

Proposed Marketing Strategy Design During the Covid-19 Pandemic on Processed Noodle Products Using the SOAR and AHP Methods

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Submission date: 29-Apr-2023 11:06PM (UTC+0700)

Submission ID: 2079211762

File name: 321.pdf (1.59M)

Word count: 4922

Character count: 25207

Proposed Marketing Strategy Design During the Covid-19 Pandemic on Processed Noodle Products Using the SOAR and AHP Methods

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Abstract

This study aims to determine the factors that influence marketing strategies using the Strength Opportunity Aspiration Result (SOAR) matrix analysis and the Analytical Hierarchy Process (AHP). This method would apply to Mie Rajawali Business, one type of business that produces various types of noodles. The problem in this business is the decline in sales and the presence of competitors. It is due to several uncontrollable factors, such as the Covid-19 pandemic that has occurred globally, which has shaken Indonesia's economic stability and many businesses that have experienced sales cash flow problems, including the Mie Rajawali business. Soar matrix analysis consists of SA, OA, SR and OR. AHP is a method that can produce alternative options to speed up the decision-making process. Based on the calculations, the score obtained from the IFE matrix is 3.84, while the total score of the EFE matrix is 3.49. Where the result of the IE matrix is in a cell, I called the Grow and Built cell, where this cell is a growth and development strategy. Based on the calculation of the AHP method that has been carried out, the selected alternative strategy is obtained, namely the SA strategy, with a value of 0.49.

Keywords:

Marketing Strategy, IFE Matrix, EFE Matrix, SOAR, AHP

1. Introduction

Covid-19 is a worldwide pandemic that has shaken the economic stability of Indonesia & other countries. From data from the Ministry of Cooperatives & MSMEs, it is known that the MSME sector was shaken during the Covid-19 pandemic. This is because MSMEs usually occupy a strategic position in the economy, resulting in many businesses closing temporarily and experiencing cash flow problems. In response to this situation, the government is trying to establish an industrial economic policy system to offset capital shocks and production and sales systems due to disruptions in sales activities in certain areas. In this case it is necessary to carry out a marketing strategy that can restore the conditions of sales of products.

Marketing strategy is one way that can be a winner in competing continuously, be it for companies that produce goods or services (Iasoma, et al., 2021). In the development of marketing strategies that need to be applied, namely the product (product), price (price), place (place), and promotion (promotion). Although the quality of the product produced is good, if the product is not sold well, it will not provide a selling point for the product. Meanwhile, the industrial ecosystem has undergone major changes and MSME players need to adapt to competitors who are also changing.

This research was conducted on the Mie Rajawali business which is one type of business that produces various types of noodles. The problem that occurs in this business is the decline in sales and the presence of competitors. This business was founded by Mr. Agus in 2017 which is located at Jl. Rajawali, Gg. Gajus No. 68. The following is the sales data of the Mie Rajawali business: (Table 1 & Figure 1)

Table 1. Sales Data of Mie Rajawali Business

Period	2019	2020	2021
January	5481	5365	5017
February	5452	5249	5046
March	5800	5220	4930
April	5423	5352	4988
May	5568	5191	5046
June	5655	5220	4959
July	5539	5162	4930
August	5491	5133	4901
September	5597	5075	4988
October	5684	5220	4843
November	5655	5191	4785
December	5568	5249	4930
Total Sales (Kg)	66913	62627	59363
Decline (Kg)	-	4286	3264

The following is a sales chart of the Mie Rajawali business:

