

Raw Material Cost Risk Management Strategy to Improve Financial Resilience of Culinary MSMEs in Batu City

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INDEXING	ABSTRACT
<p>Keywords: Keyword 1; Culinary Keyword 2; Risk management Keyword 3; Raw material costs Keyword 4; Financial resilience Keyword 5; MSMEs</p>	<p>Micro, Small, and Medium Enterprises (MSMEs) in the culinary sector play a crucial role in supporting regional economic development, particularly in Batu City, which is widely recognized as a tourism hub. The high level of tourism activities encourages the growth of culinary MSMEs while simultaneously increasing business competition and operational risks. One of the main challenges faced by culinary MSMEs is the fluctuation in raw material costs, which can directly affect financial stability and business sustainability. Inadequate risk management related to raw material costs may reduce profit margins, disrupt cash flow, and weaken the financial resilience of MSMEs. This study aims to analyze effective raw material cost risk management strategies in enhancing the financial resilience of culinary MSMEs in Batu City. The research method employed is a qualitative approach using a case study design, involving two culinary MSMEs: Ketan KD and Bakso Mantul Balungan Khas Malang. Data were collected through observation, structured interviews with business owners, documentation, and literature study. Data analysis was conducted using SWOT analysis supported by the IFAS, EFAS, and Internal–External (IE) Matrix. The findings indicate that raw material cost risk management strategies, including supplier diversification, planned inventory management, systematic financial recording, and flexible pricing adjustments, are effective in improving cash flow stability, resilience to raw material price fluctuations, and business sustainability. Therefore, appropriate risk management strategies play a crucial role in strengthening the financial resilience of culinary MSMEs in Batu City</p>

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INTRODUCTION

The role of Micro, Small, and Medium Enterprises (MSMEs) in advancing the Indonesian economy is truly vital, as stated by Telaumbanua (2021). MSMEs are not only a key pillar in creating jobs but also serve as an effective solution in absorbing labor, thereby helping reduce unemployment rates in society, a concept emphasized by Bustam (2016). This, as studied by Laksamana, Setyaningrum & Ariani (2024), shows that this sector faces many challenges in running and developing its businesses. One of the main challenges faced by MSMEs is the increase in raw material prices. This uncertainty is a major challenge that requires MSMEs to have adaptive and resilient financial management strategies to ensure business survival. This is as studied by Rinanda & Anshar (2025).

The importance of this research is to find out crucial factors such as inflation and global price fluctuations of culinary MSMEs that are highly dependent on raw materials (such as rice, flour, cooking oil, vegetables, meat) whose prices are very volatile (easily changing), climate and seasonal factors in Batu City (as a tourist and agricultural area), weather and seasons greatly affect the availability and price of local raw materials. Comparing these

MSMEs will produce a more comprehensive and contextual risk management strategy, which can be applied in various types of regions in Indonesia.

The difference between the current study and previous research is that there are still few studies discussing raw material cost risk management strategies, especially for culinary MSMEs. Therefore, this study makes a significant scientific contribution to the development of financial management science. The difference between previous and current research also lies in the focus of the research. While most previous studies focused on a single focus, the current study examines different MSMEs.

This study aims to determine the most effective raw material cost risk management strategies for improving the financial resilience of culinary MSMEs in Batu City. Comparing these MSMEs will yield a more comprehensive and contextual risk management strategy that can be applied across various regions in Indonesia. Building a risk management system for MSMEs will not only enable them to survive amidst uncertainty but also foster innovative, adaptive, and competitive business actors in the modern era. This is crucial because a strong risk management culture not only protects businesses from existing threats but also creates a foundation for better decision-making in uncertain situations. This is as examined by Latifah, Utaman, & Kurniawan (2025) in their book, "Risk Management for Small and Medium Enterprises." Therefore, this research makes a significant scientific contribution to the development of financial management science. This research will generate new knowledge about how the economic context influences risk management strategies.

LITERATURE REVIEW

Management Strategy

Sudiantini and Hadita (2022), in their book *Strategic Management*, explain that strategic management is a series of managerial actions that determine a company's long-term performance. This reflects the interconnectedness of strategic management, which encompasses environmental assessment, strategy formulation (including strategic planning or long-term planning), strategy implementation, and evaluation and control. Furthermore, strategic management emphasizes the observation and evaluation of environmental opportunities and threats.

Strategy is formulated with the aim of shaping responses to external changes relevant to an organization. Strategy is defined as the process of determining plans by top leaders focused on the organization's long-term goals, along with the development of methods or efforts to achieve these goals.

