

Key Factors Influencing Madiun Entrepreneurs in Starting Culinary Businesses: An Exploratory Factor Analysis Approach

Prasetyo Yekti Utomo^{1*}, Dimas Ari Setyawan², Hifzhan Frima Thousani³

¹²³ Politeknik Negeri Madiun, Indonesia

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ABSTRACT

This research aims to identify the factors influencing entrepreneurs' decisions to enter the culinary business sector in Madiun, Indonesia. Using a quantitative approach with Exploratory Factor Analysis (EFA), the study examines both internal and external factors that shape decision-making processes. Data were collected from 100 respondents through a structured questionnaire and analyzed using SPSS software. The results indicate that three main factors influence entrepreneurs: Product, Motivation, and Socio-Cultural factors. The Product factor, which includes variables such as ease of operation, market demand, and profitability, was found to be the most significant. Motivation, which encompasses personal skills, entrepreneurial interest, and self-empowerment, plays a key role in driving business choices. The Socio-Cultural factor reflects the influence of the environment, educational background, and available resources. These findings provide valuable insights for current and aspiring entrepreneurs, as well as policymakers, by highlighting the key drivers of success in the culinary business. The study suggests that the accessibility and growth potential of the culinary sector in Madiun make it an attractive industry for entrepreneurs seeking both personal and financial fulfillment.

Corresponding Author:

Prasetyo Yekti Utomo

Politeknik Negeri Madiun, Indonesia

Email: prasetyo@pnm.ac.id

INTRODUCTION

Decision-making is one of the most fundamental activities in daily human life. In business, decision-making becomes a critical and essential process, particularly in areas such as inventory control, new product development, investment, and supplier selection (1). While many believe that business decisions can be made intuitively or based on past experiences, not all intuitive decisions yield optimal results. Thus, business owners need a systemic approach to complement their intuition. A balance between informed, data-driven decision-making and intuition is necessary for business success (2).

In the culinary business sector, which remains a promising and crisis-resistant industry, decision-making plays a pivotal role. The culinary industry continues to grow, as food and beverages are essential needs, regardless of economic conditions, such as the COVID-19 pandemic (3). In Indonesia, the culinary industry holds a significant contribution to the nation's creative economy (4). It accounted for 32.5% of the creative economy's contribution to Indonesia's Gross Domestic Product (GDP) in 2013, showing its economic resilience and potential for further expansion.

In Madiun, the rapid growth of the culinary business is evident through the increasing number of cafes and restaurants. This growth, combined with the cultural and economic factors, makes the culinary industry an attractive field for entrepreneurs. However, the decision to enter this business requires careful consideration of various factors such as passion, skills, and external influences like family and market conditions (5).

This research aims to identify the factors influencing entrepreneurs' decisions to choose the culinary business as their primary field. By exploring both internal and external factors, this study seeks to provide insights into the decision-making processes that drive success in the culinary industry in Madiun.

METHODOLOGY

Research Design

This study uses a quantitative research design with an Exploratory Factor Analysis (EFA) approach to identify the factors influencing entrepreneurs in choosing the culinary business as their primary field. EFA is used to explore the relationships between observed variables and to reduce these variables into a smaller set of factors, which can explain the decision-making process (6).

Population and Sample

The population in this study consists of all culinary business owners in Madiun, including restaurants, cafes, and other types of food-related enterprises. Due to the uncertainty of the exact number of businesses, except for the number of restaurants recorded by the Bureau of Statistics in Madiun, the sampling method used is Simple Random Sampling. Following (7), the sample size must be at least five times the number of questionnaire items, with a minimum sample size of 100.

Data Collection

The data were collected using primary and secondary sources:

- Primary Data: Data were collected through a questionnaire distributed to respondents. The questionnaire was designed using a Likert scale with five levels (1 = strongly disagree, 5 = strongly agree) to measure the respondents' perceptions of various factors influencing their decision to start a culinary business.
- Secondary Data: Secondary data were gathered from literature, journals, books, and official statistics related to the culinary business and entrepreneurship. These data were used to support and contextualize the findings from the primary data.