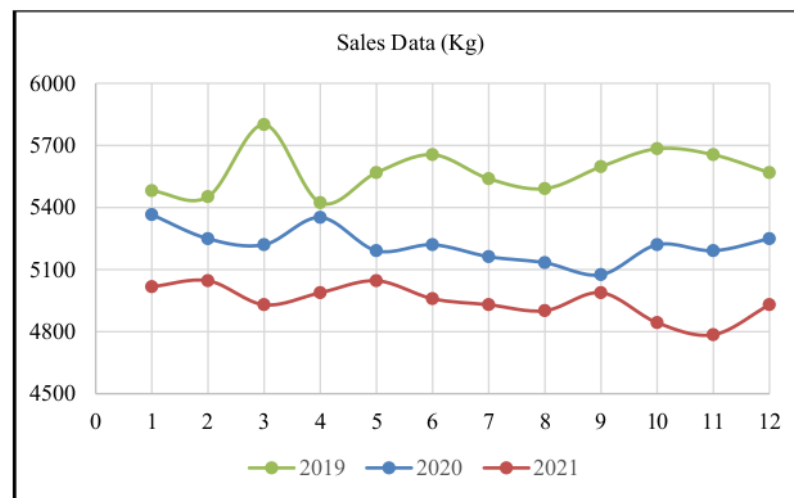


Figure 1. Sales Chart of Mie Rajawali Business

Based on Table 1. Sales data of Mie Rajawali Business and Figure 1. Sales Chart of Mie Rajawali Business, it can be seen that the sales of Mie Rajawalis have experienced the impact of ups and downs in sales. Where in 2019 Mie

Rajawalis were able to sell 66913 Kg. In 2020 sales decreased by 4286 Kg, so that sales became 62627 Kg. In 2021 sales decreased again by 3264 Kg, so that sales became 59363 Kg.

1 Objectives

The purpose of this study is to determine the factors that affect marketing strategies using SOAR matrix analysis then determine the priority weights and alternative strategies resulted by the SOAR matrix using the Analytical Hierarchy Process (AHP) method.

2. Literature Review

Marketing is the process by which customers are involved, creating good relationships with customers and creating value for them, to be able to get good feedback or value from customers and increase profits and fairness for them. One of the elements of marketing is the marketing mix which is a marketing variable to achieve sales goals. Elements of the marketing mix are known as 7p, namely: product, price, location, advertising, physical evidence, process and people (Hariyanti and Wirapraja, 2018). Developing and executing marketing strategies is at the core of what marketers do in practice, close research to understand these activities is key to establishing relevance from the academic discipline of marketing (Morgan, et al., 2019).

SOAR analysis techniques are used to develop strategies to explain strengths, opportunities, aspirations, and measurable outcomes (Keerin, et al., 2022). SOAR focuses on the formulation and implementation of positive strategies by identifying strengths, building creativity in the form of opportunities, encouraging individuals and teams to share aspirations, and measurable and the best results (Azhari and Taufik, 2019). SOAR analysis begins with analyzing the internal and external environment that occurs in the company (Chiu, 2018). The elements of SOAR consist of strengths, opportunities, aspirations and results (Fuadi, 2020). The situation and position of the company in the competition will be determined on the basis of the internal factors of the company and the external factors facing the company. To determine these conditions, a SOAR analysis diagram is needed (Hartuti and Rochdiani, 2021). (Figure 2)



Figure 2. SOAR Analysis Diagram

In making decisions, it is very difficult because it must be based on something that can support the right decision making needed in a company because if the wrong decision is made, the course of the company will be very dangerous and can make the company bankrupt, therefore decision making must be made (Dewi dan Putra, 2020). The Analytical Hierarchy Process (AHP) helps to solve complex problems into different simple criteria and criteria that are given weight according to their relative importance (Panchal and Shrivastava, 2021).

In the process of selection of an item among a number of alternatives, selection is carried out on the basis of a number of indicators called decision criteria. Decision criteria in energy systems include a variety of items of key important aspects, including technical, energy, and economic perspectives. If one alternative has the main values of all the decision criteria at the same time, it will be the best (Jafari, et al., 2022).