Risk Management

Maralis & Triyono (2019), in their book "Risk Management," note that the term "risk" is commonly used in everyday life; we generally intuitively understand what it means. Hopkin (2017) explains that the risk management process consists of several main stages: risk identification, risk analysis, risk evaluation, risk treatment (mitigation, transfer, elimination, or acceptance), and monitoring and review. This approach is particularly relevant in the context of MSMEs, given that this sector operates in a highly dynamic and uncertain business environment. However, many MSMEs have not yet implemented formal risk management due to limited capacity and knowledge. Risk management focuses on accurately identifying risks and taking appropriate action, with the ongoing goal of creating or enhancing maximum value for the company (Darmanto & Wardaya et al., 2016).

Therefore, risk management encompasses the activities of planning, organizing, leading, coordinating, and overseeing risk management programs. Furthermore, the term risk management is defined as a logical and systematic mode in identifying, quantifying, determining attitudes, establishing solutions, as well as monitoring and reporting risks that occur in every activity or process (Idroes, 2012).

Raw Materials

Amelya, Sutrisna, and Rahwana (2021), in their journal "Production Cost Analysis Based on Raw Material Costs and Direct Labor Costs (Case Study of Folding Box Production at CV. Jamal Handycraft Rajapolah Tasikmalaya)" state that raw material costs, according to Mulyani (2016:275), are the primary materials that constitute the entire final product, thus being directly identifiable with the product and possessing significant value. In the raw material procurement process, companies incur not only the purchase price of the raw materials but also additional costs to ensure the raw materials arrive at the company's warehouse.

Financial Resilience

Sholikudin et al. (2024) in the journal "The Influence of the Digital Economy and Self-Control on the Financial Resilience of Accounting Students" define financial resilience as the capacity of an individual or household to overcome financial challenges, manage finances effectively, and achieve long-term financial stability. Salignac et al. (2019) also stated that financial resilience is a person's capacity to access and use internal capabilities and appropriate, acceptable, and easily accessible external resources, providing support when individuals or families face financial challenges. Financial resilience involves a person's ability to cope with financial stress, navigate financial crises, and remain on a healthy financial path (Hogarth, 2002).

Culinary MSMEs

Nasution et al. (2022) in their training journal "Business Management in Improving Culinary MSMEs" noted that micro, small, and medium enterprises (MSMEs) constitute a significant portion of the overall economy. However, MSME growth related to technological advancements has not yet met expectations. The training involved 34 micro-enterprises, most of which were culinary businesses, that received the management training they needed. The results of this activity resulted in culinary partners becoming more advanced in managing and selling their products online.

RESEARCH METHOD

Research Location

This research was conducted at culinary MSMEs in Batu City, East Java, namely the ketan KD Culinary MSME and the Malang-style Bakso Mantul Balungan Culinary MSME. The research was conducted from October 13 to November 15, 2025.

Data Sources

- This research utilizes several data sources, namely primary and secondary data sources.
1. Primary data is data obtained from direct field observations and data obtained from MSMEs interviewed in a structured manner according to the research protocol. It is important to note that these respondents are knowledgeable about raw material cost risk management strategies to improve the financial resilience of culinary MSMEs in Batu City.

2. Secondary data supports the primary data obtained from previous research studies, journals, and other relevant literature. Furthermore, the data is analyzed using SWOT analysis.

Data Collection Techniques

To obtain data for this study, several methods were used, namely:

1. Sugiyono (2019:203) explains that observation is a data collection technique that involves observing human behavior, work processes, natural phenomena, and respondents. In this study, observations were conducted by observing the conditions of culinary MSMEs in Batu City to identify which culinary MSMEs in Batu City are still unable to overcome raw material cost risks and improve financial resilience.
2. Sugiyono (2019:194) explains that interviews are used as a data collection technique through questions and answers with leaders, authorities, or other departments directly related to the research object. This approach is expected to obtain data or information regarding culinary MSMEs and identify specific problems they face. Structured interviews were conducted with MSME owners to explore their experiences in dealing with raw material cost risks, the strategies they employ, and their impact on business continuity.
3. Sugiyono (2022) states that documentation is the process of collecting data and information for research purposes in the form of reports, photographs, books, archives, documents, numerical notes, and photographs.
4. According to Sugiyono (2012), a literature review is a theoretical study, references, and other scientific literature related to the culture, values, and norms in the social situation being studied. Accordingly, this study collected relevant data on risk management and financial resilience of MSMEs through journal and book studies.

Sources

The sources in this study were culinary MSMEs in Batu, namely Ketan KD and Bakso Mantul Balungan, a typical Malang culinary MSME. The researchers asked questions or interviewed the managers of these two MSMEs. By comparing the managers of these two MSMEs, the researchers were able to determine which MSME had the most effective strategy.

