

PEANUT AGRIBUSINESS DEVELOPMENT STRATEGY (*ARACHIS HYPOGAEA*) IN PRACIMANTORO SUB-DISTRICT

Fitri Pardede, Mohamad Harisudin, Umi Barokah

Universitas Sebelas Maret Surakarta, Indonesia

Email: fitripardede93@gmail.com mohamad_h@staff.uns.ac.id umiajaragb@gmail.com

ABSTRACT

KEYWORDS

development strategy,
peanuts, *grand strategy*,
SWOT, QSPM

Pracimantoro District is the largest peanut producing area in Wonogiri Regency with an average planting area of 381 Ha, productivity of 13.79 Kw/Ha, and production of 525.90 Tons. Farmers are expected to develop peanut agribusiness in the area. This study aims to formulate alternative strategies and determine the priorities of peanut agribusiness development strategies in Pracimantoro District. The basic method used is the descriptive method. Key informants are determined using *convenience sampling* techniques. Data collection techniques are carried out using observation, interview, recording, and triangulation of sources. The data analysis methods used include EFE and IFE Matrix, *Grand Strategy Matrix*, SWOT Matrix, and QSPM. The results showed that the peanut agribusiness development strategy was in quadrant I of *Strength-Opportunity* (S-O). The priority strategy that can be applied to the development of peanut agribusiness in Pracimantoro District is to develop production through improving the quality of peanuts.

INTRODUCTION

Indonesia is a country that is considered strategic for the development of the agricultural sector. This is because Indonesia's vast territory and supported by a tropical geographical structure is very suitable for the cultivation of agricultural commodities (Newton et al., 2013; Pasaribu et al., 2023; Race et al., 2022; Ramdhani et al., 2023; Rejekiningrum et al., 2022). The agricultural sector is one of the supports for the Indonesian economy (Fuglie, 2010; Mukhlis & Gürçam, 2022; Saban et al., 2024; Siskha et al., 2021; Zuhdi et al., 2023). The Central Statistics Agency (BPS) noted that agricultural gross domestic product (GDP) in 2021 grew positively by 1.84%. Meanwhile, food crop commodities decreased by -1.56%. One of the food crop commodities is peanuts.

Wonogiri Regency is an area in Central Java Province where most of the population works as farmers to make ends meet. Wonogiri Regency, precisely in Pracimantoro District, is the largest peanut producing area in Central Java Province with an average planting area of 381 Ha, productivity of 13.79 Kw/Ha, and production of 525.90 Tons. for peanut producing villages in Pracimantoro District, we can see the following table:

Table 1. Total Harvest, Productivity, and Production of Peanuts in Pracimantoro District in 2023

No	Village	Width (Ha)	Productivity (kw/ha)	Production (Ton)
1	Gebang Harjo	75	13.77	103.28
2	Gedong	27	13.85	37.40
3	Gambirmanis	48	13.95	66.96
4	Wonodadi	26	13.54	35.20
5	Glinggang	36	13.74	49.46
6	Watangrejo	39	13.87	54.09
7	Sumberagung	12	13.72	16.46
8	Lebak	34	13.68	46.51

9	Petir Sari	63	13.86	87.32
10	Joho	21	13.91	29.21
Total /average		381	13.79	525.90

Source : Primary data, 2023

In the table, it can be seen that in 2023 peanut production in each village of Pracimantoro District is quite large, in the development of peanut agribusiness, farmers in Pracimantoro District have carried out several types of manual peanut processing. Products from peanut processing carried out by farmers in the form of peyek peanuts, sambal pecal, ampyang, fried peanuts and boiled peanuts. The price of peanuts is also high, namely at a price of 10,000 – 15,000 / kg, and if farmers process peanuts, the price will also be higher so that it will be able to increase farmers' profits, thereby the welfare of peanut farmers will also increase. However, peanut production and productivity experience fluctuations caused by several factors, both internal and external factors. According to Afridhal (2017), development strategy is an action needed to achieve management decisions in business development and is useful for business continuity in the long run.

