

Strategic Analysis of a Local Coastal Micro-Enterprise: Evidence from Squid Egg Cracker Business in Batam, Indonesia

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ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) producing squid egg crackers in Pulau Abang, Galang District, Batam, represent a distinctive local business with strong potential due to abundant marine resources. Despite this potential, business growth and competitiveness remain constrained by traditional production practices and limited market access. This study aims to analyze the competitive strategies of squid egg cracker MSMEs operating in coastal areas and identify factors influencing their sustainability and development. This research uses a qualitative descriptive approach through semi-structured interviews with five key informants consisting of the business owner, a family member involved in production, a raw material supplier, and two customers. Data were analyzed using PESTEL analysis, Porter's Five Forces model, and the Key Success Factors (KSF) framework to evaluate the external environment, industry competition, and determinants of business success. The findings indicate that external conditions present both opportunities and challenges. Government support and business legality remain limited, while economic sustainability is highly dependent on seasonal raw material availability. Internally, strong family involvement and positive community acceptance strengthen business resilience. Porter's Five Forces analysis shows low competitive rivalry and buyer bargaining power but high supplier bargaining power due to fluctuating raw material supply. Threats from substitute products and new entrants remain relatively low because of product uniqueness and entry barriers. IFAS and EFAS scores of 3.20 and 3.00 indicate a favorable strategic position. Recommended strategies include strengthening product differentiation, expanding digital marketing, securing raw material continuity, and improving business legality to enhance competitiveness and ensure long-term sustainability.

Keyword: MSMEs; Competitive Strategy; PESTEL Analysis; Porter's Five Forces Analysis; Key Success Factors

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) serve as fundamental pillars of Indonesia's economy, contributing substantially to national economic stability. MSMEs account for over 60% of Gross Domestic Product (GDP) and employ nearly 97% of the workforce through more than 64 million business units distributed across various regions (Junaidi, 2024; Limanseto, 2025). Despite these significant contributions, MSME

development in Indonesia continues to face structural challenges. Export contributions remain relatively low at approximately 15.7% (Limanseto, 2025). Additionally, MSMEs frequently encounter obstacles in accessing capital, limited market reach, and predominantly manual production processes, resulting in low productivity and high business failure rates (Charisma et al., 2025).

At the regional level, the maritime characteristics of Riau Islands Province position the fisheries and marine sector as a crucial pillar of the regional economy. Increased marine productivity has demonstrably generated positive impacts on the growth of fish processing MSMEs, playing vital roles in labor absorption while improving coastal community welfare (Chozin et al., 2025). Marine product processing businesses also contribute to value creation, employment expansion, and product competitiveness enhancement (Junianto et al., 2024). Nevertheless, MSMEs in this sector remain vulnerable to challenges, including raw material supply instability and traditional production methods that can diminish product quality and suppress selling prices (Fauziah & Suarantalla, 2025; Handayani, 2023). A concrete manifestation of this potential is evident in the squid egg cracker MSME in Pulau Abang, Galang District, Batam. This enterprise possesses distinctive characteristics by utilizing abundant local resources—specifically squid—to produce unique products with potential as signature regional souvenirs. However, this business operates at the micro-scale and household level, lacking strong brand identity and employing traditional marketing strategies without leveraging digital media or e-commerce platforms. These conditions weaken business competitiveness amid increasingly intense competition from similar products (Hanum et al., 2025).

Based on preliminary interviews with business owners, principal obstacles include limited capital, simple production processes, and marketing that has not reached broader markets. Furthermore, this enterprise lacks business legality such as Business Identification Number (NIB) and Household Food Industry certification (PIRT), hindering access to government support and business partnership opportunities. These findings indicate that capitalization, production efficiency, and marketing network expansion constitute critical factors requiring strengthening for sustainable business growth. Previous research demonstrates that Key Success Factors (KSF) in marine product processing MSMEs generally encompass raw material quality, product innovation, managerial capability, capital access, and effective marketing strategies (Hikmah & Nasution, 2017; Islam et al., 2025; Lumbanraja et al., 2020). These factors serve as important references in identifying and developing competitive strategies for squid egg cracker MSMEs with similar characteristics, particularly within the local maritime industry context.

Despite possessing distinctive product potential, squid egg cracker MSMEs continue facing various limitations impacting competitiveness, necessitating urgent formulation of competitive strategies. The gap between product potential and business capability in managing competition indicates the need for more structured business strategies. Research on strategic frameworks such as Porter's Five Forces application in MSMEs remains limited, despite the framework's importance in understanding industry structure and competitive intensity (Ndzabukelwako et al., 2024). Based on these considerations, this research focuses on analyzing macro-environmental factors (PESTEL), industry competition levels (Porter's Five Forces), and success determinants (Key Success Factors) to formulate systematic, data-driven competitive strategies. Research findings are expected to provide relevant strategic recommendations for squid

egg cracker MSMEs in enhancing competitiveness, expanding market reach, and supporting business sustainability.