Respondents

The main respondents in this study were the owners or direct managers of the Ketan KD and Bakso Mantul Balungan, a typical Malang culinary MSME. They were chosen because they have the most comprehensive and in-depth knowledge of the real challenges faced, such as fluctuations in raw material prices, dependence on suppliers, and financial and stock management strategies that have been implemented to maintain the business.

Data Analysis

In analyzing data using SWOT analysis, Rangkuti (2019) states that SWOT analysis is the process of systematically identifying strategic factors to formulate strategies. Strategy here serves as a tool to achieve long-term company goals, including follow-up programs and prioritizing resource allocation. The results of a SWOT analysis can provide guidance for maintaining strengths and increasing revenue from existing opportunities, while addressing weaknesses and avoiding threats. A SWOT analysis can be used for strategic analysis and as a logical reference in a systematic discussion of the company's situation and the main alternatives the company might consider. Then, an IFAS (Internal Factors Analysis

Summary) and EFAS (External Factors Analysis Summary) table are created. SWOT Matrix analysis is performed by determining strategic alternatives: strengths-opportunities (SO), strengths-threats (ST), weaknesses-opportunities (WO), and weaknesses-threats (WT). The Internal-External Matrix (IE) is the final tool in strategic management used to map the position of MSMEs based on the results of internal (IFAS) and external (EFAS) factor analysis. The IE Matrix is used to map an organization's position based on its internal strengths (IFE/IFAS) and its ability to respond to the external environment (EFE/EFAS). This analysis is crucial for determining the most appropriate strategic direction for the ketan KD and Malang-style Bakso Mantul Balungan culinary MSMEs in addressing raw material cost risks and improving financial resilience.

The IE Matrix is mapped using the weighted total score from the IFAS Matrix (as the Y-axis) and the weighted total score from the EFAS Matrix (as the X-axis).

RESULT AND DISCUSSION

This study focuses on two culinary MSMEs, Ketan KD and Bakso Mantul Balungan Khas Malang, to examine their strategies in managing raw material cost risks to remain financially strong. These two MSMEs were chosen because they have different characteristics in handling raw material risks, but both face the challenge of financial resilience amid economic fluctuations. The following is the general data and organizational structure of the two culinary MSMEs.

Table 1. General Data on Ketan KD MSMEs

MSME Name	Ketan KD
Manager's Name	Mr. Sukardi
Manager's Age	62 Years Old
Gender	Male
Year Established	1998
Number of Employees	1 Person
Address	Batu City Square

Source: Processed Results (2025)

Table 2. General Data on Malang Special Meatball Mantul Balungan MSMEs

MSME Name	Mantul Balungan Meatballs, a specialty of Malang
Manager's Name	Mrs. Kamelia
Manager's Age	28 Years Old
Gender	Female
Year Established	2010
Number of Employees	2 Person
Address	Batu City Square

Source: Processed Results (2025)

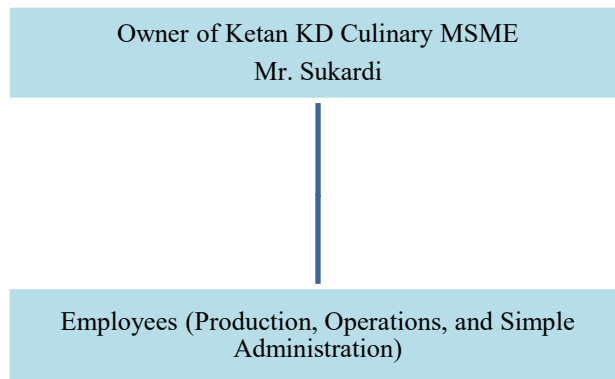


Figure 1 Organizational Structure of Ketan KD Culinary MSME

Source: Processed Results 2025

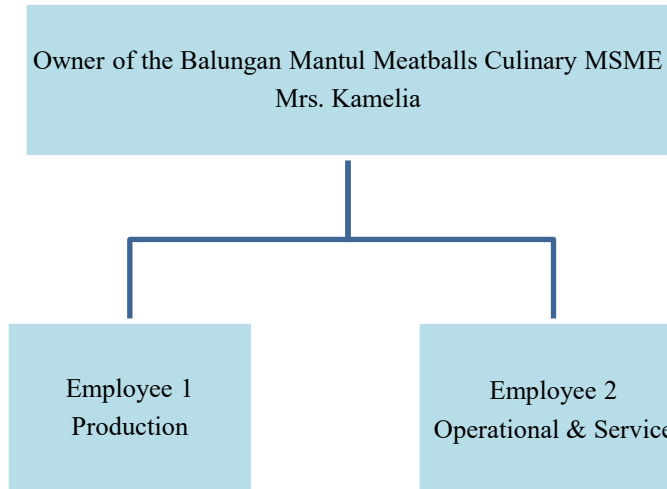


Figure 2 Organizational Structure of the Malang-Style Meatball Mantul Balungan Culinary MSME

Source: Processed Results 2025

Research Findings

The results of an interview with Mr. Sukardi, the owner of the Ketan KD culinary business, are as follows:

"The biggest challenge currently is the rising price of raw materials, especially glutinous rice and coconut, especially with the current rainy weather causing a decline in sales. Many competitors are already utilizing digital marketing, while young consumers are more interested in modern snacks" (interview, Monday, October 6, 2025).