The purpose of the research conducted on the development of peanut agribusiness in Pracimantoro District is to formulate alternative strategies that can be applied in the development of peanut agribusiness in Pracimantoro District, determine the priority of strategies that can be applied in the development of peanut agribusiness in Pracimantoro District. The research contribution in this sentence is to formulate and prioritize alternative strategies for the development of peanut agribusiness in Pracimantoro District, providing a structured approach to enhance the agribusiness sector in that region.

RESEARCH METHOD

The main research method used is qualitative descriptive. Data was collected through observation, interview, and note-taking techniques. The collected data is then compiled, analyzed and explained. The research location was chosen Pracimantoro District because the area is the largest peanut producer in Wonogiri Regency but peanut production always fluctuates.

The data collection method used in this study includes in-depth observation and interviews with several respondents and Key Informants (harisudin et.al 2022). The analytical techniques used to formulate strategies are Grand Strategy, SWOT Matrix and QSPM. Critical success factors include opportunities (opportunities, threats, strengths, and weaknesses) obtained by triangulating the source of a predetermined key informant's answer. This research is summarized into 5 stages, namely: 1. Identify internal and external factors so as to identify existing weaknesses and opportunities. This stage is carried out through interviews with key informants who have been determined, namely the Production section of the Agriculture Office, field extension workers, Head of the Association, Secretary of the Association, Treasurer of the Association and Farmers in Pracimantoro District. 2. Making EFE and IFE matrices, after identifying internal (strengths-weaknesses) and external (opportunities-threats) factors, the weight and attractiveness assessed (1-4) are determined. 3. Designing the IFE strategy matrix and the EFE matrix determines the location of the predetermined quadrant. 4. Obtain a SWOT matrix to formulate alternative strategies. 5. Implementation of the QSPM method. Comparing each alternative strategy so that it becomes the best strategy priority to choose (Harisudin et.al 2022).

