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## Application of Quantitative Strategic Planning Matrix (QSPM) For Determination of Alternative Strategies in Food and Beverage SMES in Bogor Indonesia

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**Abstract** This study aims to Identify what internal factors are the strengths of weaknesses and what external factors are opportunities and threats to develop a food and beverages company business in Bogor. Knowing the right marketing strategy to develop a food and beverages business committee in Bogor based on a SWOT analysis. Knowing the right alternative strategy based on QSPM analysis. This research is a qualitative descriptive study. This research was conducted at the food and beverage company in Bogor. Data was collected using observation techniques, questionnaires. The results showed that after obtaining internal and external factors then processed using the SWOT matrix. Food and beverage company in Bogor is in quadrant I, which means companies with high market growth and strong competitive position, on the results of SWOT matrix analysis with an effective quantitative formulation analysis model that is SO strategy, uses strength to take advantage of various opportunities (opportunities) then the implementation of the SO strategy is Maintaining price and quality to remain a consumer choice. Add more outlets in strategic locations such as being close to schools, factories and crowd centers so that products are better known to the public. Based on the results using the QSPM method that the alternative strategy that is in accordance with the current conditions is product development

**Keywords** SWOT, QSPM, Development, Strategy, Marketing

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### Introduction

The culinary industry is increasingly widespread in Indonesia. Data from the Republic of Indonesia's Creative Economy Agency (Bekraf) notes that the culinary sub-sector contributed 41.4 percent of the total creative economy's contribution to Rp 922 trillion in 2016. This is the highest compared to 16 other subsectors in Bekraf RI. Culinary is one of the pillars in the creative industry. Of 8.2 million creative industry units, 68 percent are engaged in the culinary industry. One business that continues to grow and is in high demand is the culinary or food business. Because food and drinks are the basic needs of every individual that is needed every day, this culinary business also has many categories, ranging from snacks (snacks), drinks, to staple foods. All types in this culinary business (meals, drinks, staples) have excellent potential, depending on how we market it.

A culinary business is a business opportunity that is quite promising and profitable even though it must start with small capital. Still, if you have the right ideas and strategies, the business that you live will flourish. Many people find it challenging to start a business or business just because of limited capital. But apparently, the role of money as venture capital only contributes around 10% to guarantee the success of the company to be run. The food business must choose a place where the environment is busy and has a high purchasing power. Examples of the ideal food business locations are campus areas, offices, terminals, and tourist areas.



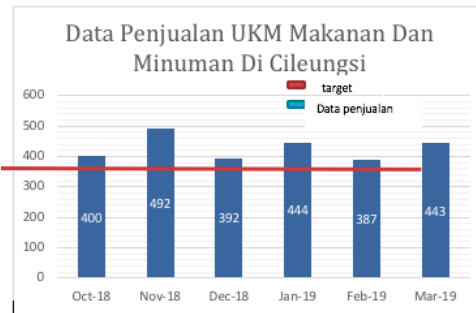


Figure 1: Data on Sales of Food and Beverage SMEs in Cileungsi

Figure 1 Data on Sales of Food and Beverage SMEs in Cullinan

The data in Figure 1 explains that:

- In October 2018 the sale of Food and Beverage UKM in Cullinan received 400 kg from the achievement target of 400 kg
- In November 2018 the sales of Food and Beverage SMEs in Cullinan have increased from the previous month and got 492 kilograms from the achievement target of 400kg
- In December 2018 sales of Food and Beverage SMEs in Cullinan have decreased from the last month and got 392 kilograms from the achievement target of 400 kg
- In January 2019 sales of Food and Beverage SMEs in Cullinan have increased from the last month and got 444 kilograms from the achievement target of 400kg
- In February 2019 the sales of Food and Beverage SMEs in Cullinan have decreased from the last month and got the results of 387 kg from the achievement target of 400kg
- In March 2019 sales of Food and Beverage SMEs in Cullinan have increased from the previous month and got 443 kilograms from the achievement target of 400 kg

Food and Beverage UKM in Cullinan has a sales target of 400kg per month. If seen from the sales data above for the past six months, monthly sales of Food and Beverage SMEs in Cullinan have tended to be unstable and several times decreased sales. However, from the last six months, the sales of Food and Beverage UKM in Cullinan fell not too significant.

In her research, Laura and Caroline (2017) concluded that by undertaking a business improvement strategy using the SWOT method could analyze an alternative approach based on the results of the analysis of internal strengths and weaknesses with external opportunities and threats.