Based on the interview results, it can be explained that the Ketan KD business faces complex challenges. Competition is increasingly fierce, with many competitors having shifted to digital marketing, while the business has not been able to adapt. At the same time, the business is burdened by rising prices for key raw materials and declining demand due to weather factors and shifting consumer preferences toward contemporary products. This combination of challenges not only puts pressure on profitability but also directly threatens the financial resilience and sustainability of the business in a dynamic market.

The researcher then conducted an interview with Mrs. Kamelia, the owner of the Malang-style Bakso Mantul Balungan culinary business, as follows:

"There is often a surge in demand and an increase in the price of key raw materials, such as meat and wheat flour, during Eid al-Fitr. If flour is expensive, the price of meatball flour also increases. Although I always stock raw materials at home, storing them for too long risks spoilage or a decrease in quality, especially during the rainy season like now. Furthermore, I have competitors right next door selling similar products. However, I choose not to move locations because I fear having to build a customer base from scratch." (interview, Monday, October 6, 2025).

Based on the results of the research interview above, it can be explained that this MSME faces complex cost and operational management challenges. The surge in demand and increases in raw material prices during times like Eid al-Fitr create significant pressure on production costs, with the increase in wheat flour prices directly impacting the price of meatball flour. The stocking strategy also carries risks, namely the potential for decreased quality or spoilage of raw materials if stored for too long, especially during the rainy season. On the other hand, direct competition from similar businesses in nearby locations adds to market pressure, but the consideration of maintaining a loyal customer base is the main reason for staying in the current location rather than risking building a new customer base from scratch.

Internal and External Factor Analysis

To obtain a more comprehensive overview of the SWOT analysis, it is necessary to use a table of internal and external factors for both culinary MSMEs. In compiling the IFAS Matrix, it is necessary to understand and evaluate the internal environment of the culinary MSMEs.

Table 3. Internal Factor Evaluation Matrix (IFE Matrix) Ketan KD Culinary MSME

MAIN INTERNAL FACTORS	WEIGHTED	RANKING	SCORE
STRENGTH			
1. Reliable and effective risk management system experience since 1998	0,15	4	0,60
2. Strict and healthy cash flow management	0,20	4	0,80
3. a consistent and generous experience due to friendly service	0,10	3	0,30
4. Consistent product quality and stable taste	0,15	3	0,45
5. Good raw material stock management with historical data analysis capabilities.	0,15	3	0,45
			2,60
WEAKNESS			
1. High dependence on local suppliers without diversification	0,10	1	0,10
2. The selling price is not flexible even though the price of raw materials increases.	0,05	2	0,10
3. No strategic partnerships with other suppliers	0,03	2	0,06
4. Limited access to information on government assistance programs	0,05	1	0,05
5. Only relying on subscription buyers and not using social media	0,02	1	0,02
			0,33
TOTAL	1		2,93

Source: Data Processing Results, (2025)

The table above shows that the total IFE Matrix score for the ketan KD Culinary MSME is 2.93. This score is above the average (2.5), indicating that the MSME's internal strengths outweigh its weaknesses. The highest score was primarily driven by strengths in tight and sound cash flow management (score 0.80) and a reliable risk management system (score 0.60). However, the main weaknesses lie in heavy reliance on local suppliers without diversification and inflexible selling prices, which are critical areas that need improvement to enhance financial resilience.

Similar to creating the IFAS matrix, developing the EFAS matrix also requires understanding and evaluating external conditions, including opportunities that can be exploited by the Culinary MSME and threats that need to be avoided. The results of the external analysis are followed by an evaluation to determine whether the strategies implemented so far are responding to existing opportunities and threats.

