro-industry. For the business unit criteria, the focus is on the development of special areas for CPO derivative industries; for the workforce, the focus is on the establishment of agro-industrial polytechnics; for the production value, the focus is on the use of low-cholesterol technology; for the investment value, the focus is on the construction of environmentally friendly CPO factories; and for the turnover, the focus is on increasing exports and domestic consumption. These five criteria are used in the TOPSIS model to determine the superior agro-industry and also serve as a reference for formulating strategies in the SWOT model.

The implications of this research require follow-up, including the establishment of an agro-industrial polytechnic in Jambi Province, which currently lacks one. It is also necessary to develop low-cholesterol and environmentally friendly cooking oil factories. In addition, increasing exports and local consumption are needed to boost demand for cooking oil and encourage the development of the cooking oil industry as a superior agro-industry.

CONCLUSION

The cooking oil industry was selected as the leading agro-industry in Jambi province. The cooking oil industry was selected as the superior agro-industry in Jambi Province. The development strategy for the selected cooking oil industry include increasing the carrying capacity of oil palm plantations and CPO factories, establishing a CPO processing industry polytechnic, utilizing low-cholesterol technology for processed products of CPO derivatives, facilitating investment in environmentally friendly CPO factories, as well as increasing export quotas and domestic consumption control. Therefore, environmentally friendly cooking oil factories, increased exports and local consumption are needed.

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AUTHOR CONTRIBUTIONS

The authors' team has contributed to the research and the writing of the article and is responsible for the content produced.

CONFLICTS OF INTEREST

The author(s) declare no conflict of interest.

USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY

The authors declare that no artificial intelligence (AI) tools were used in the generation, analysis, or writing of this manuscript. All aspects of the research, including data collection, interpretation, and manuscript preparation, were carried out entirely by the authors without the assistance of AI-based technologies.

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