Food and beverage company as one of the businesses in the food sector does not currently have the right strategy to develop and face various existing competition. Therefore, it is necessary to conduct research studies on the business development strategy of UKM Food and Beverage in Cullinan to find out what policies and alternatives are right for increasing business in Macaroni to increase sales that reach predetermined targets.

### Materials and Methods

The tool used to develop strategies is the SWOT matrix. SWOT analysis is used to find out what plans are used after seeing the strengths, weaknesses, opportunities, and threats that the industry has. The SWOT analysis begins with identifying positive aspects, namely strengths and negative aspects, namely, weaknesses of the internal organization. While from external organizations, opportunities and threats are identified. The tool used to develop strategies is the SWOT matrix. The matrix clearly illustrates the opportunities and external threats they face are adjusted to their strengths and weaknesses. After determining what method to use, the next step in conducting this research is to analyze various internal and external factors that influence business development.

The following are the steps in conducting an IFAS analysis:

- Identify and write it down in column 1, about strengths and weaknesses.
- Determine the weight of each strength factor by the numbers 4 (very important), 3 (important), 2 (important enough), 1 (not important) while weaknesses 1 (very important), 2 (important), 3 (important enough) , 4 (not important). The greater the weight, the greater the priority of these factors for brick artisans.



- c. In the aspect of strengths and weaknesses using a scale of 0 - 1. Each aspect gets the highest score of 0.5. So the best formulation is 0.5 divided by number 10. Here are the best weighting and rating calculation formulation.
- d. Multiply each weight by its ranking to get the weighted score to be written in column 4.
- e. Add all the weighted scores so that the total weighted scores are obtained then the results are in the last row of the 4th column. The weighted total score has an interval from 4.0 (very good) to 1.0 (bad).

Following are the steps in conducting an EFAS analysis:

- a. Identify and write it down in column 1, about opportunities and threats.  
Establish the ranking level in column 3 for each opportunity factor with the numbers 4 (very important), 3 (important), 2 (important enough), 1 (not important) while threat 1 (very important), 2 (important), 3 (sufficient important), 4 (not important). Each rank is an analytical study of how well the craftsman can respond and overcome any external factors.
- b. Determine the weight of each factor in column 2, starting from 1.0 (most important) to 0.0 (not important). All total weights must be 1.0. the greater the weight, the greater the priority of the factor.
- c. In the aspect of opportunity and threat using a scale of 0 - 1. Each aspect gets the highest score of 0.5. So the best formulation is 0.5 divided by 10.
- d. Multiply each weight by its ranking to get the weighted score to be written in column 4.
- e. Add all the weighted scores so that the total weighted scores are obtained then the results are in the last row of column 3. The weighted total score has an interval from 4.0 (very good) to 1.0 (bad).

#### QSPM Steps:

1. Compile a list of external keys (opportunities and threats) and a list of private keys (strengths and weaknesses) of the company in the left column of QSPM. The information was obtained from IFE and EFE Matrix
2. Give weight to each critical factor for internal and external success, and this value is the same as the weight on the IFE and EFE Matrix.
3. Determine and identify alternative strategies that can be implemented, write in the first line of QSPM.
4. Determine Attractiveness Scores (AS) as a numerical value that shows the relative attractiveness of each alternative strategy. The US is determined by counting each of the critical internal and external factors at one time.
5. Calculate the total AS (TAS) by multiplying each weight by each AS. TAS shows the relative attractiveness of each alternative strategy.
6. Calculate the average Total Attractiveness Scores, enter the TAS in each strategy column. The average value of TAS shows the most attractive strategy. Alternative strategies with the highest number of TAS scores are the best alternative strategies, where external opportunities are large enough to be exploited using the company's current strengths and weaknesses.

#### Results & Discussion

Based on the results of IFAS Analysis, it can be seen that the strength factor which weights 0.4 ratings three and a weighted score of 1.2 is a lower price than competitors, product packaging uses plastic clips and has a different flavor identity, always providing a fun service, getting the same results, namely a weight of 0.2 ratings three and a weighted score of 0.6. Lower prices compared to competitors become a strength for the food and beverage company in Bogor. For future business development. The IFAS matrix also shows the various weaknesses of the food and beverage company in Bogor. The weakness factor is not using the marketplace with a weight of 0.2 ratings one and a weighted score of 0.2; inadequate place facilities get a weight of 0.1 rating 2 and a weighted score of 0.2, a very narrow parking lot and less well-known brands get results that the same is weight 0.2 rating 2 and score weight 0.4, the last menu variants and flavors lacking 0.3 weight rating 3 and a weighted score 0.9. The results of the IFAS matrix analysis in the food and beverage company in Bogor, which covers all internal factors (strengths and weaknesses), namely with a total score of 5.1, which means that the food and beverage company in Bogor has strong strengths and can be utilized to increase business.