Table 4. External Factor Evaluation Matrix (EFE-Matrix) Ketan KD MSMEs

MAIN EXTERNAL FACTORS	WEIGHTED	RANKING	SCORE
OPPORTUNITY			
1. Wide diversification of flavor variants can attract more customer segments.	0,10	3	0,30
2. High demand patterns on weekends indicate certain market potential.	0,05	3	0,15
3. Offers to collaborate from other business actors to expand distribution	0,15	4	0,60
4. Customer suggestions for product differentiation and branding improvement	0,10	3	0,30
5. Long-term customer loyalty and word-of-mouth marketing	0,10	4	0,40
			1,75
THREAT			
1. Increasing levels of competition with many new competitors	0,10	2	0,20
2. Fluctuations in the prices of the main raw materials, namely ketan and coconut.	0,20	2	0,40
3. Natural factors and fuel price increases affect purchasing interest and operational costs.	0,07	2	0,14
4. Consumer shift to online delivery services and digital lag	0,08	1	0,08
5. Competition with "modern" products and practical packaged foods	0,05	2	0,10
			0,92
TOTAL	1		2,67

Source: Data Processing Results, (2025)

The table above shows the EFAS matrix for the ketan KD Culinary MSME. The total EFAS score for the ketan KD Culinary MSME is 2.67. This figure indicates that externally, the opportunities that can be exploited outweigh the threats faced. The greatest opportunity lies in the potential for collaboration to expand distribution. Meanwhile, the most significant threat is the fluctuation in the price of primary raw materials, which is the primary focus of risk management.

Table 5. Internal Factor Evaluation Matrix (IFE Matrix) Malang-Style Meatball Mantul Balungan Culinary MSME

MAIN INTERNAL FACTORS	WEIGHTED	RANKING	SCORE
STRENGTH			
1. Business experience since 2010 with business resilience and maturity	0,15	4	0,60
2. Distinctive taste that creates loyal customers and main attraction	0,15	4	0,60
3. Financial strategy in separating capital and profits for stability	0,20	4	0,80
4. Storage of raw material stock to anticipate price fluctuations	0,10	3	0,30
5. Not increasing selling prices even though raw materials have increased increases loyalty	0,05	2	0,10
			2,40
WEAKNESS			
1. Raw material buyers are only in the market, vulnerable to price fluctuations	0,15	1	0,15
2. No collaboration with suppliers for better prices	0,05	1	0,05
3. Reducing portions when prices rise risks reducing satisfaction.	0,03	2	0,06
4. Storing large amounts of stock carries the risk of spoilage and a decrease in quality.	0,02	2	0,04
5. Rising raw material prices erode profit margins	0,10	1	0,10
			0,40
TOTAL	1		2,80

Source: Data Processing Results,(2025)

In the table above, it can be seen that the total value of the IFAS matrix value for the Bakso Mantul Balungan Culinary MSME is 2.80. This value shows that the Bakso Mantul Balungan Culinary MSME has a very dominant and profitable internal position, where strength factors such as business experience since 2010, distinctive taste that maintains customer loyalty, stable financial strategies, and the ability to anticipate price fluctuations are significantly more dominant than its weaknesses, thus creating a solid foundation to face market competition and having great opportunities for sustainable business development and expansion.

Table 6. External Factor Evaluation Matrix (EFE-Matrix) Bakso Mantul Balungan Culinary MSME

MAIN EXTERNAL FACTORS	WEIGHTED	RANKING	SCORE
OPPORTUNITY			
1. The market is consistent with weekend turnover increasing by 30-50%	0,18	4	0,72
2. Free-range chicken rice is the best-selling menu on weekends.	0,07	4	0,28
3. Opportunity to collaborate with beverage businesses for combo packages	0,10	3	0,30
4. Utilizing Instagram to expand sales reach	0,03	1	0,03
5. Consistent weekend profits for growth funding	0,12	3	0,36
			1,69
THREAT			
1. Increase in the price of raw materials such as meat and flour, especially during Eid	0,20	2	0,40

<ul style="list-style-type: none"> 3. Collaboration offers from other businesses to expand distribution 4. Customer suggestions for product differentiation and branding enhancement. 5. Long-term customer loyalty and word-of-mouth marketing 	<p style="text-align: center;">STRENGTHS (S)</p> <p>Health</p> <ul style="list-style-type: none"> 3. Optimizing a Loyal Customer Base for Market Development 4. Consistent Quality as a Competitive Differentiator 5. Operational Optimization Based on Data Analytic 	<p style="text-align: center;">WEAKNESSES (W)</p> <ul style="list-style-type: none"> 3. Strategic Partnerships for Supply Stability 4. Access to Information through Partner and Customer Networks 5. Market Expansion through Word-of-Mouth and Partnerships
<p style="text-align: center;">THREATS (T)</p> <ul style="list-style-type: none"> 1. Supply Chain Diversification through Collaborative Networks 2. Product Differentiation for Price Flexibility 3. Strategic Partnerships for Supply Stability 4. Access to Information through Partner and Customer Networks 5. Market Expansion through Word-of-Mouth and Partnerships 	<p style="text-align: center;">STRATEGY ST</p> <ul style="list-style-type: none"> 1. Risk and Cash Flow Management to Face Price Fluctuations 2. Consistent Quality and Loyalty to Defeat Competition 3. Data Analysis and Stock Management to Anticipate Disruptions 4. Sound Financial Strategies to Face Cost Pressures 5. Controlled Innovation Through Business Experience 	<p style="text-align: center;">STRATEGY WT</p> <ul style="list-style-type: none"> 1. Supplier Diversification and Procurement Strategy 2. Strategic Pricing Adjustments and Cost Efficiency 3. Supply Risk Mitigation through Partnerships 4. Resource Optimization and Access to Assistance 5. Gradual Digital Adaptation and Service Strengthening

