Strategies to Increase MSME Income to Maintain Business Continuity in the Era of the Industrial Revolution 4.0 (Study on Food and Beverage MSMEs in Sukabumi Regency)

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Abstract. Micro, Small and Medium Enterprises (MSMEs) are business entities that have a strategic role in improving the national economy. The contribution of MSMEs to become the backbone of the national economy can be seen as the process of providing various economic services to the community, equalizing and increasing people's income, encouraging economic growth and achieving national stability. In addition, MSMEs are also a place to give birth to new entrepreneurs. Entrepreneurs are currently facing a wave of the Industrial Revolution 4.0 which requires MSMEs to reassess how to do business so as not to be overwhelmed by competition. Entrepreneurial orientation and market orientation are the first movers and enhancers of competitive advantage.

The purpose of this study is to find a strategy to increase MSME income in order to maintain business continuity in the era of the Industrial Revolution 4.0. The overall goal to be achieved is to increase the knowledge of MSME groups in the digitalization period and increase the income of Small and Medium Enterprises (MSMEs) to achieve business continuity in the era of the Industrial Revolution 4.0. in Sukabumi Regency. For this reason, MSMEs need alternative strategies in order to continue their business. This research uses qualitative research methods, qualitative research including a form of research with the basis of examining the conditions on the object of research naturally. Qualitative methods using descriptive techniques such as data reduction, data presentation and drawing conclusions through SWOT analysis. The respondents to this survey are MSME business actors from the Sukabumi Regency Cooperative Office. l Quantitative Strategic Planning Matrix (QSPM) the priority alternative strategy that has the highest assessment is to carry out the latest innovations to add new products and develop products with a TAS value of 8.08.

Keywords: Strategy · business · SWOT · Industrial Revolution 4.0 · MSMEs

1 Introduction

Micro, Small and Medium Enterprises (MSMEs) are one of the important roles in the development and growth of the world economy, not only in developing countries but also in developed countries. In developed countries, MSMEs are considered important

because they have a positive impact that is able to absorb the most labor compared to large companies, while also contributing to the formation and growth of gross domestic product (GDP) compared to large companies. The economic growth of Indonesia's real sector is the main sector driving the national economy. In 2018, the real sector represented by Micro, Small and Medium Enterprises or MSMEs contributed around 60% of Gross Domestic Product (GDP) or contributed 8,400 trillion rupiah to Indonesia's Gross Domestic Product (GDP), where Indonesia's GDP totaled Rp 14,000 trillion in 2018 (Hartono, 2019) (Fig. 1).

The Fourth Industrial Revolution has brought a huge leap forward in the industrial sector that makes the most of information and communication technology. Not only in the production process, but throughout the industrial value chain, new digitalization-based business models have been born to achieve high efficiency and better product quality. The Fourth Industrial Revolution offered opportunities for individual and social empowerment because the Fourth Industrial Revolution offered new opportunities for economic development. Experts believe that the fourth industrial revolution will be able to increase the per capita income of the world, improve the quality of life of people, and extend human life. However, if this is not prepared by MSMEs as part of the impact of the industrial revolution, it needs to be prepared properly so that the products they produce can compete in the market.

Since 1983, the government has continued to experiment with various deregulation efforts as a means of structural adjustment and economic restructuring. However, many believe that deregulation in the field of trade and investment brings little benefit to small and medium-sized businesses, and precisely benefits large companies and conglomerates. Empirical research proves that added value is not enjoyed by large, medium and small companies, but joint ventures with a workforce of more than 1,000 people enjoy an increase in absolute added value or average companies (Lemhannas RI, 2011).

The weaknesses of small, medium and micro enterprises in improving their business capabilities are very complex, ranging from insufficient funds, inadequate management capabilities, organizational operating capabilities, the use of technology and marketing
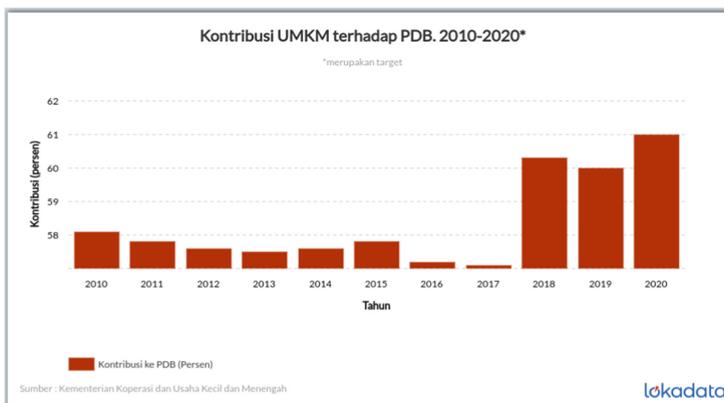

