

Analysis of Strategic Variables for the Development and Sustainability of Fos-Food Restaurant Business in the Pandemic Era; MICMAC Approach

Lina Asmara Wati^{1,2*}, Riski Agung Lestariadi¹, Supriyadi¹ and Muhammad Permana Hendra Safii¹

¹Social and Economic Fisheries and Marine Department, Faculty of Fisheries and Marine Sciences, Universitas Brawijaya, Ketawanggede, Lowokwaru Sub-District, Malang, East Java 65145, Indonesia ³Research Group: The Resilience of Coastal and Fisheries Village (Recofish), Universitas Brawijaya, Indonesia

*Correspondence : linaasmara@ub.ac.id

Received : 2022-06-21 Accepted : 2022-10-12

Keywords : Mathad function

Method function, Seafood culinary business, SWOT and MICMAC approach, Systematic problems

Abstract

Talking about smart cities, the community's independence to open a business and drive the local economy is a concrete form in the community, which is useful in the current state. Even in this Covid-19 pandemic condition, the life of a business is not easy, especially the seafood culinary business. A restaurant business requires a business development strategy that will determine the business's long-term future this culinary tourism development and sustainability strategy. The MICMAC method functions analytically to solve systematic problems by developing sustainability strategies in industrial areas. So, in this study, researchers will research Strategic Variable Analysis for the Development and Sustainability of the Fos-Food Restaurant Business in the Pandemic Era; MICMAC approach. This study uses primary and secondary data and uses the MICMAC method. The results of this study are: (1). The strategic factor analysis of Fos-Food Restaurant development has 11 strength variables, seven weakness variables, six opportunity variables, and eight threat variables. Based on the weighting and scores carried out, the total score for internal factors was 3.17 and for external factors was 3.07. (2). The research analyzed Fos-Food's development strategies and programs from the SWOT diagram, SWOT matrix, SWOT quadrant strategy analysis, and MICMAC analysis. The strategy analysis shows that the position of this restaurant is currently still in quadrant IV. Then the MICMAC analysis shows that judging from the indirect influence graph of each relationship between variables, the variables that have the greatest value are the variables: Financial and Accounting, Technological Environment, and Buyer/Customer Power.

INTRODUCTION

There is a concrete solution during the COVID-19 pandemic to improve the community's economy or even survive in the chaotic conditions of the current economic crisis and health crisis. A local government, within this scope, is the district/city government that must pay attention to the independence of the sectors they have (sectors that can move the community's economy). The smart city is indeed a trend in Indonesia. Not only is it a form of prestige to be called a smart city, but a smart city is a great step in advancing cities in a country based on information and communication technology (ICT). Hasibuan and Sulaiman (2019) defined the smart city as a city with a concept designed in such a way for the benefit of the community, especially in managing resources so that it is efficient and effective. The purpose of the smart city itself is to form a city that is comfortable, safe, and strengthens competitiveness in the economy. According to Janssen et al. (2019), security and privacy, business models, data quality, scalability, complexity, and governance were found to have strong driving power and so are key challenges to be addressed in sustainable cities projects.

The development of a city should also be seen and linked to its natural potential. Catches in the fisheries sector, East Java has a potential of 1.7 million tons per year (Ratnawati and Sutopo, 2014). Much potential in the fisheries sector in East Java is one reason the local people create a culinary business with seafood as the main menu in their restaurants. One of the culinary businesses seen in Mojokerto is the Fos-Food restaurant (a special seafood restaurant). The existence of a restaurant that carries a specific concept, such as Fos-Food carrying the concept of eating seafood at the table, becomes a medium for culinary tourism for visitors. This business has become one of the media for the community regarding independence to realize a smart city and is one of the things that will help improve the local economy. According to Bux et al. (2020), Corporate social responsibility (CSR) is a useful instrument to promote sustainability in organizations by focusing their social, economic, and on environmental aspects. So, we need a strategy for the implementation of a company/business.

A restaurant business requires a development strategy that will determine

the business's long-term future. Development is a process, a way, an act of making things better, advanced, perfect, and useful. Development is а process/activity to advance something that is deemed necessary to be arranged in such a way by rejuvenating or maintaining that which has developed to become more attractive and developing (Wijaya et al., 2020). Strategy is a general plan that is integrative and designed to enable tourism organizations to achieve their goals through the allocation of the appropriate use of resources despite finding many obstacles from competitors (Marpaung and Bahar, 2002). In principle, strategies can be grouped based on three strategies, namelv management strategies. and strategies, business investment strategies (Rangkuti, 2016). So, in this case, the right business concept is needed to make the business one of the culinary tours for Mojokerto. In addition to the development strategy, the important thing that Fos-Food restaurants must pay attention to is the distinctive attraction that Fos-Food restaurants have and connect them with tourist interests. Interest can provide interpretation as something in human psychology that will affect a person's behavior; experts can strengthen this by explaining the notion of interest. The attractiveness of a tourist attraction motivates tourists to make return visits, which affects the increase in the number of tourist visits (Jusmawati, 2018).