METHODOLOGY

This research applies a qualitative descriptive approach through case study methodology examining squid egg cracker MSMEs located in Pulau Abang, Galang District, Batam. According to Chozin et al. (2025) the qualitative descriptive method constitutes a research approach aimed at describing and analyzing phenomena, experiences, perspectives, or perceptions of research subjects. This approach was selected for its capacity to extract more in-depth information compared to quantitative methods. Meanwhile, Pertiwi et al. (2023) explain that qualitative descriptive methods provide solutions to research problems by presenting object conditions as they exist in reality. The research object comprises squid egg cracker MSMEs in Pulau Abang, Galang District, Batam, encompassing business activities from processing and management to product marketing. Research focus is directed toward comprehensive business conditions to illustrate challenges, opportunities, and relevant strategies for developing MSME competitiveness.

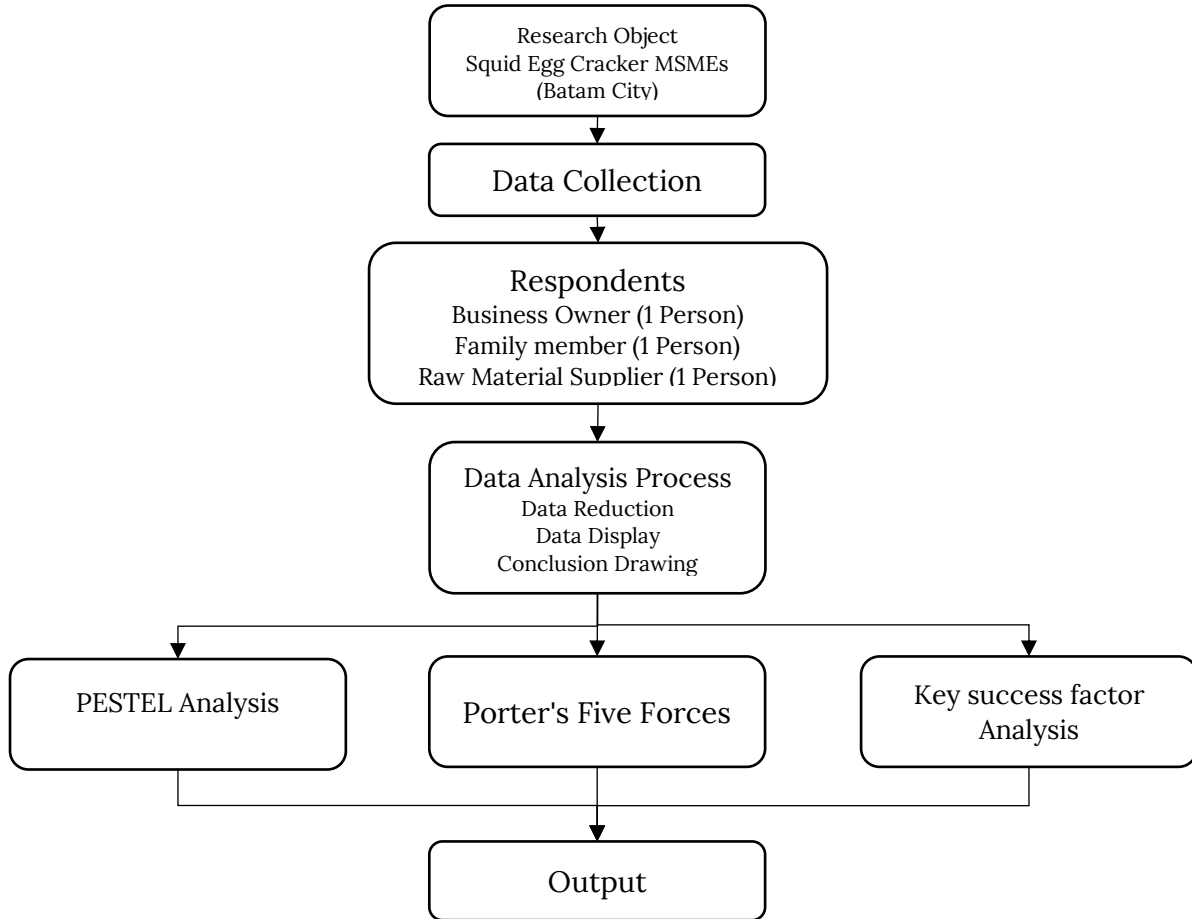
Research subjects consist of parties directly involved in squid egg cracker business operations in Pulau Abang, Galang District, Batam. Five respondents participated, comprising the business owner, one family member assisting in production processes, one raw material supplier, and two customers. Respondent selection aims to obtain comprehensive perspectives regarding business conditions, challenges faced, and factors influencing MSME competitiveness. Research data sources comprise primary and secondary data. Primary data were obtained through semi-structured interviews with squid egg cracker MSME owners in Pulau Abang, Galang District, Batam. According to Ruslin et al. (2022) semi-structured interviews constitute interview techniques allowing researchers to maintain question guidelines while remaining flexible in posing additional relevant questions to obtain deep qualitative data. Secondary data were obtained from journals, articles, and relevant literature supporting the research.