3. Methods

Research methodology is the systematic steps or stages that will be taken in the research process to collect the desired data or information with the object being studied. The following research flowchart is as follows Figure 3:

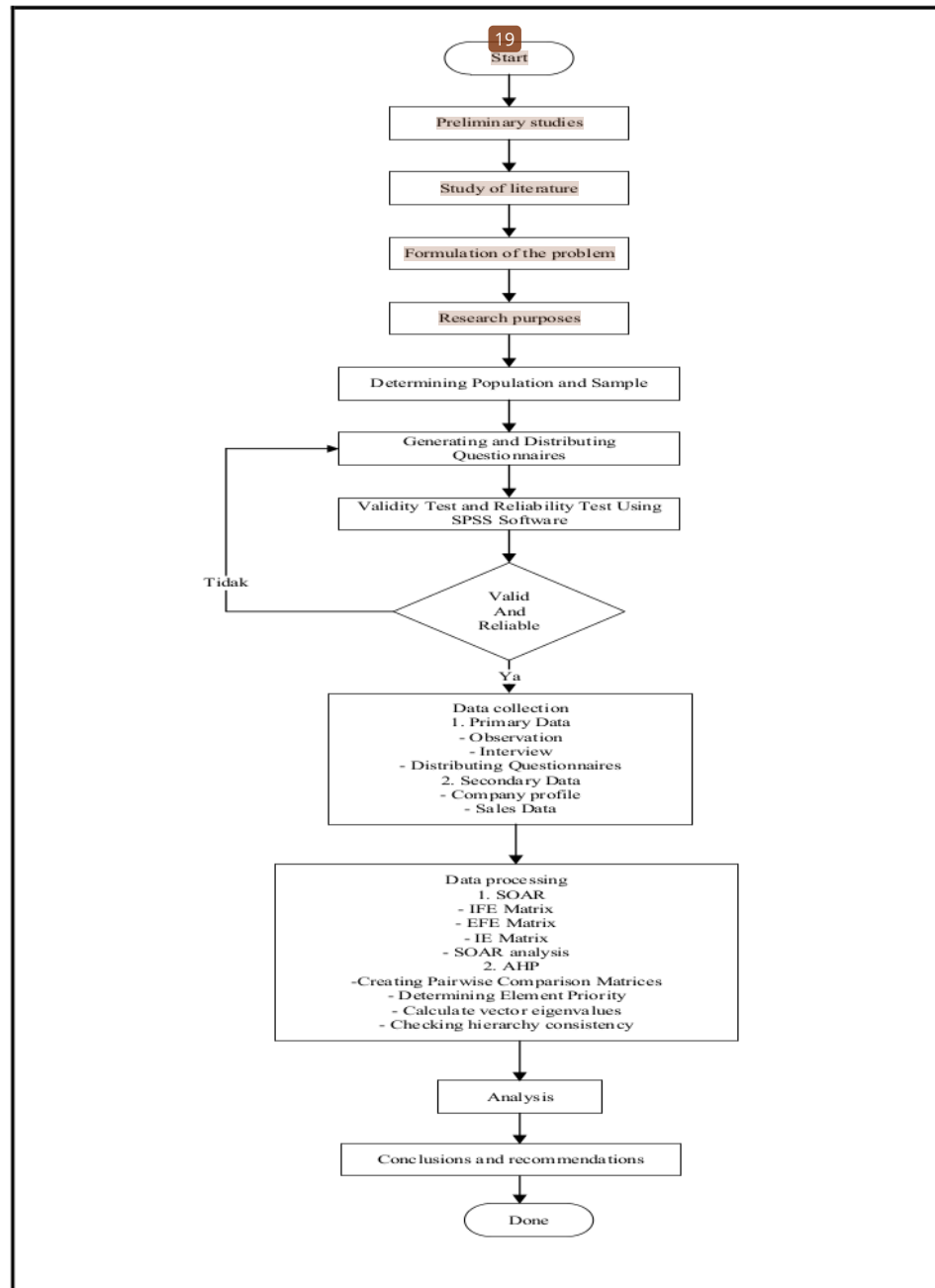


Figure 3. Flowchart

4. Data Collection

In this study, researchers participated in making direct observations, including sales data, production locations, and distributing SOAR and AHP questionnaires to 73 respondents from a sample of research that has been carried out on the Eagle Noodle business. Where the respondents from this study were addressed to Rajawali Noodle business owners, employees who work in the Rajawali Noodle business, merchants who sell Rajawali Noodle products, and customers or buyers of Rajawali Noodle products. After the questionnaire is distributed to the intended respondents, data is obtained from the respondents, then validity tests and reliability tests are carried out to determine the validity or suitability of the questionnaires used in measuring and obtaining research data from respondents. Validity and reliability tests were conducted using IBM SPSS Statistical 24 software.