In understanding culinary tourism, food is considered part of the media in gaining cultural experience because each region has its characteristics in the food served. This condition is relevant to the statement of Horng and Tsai (2010) that the content of government tourism websites is very important for promoting a tourist destination's exciting cuisine and food culture. These websites help to shape a country's, region's or locality's culinarycultural image; they create a virtual experience for culinary tourists. Based on the background above, culinary tourism activities at the Fos-Food Mojokerto restaurant have great potential to be developed to provide welfare for the surrounding community and improve the economy. Therefore, the researchers feel the need to evaluate and determine the potential for attractiveness, development strategies, and sustainability of culinary tourism, especially in the pandemic era. The aims of this research are analyzing the strategic factors of Fos-Food Restaurant business development and analyzing the strategy and business development program of Fos-Food Restaurant.

METHODOLOGY Place and Time

This research was conducted in December 2021 – March 2022. The location of the Fos-Food Restaurant outlet was at Jalan Semeru 19, Wates, Mojokerto, East Java, Indonesia.

Work Procedure

Sources of data in this study use primary data and secondary data. Primary data is data that comes directly from informants. Secondary data is data obtained from the first party in the form of documents such as literature, papers, data tables/statistics, and other related and research. needed The researcher determines the informants (in qualitative methods referred to as research subjects) purposively, namely the holders of core roles in the Fos-Food restaurant business (e.g., founder, manager, supervisor, and employees) two and visitors. For informants from the visitor category, the researcher only determined five visitors (with certain criteria) due to balance with the number of internal informants. Informant categories for two employees are recommended by the manager and assess those employees understand and loyal to the operation are and development of Fos-Food restaurants.

Informants from visitors were determined based on three characteristics that must be met: aged 25-65 years, having more than five times visiting Fos-Food restaurants, and understanding the advantages and disadvantages of Fos-Food restaurants (researchers will make a preliminary questionnaire for this point). This research will produce recommendations to categorize all informants as key informants (without ignoring basic informants) (Moleong, 2017), namely: a). understand the research problem in-depth, b). have experience in managerial/experience in culinary tourism, c). those who come from various circles have an objective view of the economic and social environment in the environment that is the object of research. Carli et al. (2013) stated that, From the socio-economical perspective, specific indicators (subjective, based on data sensing and mining of the social infrastructure) are envisioned to be extracted by analyzing and mining usergenerated data coming from the Web such as reviews, ratings, recommendations, and other forms of online expression.

Data Analysis SWOT Analysis

Data were analyzed using SWOT in which the scores of internal factors (Internal Factor Analysis Summary-IFAS) and external factors (External Factor Analysis Summary-EFAS) were calculated (Stratigea, 2013). This method can be used to identify favorable and unfavorable factors and conditions, solve current problems in a targeted manner, recognize the challenges and obstacles faced, and formulate strategic plans to guide scientific decisions (Wang and Wang, 2020). SWOT analysis refers to the assessment and evaluation of various strengths (S), weaknesses (W), opportunities (O), threats (T), and other factors that influence a specific topic. It comprehensively, systematically, and accurately describes the scenario in which the topic is located. This helps to formulate the corresponding strategies, plans, and countermeasures, which are based on the results of the assessment (Jasiulewicz-Kaczmarek, 2016).

In the internal aspect, the business has human resources (employees' ability to work). Wati and Fadchurrozie (2019) stated that a Job description is one way to build a business that can survive in the long term and grow. The four elements of a SWOT analysis undertaken as part of a wider strategic planning: (1) Strength: A resource or capacity the organization can use effectively to achieve its objectives, (2) Weakness: A limitation, fault, or defect in the organization that will keep it from achieving objectives, (3) Opportunity: Any favorable situation in the organization's environment. (4) Threat: An unfavorable situation organization's the in environment that is potentially damaging to its strategy.

MICMAC Analysis

Stratigea (2013) explained the analysis stages of MICMAC based on two main stages. The first stage is an understanding of the scope of the problem and the variables that will study the system. At this stage, it requires the involvement of stakeholders, experts, specialists, and the public, who usually conduct focus group discussions (FGD). The results of the first stage of the process are then processed on the MICMAC to identify the key variables that are the main goals of the MICMAC. According to Dewangan *et al.* (2015), this study plays a vital role to enhance the competitiveness of manufacturing industries/ businesses. The MICMAC analysis to classify the strategies based on their driving force and dependence power. The most influential strategies are subsequently highlighted (Mukeshimana *et al.*, 2021).