Source: Processed data from 2025

The SWOT matrix in the image above yields four strategic options that owners or managers of the ketan KD Culinary MSME can implement to address the risks of raw material costs, financial resilience, and increasing competition.

Table 8. SWOT Matrix for the Meatball Mantul Balungan Culinary MSME

	<p style="text-align: center;">IFAS</p>	<p style="text-align: center;">STRENGTHS (S)</p> <ul style="list-style-type: none"> 1. Business experience since 2010 with resilience and business maturity 2. Distinctive flavors that create loyal customers and are a key attraction 3. Financial strategy of separating capital and profits for stability 4. Maintaining raw material inventory to anticipate price fluctuatiinn 5. Not raising selling prices even when raw material prices increase to increase loyalty 	<p style="text-align: center;">WEAKNESSES (W)</p> <ul style="list-style-type: none"> 1. Buying raw materials only at the market is vulnerable to price fluctuation 2. No collaboration with suppliers for better prices 3. Reducing portions when prices rise risks decreased satisfaction 4. Maintaining large inventories risks spoilage and quality decline 5. Rising raw material prices erode profit margins
	<p style="text-align: center;">EFAS</p>		

	STRENGTHS (S)	WEAKNESSES (W)
OPPORTUNITIES (O)	STRATEGY SO	STRATEGIES WO
<ol style="list-style-type: none"> 1. Consistent market with weekend sales increasing by 30-50% 2. Free-range chicken rice is the best-selling menu on weekends 3. Opportunity to collaborate with beverage businesses for combo packages 4. Utilizing Instagram to expand sales reach 5. Consistent weekend profits to fund growth 	<ol style="list-style-type: none"> 1. Market Expansion Based on Experience and Business Resilience 2. Product Innovation Based on Distinctive Taste and Customer Loyalty 3. Financial Stabilization for Long-Term Development 4. Optimizing Inventory Management to Anticipate Price Fluctuations 5. Strengthening Loyalty through Competitive Pricing Strategies 	<ol style="list-style-type: none"> 1. Diversifying Supply Sources through Strategic Partnerships 2. Establishing Long-Term Partnerships with Suppliers 3. Product Innovation and Variants as Cost-Saving Alternatives 4. Optimizing Storage Systems Based on Simple Technology 5. Adaptive Pricing Strategy through Product Differentiation
THREATS (T)	STRATEGY ST	STRATEGY WT
<ol style="list-style-type: none"> 1. Rising prices for raw materials like meat and flour, especially during Eid. 2. Competitors with similar products in nearby locations 3. Risk of raw material spoilage due to prolonged storage 4. Weather changes reduce demand and exacerbate spoilage. 5. High dependence on a single location. 	<ol style="list-style-type: none"> 1. Optimizing Business Experience & Financial Strategy to Address Price Fluctuations 2. Maintaining Customer Loyalty with Consistent Taste in the Face of Competition 3. Smart Stock Management with FIFO System and Quality Control 4. Controlled Expansion Based on Weekend Demand Data 5. Strengthening Market Position through Menu Innovation Based on Sales Data 	<ol style="list-style-type: none"> 1. Supply Chain Transformation through Strategic Partnerships 2. Optimizing Inventory Management Based on Demand Forecasts 3. Product Diversification and Combo Packages Increase Sales Value 4. Digital Adoption to Compensate for the Impact of Climate change 5. Business Model Restructuring for Financial Sustainability

Source: Processed data from 2025

The SWOT matrix in the image above produces four strategies that can be taken by the owner or manager of the Bakso Mantul Balungan culinary MSME business in facing increasingly competitive competition.

IE Matrix

The IE Matrix mapping is performed using the weighted total score from the IFAS Matrix (as the Y-axis) and the weighted total score from the EFAS Matrix (as the X-axis).