Variables and Measurement

The variables in this study consist of:

- Internal Factors: Factors originating from within the individual, such as interest in entrepreneurship, tolerance for risk, and desire for independence.
- External Factors: Factors external to the individual, such as family influence, educational background, and access to capital.

The questionnaire items were analyzed using factor analysis to identify which items had the strongest correlations and could be grouped into latent factors. The factors were then interpreted based on the loadings generated by the EFA.

Data Analysis

Data analysis was conducted using SPSS software. The following steps were taken:

1. Normality Test: A normality test was performed to ensure that the data followed a normal distribution using the Critical Ratio (CR) of skewness and kurtosis, with a threshold of ± 2.58 at a 5% significance level.
2. Factor Analysis: The study conducted Exploratory Factor Analysis (EFA) using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity to assess the adequacy of the sample for factor analysis. Factor loadings were interpreted using a threshold of 0.5 or higher to indicate significance.
3. Reliability and Validity Tests: The reliability of the measurement was assessed using Composite Reliability (CR), with a threshold of 0.7 or higher, and Average Variance Extracted (AVE), with a threshold of 0.5.

RESULTS

Analysis and Discussion of Research Results

Assumption Test

There are 3 (three) assumptions that must be met in conducting *Exploratory Factor Analysis* (EFA), namely:

1. Determinants of Correlation Matrix

Correlation matrix between variables can be said to be interrelated if *the determinant* is close to 0

(zero). From the results of testing the 19 initial variables, the determinant value was **0.002**, thus the first assumption is met.

Kaiser Meyer Olkin-Measure of Sampling Adequacy (KMO-MSA)

KMO-MSA is a comparison index of the distance between the correlation coefficient and its partial correlation coefficient. If the sum of the squares of the partial correlation coefficients between all pairs of variables is small when compared to the sum of the squares of the correlation coefficients, it will produce a KMO value close to 1. The KMO value is considered sufficient if its value *is above 0.5*. From the test results, the KMO-MSA value is obtained as in the following table:

Table 1. KMO-MSA Test Result Output

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		. 606
Bartlett's Test of Sphericity	Approx. Chi-Square	836,552
	df	171
	Sig.	.000

Source: SPSS output

From the output of the test results, the KMO-MSA value of **0.606** was obtained. This value is above the minimum value of 0.5, thus it can be stated that the sample size tested has met its adequacy and can be continued to the exploratory factor analysis stage. Thus the second assumption is fulfilled.

3. Bartlett Test of Sphericity

The results of the Bartlett Test are shown in Table 4.1. where a significance value of 0.000 is obtained, this value is less than 0.05 so that it can be stated that the correlation matrix formed is not an identity matrix meaning there is a correlation between variables, so that factor analysis can be carried out. Thus the third assumption is met.

Furthermore, to find out whether each indicator can be used or not in factor analysis, a test was conducted using *Measure of Sampling Adequacy (MSA)*. From the test results, the MSA value for each indicator was obtained as in Table 4.2. The MSA value was obtained from the SPSS output in the *anti-image correlation table*.

Table 2. Measure of Sampling Adequacy (MSA) value

No.	Statement Items	MSA Value	Decision
P1	Have high interest	0.868	Used
P2	Have the skills	0.567	Used
P3	Want to empower yourself	0.541	Used
P4	Self-motivation	0.479	Not used
P5	Family encouragement	0.475	Not used
P6	Surrounding environment	0.549	Used
P7	Continuing the parents' business	0.499	Not used
P8	Have enough free time	0.482	Not used
P9	According to educational background	0.596	Used
P10	Doesn't require much capital	0.628	Used
P11	Can be run online	0.494	Not used
P12	Everyone needs food/drink	0.836	Used
P13	Easy to market	0.644	Used
P14	I'm sure there will be buyers	0.485	Not used
P15	Greater profits	0.735	Used