Data collection techniques include documentation studies, questionnaires, observations, interviews, and Focus Group Discussions (FGD) (Budhi et al., 2022). This analysis also requires the initial information possessed by the researcher to complete the next process. The results from the MICMAC analysis will then be used as feedback in the second stage of the FGD to confirm the temporary system generated and reviewed results. The two things from the iteration will produce MICMAC outcomes, namely information enrichment, a better understanding of the meaning of the system, and identification of important factors that can change the system. This analysis process can understand the stages of the MICMAC analysis in Figure 1 below.



Figure 1. MICMAC Framework (modified by author according to pandemic conditions).

RESULTS AND DISCUSSION			
Strategic	Factors	for	the
Development	of	Fos	-Food
Restaurant			

The strategic factors for developing this business do strategies view from internal and external factors, formulated through SWOT analysis. With the addition of unprecedented challenges faced during COVID-19, there is a need to analyze the rural markets completely and suggest the required measures to marketers (Sharma and Bumb, 2021). Ariyani and Fauzi (2019) stated that developing a tourist destination requires a comprehensive analysis of strategic variables related to the current situation and the future perspective to anticipate the uncertainties and unexpected future. Some factors positive and negative, either internal or external, to the business in a business. The following is a tabulation form that explains the factors that affect the business of Restaurant Fos-Food, Mojokerto.

Table 1.The SWOT factor.				
STRENGTHS	Value	Relative Value	Rating	Score
Conduct marketing research to determine business continuity		0.057	4	0.23
Raw materials are fresh products	3	0.057	4	0.23
The ability of good relationship between business owner and distributor	4	0.075	4	0.30
The ability of good relationship between business owners and employee	4	0.075	4	0.30
Have skilled employee	4	0.075	3	0.23
Strategic business location and close to consumers	3	0.057	3	0.17
A wide variety of food menus on offer	3	0.057	3	0.17
Unique taste and presentation of food (product)	2	0.038	3	0.11
The place of business is a private place (not a rental place)	3	0.057	3	0.17
Independent procurement of raw materials (business owners also cultivate lobster)	4	0.075	4	0.30
Product price according to consumer's financial capability (targeted market)	3	0.057	4	0.23
Total of Strengths				2.43
WEAKNESS	Value	Relative Value	Rating	Score
Lack of employee	4	0.075	2	0.15
Lack of suppliers of raw materials (fresh fish) in Mojokerto (the availability of raw materials)	3	0.057	2	0.11
Kitchen operational management that is not optimal	2	0.038	2	0.08
Lack of efforts to introduce products to the public (online and offline)	3	0.057	2	0.11
Haven't done a good labeling and packaging process	2	0.038	3	0.11
The restaurant area is not wide enough to accommodate many consumers	3	0.057	3	0.17
Total of Weakness				0.76
Number of Internal Factors	53	1		3.17
X value				1.70
OPPORTUNITIES	Value	Relative Value	Rating	Score
Population growth in Mojokerto that continues to increase	3	0.070	4	0.28
Consumptive people's lifestyle	3	0.070	4	0.28
Technological advances in marketing	4	0.093	4	0.37
People's purchasing power is still in accordance with the selling price of the product	4	0.093	2	0.19
Buying interest and people's appetite for Fos-Food Restaurant's products	4	0.093	3	0.28
Online delivery services (such as gojek and grab)	4	0.093	3	0.28

Table 1. The SWOT factor.

Journal of Aquaculture and Fish Health Vol. 12(1) - February 2023 DOI: 10.20473/jafh.v12i1.36815

Total of Opportunities				1.67
THREATS	Value	Relative Value	Rating	Score
The economic condition of the community is not stable	3	0.067	2	0.13
Expensive raw material prices (during pandemic conditions)	3	0.067	2	0.13
Similar product competition from competitors	2	0.044	2	0.09
Price competition between business competitors	4	0.089	3	0.27
The emergence of new competitors with more modern products	3	0.067	4	0.27
The existence of PPKM (restrictions on community activities during the pandemic) makes restaurants close early	4	0.089	4	0.36
Lack of purchasing power from the public due to the covid 19 pandemic	2	0.044	2	0.09
Natural conditions that affect the quality and quantity of raw materials	2	0.044	3	0.13
Total of Threats				1.47
Number of External Factors	46	1		3.07
Y Value				0.13

In terms of strength, this business always chooses fresh raw materials, follow-up business sustainability, and thorough market analysis and research. Consumer finances can reach menu variations and product prices, and business owners have the ability of good relationships with workers and distributors. The place business is a private place (not a collaboration/rental place with partners); business owners have lobster cultivation, and this lobster is a product featured by Fos-Food Restaurant.

In terms of weaknesses, they still have something to do with human resources. Although the quality of human resources is quite good, the number of human resources is lacking. This matter does the condition illustrate during a double job when the restaurant has a lot of visitors. Distributors of raw materials are still lacking because, in Mojokerto, there are not many suppliers of fresh seafood/fish. Restaurant Fos-Food may not avoid competition in business; currently, there are many similar culinary businesses in Mojokerto, which is a challenge for Fos-Food restaurants. Besides that, unorganized managerial, both from production operations, marketing techniques, and less extensive restaurant space. Fos-Food is an obstacle

to attracting the consumer. Hence, Hadaś *et al.* (2014) stated that logistic strategy is, on one hand, a consequence of global corporate goals, on the other, it influences the goals, as performance feedback.