Based on the results of the EFAS analysis it can be seen that the chance factor for repeat orders from consumers has a weight rating of 0.4 ratings four and a weighted score of 1.6 this factor gets the highest value compared to other chance factors, no competitors around the outlet get a weight of 0.2 ratings two and score weighting 0.4, the product being favored by the public gets a weight rating of 0.2 ratings three and a weighting score of 0.6, and most recently a strategic outlet location gets a weight rating of 0.2 ratings four and a weighting score of 0.8. The factor of having repeat orders getting the highest value is an opportunity for the food and beverage company in Bogor for future development. The threat factor for consumers can switch to get a weight of 0.3 ratings two and a weighted score of 0.6, the price of raw materials can rise at any time get a weight of 0.1 ratings two and a score of 0.2 more innovative competitors get a weight of 0.4 ratings one and a weighted score of 0.4, and the competitor's brand is more attached to get a weight of 0.2 ratings two and a weighted score of 0.4.

The results of the EFAS matrix analysis on the food and beverage company in Bogor that includes all external factors (opportunities and threats), with a score of 4, means that the food and beverage company in Bogor has substantial opportunities and threats so that the owner is expected to continue to develop his business in order to remain competitive well.

The SWOT matrix is one way to obtain alternative strategies by combining each of the factors, namely the SO (strengths-opportunities) strategy, the WO (weaknesses-Opportunities) strategy, the ST (strengths-threats) strategy, the WT (weaknesses-threats) strategy. From the results of the study, the Strategy of the SWOT matrix on food and beverage companies in Bogor are:

a. SO Strategy

SO Strategy is a strategy produced from a perspective that companies or business units can use the strengths they have to take advantage of opportunities. SO strategies for food and beverage companies in Bogor are:

1. Maintain price and quality in order to remain the choice of consumers.
2. Add more outlets in strategic locations while maintaining service quality so that products are better known to the public.
3. Maintaining a different taste identity so that the product is popular with the public.

b. ST Strategy

ST Strategy is a strategy that is produced from a perspective that a company or business unit can use the strengths they have to avoid various threats. ST strategy for food and beverage companies in Bogor, namely:

1. Always look innovative so that you can continue to compete with competitors.
2. Choosing the best raw materials to maintain product quality.
3. Continue to provide excellent services so that consumers do not turn to competitors.

c. WO Strategy

WO Strategy is a strategy that is produced from a perspective that companies or business units can take advantage of opportunities (opportunities) that exist to overcome weaknesses (weaknesses). The WO strategy for the food and beverage company in Bogor is:

1. Add product menus and flavors, so consumers are satisfied and repeat orders.
2. Selling products on the marketplace to facilitate consumers in getting products.
3. Making proper parking, so consumers feel comfortable.

d. WT Strategy

WT strategy is a strategy that is defensive and aims to minimize all weaknesses and threats. The WT strategy for the food and beverage company in Bogor is:

1. Always innovative in making the latest product variants so that consumers remain satisfied.
2. Expanding marketing with online media to be better known to the public.
3. Improve facilities so that consumers feel comfortable.