Fig. 1. The contribution of MSMEs to GDP. 2010–2020 Source: https://contribution-msme-to-pdb-2010-2020-1586251312 (Ministry of Cooperatives and Small and Medium Enterprises)

capabilities, only 58.6% of MSMEs use computer technology to support their business process activities, often in the form of non- priority technology. MSMEs currently need modern technical training to optimize their production in Industry 4.0. The difficulty in implementing Industrial Technology 4.0 is due to the lack of education or learning, which has an impact on MSMEs not being able to enter new fields in terms of products and production, nor are they allowed to invest in new technologies.

Industry 4.0, needs to be prepared for MSME players. Assessing a business's readiness to adopt new innovations is an important prerequisite for developing and tracking market developments, and information and communication technologies play an important role in business and industry. E- readiness is a tool to assess the readiness of a country or business to adopt, use and utilize information technology in an integrated manner to develop it to rationalize actions, increase competitiveness and manage resources effectively.

MSMEs in this digitization process will require a lot of preparation. In order to encourage digitalization and make it easier for MSMEs to face changes that occur, the government has increased the ease of access and transferred technology to MSME players in order to survive in business competition (Slamet et al., 2016). The ability to master digital devices and the internet is an absolute thing that MSMEs must master if they want to survive in the competition (Purwana, Rahmi, & Aditya, 2017). Delloitte Access Economics (2015) research states that consumers are increasingly accustomed to making decisions based on digital content and doing online in purchasing goods. This is a challenge but also a promising business opportunity for MSMEs in Indonesia, thus encouraging an increase in the digital market. MSME players take advantage of this opportunity to market their products through digital marketplaces, so it is very important to implement MSME strategies to maintain the continuity of MSMEs. Based on the background above, the question raised by this study is how the MSME strategy to increase income and can maintain business continuity in the era of the Industrial Revolution 4.0. The specific purpose of this study is to increase the knowledge of MSME participants in an effort to increase income for the continuity of Micro, Small and Medium Enterprises (MSMEs) in Sukabumi Regency in the era of the Industrial Revolution 4.0.

2   Theoretical Foundations

2.1   Micro, Small, and Medium Enterprises (MSMEs)

Micro, Small, and Medium Enterprises (MSMEs) are independent productive business units carried out by individuals or legal entities in various sectors of the economy. The entrepreneur must have the ability to see business opportunities. The difference between Micro Enterprises (UMI), Small Enterprises (UK), Medium Enterprises (UM) and Large Enterprises (UB) is usually based on the value of the initial assets (excluding land and buildings), the annual average turnover or the number of fixed workers. According to Law No. 20 of 2008 concerning Micro, Small and Medium Enterprises (MSMEs):

a. A microenterprise is a production company owned by a legal entity of an individual and/or a sole proprietorship that meets the microenterprise standards set by law.

b. Small Business is an independent productive economic business carried out by individuals or business entities owned by large and medium-sized businesses that meet the standards of small businesses.
c. A medium-sized company is a self-sustaining productive economic enterprise run by a natural person or legal entity (not a subsidiary or branch of a small and large company that owns, controls, or directly or indirectly belongs to the net worth of the specified year) in accordance with the regulations (Princess, 2020).

2.2 Business Growth Strategy

It turns out that the performance of small companies depends on the strategies they use, and the ability to formulate and implement appropriate strategies based on the business environment will determine the success or failure of small companies (Covin and Slevin, 1989). Rue and Ibrahim (1998) show that strategy relates to company performance. The small business literature proposes a variety of strategies, ranging from conservative to reactive (Covin and Slevin, 1989). Companies that actively invest time in developing strategies will achieve higher performance than companies that are less proactive and do not develop strategies (Covin and Covin, 1990). An entrepreneurial strategy is a set of decisions, actions, and responses to create and utilize a business by maximizing the benefits of novelty and minimizing it (Hisrich et al., 2008). Since 1983, the government has continued to experiment with various deregulation efforts as a means of structural adjustment and economic restructuring. However, many believe that deregulation in the field of trade and investment brings little benefit to small and medium-sized businesses, and precisely benefits large companies and conglomerates. Empirical research proves that added value is not enjoyed by large, medium and small companies, but joint ventures with a workforce of more than 1,000 people enjoy an increase in absolute added value or average companies (Lemhannas RI, 2011). (Jiunkpe-ns-S1-2009) There are two types of entrepreneurial strategies: new business strategies and growth strategies. Growth strategies include: (1). Penetration strategy, which is a strategy to make older consumers willing to buy more of the company's products. The strategy focuses on the performance of the company's products in the existing market. (2). Market development strategy, that is, a strategy for selling existing products to new consumers. This includes selling the company's existing products to new consumer groups. (3). Product development strategy, that is, strategy by developing new products and selling them to company customers. (4) A diversification strategy is a strategy implemented by selling new products to new markets. Diversification strategies are related to the knowledge of entrepreneurs and companies (Wulandari, & Fitriani, 2017).