From the external side. the restaurant's business. Fos-Food also has opportunities and threats. The opportunity that exists is the increasing population growth of Mojokerto which means the market opportunity for the restaurant's business. Fos-Food more and more. Besides style people's lives considered wasteful, purchasing power tastes consumers towards restaurant's products. Fos-Food was also rated positive or appropriate. From product distribution, online delivery services such as gojek and grab are very helpful in increasing turnover.

Threats that this business has are: the economy of the people who are unstable, rising raw material prices, activity restrictions during the pandemic, and the current natural and weather conditions are degrading the quality of raw material.

The Development Strategy and Program of Fos-Food Restaurant Business

SWOT Analysis

The current scenario requires cities to find ways to manage new challenges. Cities worldwide have started to look for solutions that enable transportation linkages, mixed land uses, and highquality urban services with long-term positive effects on the economy (Albino *et al.*, 2015). This encompasses all the factors that contribute toward a city's economic development, including local development frameworks, transition plans, business strategies, formation of industrial clusters, and the presence of innovation and entrepreneurship (Barrionuevo et al., 2012). The existence of businesses (from various sectors) in a city will indirectly increase the regional economy. In conducting strategy analysis and research object development programs, it is necessary to analyze SWOT diagrams, SWOT matrix, strategy analysis, and MICMAC analysis.

SWOT Diagram

	3		
	2,5		
	2		
	1,5		
	1,5		
		+ + +	
-3 -2,5 -2 -1,5 -1	-0,9,5 0 0,5	1 1.5 2	2,5
0 2,0 2 1,0 1	-0;9,5 0 0,5 -1	1 10 4	2,5
	-1,5		
	-2		
	-2,5		

Figure 2. SWOT diagram.

The value of this SWOT diagram has come from table 1, which explains the value of the business's strengths, weaknesses, opportunities, and threats. The number of external factors (opportunities and threats) on the y-axis is 0.13, and the number of internal factors (strengths and weaknesses) on the x-axis is 1.70. Figure 2 shows that the position of the SWOT diagram is in quadrant I, which means a progressive position. The diagram means that this business has opportunities and strengths. In this condition, the owner's strategy is to support an aggressive growth policy or growthoriented strategy by taking advantage of existing opportunities and the business's internal strengths. Because smart home is the basic building block for smart cities, and the establishment of Smart Cities is a core enabler for rapid global urbanization (Hui et al., 2017).

The development of the Fos-Food Restaurant as a culinary tourism destination in Mojokerto uses a SWOT analysis of Strengths, Weaknesses, Opportunities, and Threats to formulate a strategy through mapping the identification of internal and external factors. SWOT analysis is the systematic identification of various factors to formulate a strategy. This analysis is based (Rangkuti, 2016) on the logic of maximizing strengths and opportunities simultaneously while minimizing weaknesses and threats. The strategic decision-making process is always related to making the company's mission, goals, strategies, and policies.

This SWOT mapping consists of 18 internal factors (strengths and weaknesses) and 14 external factors (opportunities and threats). These factors are mapped and analyzed using a SWOT diagram to determine strategies for developing the Fos-Food restaurant's potential (Table 2).

		Internal Factors		
		Strengths	Weakness	
		S-O	W-O	
The implementation of marketing r consumer interest, lifestyle, an purchasing power is associa population growth in Mojokerto C Provision of raw materials which products will increase consumer in		The implementation of marketing research on consumer interest, lifestyle, and people's purchasing power is associated with population growth in Mojokerto City. Provision of raw materials which are fresh products will increase consumer interest. Online delivery (online courier service) makes the product expand the distribution of	Addition of fresh fish suppliers (as raw material) Improve kitchen and business operational management Increased product introduction (promotion) using current	
al F		goods and increase market share. S-T	technological advances W-T	
External Factors	ats	Product innovation from raw materials (fresh ingredients) as superior products	Strengthening the availability of product raw materials (so that can still monitor the quality and quantity)	
Threats		Improving the quality and skills of human resources to improve customer service	Improvement of promotional processes and techniques under the current era of market approach, to win the competition between competitors	
		Price and product variations to increase the number of buyers and attract visitors		

 SWOT diagram of potential development.

The analysis in Table 2 explains that obtained 11 strategies, consisting of 3 strategies from strengths and opportunities factors, three strategies from weaknesses and opportunities, three strategies from strengths and threats, and two strategies from weaknesses and threats.