4.1 Sales Data

The sales data used is sales data from 2019-2021. The following is a recapitulation of mie rajawali business sales data (Table 2)

Table 2. Sales Data of Mie Rajawali Business

Period	Sale (kg)	Sales Drop (kg)
2019	66913	-
2020	62627	4286
2021	59363	3264

4.2 Validity Test and Reliability Test

Validity tests and reliability tests were carried out to determine the validity or suitability of the questionnaires used in measuring and obtaining research data from respondents. Validity and reliability tests were conducted using IBM SPSS Statistics 24 software.

1. Validity Test and Internal Factor Reliability Test (Tables 3 & 4)

Table 3. Validity of Internal Factors

		N	%
Cases	Valid	6	100.0
	Excluded ^a	0	.0
	Total	6	100.0

Based on the results of the SPSS above, it can be seen that the questionnaire statement is 100% valid with an N value of 6.

Table 4. Reliability of Internal Factors

Reliability Statistics	
Cronbach's Alpha	N of Items
0.961	8

It can be seen in Table 7. above that this research questionnaire can be declared reliable or reliable because the value of Cronbach's Alpha internal factor is 0.961 where the number of statements is 8 statements.

2. Validity Test and External Factor Reliability Test (Tables 5 & 6)

Table 5. Validity of External Factors

		N	%
Cases	Valid	73	100.0
	Excluded^a	0	.0
	Total	73	100.0

Based on the SPSS results above, it can be seen that the questionnaire statement is 100% valid with an N value of 73.

Table 6. Reliability of External Factors

Reliability Statistics	
Cronbach's Alpha	N of Items
0.842	10

If the value of Cronbach's Alpha > 0.6 then the questionnaire can be said to be reliable. Based on Table 4.5 above, this research questionnaire was declared reliable because the value of Cronbach's Alpha internal factor was 0.842 where the number of statements was 10 statements.

5. Results and discussion

5.1 SOAR (Strength, Opportunity, Aspiration and Result)

Analyzing the internal and external factors of a company is an important stage in the SOAR matrix method for determining marketing strategy. Analysis of the internal environment to determine the strengths and aspirations of the Mie Rajawali business. This analysis was carried out by identifying several aspects that affect the business ventures of Mie Rajawali. Marketing is the process by which consumers are engaged, creating good relationships with customers and to get feedback to increase business profits. Marketing is an effort to introduce its products to consumers. Based on the results of an interview with the owner of the Mie Rajawali business, the financial resources used for this business activity come from personal capital starting from this business running until now. The marketing mixes on the part of the Mie Rajawali business has almost been fulfilled, such as the quality of the product is good without using preservatives, the price set is affordable so that it can compete and survive in the market and a location that can be considered strategic. However, the promotion has not been maximized. External environment analysis is used to find out the opportunities and results to be achieved by the Mie Rajawali business. This analysis is carried out by identifying several aspects that are a threat if they cannot be accurately predicted and can be an advantage if they get the right treatment. Some of the influencing aspects are competition. The Mie Rajawali business always tries to improve product quality in order to compete with competitors, namely Mie Musbar. Where Musbar Noodles is better known in the market because it has been established since 1962. Therefore, the Mie Rajawali business must not remain silent because there are these competitors. With the development of technology, the Mie Rajawali business must strive to take advantage of new technology that is faster than its competitors. In the era of technology, business actors can market their products online so that they are better known to many people and can learn to improve the skills of various sites on the internet. The stages that will be carried out on the SOAR matrix are as follows: 5.1.1 Internal Factor Evaluation (IFE) Matrix This matrix is used to identify and evaluate how big the role of internal factors contained in the Mie Rajawali business. These internal factors are in the form of strength and aspiration. It will be calculated ratings, weights and scores on these internal factors.