P16	Channeling hobbies	0.451	Not used
P17	This business is easy to run	0.738	Used
P18	Opportunity to open more branches	0.493	Not used
P19	Ideas for easy development	0.739	Used

Source: SPSS output, processed

From Table 4.2 there are 8 variables that have a value of less than 0.5 so that these variables are not used in further analysis. Then testing is carried out for 11 variables that can be used. The results obtained are presented in Table 4.3

Table 3. MSA Test Results for Indicators Used

Anti-image Matrices

		PUNYA MINAT TINGGI	PUNYA KECAK APAN	PEMBE RDAYA AN DIRI	PENGA RUH LINGKU NGAN	SES UAI PENDI DIKAN	TIDAK BANYAK MODAL	DIBU TUH KAN ORANG	MU DAH DIPA SARKAN	KEUN TUNG AN BESAR	MUDAH DIJALA NKAN	IDE PENG EMBA NGAN
Anti-image	Mempunyai minat tinggi	.758^a	-.251	-.083	-.008	.021	.179	-.206	.106	-.173	.038	-.153
Correlation	Mempunyai kecakapan	-.251	.633^a	-.208	.083	-.281	.068	-.186	-.137	-.050	-.127	.249
	Pemberdayaan diri	-.083	-.208	.806^a	.007	-.066	.069	-.003	.028	-.097	.068	-.137
	Pengaruh lingkungan	-.008	.083	.007	.548^a	-.227	-.155	-.031	.009	-.244	-.082	.205
	Sesuai pendidikan	.021	-.281	-.066	-.227	.526^a	-.210	.083	-.015	.055	.139	-.074
	Tidak banyak modal	.179	.068	.069	-.155	-.210	.740^a	-.111	.101	-.316	-.086	-.144
	Dibutuhkan orang	-.206	-.186	-.003	-.031	.083	-.111	.844^a	-.331	-.058	.139	-.154
	Mudah dipasarkan	.106	-.137	.028	.009	-.015	.101	-.331	.820^a	-.043	-.246	-.432
	Keuntungan besar	-.173	-.050	-.097	-.244	.055	-.316	-.058	-.043	.848^a	-.132	-.106
	Mudah dijalankan	.038	-.127	.068	-.082	.139	-.086	.139	-.246	-.132	.823^a	-.432
	Ide pengembangan	-.153	.249	-.137	.205	-.074	-.144	-.154	-.432	-.106	-.432	.770^a

a. Measures of Sampling Adequacy(MSA)

In table 4.3, it can be seen that of the 11 variables used, they have met the criteria with an MSA value of more than 0.5 so that all the assumptions of factor analysis are met and can be continued using factor analysis.

Formed Factors

After all assumptions in factor analysis are met, the next step is to analyze the factors using the *Principal Component Analysis (PCA) method*. To determine the number of factors formed based on several criteria, one of which is using *Eigenvalues*. If a variable has an Eigen value of more than 1, it will be retained and if it is less than 1, it will not be included in the factors formed. The number of factors formed is presented in Table 4.4

Table 4. Factors Formed Based on Eigenvalues

Total Variance Explained									
Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variants ce	Cumulat ive %	Total	% of Variants ce	Cumulat ive %
1	3,861	35,098	35,098	3,861	35,098	35,098	3,329	30,265	30,265
2	1,519	13,808	48,906	1,519	13,808	48,906	1,877	17,066	47,331
3	1,458	13,258	62,164	1,458	13,258	62,164	1,632	14,833	62,164
4	.820	7,450	69,614						
5	.777	7,063	76,677						
6	.611	5,551	82,228						
7	.563	5,117	87,346						
8	.547	4,973	92,318						
9	.399	3,629	95,948						
10	.257	2,334	98,281						
11	.189	1,719	100,000						

Extraction Method: Principal Component Analysis.

Source: SPSS output

From Table 4.4, the variables that have Eigen values greater than 1 are 3 variables with the largest Eigen value in factor 1, which is 3,861, factor 2 is 1,519 and factor 3 is 1,458. If the 11 indicators/variables are extracted into 3 factors, then the diversity/variation of the indicators that can be explained by the 3 factors is 62.16%.