The S-O strategies: (1)implementation of marketing research on consumer interest, lifestyle, and people's purchasing power is associated with population growth in Mojokerto City. When a business conducts scientific analysis and maps various factors, it will be a positive thing in carrying out all forms of decisions and strategies in sustainability and business development. (2) Provision of raw materials and fresh products will increase consumer interest. The quality of raw materials (main ingredients) in a culinary business is vital because raw materials greatly influence food quality. Besides that, the techniques in the production process also affect the results of the final product that consumers will enjoy. (3) Online delivery (online courier service) makes the product expands the distribution of goods and increases market

share. The higher the ability of a business to increase distribution points, the wider its ability to access the market. The online courier service greatly helps fos-food. According to Bakıcı et al. (2013), information and communication technology is changing how cities organize policymaking and urban growth. Smart Cities base their strategy on the use of information communication and technologies in several fields such as economy, environment, mobility, and governance to transform the city infrastructure and services.

Based on figure 2 (SWOT Diagram), the position of a fos-food restaurant in quadrant 1 (S-O strategies). Conclude, the owner can use three strategies to upgrade fos-food restaurant. (a) Research the customer needs, customer interest, and customer ability. Based on that research, they will know well about their customer, which is a key point to create strategies for their business, (b) Raw material, because the common problem of culinary business is raw materials. The raw materials are the main key to the product that the customer will consume. It means that the quality of raw materials is equal to their product. In case there must be awareness of the product quality to satisfy consumers increasingly, (c) Potential market, to expand their distribution online delivery can be one strategy besides serving visitors who come to the place.

W-O strategies: (1) Addition of fresh fish suppliers (as raw material), the availability of raw materials is the main requirement in the production business. The addition of raw material suppliers is one of the strategies so that this business can run according to plan and achieve sales targets. (2) Improve kitchen and business operational management; structuring production operations is a requirement that must meet to produce a predetermined product. One concrete way is to make production SOPs and apply them in a disciplined manner in the production process and always monitor product quality and standardization. (3) product Increased introduction (promotion) using current technological advances. The use of technology is the best media promotion at this time, and businesspeople must be able to optimize it. However, businesspeople still have to ensure that the activities must be analyzed first and planned well so that the results obtained follow the objectives and with minimum costs.

S-T strategies: (1)Product innovation from raw materials (fresh ingredients) as superior products. Product innovation is very necessary because tastes, buying interests, and consumer needs experience fluctuating changes in the culinary business. (2) Improving the quality and skills of human resources to improve customer service. Capabilities of human resources are very necessary for business operations as businesspeople. Thev must complete the overall managerial business operations so that the business can run according to the standards or planned. set Human resources are the core implementer in the culinary business, related to production operations, marketing, and customer service. So that the capabilities of human resources in the culinary business must be

by the needs. (3) Price and product variations to increase the number of buyers and attract visitors. Determination of the product's price by market segmentation targeted by businesspeople makes product diversification strategies easier.

W-T strategies: (1) Strengthening the availability of product raw materials (to monitor the quality and quantity still). Talking again about raw materials, this is a core thing about importing things because consumers' main goal is the product. (2) Improvement of promotional processes and techniques under the current era of market approach to win the competition between competitors. In addition to products, the weapons to be contested in business are marketing and promotion techniques and processes. Businesses with superior product quality do not necessarily win in the market without being balanced with promotions. and vice versa. So that the business must balance the quality and promotion of the product for long-term effect.

Strategy Analysis

Today businesses are facing radical transformations through the digitalization of services and products (Achi et al., 2016). Management trends have huge impacts on methods and strategies of managing the business, especially in the modern era when organizations are in a constant flux of change and adaptation given the imperatives of globalization, Corporate Social Responsibility criticism, rapidly changing business models and technology development (Nwagbara and Reid, 2013). The position of Fos-Food restaurant can still maintain in its implementation, more precisely in quadrant I. The reasons that underlie this business is in quadrant I: this business is a business that has the main concept of a family restaurant, but the space for the restaurant is quite narrow, and the parking lot cannot accommodate many cars. If the target market is the family segment, then in the future, it will provide a comfortable and spacious place. Some strategies compiled on the SWOT diagram can improve the SWOT analysis position (Figure 3).

In detail, what restaurant owners need to do is upgrade the restaurant according to their internal strengths by (a) understanding consumer wants, needs, and abilities, (b) product quality, and (c) improving marketing distribution. The strategy has been described in detail in the S-O strategies in the SWOT Diagram analysis (Figure 2).



Figure 3. Strategic position of Fos-Food Restaurant development.

MICMAC (Factors that Play a role in the sustainability) Analysis

Matrix of Cross Impact Multiplications Applied to a Classification, better known as MICMAC, is an analytical technique that focuses on determining key variables. MICMAC technically maps variables in the coordinates of the influence and dependence of kev informants' identified variables. MICMAC maps the relationship between variables through the degree of relationship strength and determines the ranking of variables based on the level of influence and dependence. The MICMAC approach to analytical thinking through systematic solutions to a problem. Fauzi (2019) mentions that the principles of the MICMAC technique help to: (1) Identify the main variables that are influential (dependent) and dependent (influenced) that are essential for a system, (2) Map the

relationships between variables and the relevance of these variables in explaining a system, (3) Reveal the causal chain of a system.