5.1.1 Internal Factor Evaluation (IFE) Matrix

This matrix is used to identify and evaluate how big the role of internal factors contained in the Mie Rajawali business, these internal factors are in the form of strength and aspiration. Where will be calculated ratings, weights and scores on these internal factors (Table 7).

Table 7. Recapitulation of Internal Factors Scores

NO	Faktor Internal	Average		Score
		Rating	Weight	
Strength				
1	Products do not use preservatives	4.5	0.13	0.58
2	Products have price variations	4.1	0.12	0.49
3	Has several types of noodles	4.1	0.12	0.49
4	Raw materials are easy to find	3.6	0.11	0.39
5	Strategic Mie Rajawali business location	3.5	0.10	0.35
Aspiration				
6	Get a discount if you buy in large quantities	4.5	0.13	0.58
7	Products can compete in the market	4	0.12	0.44
8	Product sales can be expanded if you do promotions to the maximum	4.1	0.12	0.52
Total			1.00	3.84

(Source: Data Processing, 2022)

5.1.2 External Factor Evaluation (EFE) Matrix

This matrix is used to identify and evaluate the external factors of Mie Rajawali's business, where the external factors are in the form of opportunities and results (Table 8).

Table 8. Recapitulation of External Factors Scores

NO	Faktor Internal	Average		Score
		Rating	Weight	
Opportunitie				
1	Market segments are many and wide	3.6	0.09	0.32
2	Most people like noodles	3.7	0.10	0.37
3	Consumers increase during ramadan	3.7	0.10	0.37
4	Government support in developing community businesses	3.7	0.10	0.37
Result				
5	Guaranteed product quality	3.7	0.09	0.33
6	Mutual benefit between parties	3.7	0.09	0.33
7	Maintains the taste of the product	3.7	0.09	0.33
8	Effective promotion strategy	3.7	0.10	0.37

9	Product quality improvement	3.7	0.09	0.33
10	Can compete with competitors	3.7	0.10	0.37
Total			1.00	3.49

(Source: Data Processing, 2022)

5.1.3 External Internal Matrix (IE)

The IE matrix is a combination of the IFE and EFE matrices, (Figure 4) where this matrix consists of 29 imensions, namely on the X axis, the total score of the IFE matrix while the score on the EFE matrix is located on the Y axis. Where the result of the IE matrix is in cell, I called the Grow and Build cell where this cell is a growth and development strategy (Figure 4).

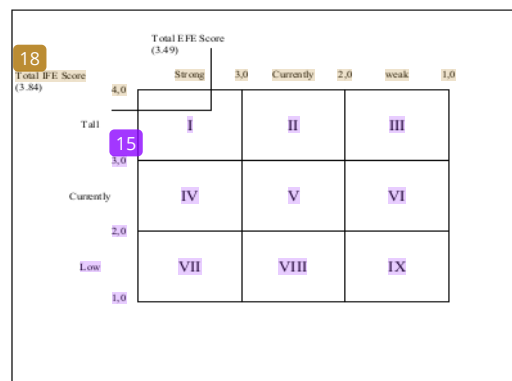


Figure 4. IE Matrix

5.1.4 SOAR Analysis

The SOAR matrix is used to bring together strategic factors that describe how strengths and opportunities will be adjusted to measurable aspirations and outcomes. Based on the SOAR matrix, there are several alternative strategies, namely SA, OA, SR, OR. (Table 9)