Factor Rotation

To get a clear interpretation and avoid *overlapping*, factor rotation is needed. *Overlapping* is a condition where an indicator enters 2 or more factors. If there is 1 variable that enters 2 or 3 factors, then the factor with the largest *factor loading value* is taken. The purpose of this factor rotation is to obtain a simpler and easier to interpret factor structure. Factor rotation is done by rotating *the factor loading*. In this study, the rotation used is *Orthogonal rotation with the Varimax* method approach. The results of *the factor loading* that has been rotated are as in Table 4.5 below:

Table 5. Rotation of Matrix Components

	Component		
	1	2	3
Development Ideas	.892		
Easy to Run	.840		
Easy to Market	.838		
People Needed	.637	.413	
Big Profits	.625		.429
Have Skills		.792	
Have High Interest		.667	
Self Empowerment		.625	
Environmental Influence			.776
According to Education			.652
Not Much Capital	.479		.628

Source: SPSS output

The results of factor rotation as in table 4.5 are grouped into each factor. After that, an examination is carried out to determine *the factor loading* that can be used, if the *factor loading value* is more than 0.55 then the indicator can be used. In Table 4.5 it can be seen that all variables have *factor loading values* above 0.55, then all 11 variables can be used and have been extracted into 3 formed factors.

Interpretation of Factors

After obtaining 3 factors where all indicators have useful *factor loading*, then the factor is assigned meaning to each factor loading. Indicators with high *factor loading* are considered more important and have a major influence on the name to represent the factor. Factor naming is based on the characteristics that correspond to the members of each factor. The resulting name is based on the characteristics of its members as in Table 4.6 below:

Table 6. Names of Formed Factors

Factor	Indicators/Variables	Contribution to Factor Variation	Factor Name
1	Development Ideas	35%	Product
	Easy to Run		
	Easy to Market		
	People Needed		
	Big Profits		
2	Have Skills	14%	Motivation
	Have High Interest		
	Self Empowerment		
3	Environmental Influence	13%	Socio-cultural
	According to Education		
	Not Much Capital		

Based on Table 4.6, the Product factor has the highest total contribution of 35%. This shows that in deciding to run a culinary business, respondents consider the Product factor more than other factors. In deciding to run a culinary business, respondents assume that in the culinary business it is easy to find ideas to develop, this business is also easy to run, easy to market, culinary products are always needed by consumers and there are greater profits compared to other businesses.

The second factor considered by respondents in choosing a culinary business as a business field to run

is the Motivation factor with a contribution of 14%. This shows that Motivation is an important factor to consider. Respondents decided to run a culinary business because they felt they had the skills to manage this business and hoped to be able to run the business smoothly and get the results according to the desired expectations. In addition, the high interest in running a culinary business can also encourage respondents to decide to run this business. Another thing that encourages respondents to decide to choose a business in the culinary field is the desire to empower themselves more by getting additional income outside of other jobs and being able to increase their income.

The third factor is Socio-Cultural, where the environment can influence the decision taken in choosing a culinary business as a business field to run. In addition, what is also a consideration in choosing this business is the suitability with the educational background. With the knowledge that has been obtained during education at school or college, respondents believe they are capable of running the culinary business. The variables that are also considered by respondents in choosing a culinary business are that this business can be done gradually, starting from a small scale, even at this time, this business can be run online, so there is no need to spend a lot of money on promotion, can be run from home without having to rent a special place of business, so it can be said that the culinary business does not require large capital.

DISCUSSION

The findings from this study reveal several important insights into the decision-making processes of entrepreneurs in the culinary business sector in Madiun. Through the use of Exploratory Factor Analysis (EFA), three dominant factors emerged: Product, Motivation, and Socio-Cultural influences. Each of these factors plays a critical role in shaping the decisions of entrepreneurs as they choose the culinary business as their primary field.