One of the objectives of this research is to find out what variables have an important influence on the development of the culinary business on the object of this research. The variables considered important in realizing and identifying are in Table 3 below. E.g., this result explains the internal aspect (human resources), employee skills were important to continuable the business. This is following the statement of Ha et al. (2022), that increase service skills training for employees. The local environment should provide skills training on service awareness, service skills, food, and drink service. The MDI (Matrix of Direct Influence) table analysis, using MICMAC software, resulted in mapping variables, as shown in Figure 4.

		Fos-Food Restaurant (MICMAC analysis).	
Long label	Short label	Description	Theme
Marketing Aspect Financial and Accounting Aspects	Marketing Finance	Marketing aspect for the business, both internal and external market Financial and accounting aspects during the business execution	internal aspects internal aspects
Production/ Operational Aspects and Research Development	Operate	Production/ Operational Aspects and Research Development during the business execution	internal aspects
Human Resources Aspect	Human	Human Resources Aspect: how to recruit the employee, how to manage all employees during the business execution	internal aspects
Information System Aspect	Info	Information System Aspect: all of the information needed by the business	internal aspects
Physical Environment	Physical	The physical environment around the business location	environm ental aspects
Economic Environment	Economics	Economic Environment, about the business and the people around the business place	environm ental aspects
Political and Legal Environment	Law	Political and Legal Environment; related to government policies and the environment around the place of business	environm ental aspects
Social Cultural Environment	Culture	Socio-Cultural Environment, around the local community	environm ental aspects
Technological Environment	Technology	Technological Environment, used by some of the area's businesses	environm ental aspects
Demographic Environment	Demographic	Demographic Environment. related to the demographic condition of the business location	environm ental aspects
Threat of New Entrants/ New Competitors	Entrants	Threat of New Entrants/New Competitors; both similar products and products of different types but in the same field (culinary)	external aspect
Supplier Power	Supplier	Supplier Power; related to additives and product raw materials	external aspect
Buyer/Customer Power	Customer	Buyer/Customer power in making all decisions in buying a product. The considerations are consumer tastes, consumer's ability to buy, consumer needs, available goods, and distribution of needed goods.	external aspect
Threat of Substitute Products	Sub product	The Threat of Substitute Products; (1) This condition is related to competitors who have different products but can help the community/benefit this product for the community/consumers. (2) Consumers have different tastes in the products of this business which can replace these products for the needs of consumers	external aspect
Competitor Analysis	Competitor	Competitor Analysis: new competitors, and old competitors	external aspect

Table 3.	Development variables of Fos-Food Restaurant (MICMAC analysis).
----------	---------------------------------------------------------------	----



Figure 4. Sustainability variable map of Fos-Food Restaurant (according to influence and dependence).

To be able to compete and be able to take advantage of the opportunities for restrictions during the pandemic, UMKM needs to carry out digital transformation, not only between businesses and customers but also between businesses and their employees (Suasih et al., 2022). Figure 4 describes the position of 16 variables in MICMAC. One variable, namely the Social Cultural Environment variable, is an influence variable. This variable means that variable has a high level of influence and a low level of dependence on other variables; its position is in quadrant I. Quadrant II is a relay variable, meaning that these variables also have an effect and have a level of dependence on other variables.

Quadrant II has nine variables. These variables have a small effect on quadrant III but have a high dependence on other variables; four variables consist in quadrant III, namely the variable Threat of New Entrants/ New Competitors, Supplier Power, Threat of Substitute Products, and Competitor analysis. Furthermore, the Political and Legal Environment variables consist of quadrant IV; the variables included in quadrant IV are variables that have low influence and dependence other variables. on Specifically, the detail of these quadrants can explain the status, role, and implications of the four quadrants in Table 4.

Variable	Status and Role	Implications
Quadrant I	A variable that is very influential but	Priority in consideration of plans and
(Input)	does not depend on other variables.	actions.
Influence	This variable is crucial in the system	
variables	because it can act as a key system.	
Quadrant II	An influential variable but also highly	Any changes in this variable have
(Intermediate)	dependent on other variables. This	serious consequences on other
Relay variables	variable describes the instability of a system.	variables in the system.
Quadrant III (Results) Dependence variables	Variables that have a small influence but high dependence on other variables. This variable is quite sensitive to changes in influence and relay variables.	This variable is the outcome of the input and intermediate variables.
Quadrant IV (Excluded) Autonomous variables	Variables that have low influence and dependence on other variables. This variable has a low potential to produce change.	This variable is also referred to as excluded because it will not stop the operation of a system or take advantage of the system itself. For example, if we ignore this variable, the impact will be insignificant on the system.