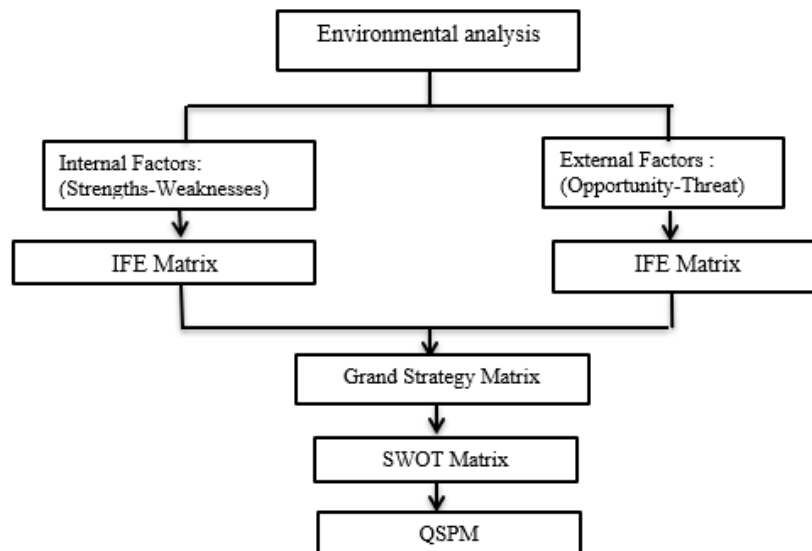


Figure 1. Research Framework of Mind

RESULTS AND DISCUSSION

External Factors of Peanut Agribusiness Development

External factors are factors that come from outside and affect peanut farming. External factors analyzed in the development of peanut agribusiness in Pracimantoro District include several factors, namely consumers, natural conditions, technology, government, and competitors. Factors for the development of peanut agribusiness include: 1. Consumers for the local market, consumers of the local market of peanuts include local traders, surrounding communities, middlemen, and their own consumption. 2. Suitable soil conditions for peanut cultivation. 3. Utilization of technology in cultivation with agricultural mechanisms. 4. Study program information providers, with the existence of study program providers such as fertilizers and pesticides have helped farmers to reduce costs in peanut cultivation so that the funds can be used for other purposes 5. Government program of farmer assistance 6. There is no competition, in the development of peanut agribusiness which is one of the opportunities, namely the absence of competition both among farmers and competition in marketing so that in marketing farmers do not experience difficulties 7. Peanut prices are stable and expensive, high peanut prices will increase farmers' income, and the higher the price of peanuts, the more motivated farmers will be for peanut cultivation business. while external factors that threaten the development of peanut agribusiness in Pracimantoro District include 1. There are consumer complaints about quality, 2. Pests and diseases, can cause a decrease in peanut yields and until now there has not been found how to overcome pest problems that interfere with peanut plants. 3. Lack of water availability, the location of Paracimantoro District is far from the gajah mukur reservoir, so peanut farmers have difficulty providing water. 4. Farmers lack updates on technological and information developments. 5. There has been no socialization and training from PPL for a long time (3 years).

Internal Factors of Peanut Agribusiness Development

Internal environmental analysis based on the results of triangulation analysis, the success factors of strengths and weaknesses in the development of peanut agribusiness in Pracimantoro District which include human resources (HR), production, marketing, and financial conditions. The strength factors in the development of peanut agribusiness in Pracimantoro District are 1. The existence of Gapoktan Cash to help farmers, so that to start their business farmers have been helped in providing capital. 2. Independent in the provision of seedlings, 3. Production throughout the year, will be the strength of farmers in cultivating

peanuts because it is very rare for peanut farmers to experience crop failure. 4. Easy storage, for peanut storage farmers do not have difficulties because peanut storage does not have to require a special place. 5. Quality of peanuts that are durable and not easily rotten. 6. Have several marketing chains, such as farmers to direct traders, farmers to middlemen then to traders, and farmers to direct consumers. 7. Already experienced in peanut cultivation, 8. Easy to accept innovation. While the internal weaknesses of peanut agribusiness development in Pracimantoro District are 1. Limited capital, 2. There is no farmer bookkeeping, peanut farmers in Pracimantoro District do not have books so it is not clear how much it costs when cultivating peanuts and how much profit farmers get for each harvest. 3. Production decreases due to rat and monkey pests, due to the presence of pests will cause farmers to experience losses, but until now it is not known how to respond to the problem. 4. Production decreases during the dry season, peanut planting carried out by farmers in Pracimantoro District is carried out at the beginning of the dry season after rice, and peanuts need during the phase of cheating, flowering, and pod filling, if peanuts lack water then the yield is not optimal. 5. Expensive labor wages are a weakness for farmers because they have to incur considerable costs. 6. Prices are determined by middlemen, peanut prices are determined by middlemen, where middlemen determine the price of peanuts unilaterally, some farmers sell by kilos and some by slash system. 7. Lack of guidance and training for farmers to develop the creative economy, lack of training guidance for peanut farmers makes farmers only sell peanuts as a whole, while if farmers do the creative economy by processing, the selling price is higher and farmers will also get maximum profits.

Strategy Formulation

The formulation of peanut agribusiness development strategies to face competition begins with evaluating external factors and internal factors. The matrix used to evaluate external factors is the External Factor Evaluation Matrix (EFE). The EFE matrix is used to analyze external factors and is classified into opportunities and threats in peanut agribusiness development in Pracimantoro District. Furthermore, the stage carried out is the determination of the total score obtained by multiplying the weight and rating (Harisudin, 2022). The results of the EFE matrix analysis on peanut agribusiness development in Pracimantoro District can be seen in table 2.