Product Factor

The Product factor is the most influential in the decision-making process of entrepreneurs. This factor encapsulates variables such as the ease of generating new business ideas, simplicity in running the business, ease of marketing, the continuous need for food and beverages, and the potential for significant profits. The high contribution of this factor (35%) highlights the practical considerations entrepreneurs face when entering the culinary industry.

One of the major appeals of the culinary business, as noted by respondents, is its relative ease of entry. Unlike many other sectors that require specialized knowledge, technological infrastructure, or large amounts of capital, the culinary sector is perceived as more accessible. This is particularly evident in the fact that food and beverages are basic human needs, ensuring consistent demand regardless of economic fluctuations, such as during the COVID-19 pandemic. Entrepreneurs perceive the sector as resilient, with a stable customer base, making it less vulnerable to crises than other industries.

Moreover, the culinary industry's potential for innovation and development is another driving factor. Respondents noted that it is relatively easy to generate new ideas for product offerings, which can range from traditional to modern, fusion, or health-conscious dishes. This innovation capability, coupled with the ease of marketing food products, particularly through social media platforms, has opened up numerous avenues for culinary businesses to reach and attract customers with minimal advertising costs. Thus, the culinary business is seen as a flexible and scalable field, allowing entrepreneurs to experiment with low-risk options before potentially expanding.

Motivation Factor

The second factor influencing the decision-making process is Motivation, accounting for 14% of the total variance. This factor includes internal drivers such as personal skills, a high interest in entrepreneurship, and the desire for self-empowerment. These internal factors are crucial as they reflect the individual's personal commitment to starting and growing a business in the culinary field.

Many respondents reported that their decision to enter the culinary business was driven by a belief in their own skills and capabilities. They felt confident that they possessed the knowledge and practical skills necessary to manage a culinary business successfully. For some, these skills were developed through formal education in related fields, such as hospitality or food technology, while others gained them through informal learning or personal passion for food and cooking. This confidence in personal ability plays a significant role in motivating entrepreneurs to take the leap into business ownership.

Interest in the culinary industry also acts as a powerful motivator. Many entrepreneurs are drawn to the business not just for financial gain but because they are passionate about food and hospitality. This passion can provide the emotional and psychological energy needed to overcome the challenges of starting and maintaining a business. The study also found that many entrepreneurs are motivated by a desire for self-empowerment. Running a business offers the opportunity to be independent, take control of one's financial future, and potentially improve one's socio-economic standing. For many respondents, this sense of empowerment was a key factor in their decision to enter the culinary industry.

Furthermore, the relatively low capital required to start a small-scale culinary business makes it an attractive option for those seeking to generate additional income outside of regular employment. The flexibility of the business model, particularly the ability to start small, often from home, allows entrepreneurs to manage risks while testing their business ideas before committing to larger-scale operations.

Socio-Cultural Factor

The third factor, contributing 13% to the decision-making process, is the Socio-Cultural factor. This factor includes the influence of the surrounding environment, educational background, and access to capital. Entrepreneurs are often influenced by the socio-cultural environment in which they operate, including family expectations, community norms, and societal trends. For example, in Madiun, where the culinary business is growing rapidly, the local culture of dining out and café culture may encourage more individuals to venture into this sector.

Educational background also plays a role in the decision-making process. Respondents who had formal education in areas related to business, food science, or hospitality were more likely to feel prepared to enter the culinary industry. This suggests that relevant educational qualifications can act as a confidence booster, giving entrepreneurs the belief that they have the necessary theoretical and practical knowledge to succeed. Additionally, the culinary business is perceived as more manageable due to the availability of online platforms that allow entrepreneurs to operate with minimal physical infrastructure. The ability to run the business online, either by taking orders through social media or delivery apps, minimizes overhead costs and the need for large startup capital, further reducing barriers to entry.