Table 4. Variable roles and implications.



Figure 5. Relationship among direct influence of sustainability variables (direct influence graph).



Figure 6. Relationship of indirect effects of sustainability variables. The number on each arrow indicates the degree or rating of the effect obtained through iterating the Boolean matrix.

As presented in Figure 5, several factors influence each other strongly. In contrast, some factors have a moderate effect on other factors. Based on Figure 5 explained that the Political and Legal Environment variables have the weakest influences on other variables. Furthermore, the variables that have the strongest influence are Financial and Accounting, Human Resources, Technological Environment, and Buyer/Customer Power variables. Figure 6 shows the value of each relationship between variables where the variable that has the greatest value is the variable: Financial and Accounting, Technological

Environment, and Buyer/Customer Power.

CONCLUSION

The owner can use three strategies to upgrade the restaurant namely; research the customer needs, customer interest, and customer ability; maintain product quality; and expand the distribution, such as by online delivery. To keep the business running and develop it more professionally, we suggest the business-owner to use the 11 strategies in the SWOT diagram.

ACKNOWLEDGMENT

Writers would like to thank Mrs. Ayu Maharani, Mrs. Meri, and Mr. Nando, for their support of all research activities and facilities during a field study in Fos-Food restaurant, Mojokerto, East Java.

REFERENCES

- Achi, A., Salinesi, C. and Viscusi, G., 2016.
 Innovation capacity and the role of information systems: A qualitative study. *Journal of Management Analytics*, 3(4), pp.333-360. https://doi.org/10.1080/23270012.2016.1239228
- Albino, V., Berardi., U. and Dangelico, R.M., 2015. Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, 22(1), pp.3-21. https://doi.org/10.1080/1 0630732.2014.942092
- Ariyani, N. and Fauzi, A., 2019. Analysis of strategic variables for ecotourism development; an application of micmac. South Asian Journal of Social Studies and Economics, 3(3), pp.1-12. http://dx.doi.org/10.9734 /sajsse/2019/v3i330107
- Bakıcı, T., Almirall, E. and Wareham, J., 2013. A smart city initiative: The case of Barcelona. *Journal of the Knowledge Economy*, *4*, pp.135–148. https://doi.org/10.1007/s13132-012-0084-9
- Barrionuevo, J.M., Berrone, P. and Ricart, J.E., 2012. *Smart cities, sustainable progress.* IESE insight. http://dx.doi. org/10.15581/002.ART-2152
- Budhi, M.K.S., Lestari, N.P.N.E. and Suasih, N.N.R., 2022. The recovery of the tourism industry in Bali Province through the penta-helix collaboration strategy in the new normal era. *GeoJournal of Tourism and Geosites*, 40(1), pp.167–174. https://doi.org/10.30892/gtg.4012 0-816
- Bux, H., Zhang, Z. and Ahmad, N., 2020. Promoting sustainability through corporate social responsibility

implementation in the manufacturing industry: An empirical analysis of barriers using the ISM-MICMAC approach. *Corporate Social Responsibility and Environmental Management, 27*(4), pp.1729-1748. https://doi.org/10.1 002/csr.1920

- Carli, R., Dotoli, M., Pellegrino, R. and Ranieri, L., 2013. Measuring and managing the smartness of cities: a framework for classifying performance indicators. *IEEE International Conference on Systems*, *Man, and Cybernetics*, pp.1288-1293. https://doi.org/10.1109/SM C.2013.223
- Dewangan, D.K., Agrawal, R. and Sharma, V., 2015. Enablers for competitiveness of Indian manufacturing sector: An ISM-Fuzzy MICMAC analysis. *Procedia – Social and Behavioral Sciences, 189*, pp.416–432. https://doi.org/10.10 16/j.sbspro.2015.03.200
- Fauzi, A., 2019. *Teknik analisis keberlanjutan*. Gramedia Pustaka Utama. Jakarta.
- Ha, N.T.K., Hieu, T.H., Tan, H.P., Binh, H.V., Dao, N.T.A., Van, L.T.N. and Thanh, L.K., 2022. SWOT analysis of rural tourism development: A case of My Phuoc Islet in the Mekong Delta, Vietnam. Asian Journal of Research in Business and Management, 4(1), pp.76-82. https://doi.org/10.55057/ajrbm.20 22.4.1.7
- Hadaś, L., Stachowiak, A. and Cyplik, P., 2014. Production-logistic system in the aspect of strategies for production planning and control and for logistic customer service. *Scientific Journal of Logistics*, 10(3), pp.331-349. https://www.logforum .net/pdf/10 3 9 14.pdf
- Hasibuan, A. and Sulaiman, O.K., 2019. Smart city, konsep kota cerdas sebagai alternatif penyelesaian masalah perkotaan kabupaten/kota, di kota-kota besar Provinsi Sumatera Utara. *Buletin Utama*