The IFE matrix is used to identify internal factors (strengths and weaknesses) in decision making to determine alternative strategies to improve peanut agribusiness development in Pracimantoro District (Polii et al., 2019). The results of the IFE matrix analysis on peanut agribusiness development in Pracimantoro District can be seen in table 3.

Table 2. EFE Matrix of Peanut Agribusiness development in Pracimantoro District

External factors		Weight	Rating	Score
Opportunity				
1	Consumers for the local market (middlemen, 2 rabbit factories, surrounding communities (neighbors), own consumption.	0,054983663	4	0,219934652
2	Suitable soil conditions for peanut cultivation	0,041922198	4	0,167688793
3	Utilization of technology in cultivation with agricultural mechanisms	0,096142061	4	0,384568245
4	Saprodi information provider (fertilizers and pesticides)	0,106157302	4	0,424629209
5	Government program of farmer assistance	0,070116893	3	0,210350680
6	Technology providers in cultivation techniques	0,115685176	4	0,462740702

7	There is no competition in either the cultivation or marketing of peanuts	0,025381977	3	0,076145930
8	Peanut prices are stable and expensive	0,048250636	4	0,193002546
Total opportunity value				2,139060757
Threat				
1	There are consumer complaints about quality	0,033590764	3	0,100772291
2	Pests and diseases	0,065693671	2	0,131387341
3	Lack of water availability	0,075553112	1	0,075553112
4	Farmers lack updates on technological and information developments	0,115097082	1	0,115097082
5	There has been no socialization and training from PPL for a long time (3 years)	0,151425466	1	0,151425466
Number of hazard values				0,574235291
Difference in the value of opportunities and threats				1,564825465

Source : Primary Data Analysis 2024

Table 3. IFE Matrix of Peanut Agribusiness Development in Pracimantoro District

Internal Factors		Weight	Rating	Score
Strength				
1	The existence of Gapoktan Cash to help farmers	0,079382854	4	0,317531416
2	Independent in the provision of seedlings	0,069107775	3	0,207323326
3	Year-round production	0,051793764	4	0,207175057
4	Easy storage	0,019820928	3	0,059462785
5	Durable quality	0,039415675	4	0,157662699
6	Have multiple marketing chains	0,059855211	4	0,239420844
7	Already experienced in peanut cultivation	0,089380117	3	0,268140351
8	Easily receptive to innovation	0,092151666	3	0,276454999
Number of force values				1,733171477
Weakness				
1	Limited capital	0,039723224	2	0,079446448
2	No farmer bookkeeping	0,059151777	2	0,118303554
3	Production decreases due to rat and monkey pests	0,067137874	2	0,134275748
4	Production decreases during the dry season	0,056538035	2	0,113076071
5	Expensive labor wages	0,076948864	2	0,153897728
6	Prices are determined by middlemen	0,079279813	3	0,237839438
7	Lack of guidance and training for farmers to develop the creative economy	0,120312422	2	0,240624844
Number of Weakness values				1,077463830
Difference in strength and weakness values				0,655707647

Source : Primary Data Analysis, 2024

Based on table 2 and table 3, the difference in the total score of the IFE matrix between strength and weakness factors in peanut agribusiness development in Pracimantoro District is 0.655707647 and The difference in the total EFE matrix score between opportunity and threat factors in peanut agribusiness development in Pracimantoro District is 1,564825465. The value of this score indicates that the company's internal and external conditions are in a positive position because it has a value of more than 0. This is in accordance with opinion (Harisudin, 2019) That the results of the difference in the value of strengths and weaknesses, opportunities and threats that are positive are interpreted as having a strength value greater than the value of weaknesses and threats. The statement also shows that the development of peanut agribusiness in Pracimantoro District has the ability to overcome weaknesses by utilizing the strengths they have, and is able to overcome threats with the opportunities they already have.