**Table 1:** SWOT Matrix

<p><b>INTERNAL FACTOR</b></p>	<p><b>Strength (S)</b></p> <ol style="list-style-type: none"> <li>1. The price is lower than competitors</li> <li>2. Product packaging uses plastic clips to make it easier for consumers to store</li> <li>3. Have a different taste identity</li> <li>4. Always provide pleasant service</li> </ol>	<p><b>Weaknesses (w)</b></p> <ol style="list-style-type: none"> <li>1. Not yet using the marketplace</li> <li>2. Inadequate place facilities</li> <li>3. The very narrow parking lot</li> <li>4. A variant of menus and flavors that are lacking</li> <li>5. The brand is less well known</li> </ol>
<p><b>EXTERNAL FACTOR</b></p> <p><b>Opportunity (o)</b></p> <ol style="list-style-type: none"> <li>1. The existence of repeat orders from consumers</li> <li>2. There are no competitors around the outlet</li> <li>3. Products are popular with the community</li> <li>4. Strategic outlet location</li> </ol>	<p><b>SO STRATEGY</b></p> <ol style="list-style-type: none"> <li>1. Maintaining price and quality in order to remain the choice of consumers. (S1, O2)</li> <li>2. Add more outlets in strategic locations while maintaining service quality so that products are better known to the public (S4, O2, O3)</li> <li>3. Maintaining a different taste identity so that the product is popular with the community (S3, O3)</li> </ol>	<p><b>WO STRATEGY</b></p> <ol style="list-style-type: none"> <li>1. Adding menu and product taste so that consumers are satisfied and repeat orders. (W4, O1)</li> <li>2. Selling products on marketplace to make it easier for consumers to get products (W1, O3)</li> <li>3. Make proper parking so consumers feel comfortable (W3, O3, O4)</li> </ol>
<p><b>Threats (t)</b></p> <ol style="list-style-type: none"> <li>1. Consumers can switch to competitors' products</li> <li>2. The price of raw materials can rise at any time</li> <li>3. Competitors are more innovative</li> <li>4. Brand competitors are more inherent in society</li> </ol>	<p><b>ST STRATEGY</b></p> <ol style="list-style-type: none"> <li>1. Always appear innovative in order to continue to compete with competitors (S2, T3, T4)</li> <li>2. Choosing the best raw materials to maintain product quality (S3, T1, TS)</li> <li>3. Continue to provide good service so that consumers do not turn to competitors (S4, T1, T4)</li> </ol>	<p><b>WT STRATEGY</b></p> <ol style="list-style-type: none"> <li>1. Always innovative in making the latest product variants so consumers remain satisfied (W4, T3, T1)</li> <li>2. Expanding marketing with online media to be better known to the public (W1, W5, T1)</li> <li>3. Improve the facilities so that consumers feel comfortable (W2, T1)</li> </ol>

Based on IFAS matrix analysis of the food and beverage company in Bogor, it was obtained that the score for the strength factor was 3 and the score for the weakness factor was 2.1. Meanwhile, based on the EFAS matrix



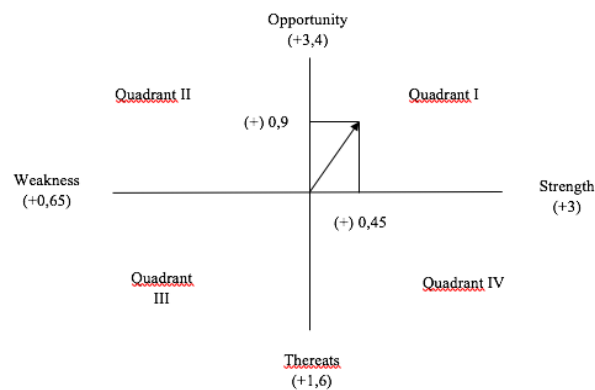
analysis of the food and beverage company in Bogor, the score for the opportunity factor is 3.4 and the score for the threat factor is 1.6.

To determine the difference in score scores, the next step is to use the formula  $\frac{(S-W)}{2}$  for internal factors,  $\frac{(O-T)}{2}$  for external factors. The following are the results of the difference between the scores of internal factors and external factors.

**Table 2:** Differences in score

Factor	Score	Result
<b>Internal</b>		
Strength	3	+0,45
Weakness	2,1	
<b>External</b>		
Opportunities	3,4	+0,9
Threats	1,6	

From the results of the identification of all internal and external factors and the determination of the difference in score. Internal factors get +0.45 results, and external factors get +0.90 results. then described in the grand strategy matrix



*Figure 2: Matrix Grand Strategy*

In Figure 2, the Grand Strategy Matrix of food and beverage companies in Bogor is in quadrant I, in the quadrant, I represent companies with high market growth and strong competitive positions. Companies in this quadrant have an excellent position. For this company, continuing to concentrate on the current market (market penetration and market development) and current products (product development) are appropriate strategies.

**Table 3:** Quantitative Strategy combination

Internal Factor External Factor	Strength (S)	Weaknesses (w)
Opportunity (o)	SO STRATEGY = 3 + 3,4 = 6,4	WO STRATEGY = 2,1 + 3,4 = 5,5
Threats (t)	ST STRATEGY = 3 + 1,6 = 4,6	WT STRATEGY = 2,1 + 1,6 = 3,7

The combination of strategies presented in table 3 is a quantitative model analysis of strategy formulation based on the total score on each factor and each strategy for SO, WO, ST, and WT strategies. Based on the table, the food and beverage committee in Bogor should utilize the SO strategy because it has the highest score of 6.4 compared to other strategies. Then followed by the WO strategy with a value of 5.5, ST strategy with a value of 4.6, and finally, the WT strategy with a value of 3.7. In the results of the SWOT matrix analysis with quantitative model analysis to get an adequate formulation of SO strategies, by using strengths to take advantage of opportunities, the implementation of SO strategies is (1) Maintaining price and quality in order to remain the



choice of consumers. (2) Add more outlets in strategic locations so that the product is better known to the public.