Moreover, family and community support, along with societal expectations, can either encourage or dissuade individuals from starting their own businesses. In many cases, the influence of family and community can provide the necessary encouragement for entrepreneurs to pursue culinary ventures. Some respondents may also feel pressure from societal norms, such as the expectation to follow a certain career path, especially if they are continuing a family business. This socio-cultural influence underscores the interconnectedness of personal decisions with the larger community and cultural context.

Comparative Analysis with Existing Literature

The findings of this study align with previous research that highlights the role of both internal and external factors in entrepreneurial decision-making. Studies in the field of entrepreneurship have often emphasized the importance of personal motivation, skills, and self-efficacy in influencing business decisions. This research confirms those findings, particularly in the context of the culinary industry, where passion and personal interest are significant motivators.

In contrast to other industries where technical skills and capital might play a larger role, the culinary business in Madiun benefits from a combination of cultural relevance, economic accessibility, and the emotional drive of its entrepreneurs. This is consistent with broader trends in the creative economy, where passion-driven businesses, such as those in the culinary arts, tend to be more resilient and innovative.

However, this study also contributes new insights by specifically identifying the Product factor as the most influential in the decision-making process. While much of the literature emphasizes motivation and socio-cultural factors, the emphasis on product-related variables, such as ease of operation and profitability, provides a practical perspective on why entrepreneurs choose this industry.

Implications for Entrepreneurs and Policy Makers

For entrepreneurs, understanding the factors that influence decision-making in the culinary business can help them better navigate the complexities of starting and sustaining a business. By recognizing the importance of both personal motivation and product-related factors, they can make more informed decisions about how to allocate resources and develop business strategies.

For policymakers, the study highlights the importance of supporting the culinary industry as a key component of the creative economy. Given the relative ease of entry and the industry's potential for growth, government programs could focus on providing access to capital, business training, and marketing assistance to further enhance the success rates of culinary entrepreneurs. Additionally, supporting the growth of the culinary sector can have broader economic benefits, particularly in terms of employment and contribution to GDP.

In conclusion, the discussion reveals a complex interplay of product-related, motivational, and socio-cultural factors in driving entrepreneurial decisions in the culinary business sector. These factors not only influence individual decision-making but also have broader implications for the development of the industry as a whole.

CONCLUSION

This research has identified three key factors that influence entrepreneurs in Madiun to choose the culinary business as their primary field: Product, Motivation, and Socio-Cultural factors. The Product factor,

which encompasses the development of business ideas, ease of market entry, and high consumer demand, plays the most dominant role. Entrepreneurs are attracted to the culinary industry because of its perceived profitability, accessibility, and essential nature. Meanwhile, Motivation factors, including personal skills, interests, and the desire for self-empowerment, further drive individuals to pursue this business. Lastly, Socio-Cultural influences, such as educational background and environmental factors, also contribute significantly to their decision-making.

These insights provide valuable implications for both current and prospective entrepreneurs. Recognizing the combination of internal and external factors can help business owners better prepare for the challenges and opportunities in the culinary industry. Future research could explore how these factors evolve over time or in different geographic regions, contributing to a deeper understanding of entrepreneurial behavior in the culinary sector.

RECOMMENDATION

The recommendations from this research are directed towards several key stakeholders. First, entrepreneurs, both current and aspiring, can benefit from the insights on decision-making factors such as product-related influences, motivation, and socio-cultural elements. These insights can help them make more informed business choices, manage risks, and seize growth opportunities in the culinary sector. Second, policy makers, including government officials and local authorities, can use these findings to support the culinary industry in Madiun by implementing policies that provide access to capital, business training, and marketing assistance, thus fostering a supportive environment for small and medium-sized enterprises (SMEs). Third, educational institutions, especially those offering business and entrepreneurship programs, can integrate these findings into their curriculum to better prepare students for real-world challenges in the culinary industry. Finally, business development organizations that focus on SME support can design programs that address the specific needs of culinary entrepreneurs, particularly in product development, marketing, and financial management. Together, these stakeholders can contribute to the growth and resilience of the culinary business sector, fostering broader economic development in Madiun.

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