Matching Stage

The results of the calculation of the IFE matrix and the EFE matrix can be arranged on the matrix Grand Strategy. Matrix Grand Strategy used to explain the position of the main strategy which can facilitate the determination of alternative strategies used in the SWOT matrix. On the IFE matrix has a total score 0.655707647 is placed on the X axis, while the EFE matrix has a total score of 1.564825465 which is placed on the Y axis. The following is a mapping of the results of the IFE matrix analysis and the EFE matrix for peanut agribusiness development in Pracimantoro District on the matrix Grand Strategy (Harisudin et al., 2022).

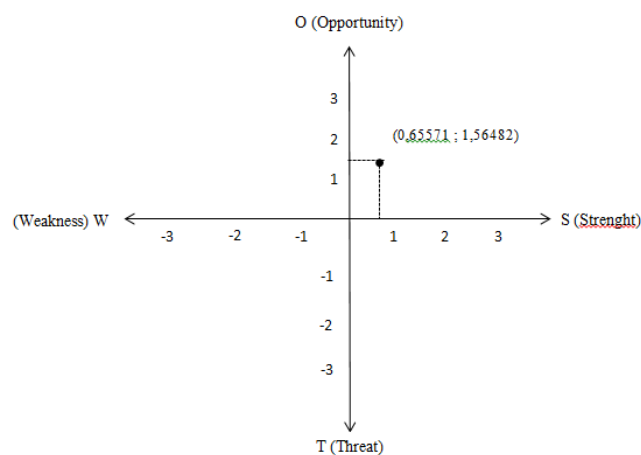


Figure 2. Grand Strategy Matrix Quadrant for peanut agribusiness development in Pracimantoro District

Based on figure 2, the results of mapping the scores of the IFE matrix and the EFE matrix are located in quadrant I (positive, positive) with intersection points of 0.655707647 and 1.564825465. The position in quadrant I can be interpreted that the main strategy to be used for the development of peanut agribusiness is the Strength-Opportunity (S-O) strategy. The next stage after the identification and analysis of internal and external factors is the formulation of alternative strategies with a SWOT matrix.

The SWOT matrix is an important mapping tool for developing four types of strategies, namely, SO (Strengths-Opportunities), WO (Weakness-Opportunities), ST (Strengths-Threats), and WT (Weakness-Threats) strategies. The SWOT matrix shows how external opportunities and threats can be combined with internal strengths and weaknesses to create a peanut agribusiness development strategy. Based on the results of the analysis in the Grand Strategy matrix above, the strategy to be used in the development of peanut agribusiness in the SWOT matrix is the S-O (Strength-Opportunities) strategy type. The results of the SWOT

matrix analysis of peanut agribusiness development in Parcimantoro District can be seen in table 4.

Table 4. SWOT Matrix Analysis Results

INTERNAL	Strength(s)	
	1	The existence of Gapoktan Cash to help farmers
	2	Independent in the provision of seedlings
	3	Year-round production
	4	Easy storage
	5	Durable quality
	6	Have multiple marketing chains
	7	Already experienced in peanut cultivation
	8	Easily receptive to innovation
EXTERNAL	Opportunity (O)	
	1	Consumers for the local market (middlemen, Factory 2 Kelinci, Surrounding communities (neighbors), Own consumption.
	2	Arable soil conditions
	3	Utilization of technology in cultivation with agricultural mechanisms
	4	Saprodi information provider (fertilizers and pesticides)
	5	Government program of farmer assistance
	6	Technology providers in cultivation techniques
	7	There is no competition in either the cultivation or marketing of peanuts
	8	Peanut prices are stable and expensive
	S-O Strategy	
1	Utilizing government support in expanding market reach (S2, S3, S4, S5, S6, S7, O1, O3, O5, O6, O7, O8)	
2	Utilization of off-season technology to maintain the continuity of peanut production (S1, S3, S4, S5, S6, O3, O4, O5, O6, O7)	
3	Develop production through quality improvement (S1, S2, S3,S4,S5,S6, O2, O3, O4, O5,O6,O8)	
4	Making peanut processing industry (S1, S3, S5, S6, S8, O1, O3, O4, O6, O7, O8)	

Source : Primary Data Analysis, 2024

Based on table 6, the results of several alternative strategies that may be used are the first to utilize government support in expanding market reach, the second is the use of off-season technology to maintain the continuity of peanut production, the third is to develop production through improving quality, both from production facilities and production results, as well as the quantity of peanut production, and the fourth alternative strategy is to create a peanut processing industry.