Table 9. SOAR Matrix Analysis of Rajawali Noodle Business

Faktor Internal Faktor External	Strength (S)	Opportunities (O)
	1. The product does not use preservatives 2. Products have price variations 3. Has several types of noodles 4. Raw materials are easy to find 5. Strategic Mie Rajawali business location	1. Market segments are many and wide 2. Most people like noodles 3. Consumers increase during ramadan 4. Government support in developing community businesses
Aspirations (A)	Strategi SA	Strategi OA
1. Get a discount if you buy in large quantities	1. This Mie Rajawali business does not use preservatives so that	1. The market segment is many and wide, most of them like

2. Products can compete in the market 3. Product sales can be expanded if you do promotions to the maximum	product quality is maintained so that it can survive in the market 2. Products have several price variations to make it easier for consumers to buy as desired and will get discounts in many purchases 3. Product sales can be expanded by utilizing the strategic Business location of mie Rajawali by promoting optimally	noodles with good taste so that the product can compete in the market 2. Consumers increase during Ramadan and will get discounts on many purchases 3. With the support of the government, business owners can take advantage of this opportunity by expanding and developing businesses
Result (R)	Strategi SR	Strategi OR
1. Guaranteed product quality 2. Mutual benefit between parties 3. Maintains the taste of the product 4. Effective promotion strategy 5. Product quality improvement 6. Can compete with competitors	1. The product does not use preservatives so that the quality is guaranteed to be safe and maintains the taste of the product 2. Products have a variety of prices so that consumers can buy according to their needs so that consumers prefer to buy at the Mie Rajawali business compared to competitors. Because competitors set product prices	1. The existence of many and wide market segments, business owners can utilize marketing strategies effectively 2. Most people like noodles if the taste is maintained

(Source: Data Processing, 2022)

5.2 Analytical Hierarchy Process (AHP)

The AHP method can produce more consistent results and what is produced is based on the ranking of each available alternative. The alternative is based on the SOAR matrix that has been obtained

5.2.1 Recapitulation of AHP Questionnaire Respondent Data

The AHP questionnaire was distributed to the owners and employees of the Mie Rajawali business as many as 6 respondents. Based on the questionnaire that has been distributed, the results or data of respondents can be seen in Table 10. recapitulation of respondent data below:

Table 10. Recapitulation of Respondent Data

Criterion	Large Number of Respondents							Criterion
	R1	R2	R3	R4	R5	R6	Average	
SA	5	3	7	5	3	5	4.67	OA
SA	4	1/3	6	3	1/3	3	2.77	SR
SA	1/5	1/3	5	7	1/5	7	3.28	OR
OA	5	1	1/3	5	3	5	3.22	SR
OA	3	1/3	3	1/3	5	1/3	1.99	OR
SR	5	1/5	3	1/5	5	1/3	2.28	OR

(Source: Data Processing, 2022)

5.2.2 Determining the Priority Criteria

After recapitulation of the questionnaire data, the next step is to make a pairwise comparison matrix where the data obtained is the average of the recapitulation results, namely by summing the values of each row then divided by the number of respondents. (Table 11)

Table 11. Matrix of Comparison paired Criteria

Criteria	SA	OA	SR	OR
SA	1.00	4.67	2.77	3.28
OA	0.21	1.00	3.22	1.99
SR	0.36	0.31	1.00	2.28
OR	0.3	0.83	0.44	1.00
Total	1.87	6.81	7.43	8.55

(Source: Data Processing, 2022)

5.2.3 Creating a Matrix of Criteria Values

After creating the comparison matrix in pairs, the next step is to create a matrix of criteria values by dividing the values of each column by the totals on each column in Table 14. matrix of comparison paired criteria the following is a matrix of criteria values as follows: (Table 12)

Table 12. Matrix of Criteria Values

Criteria	SA	OA	SR	OR	Total	Weight
SA	0.53	0.68	0.37	0.38	1.97	0.49
OA	0.11	0.14	0.43	0.23	0.92	0.23
SR	0.19	0.04	0.13	0.26	0.63	0.16
OR	0.16	0.12	0.06	0.11	0.45	0.11

(Source: Data Processing, 2022)