QSPM is a recommended tool for strategists to objectively evaluate alternative strategy choices, the assessment on the QSPM matrix is the same as the IFE and EFE matrices with a scale of 1-4 where the higher value indicates that the strategy is in accordance with company conditions. The following are the results of the QSPM matrix assessment.

**Table 4: QSPM Internal Factor**

Matrix QSPM		Market Development		Product Development		Total TAS Value
Internal Factors	Integrity	AS	TAS	AS	TAS	
<b>Strength</b>						
Low price	0,4	1	0,4	4	1,6	2
Product packaging	0,2	4	0,8	4	0,8	1,6
Taste Identity	0,2	3	0,6	4	0,8	1,4
Service	0,2	3	0,6	4	0,8	1,4
<b>Weakness</b>						
Not Using Marketplace	0,2	2	0,4	4	0,8	1,2
Insufficient facilities	0,1	4	0,4	3	0,3	0,7
Parking lot	0,2	3	0,6	3	0,6	1,2
Menu Variants and Feel Less	0,3	1	0,3	4	1,2	1,5
Brands are Less Known	0,2	1	0,2	2	0,4	0,6
<b>Opportunities</b>						
Repeat Order	0,4	1	0,4	4	1,6	2
There are no competitors around the outlet	0,2	1	0,2	4	0,8	1
The product is currently in favor	0,2	1	0,2	3	0,6	0,8
Strategic location	0,2	2	0,4	4	0,8	1,2
<b>Threats</b>						
Consumer Switch	0,3	1	0,3	4	1,2	1,5
Raw Material Prices Rise	0,1	4	0,4	4	0,4	0,8
Innovative Competitors	0,4	1	0,4	4	1,6	2
Competitor Brands Are More Attached	0,2	1	0,2	3	0,6	0,8
Total Score			6,8		14,9	

Rating Information;

1 = Strategy that is not appropriate

2 = Inadequate strategy

3 = Strategies that might be appropriate

4 = Strategy which is very suitable

Based on table 4 above, it can be seen that alternative strategies that are in line with the conditions of the food and beverage company in Bogor today are product development. These alternative product development strategies score 14.9 higher than market developments, which score 6.8.

Product development strategy is a strategy for companies to make improvements to existing products or develop new products to increase company sales.

## Conclusion

From the results of research conducted by the author, the following conclusions are obtained:

1. Internal factors that become strengths and weaknesses in food and beverage companies in Bog MA or are strengths (prices), prices lower than competitors, product packaging uses plastic clips to facilitate



consumers in storage, have different taste identities, and always provide services much fun. Weakness (weakness), have not used the marketplace, inadequate place facilities, very narrow parking space, menu variants, and flavors that are a less, less known brand. Moreover, external factors that become opportunities and threats to food and beverage companies in Bogor are opportunities; there are repeat orders from consumers, there are no competitors around outlets, products are in favor of the community, strategic outlet locations. Threats: Consumers can switch to products owned by competitors; the price of raw materials can rise at any time; competitors are more innovative, and competitors' brands are more inherent in society.

2. Based on the results of research using the SWOT food and beverage company matrix in Bogor is in quadrant I, which means companies with high market growth and strong competitive position. Companies in this quadrant have an excellent position. For this company, continuing to concentrate on the current market (market penetration and market development) and current products (product development) are appropriate strategies. Moreover, on the results of the SWOT matrix analysis with quantitative model analysis to get an adequate formulation of SO strategies, by using strengths to take advantage of opportunities, the implementation of SO strategies is (1) Maintaining price and quality in order to remain the choice of consumers. (2) Add more outlets in strategic locations such as closing to schools, factories, and centers so that they are better known to the community.
3. Based on the results, using the QSPM method, alternative strategies in accordance with the conditions at the food and beverage company in Bogor today are product development. This alternative product development strategy gets a score of 7.6 higher than market development, which gets a score of 2.5.

### Suggestion

Suggestions for further research:

1. IFAS and EFAS factors must be determined by the right human resources, preferably from experienced consultants.
2. Respondents used should be from all customers.
3. Innovative taste variant recipes need to be done for further research.

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