2.3 Industrial Revolution 4.0

The term Industry 4.0 was first echoed at the Hannover Fair, April 4-8, 2011. This term is used by the German government to advance the industrial sphere to the next level, with the help of technology.

Quoting from the *Forbes* page, the fourth generation industrial revolution can be interpreted as the interference of an intelligent system and automation in industry. It is data-driven through *machine learning* and AI technologies.

Actually, computer interference is already participating in Industry 3.0. At that time, computers were considered '*disruptive*', or could be interpreted as something that could create new market opportunities. Once accepted, *machine learning* and AI are currently at that stage.

In short, Industry 4.0, industry players let computers connect and communicate with each other to finally make decisions without human involvement. The combination of physical-cyber systems, the Internet of Things (IoT), and the *Internet of Systems* makes Industry 4.0 possible, as well as making smart factories a reality.

The Industrial Revolution 4.0 is a transformation effort towards improvement by integrating the online world and production lines in the industry, where all production processes run with the internet as the main support, a number of national industrial sectors are ready to enter the Industry 4.0 era. Some of them are cement, petrochemical, automotive, and food and beverage industries ("Ministry of Communications and Informatics,").

3   Research Methods

This research is entitled "Strategies to increase MSME income to maintain business continuity in the era of the industrial revolution 4.0 (Study on food and beverages in Sukabumi district)". Using qualitative research methods. According to Gunawan, (2013) qualitative method is a research method used in researching the natural condition of objects (the opposite is experimentation) that the researcher as the key instrument. In the title of the book written by Albi Anggito & Johan Setiawan with the title of qualitative research methodology, he said that in this step of the method, the author must describe the object of research, phenomena in the object of research, or social settings that will later be poured into writing that is narrative in nature (Anggito & Setiawan, 2018). This research is analyzed by collaboration of internal factors (strengths, weaknesses) with external factors (opportunities, threats) SWOT then identified into the five main elements of the industrial revolution 4.0 ("EOS Technology, 2020")

The data used is primary and secondary data. Furqon et al., (2019) primary data directly obtained in the field, both observations, interviews, documentation on the part of informants. Secondary data is obtained through literature studies or desk research from books, journals, scientific articles and is also obtained from related companies as research sites (Purwanto & Suwandi, 2019).

The subjects of this study were Food and Beverage Micro, Small and Medium Enterprises (MSMEs) located in Sukabumi Regency. The information used in this study is also qualitative descriptive information. Meanwhile, the sources of information used in this study are primary information and secondary information. The primes data used by the researcher are 7 business actors from 30 businesses registered with the sukabumi district cooperative and business office, the sample is part or representative of the population to be studied (Suharsimi, 2006) If the number of subjects is less than 100 then the sample must be entirely, if the number of subjects is large or more than 100, 10-15% or 20-25% or more. 20% of the population was taken from this population, so the total sample was 20% of 107 = 21 respondents. The researchers used 20% in determining the sample size because of the total of 107 MSMEs in the business sector (Gentala & Basics, 2016).

Table 1. Business models

MSMEs eating and drinking in Sukabumi regency
Designed by: Muhammad Musapa

Strength	Values	Progress
• Simple and traktis • Human resources that collect	• Quality Raw Materials • Quality Products • Attractive packaging	• Promotion and quality first • Perician and evaluation • Asset investment
Harmony		**Activities**
• Customer Relationships • Children • Young to Old • Employee • Students • Student		• Process and sale • Innovation

4   Research Results

4.1   Description of the Food and Beverage Business

The activity of establishing a business is increasingly prevalent in Indonesia, and what is one of the alternative businesses is a business in the food and beverage sector. Every street, in a residential complex, is now crowded with food and beverage vendors from street food to luxury restaurant concepts. Increasingly, the types of food and drinks sold are increasingly varied and innovative. This shows that business in this field is very dynamic in its development.