5.2.4 Calculating Hierarchy Consistency

Calculate hierarchy consistency to see how good consistency [28](#) because it doesn't want to decide with inconsistent judgments. Calculates hierarchy consistency by measuring consistency index (CI), consistency ratio (CR) values. (Table 13)

Table 13. Consistency Ratios

	Number of Inlines	Weight	Sum
SA	2.39	0.49	2.88
OA	1.07	0.23	1.3
SR	0.67	0.16	0.83
OR	0.52	0.11	0.63
Total			5.64

(Source: Data Processing, 2022)

n (Number of criteria) = 4

$$\lambda_{\max} = \frac{\text{Sum}}{n}$$

$$\begin{aligned}
 &= \frac{5.64}{4} \\
 &= 1.41 \\
 \text{CI} &= \frac{\lambda_{\max} - n}{n-1} \\
 &= \frac{1.41 - 4}{4 - 1} \\
 &= \frac{-2.59}{3} \\
 &= -0.86 \\
 \text{CR} &= \frac{\text{CI}}{\text{RI}_n} \\
 &= \frac{-0.86}{0.90} \\
 &= -0.95
 \end{aligned}$$

The consistency ratio of the calculation results above is – 0.95, with the provision that the $\text{CR} < 0.1$. Then the consistency ratio is acceptable, or the hierarchy results are consistent.

5.2.5 Determination of Ranking Criteria

After doing the calculations above, a ranking of which criteria will be selected is carried out to determine which strategy to use. The following is Table 14. determination of the ranking criteria as follows:

Table 14. Determination of Ranking Criteria

NO	Criteria	Rangking
1	SA	0.49
2	OA	0.23
3	SR	0.16
4	OR	0.11

(Source: Data Processing, 2022)

Based on Table 14. determination of ranking criteria above, it shows that the SA criterion is the most important criterion compared to the OA, SR and OR criteria with a number of 0.49, the OA criterion with the number of 0.23, the SR criterion with the number of 0.16 and the OR criterion with the number of 0.11

6. Conclusion

In the Internal factor Evaluation (IFE) matrix, the Mie Rajawali business has the strength of the product not using preservatives. The product has price variations, various types of noodles, raw materials that are easy to find and a strategic location. Meanwhile, the aspiration of getting a discount if you buy in large quantities, the product can compete in the market, and product sales can be expanded if you promote it optimally. In the External Factor Evaluation (EFE) matrix, the Mie Rajawali business has opportunities that can be utilized, namely a large and wide market segment, most people in general like noodles, consumers increase during Ramadan and government support in developing community businesses. Meanwhile, the results expected by the Mie Rajawali business are guaranteed product quality, mutual benefit, maintaining product taste, effective promotion strategies, improving product quality,

and being able to compete with competitor²³ based on the determination of the IE matrix that has been carried out, it can be seen that the total score of the IFE matrix is 3.84, while the total score of the EFE matrix is 3.49. Where the result of the IE matrix is in a cell, I called the Grow and Built cell, where this cell is a growth and development strategy. Soar matrix analysis consists of SA, OA, SR and OR.

Based on the calculation of the Analytical Hierarchy Processes (AHP) method that has been carried out, the selected alternative strategy was obtained, namely the SA strategy, with a value of 0.49.