The position of the two MSMEs in Cell V indicates that culinary MSMEs in Batu City have:

1. Moderate Internal Strength (IFAS 2.00 – 2.99), meaning they possess fairly solid internal capabilities and resources, but still have several weaknesses that need to be addressed.
2. Average External Attractiveness (EFAS 2.00 – 2.99), because the business and market environment in Batu City is not overly aggressive (low threat) but also not particularly rich in untapped opportunities.

In the context of financial resilience, the Hold and Maintain Strategy is highly relevant because it focuses on consolidation and efficiency, which directly protect profit margins from the impact of fluctuations in raw material cost risk.

The following is an illustration of the IE Matrix for the two culinary MSMEs.

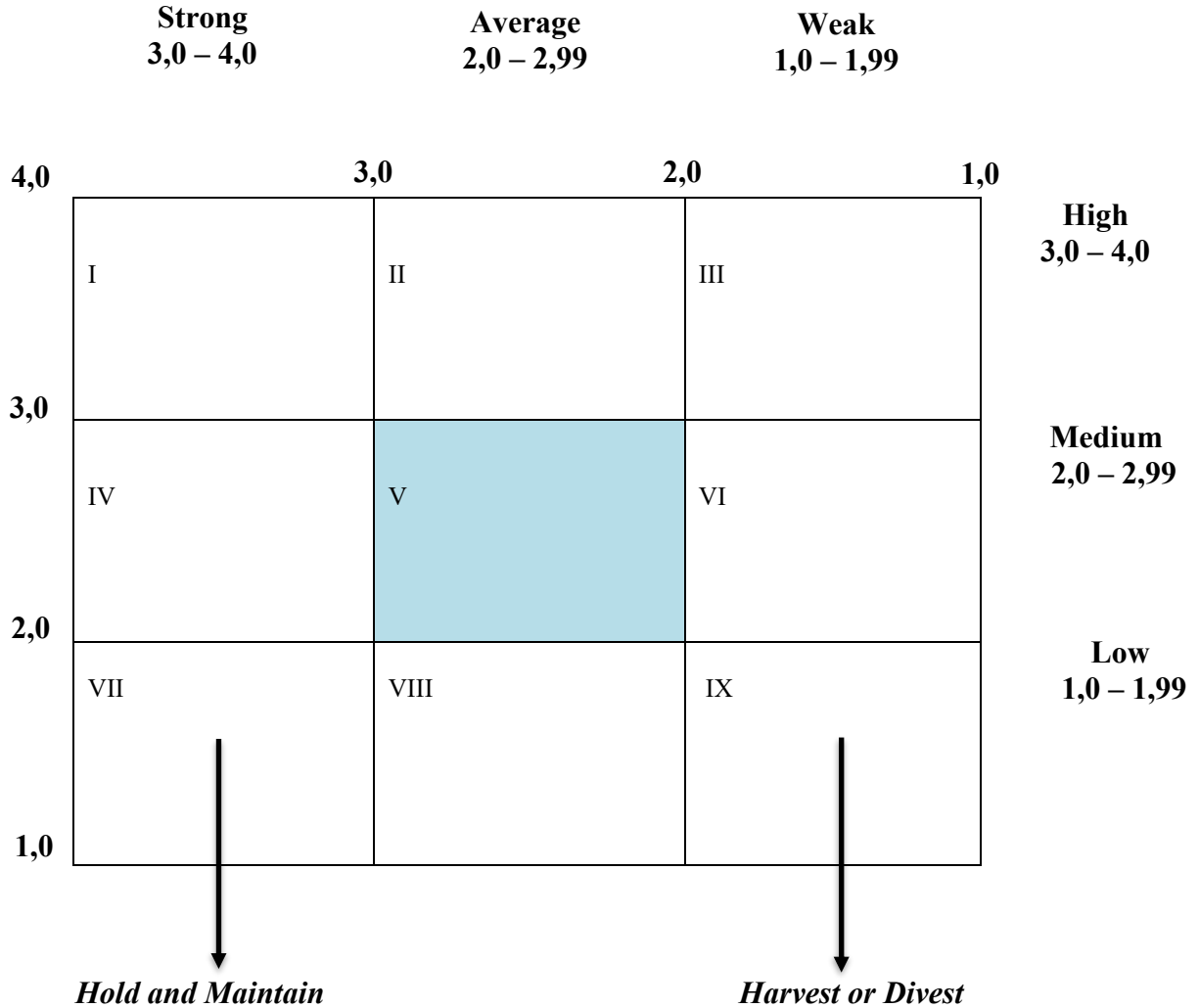


Figure. 3 IE Matrix for Ketan KD Culinary MSMEs and Malang-Style Meatballs

The image above shows that the Ketan KD Culinary MSME and the Malang-style Mantul Balungan Meatballs are in Cell V of the IE Matrix, which represents the Hold and Maintain strategy. Mapping these two coordinate points in the IE Matrix shows that both the Ketan KD MSME (2.67; 2.93) and the Balungan Mantul Meatballs MSME (2.73; 2.80) are both in Cell V. Cell V is the quadrant that recommends a Hold and Maintain Strategy. This focuses on raw material cost risk management strategies, as this is a cost component that directly impacts the financial stability of culinary MSMEs. The Cell V position aligns with the research objective, which is to develop strategies that can improve the financial resilience of culinary MSMEs through managing raw material cost risk.