Business in the field of food and beverage is one type of business that never dies. As long as humans live, they will definitely need food and drink. That way, as long as there are living people, the food and beverage business will continue to exist. People's lifestyles have also changed, so they choose to buy food instead of making it at home. Normally, sati people need three meals a day. If people need at least three loyal portions a day, then you can imagine how many portions are needed by the community in one complex. Big, right? Therefore, a business in this area can be one of the promising options.

4.2   Current Business Model

See Table 1.

4.3   SWOT Identification and Industrial Revolution Strategy 4.0

See Table 2.

Table 2. SWOT Identification Results and Industrial revolution Strategy 4.0

Element	Power (S)	Weakness (W)	Opportunity (O)	Threat (T)
Strength	Providing a product catalog according to consumer needs	Companies have a hard time getting new consumers	The market is still wide open and interest in online shopping is increasing	Business competition with similar businesses
Values	Quality raw materials with halal licenses and BPOM	Lack of service or customer service	Building new products and finding new consumers through online marketing	Raw material prices have increased
Progress	Distribution according to customer wishes	Promotion is not good enough	Distribution to all regions in Indonesia	Product damage during distribution
Harmony	Relationship with customers during orders and afterwards, asking for advice and assessment of the products received	Less known product branding names	Optimizing online marketing	Customers turn to similar ventures
Activities	Fast process and according to customer wishes	Lack of HR education	Increase company income by entering the e- commerce	Covid-19 pandemic makes consumers withhold their money

Source : Author, 2022

4.4   Stages of Strategy Formulation

a. dentification of Internal Factor Evaluation

Evaluation of internal factors of the process that determine the strengths and weaknesses that exist in the enterprise. The process in determining is called the IFE method. The result received is in the form of weights obtained by multiplying weights by internal ratings (Table 3).

Based on the results of data processing, it gives an idea that the main strength of the food and beverage business is two factors, namely raw materials and quality products, fast and good and easy processes that get a score of 0.52. Meanwhile, the weakness of the food and beverage business is that customers have not been segmented properly and the company has difficulty getting new customers and aninternet marketing activity is not good and there is a lack of innovation and does not have a varied product that gets a score of 0.36. In the IFE matrix which is produced by the total internal score obtained by

Table 3. Results of Evaluation of Internal Factors

Question			
o			
Internal Strength Factor (Strength)	Weight	Rating	Shoes
Quality raw materials and products	0,13s	4	0,52
Eco-friendly packaging and affordable price	0,12	3	0,36
Relationships with customers and partnerships are good	0,12	3	0,36
Fast and good process and easy	0,13	4	0,52
			1,76
Question			
o			
Internal Weakness Factor (Weakness)			
Customers have not been segmented well and the company is struggling to get new customers	0,13	2	0,26
Promotion is not attractive because the use of technology has not gone well	0,12	1	0,12
Lack of innovation and lack of varied products	0,13	2	0,26
Internet marketing activities are not good and the company does not yet have IT employees for online marketing activities	0,12	1	0,12
			0,76
Total IFE 2,52			

Source : Author, 2022

Polosan Mas Ibing, which is 2.52, it shows and can be interpreted that Polosan Mas Ibing can take advantage of existing strengths and be able to overcome existing weaknesses.

b. Factor Evaluation Identification

The process of evaluating external factors is a process for determining the main opportunities and main threats of the enterprise. This process is carried out using EFE (External Factor's Evaluation). The result of EFE processing is in the form of a score, namely the multiplication between weights and external ratings (Table 4).

Based on the results of data processing, the total external score of food and beverage businesses is 2.71. The main opportunity is that the market is still wide open because technological developments are increasingly rapid, the development of the food and beverage industry is increasing with an online system because the community is facilitated with a score of 0.52. As for the threat faced by the san beverage food business is the number of similar businesses and many imported products, the company's income is only from product sales with a score of 0.26.