References

- Azhari, B., & Taufik, T. Strategy Formulation of Smart Logistics Development in A National Logistics Company. In *Conference: The 3rd International Conference on Management of Technology, Innovation, and Project (MOTIP 03)*² July 2021.
- Aziza, Julinia Nur Aziza. Perbandingan Metode Moving Average, Single Exponential Smoothing, dan Double Exponential Smoothing Pada Peramalan Permintaan Tabung Gas LPG PT Petrogas Prima Services. *Jurnal Teknologi dan Manajemen Industri Terapan*, 1.1, 35-41, 2022.
- Chiu, C. Analisis Strategi Soar Pt. Xyz Dalam Meningkatkan Penjualan Bahan Baku Kimia Untuk Industri Tekstil, Kayu, Pakaian¹⁰ dan Deterjen. *Jurnal Manajemen Bisnis dan Kewirausahaan*, 2(2), 2019.
- Dewi, N. K., & Putra, A. S. Decision Support System for Head of Warehouse Selection Recommendation Using Analytic Hierarchy Process (AHP) Method. In *International Conference Universitas Pekalongan*. Vol. 1, No. 1, pp. 43-50, 2021.
- Fajri, M., Regasari, R., Putri, M., Muflikhah, L., Informatika, T., & Brawijaya, U. Implementasi Metode Fuzzy Analytic Hierarchy Process (F-AHP) Dalam Penentuan Peminatan di MAN 2 Kota Serang. *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer e-ISSN*, 2548, 964X, 2018.
- Fuadi, A. Analisis Strategi SOAR Balai Diklat Aparatur Kementerian Kelautan dan Perikanan Menuju Corporate University. *Journal of Civics and Education Studies*, 7(1), 2020.
- Hariyanti, N. T., & Wirapraja, A. (2018). Pengaruh influencer marketing sebagai strategi pemasaran digital era moderen (Sebuah studi litera²¹). *Eksekutif*, 15(1), 133-146, Surabaya, Juni 2018.
- Hartuti, R. F., & Rochdiani, D. Perancangan Strategi Pemasaran Irt Keripik Ubi Cilembu Cihuy Chips Menggunakan²⁷ Soar Strategic Soar Strategic for Marketing Strategy Design Of Cihuy Chips Home Industry. *Jurnal Pemikiran Masyarakat Ilmiah¹ Pervawasan Agribisnis. Januari*, 7(1), 320-330, 2021.
- Jafari, S., Aghel, M., Sohani, A., & Hoseinzadeh, S. Geographical preference for installation of solar still water desalination technologies in Iran: an analytical hierarchy process (AHP)-based answer. *Water*, 14(2), 265, 2022.
- Keerin, K., Konthong, N., Samathi, S., & Klueankan, S. The potential in developing bo saen community-based ecotourism: an analysis using the soar model. *International Conference of Business and Social Sciences*, pp. 1205-1212, April 2022.
- Morgan, N. A., Whitler, K. A., Feng, H., & Chari, S. Research in marketing strategy. *Journal of the Academy of Marketing Science*, 47(1), 479, 2019.
- Panchal, S., & Shrivastava, A. K. Landslide hazard assessment using analytic hierarchy process (AHP): A case study of Natic¹¹ Highway 5 in India. *Ain Shams Engineering Journal*, 13(3), 101626, 2022.
- Permata, Ekie Gilang, et al. Analisa Strategi Pemasaran Dengan Metode BCG (Boston Consulting Group) dan Swot. *SITEKIN: Jurnal¹² s, Teknologi dan Industri* 17(2), 92-99, 2020.
- Rizki, Muhammad, et al. Determining Marketing Strategy at LPP TVRI Riau Using SWOT Analysis Method." *Journal of Applied Engineering and Technological Science (JAETS)* 3.1 (2021): 10-18.
- Rizki, Muhammad, et al. Comparison of Four²⁶ e Series Forecasting Methods for Coal Material Supplies: Case Study of a Power Plant in Indonesia. *International Congress of Advanced Technology and Engineering (ICOTEN)*. IEEE, 2021.

Biography

Harlen Sandila was born in Merangin on March 6, 2000, the son of a father named Suhaimi and a mother named Rosmani. The author is the seventh of 7 children. As for the author's journey in the level of studying science, the author has attended formal education in 2006 entering the State Elementary School 010 Pulau Terap II and completing his elementary school education. In 2012 entered Madrasah Tsanawiyah Negeri 1 Kampar and completed his MTsN education. In 2015 entered Madrasah Aliyah Negeri 1 Kampar and completed his MAN

education. In 2018, he was enrolled as a student of Sultan Syarif Kasim State Islamic University at Fakultas Sains and Technology, majoring in Industrial Engineering.

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