Teknik, 14(2), pp.127-135. https://jurnal.uisu.ac.id/index.php /but/article/view/1097/853

- Horng, J.S. and Tsai, C.T., 2010. Government websites for promoting East Asian culinary tourism: A crossnational analysis. *Tourism Management*, *31*(1), pp.74-85. https://doi.org/10.1016/j.tourman. 2009.01.009
- Hui, T.K.L., Sherratt, R.S. and Sánchez, D.D., 2017. Major requirements for building smart homes in smart cities based on internet of things technologies. *Future Generation Computer Systems*, 76, pp.358–369. http://dx.doi.org/10.1016/j.future. 2016.10.026
- Janssen, M., Luthra, S., Mangla, S., Rana, N.P. and Dwivedi, Y.K., 2019. Challenges for adopting and implementing IoT in smart cities: An integrated MICMAC-ISM approach. *Internet Research, 29*(6), pp.1589-1616. https://doi.org/10.1108/INT R-06-2018-0252
- Jasiulewicz-Kaczmarek, M., 2016. SWOT analysis for planned maintenance strategy-a case study. *IFAC-PapersOnLine*, 49(12), pp.674-679. https://doi.org/10.1016/j.ifacol.20 16.07.788
- Jusmawati, 2018. Analisis perbandingan faktor-faktor yang mempengaruhi minat berkunjung uang (interest of revisit) wisatawan pada Wisata Pantai Marina (Marina Beach) dan Pantai Tanjung Bira (Bira Beach). Bachelor Thesis. Universitas Islam Negeri Alauddin Makassar.
- Marpaung, H. and Bahar, H., 2002. *Pengantar pariwisata*. Alfabeta. Bandung.
- Moleong, L.J., 2017. Metodologi penelitian kualitatif (Edisi Revisi). PT Remaja Rosdakarya. Metodologi Penelitian Kualitatif (Revisi ed.). Bandung.
- Mukeshimana, M.C., Zhao, Z.Y. and Nshimiyimana, J.P., 2021. Evaluating strategies for renewable energy development in Rwanda: An integrated SWOT-ISM analysis.

Renewable Energy, *176*, pp.402-414. http://dx.doi.org/10.1016/j.renene .2021.05.104

- Nwagbara, U, and Reid, P., 2013. Corporate social responsibility (CSR) and management trends: Changing times and changing strategies. *Economic Insights – Trends and Challenges, 2*(LXV, pp.12-19. http://upg-bulletin-se.ro/ old_site/archive/2013-2/2.Nwagba ra Reid.pdf
- Rangkuti, F., 2016. Analisis SWOT teknik membedah kasus bisnis. Gramedia Pustaka Utama. Jakarta.
- Ratnawati, S. and Sutopo, H.H., 2014. The development of model empowerment poor society in coastal area through net marketing fishery product in East Java. *Academic Research International*, 5(1), pp.237-243. http://www.sava p.org.pk/journals/ARInt./Vol.5(1)/ 2014(5.1-25).pdf
- Sharma, S. and Bumb, A., 2021. Marketing at the bottom of the pyramid: Overcoming the challenges through MICMAC analysis. *Journal of Global Marketing*, *34*(4), pp.292-307. https://doi.org/10.1080/08911762 .2021.1884924
- Stratigea, A., 2013. Participatory policy making in foresight sudies at the regional level - A methodological approach. *Regional Science Inquiry*, V(1), pp.145-161. http://www.rsijo urnal.eu/ARTICLES/June_2013/9.p df
- Suasih, N.N.R., Wijaya, P.Y. and Yudha, I.M.E.K., 2022. Key factors transformasi digital UMKM (pendekatan analisis MICMAC pada UMKM di Bali). Jurnal Akuntansi dan Pajak, 22(2), pp.1060-1066. http://dx.doi.org/10.29040/jap.v2 2i2.4014
- Wang, J. and Wang, Z., 2020. Strengths, weaknesses, opportunities and threats (SWOT) analysis of China's prevention and control strategy for the COVID-19 epidemic. *International Journal of*

Environmental Research and Public Health, 17(7), 2235. https://doi.org /10.3390/ijerph17072235

- Wati, L.A. and Fadchurrozie, M.H., 2019. Membangun bisnis dari starting menuju running: Aplikasi pada bisnis otak-otak bandeng. UB Press. Malang.
- Wijaya, P.Y., Kawiana, I.G.P., Suasih, N.N.R., Hartati, P.S. and Sumadi, N.K., 2020. SWOT and MICMAC analysis to determine the development strategy and sustainability of the Bongkasa Pertiwi Tourism Village, Bali Province, Indonesia. Decision Science Letters, 9(3), pp.439-452. http://dx .doi.org/10.5267/j.dsl.2020.3.002