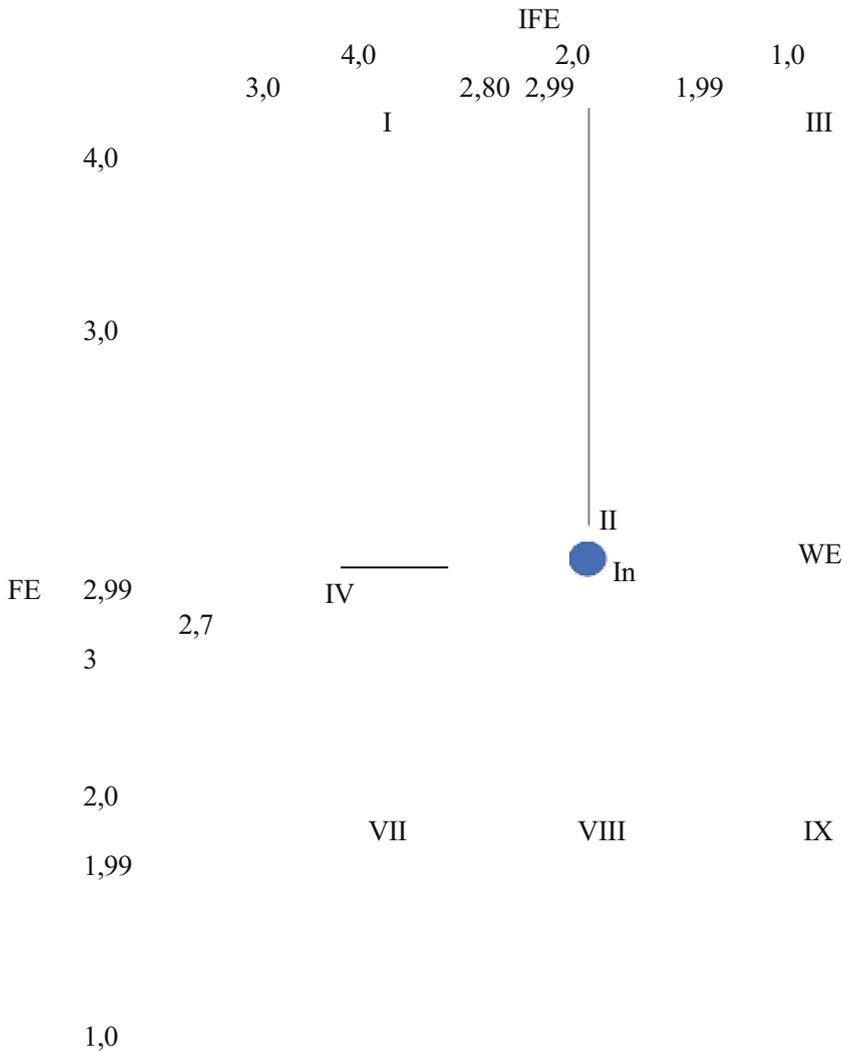**Table 4.** Results of Evaluation of External Factors

No	Question			
External Factors Opportunities		Weight	Rating	Shoes
1	The market is still wide open as technological developments are increasing rapidly	0,13	4	0,52
2	The development of the food and beverage industry is increasing with an online system because the community is facilitated	0,13	4	0,52
3	Building potential partners to help with company sales	0,13	3	0,39
4	Eating and drinking do not recognize trends and social media promotions are getting more interesting and fast	0,13	3	0,39
				1,82
External Factors Threats (Threats)				
1	Raw material prices have increased and economic conditions cannot be predicted	0,12	2	0,24
2	The number of similar businesses and many imported products	0,13	2	0,26
3	The company's income is only from the sale of products	0,13	2	0,26
4	Rapid technological developments must continue to be followed	0,13	1	0,13
				0,89
	EFE Total 2.71			

4.5 External Internal Matrix

The IE matrix is a combination of total scores from the evaluation of internal and external factors. The IE matrix was developed by David to determine the conditions of the company and describe alternative strategies accordingly. The following is the matrix of the food and beverage business (Table 5):

The total IFE score is 2.52 and the total EFE score is 2.71. Based on the results of the IE matrix, the condition of the food and beverage business is in division number V. is a position in the stage of being maintained and maintained. The strategy is appropriate for

Table 5. Results of Evaluation of External Factors

IFE

	4,0	2,0	1,0
	3,0	2,80 2,99	1,99
	I		III

4,0

3,0

II

WE

FE   2,99

2,7

3

IV

In

2,0

VII   VIII   IX

1,99

1,0

this area's strategy of market penetration and product development. It should be ready to carry out business development by maximizing existing strengths and opportunities, and improving and minimizing weaknesses and threats that currently exist.