Results Level

The last step in strategy analysis is the selection of the right strategy to implement for the growth of the company. Alternative strategies are obtained from the results of SWOT matrix analysis. The analytical tool used to determine strategic priorities in peanut agribusiness development in Pracimantoro District is QSPM (Quantitative Strategic Planning Matrix). QSPM Analysis (Quantitative Strategic Planning Matrix) is a qualitative analysis tool used to determine strategic planning. A SWOT matrix that presents several alternative strategies from internal and external factors boils down to alternative strategies. QSPM effectively evaluates the attractiveness of several alternative strategies. The advantage of using QSPM is that it can be used to evaluate strategies simultaneously, and there is no limit to the number of strategies that can be evaluated at the same time (Astika & Okol, 2021). The filling of the QSPM questionnaire was carried out by DPP Wonogiri Production Section. The resulting strategy alternatives on the SWOT matrix are then given a score and weights to calculate Attractiveness Score (Tensile Value) and Total Attractiveness Score (Total Tensile Value). The chosen strategy is the strategy with the highest TAS value. The results of the priority analysis of strategies to be used in the development of peanut agribusiness in Pracimantoro can be seen in table 5.

Table 5. QSPM Analysis Results

Key Factors	ALTERNATIVE STRATEGIES									
	WEIGHT	I		II		III		IV		
		AS	TAS	AS	TAS	AS	TAS	AS	TAS	
STRENGTH										
The existence of cash groups to help farmers	0,079383	2	0,15877	1	0,07938	4	0,31753	3	0,23815	
Independent in the provision of seedlings	0,069108	1	0,06911	2	0,13822	3	0,20732	4	0,27643	
Year-round production	0,051794	1	0,05179	3	0,15538	2	0,10359	4	0,20718	
Easy storage	0,019821	1	0,01982	4	0,07928	3	0,05946	2	0,03964	
Durable quality	0,039416	1	0,03942	3	0,11825	4	0,15766	2	0,07883	
Have multiple marketing chains	0,059855	4	0,23942	1	0,05986	2	0,11971	3	0,17957	
Already experienced in peanut cultivation	0,08938	2	0,17876	4	0,35752	3	0,26814	1	0,08938	
Easily receptive to innovation	0,092152	3	0,27645	1	0,09215	4	0,36861	2	0,18430	
WEAKNESS										
Limited capital	0,039723	4	0,15889	2	0,07945	3	0,11917	1	0,03972	
No farmer bookkeeping	0,059152	1	0,05915	2	0,11830	4	0,23661	3	0,17746	
Production decreases due to rat and monkey pests	0,067138	3	0,20141	2	0,13428	4	0,26855	1	0,06714	
Production decreases during the dry season	0,056538	1	0,05654	2	0,11308	3	0,16961	4	0,22615	
Expensive labor wages	0,076949	4	0,30780	2	0,15390	3	0,23085	1	0,07695	
Prices are determined by middlemen	0,07928	1	0,07928	2	0,15856	4	0,31712	3	0,23784	
Lack of guidance and training for farmers to develop the creative economy	0,120312	4	0,48125	3	0,36094	1	0,12031	2	0,24062	
OPPORTUNITY										
Consumers for the local market (middlemen, Factory 2 rabbits, Surrounding communities (neighbors), Own consumption.	0,054984	4	0,21993	1	0,05498	3	0,16495	2	0,10997	
Arable soil conditions	0,041922	1	0,04192	2	0,08384	4	0,16769	3	0,12577	
Utilization of technology in cultivation with agricultural mechanisms	0,096142	4	0,38457	3	0,28843	2	0,19228	1	0,09614	
Saprot information provider (fertilizers and pesticides)	0,106157	2	0,21231	4	0,42463	3	0,31847	1	0,10616	