Cell V position recommends a Stability Strategy, also known as a Hold and Maintain strategy. This strategy is particularly relevant for MSMEs that have adequate internal resources but must operate in a less aggressive market environment.

DISCUSSION

This discussion aims to interpret the results of the IFAS Matrix analysis, the EFAS Matrix analysis, and the IE Matrix mapping presented above, by formulating the most effective raw material cost risk management strategy to improve the financial resilience of culinary MSMEs in Batu City.

The main finding of this study is the strategic position of the two research objects, namely the ketan KD Culinary MSME and the Balungan Mantul Meatballs Culinary MSME, which are located in Cell V (Hold and Maintain) in the IE Matrix. This position is obtained from the total weighted IFAS score (Y-axis with the Moderate category) and the total weighted EFAS score (X-axis with the Average category).

The results of the study on the ketan KD Culinary MSME and the Balungan Mantul Meatballs Culinary MSME indicate that both MSMEs face major risks in the form of raw material price fluctuations, dependence on seasonal supplies, and limited financial record-keeping and planning. This finding aligns with research by Faturrahman & Alfiana (2025), which states that raw material risks in culinary MSMEs generally stem from rising prices and unstable raw material quality, which directly impact cash flow and business continuity.

Similar conditions were also identified in this study, particularly regarding rising prices of ketan, meat, and other supporting ingredients, which pressure MSME profit margins. Furthermore, this study found that although both MSMEs lack a formally structured risk management system, they have implemented practical approaches such as separating personal and business finances, maintaining stable selling prices, and building customer loyalty through product quality. This finding reinforces the research by Rinanda & Anshar (2025), which stated that most MSMEs implement risk management intuitively but remain resilient thanks to simple strategies such as cash flow management, diversification, and leveraging business networks.

In the context of financial resilience strategies, this study's results indicate that establishing a reserve fund, managing liquidity, and implementing an adaptive pricing strategy (partial pass-through) are effective approaches to mitigating the impact of rising raw material costs. This finding aligns with Wahyudin's (2024) research, which emphasizes the importance of financial risk mitigation strategies through the utilization of local resources, cost control, and price adaptation as an effort to maintain the financial stability of MSMEs amidst economic uncertainty.

Based on the Cell V position, the most effective raw material cost risk management strategy is one that combines internal cost efficiency and external risk mitigation in a balanced manner. This formulated strategy aligns with the research objective, which is to develop strategies that can increase the financial resilience of culinary MSMEs through raw material cost risk management.

Furthermore, the strategic positions of the two MSMEs in Cell V (Hold and Maintain) in the IE Matrix indicate that the most relevant strategy is maintaining business stability through internal efficiency and cost control, rather than aggressive expansion. This aligns with the research of Reinaldi, Suyatno, & Hastuti (2024), which concluded that even though MSME financial records are still simple, business stability can be maintained if financial

management is carried out in a disciplined and consistent manner.

CONCLUSION

Based on the research results, which aimed to analyze and formulate the most effective raw material cost risk management strategy for improving the financial resilience of the Ketan KD and Bakso Mantul Balungan culinary MSMEs, the following conclusions can be drawn:

1. Strategic Position: The Internal-External (IE) Matrix analysis indicates that both MSMEs are in Cell V (Maintain and Maintain). This is supported by IFAS scores (2.93–2.80) and EFAS scores (2.67–2.73), indicating that internal strengths and external opportunities outweigh weaknesses and threats.
2. Effective Strategy: The most effective raw material cost risk management strategy is the integration of Cost Leadership and Differentiation. This strategy is implemented through three pillars: Internal Strengthening, Supply Chain Mitigation, and Liquidity Security.
3. Implications: With this strategy, the financial resilience of MSMEs can be maintained in a strategic hold and maintain position, while increasing competitiveness through cost efficiency and unique value offerings.

Thus, the most effective raw material cost risk management strategy is a combination of Cost Leadership and Differentiation, realized through internal strengthening and supply chain mitigation to ensure the financial resilience of MSMEs in the strategic Cell V position.

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