4.6 Matrix SWOT

This SWOT matrix is a formulation tool in determining the strategic decisions to be taken based on logic to maximize strengths and opportunities, but in addition it can minimize

weaknesses and existing threats. The following is below the preparation of the SWOT matrix for food and beverage businesses (Table 6):

Table 6. Matrix SWOT

	Strenght (S)	WEAKNESS (w)
	1. Quality raw materials and products 2. Eco-friendly packaging and affordable price 3. Relationships with customers and partnerships are good 4. Fast and good process and easy	1. Customers have not been segmented well and the company is struggling to get new customers 2. Promotion is not attractive because the use of technology has not been carried out properly 3. Lack of innovation and no products other than plain t-shirts 4. Internet marketing activities are not good and the company does not yet have IT employees for online marketing activities

INTERNAL

EXTERNAL

Opportunities (O)	Strategists S-O	S-T Strategy
1. The market is still wide open as technological developments are increasing rapidly 2. The development of the food and beverage industry is increasing with an online system because the community is made easier 3. Building potential partners to help with company sales 4. Food and drink do not recognize trends and social media promotions are getting more interesting and fast	1. Expansion of market segments. 2. Optimizing marketing partners and looking for potential partners . 3. Optimizing digital marketing and promotional activities to get new consumers.	1. Optimizing the production and distribution of products.

Table 6. (*continued*)

THREATS (T)	W-O Strategy	W-T Strategy
1. Raw material prices have increased and economic conditions cannot be predicted 2. The number of similar businesses and many imported products 3. The company's income is only from the sale of products 4. Rapid technological developments must continue to be followed	1. Optimizing human resources with IT education. 2. Carry out the latest innovations to add products and develop existing products.	1. Optimizing existing e-commerce as a place to maximize sales. 2. Increase company income through online marketing activities.

4.7 QSPM Matrix

The QSPM matrix is the final stage in the analysis of strategy formulations that provide options for the most suitable priority strategy that the company will run (Table 7).

Formulation based on calculations made with the US value and TAS Value, the US Value provides a choice of strategies related to the factors in the priority strategy, which will later be used as a suitable strategy for the company. From the results of Table 4, it shows that the main priority strategy that is immediately carried out by the food and beverage business is to optimize the existing e-commerce as a forum in maximizing sales. With a TAS value of 8.08. The current condition only requires *a walk in customer*, this is very relevant to the current state of the food and beverage business.

The strategies can be seen above where what is most needed by this company is intensive where the terms of the strategy are related to market penetration, development

Table 7. QSPM Matrix Assessment Results

Strategy	Value	Level
o		
Market Segment Expansion	6,07	we
Optimizing marketing partners and looking for potential partners.	4,67	viii
Optimizing digital marketing and promotional activities to get new consumers.	6,31	in
Optimizing the production and distribution of products.	4,68	vii
Optimizing human resources with IT education	6,43	iv
Carry out the latest innovations to add products and develop existing products.	7,45	ii
Optimizing existing e-commerce as a forum in maximizing sales.	8,08	i
Increase company income through online marketing activities.	6,81	iii

and product development and product building. So that it can be used as an assessment that the research carried out is intention, not evaluation. It is also in accordance with the resulting IE matrix that the food and beverage business is in the position of Growht and Build, that is, the suitable strategy is intensive and integrative (David, 2009)

5   Conclusion

Based on the research conducted, the following conclusions were found in answering the formulation of existing problems:

1. The results of the identification of the five elements of the industrial revolution 4.0 are very helpful in terms of understanding, studying and predicting activities that should be evaluated and continue to be developed. The current condition of the food and beverage business is in maintain and maintain or *Hold & Maintain*, in that position the company should carry out intensive strategies where market penetration, market development, product building and product development are able to accompany the business in developing its business.
2. The results obtained in the SWOT analysis of the elements of the industrial revolution 4.0 in the food and beverage business resulted in eight alternative strategies, namely expanding market segments, optimizing marketing partners and finding potential partners, optimizing marketing and promotion to get new consumers, optimizing product production and distribution, optimizing human resources with IT education, making the latest innovations to add products and developing existing products, Optimizing the existing e-commerce as a forum in maximizing sales and increasing company income through onlone marketing activities.
3. Based on the results of the Quantitative Strategic Planning Matrix (QSPM), the priority alternative strategy that has the highest assessment is to optimize the existing e-commerce as a forum for maximizing sales. With a TAS value of 8.08.

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