Government program of farmer assistance	0,070117	4	0,28047	2	0,14023	3	0,21035	1	0,07012
Technology providers in cultivation techniques	0,115685	2	0,23137	4	0,46274	3	0,34706	1	0,11569
There is no competition in either the cultivation or marketing of peanuts	0,025382	4	0,10153	1	0,02538	3	0,07615	2	0,05076
Peanut prices are stable and expensive	0,048251	4	0,19300	1	0,04825	2	0,09650	3	0,14475
THREAT									
There are consumer complaints about quality	0,033591	1	0,03359	2	0,06718	4	0,13436	3	0,10077
Pests and diseases	0,065694	2	0,13139	4	0,26277	3	0,19708	1	0,06569
Lack of water availability	0,075553	1	0,07555	3	0,22666	4	0,30221	2	0,15111
Farmers lack updates on technological and information developments	0,115097	4	0,46039	1	0,11510	3	0,34529	2	0,23019
There has been no socialization and training from PPL for a long time (3 years)	0,151425	3	0,45428	1	0,15143	4	0,60570	2	0,30285
TOTAL			5,19817		4,55016		6,22234		4,02933

Source : Primary Data Analysis, 2024

Based on table 5, the results of the QSPM analysis, show that the best strategy to be applied in the development of peanut agribusiness in Pracimantoro District is the strategy of developing production through quality improvement with a value of 6.22234.

Improving product quality is an important thing to do to be able to continue to compete in the era of very tight market competition. According to Lestari et al. (2020), Product innovation is indispensable to increase sales and consumer loyalty to buy products. An innovation and product quality are needed by a business, because competitiveness in this era of globalization is very high. With good production quality will add consumer intent to buy peanuts.

CONCLUSION

The results showed that the position of peanut agribusiness development in Pracimantoro District based on the grand strategy matrix was in the Strength-Opportunity (S-O) strategy. Alternative strategies that can be applied by peanut farmers in Pracimantoro District based on the SWOT matrix include, utilizing government support in expanding market reach, utilizing off-season technology to maintain the continuity of peanut production, developing production through improving peanut quality, creating a peanut processing industry. The priority strategy for developing peanut agribusiness in Pracimantoro District is based on the results of QSPM analysis, namely strategy III, utilizing government support in expanding market reach. This strategy is very appropriate to apply because it has the highest total attractiveness value of 6.92446.

REFERENCES

- Afridhal, M. (2017). Strategi Pengembangan Usaha Roti Tanjong di Kecamatan Samalanga Kabupaten Bireuen. *Journal of Chemical Information and Modeling*, 1(3), 223–233.
- Astika, I. M. J., & Okol, S. S. (2021). Internal and External Enviromental Strategy Analysis Using SWOT Matrix and QSPM. *International Journal of Progressive Sciences and Technologies*, 25(1), 507–516. <https://doi.org/10.52155/ijpsat.v25.1.2826>
- Fuglie, K. O. (2010). Sources of growth in Indonesian agriculture. *Journal of Productivity Analysis*, 33(3). <https://doi.org/10.1007/s11123-009-0150-x>

- Harisudin, M. (2019). Strategi Bersaing Pasar Legi Kota Surakarta dalam Menghadapi Pasar Modern. *AGRARIS: Journal of Agribusiness and Rural Development Research*, 5(1), 43–54.
- Harisudin, M., Adi, R. K., & Qonita, R. R. A. (2022). Synergy Grand Strategy Matrix, SWOT and QSPM As Determinants of Tempeh Product Development Strategy. *Journal of Sustainability Science and Management*, 17(8), 62–80. <https://doi.org/10.46754/jssm.2022.08.004>
- Lestari, W. A., Budianto, A., & Setiawan, I. (2020). Pengaruh Inovasi dan Kualitas Produk Terhadap Keunggulan Bersaing (Suatu Studi pada Payung Geulis Mandiri Tasikmalaya). *Busines Management and Entrepreneurship Journal*, 2(1), 38–48.
- Mukhlis, I., & Gürçam, Ö. S. (2022). The Role of Agricultural Sector in Food Security and Poverty Alleviation in Indonesia and Turkey. *Asian Journal of Agricultural Extension, Economics & Sociology*. <https://doi.org/10.9734/ajaees/2022/v40i111728>
- Newton, P., Agrawal, A., & Wollenberg, L. (2013). Enhancing the sustainability of commodity supply chains in tropical forest and agricultural landscapes. *Global Environmental Change*, 23(6). <https://doi.org/10.1016/j.gloenvcha.2013.08.004>
- Pasaribu, D., Murwani, A., & Setiawan, I. (2023). Foreign direct investment in Indonesia's agriculture. In *Modernizing Indonesia's Agriculture* (p. 147). PT. RajaGrafindo Persada-Murai Kencana.
- Polii, G., Sylveislie, D. S. K., & Nella, R. (2019). Analysis of SWOT Matrix , Internal and External Factor Evaluation Matrix , CPM , SPACE , and QSPM of Shopee Indonesia. *The International Journal of Business & Management*, 7(4), 267–275.
- Race, D., Suka, A. P., Oktalina, S. N., Bisjoe, A. R., Muin, N., & Arianti, N. (2022). Modern Smallholders: Creating Diversified Livelihoods and Landscapes in Indonesia. *Small-Scale Forestry*, 21(2). <https://doi.org/10.1007/s11842-021-09495-4>
- Ramdhani, Widiatmaka, & Trisasonko, B. H. (2023). Food Crop Land Allocation: Integrating Land Suitability Analysis and Spatial Forestry, Study Case Katingan, Indonesia. *Jurnal Manajemen Hutan Tropika*, 29(3). <https://doi.org/10.7226/jtfm.29.3.187>
- Rejekiningrum, P., Apriyana, Y., Sutardi, Estiningtyas, W., Sosiawan, H., Susilawati, H. L., Hervani, A., & Alifia, A. D. (2022). Optimising Water Management in Drylands to Increase Crop Productivity and Anticipate Climate Change in Indonesia. *Sustainability (Switzerland)*, 14(18). <https://doi.org/10.3390/su141811672>
- Saban, A. B., Sahara, & Falatehan, A. F. (2024). Economic Transformation: How Does the Agricultural Sector Performance in Indonesia's Regional Economic Structure? *Jurnal Ekonomi Pembangunan*, 21(2). <https://doi.org/10.29259/jep.v21i2.22744>
- Siskha, T., Syahrin, A., Suhaidi, & Ekaputra, M. (2021). Indonesian economic strength from food security of sustainable agricultural and fishery sectors. *IOP Conference Series: Earth and Environmental Science*, 782(3). <https://doi.org/10.1088/1755-1315/782/3/032043>
- Zuhdi, U., Putra, R. S., Wardhana, A. N., Wahyuningtyas, E. T., Kurniastuti, I., & Lukiyono, Y. T. (2023). The Economic Analysis of the Agricultural Industries: The Case of Indonesia. *Bali Medical Journal*, 12(3). <https://doi.org/10.15562/bmj.v12i3.4470>

Copyright holders:
Fitri Pardede, Mohamad Harisudin, Umi Barokah (2023)

First publication right:
Devotion - Journal of Research and Community Service



This article is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-sa/4.0/)