Data collection techniques employed semi-structured interviews with five respondents, consisting of the business owner, family member, raw material supplier, and two customers. The interviews were conducted based on the research problem formulation aimed at analyzing external environmental factors using PESTEL analysis (Whittington et al., 2020), assessing the level of industry competition using Porter's Five Forces (Porter, 2008), and identifying key success factors using the Quantitative Strategic Planning Matrix (QSPM) (David & David, 2017) in squid egg cracker MSMEs. The interviews were conducted to obtain in-depth information regarding business conditions, challenges encountered, competitive strategies, and opportunities for market development. Data were analyzed using the interactive model of Miles et al. (2014) through three continuous stages: (1) Data Reduction, the process of selecting and simplifying raw data to make it more structured and meaningful; (2) Data Display, organizing information systematically, either narratively or tabularly, to facilitate understanding of data patterns; and (3) Conclusion Drawing, the process of drawing objective conclusions based on field data continuously verified for accuracy throughout the research.

Subsequently, this research conducted analysis by combining PESTEL framework, Porter's Five Forces, and Key Success Factors as bases for competitive strategy formulation. Rosani et al. (2021) explain that PESTEL analysis constitutes one strategic

management technique used to examine external factors affecting businesses, encompassing political, economic, social, technological, environmental, and legal aspects. Furthermore, Porter's Five Forces, according to Lumbanraja et al. (2020), represents an analytical tool assessing competition intensity within an industry through five forces: potential threat of new entrants, supplier bargaining power, buyer bargaining power, threat of substitute products, and rivalry among existing competitors. Meanwhile, Key Success Factors, as proposed by Abadi et al. (2023), refer to principal factors, both internal and external, playing important roles in determining MSME success.

Figure 1. Research Design



Source: The author's own research (2026)

RESULTS AND DISCUSSION

1. External Factor Analysis Using PESTEL

a. Political Factors

Research findings indicate that squid egg cracker MSMEs in Pulau Abang have not received government support or assistance in the form of funding or training. This condition reflects minimal policy attention toward coastal MSMEs with significant potential yet inadequately accommodated in government programs. According to Purnamasari et al. (2025), government support plays crucial roles through financial assistance provision, regulatory facilitation, and training that can significantly enhance MSME competitiveness and performance. Additionally, Ramadhona et al. (2023) emphasize that the most influential non-financial support form for MSME development involves training and digital technology coaching in entrepreneurship. That research

proposes policy models encompassing MSME training, capital assistance, and incentive programs, collaboration, and mentoring. Consistently, Samingan et al. (2024) state that beyond financial support, governments also provide various facilities including electronic business license registration, simplified export certification and standardization, financing and guarantee access, and preferences in government and state-owned enterprise procurement. All these initiatives aim to strengthen national economic resilience while maintaining government accountability in digital economic policies.

b. Economic Factors

Economically, prices of primary raw materials such as squid eggs remain relatively stable, though availability depends on fishing seasons. Raw material suppliers also supply several other business operators, potentially affecting supply continuity. These conditions align with findings by Ai et al. (2023), explaining that MSMEs dependent on seasonal raw materials face supply and price fluctuation challenges, especially when material availability decreases outside seasons. To maintain production sustainability, business operators need mature production planning and inventory management strategy implementation to continue meeting market demand. These strategies are essential for minimizing production delay risks and maintaining income stability. Similar findings were reported by Panggabean & Aprinawati (2025), who found that raw material availability constitutes a critical factor for marine processing MSME sustainability. Supply fluctuations caused by natural factors and inter-business competition can increase production risks and threaten business continuity. Therefore, supplier relationship strengthening and raw material source diversification become strategic steps enabling squid egg cracker business operators to maintain operational smoothness and economic competitiveness.

c. Social Factors

From social aspects, squid egg cracker products have gained widespread recognition among local communities and successfully reached external markets such as Batam, Lingga, and even Singapore. This success is supported by family roles directly involved in production processes, strengthening solidarity and labor efficiency. These findings align with research by Charisma et al. (2025), demonstrating that family member involvement in production activities can strengthen internal social networks and increase work efficiency, enabling micro-enterprises to possess better resilience in facing market fluctuations. Family support also creates a sense of ownership and shared responsibility for business sustainability, particularly in small-scale culinary sectors highly dependent on household labor. Moreover, Wijaya (2019) emphasizes that local consumption culture strength constitutes important social capital for traditional food products to penetrate cross-regional and cross-border markets. This aligns with findings by Hanum et al. (2025), discovering that social acceptance of regional specialty foods reaches 68.4%, indicating substantial community support for local products. Thus, the combination of family support and community social acceptance plays crucial roles in maintaining existence and expanding squid egg cracker market reach as a regional signature product.

d. Technological Factors

Technologically, production processes remain manual using traditional ampia tools, with frying stages being the longest and most difficult as they are still performed traditionally. Product marketing also remains simple, utilizing only social media platforms

such as WhatsApp and Facebook, without e-commerce utilization. This indicates low business digitalization levels. These conditions align with findings by Handayani (2023), explaining that low digital literacy and limited technology utilization constitute primary factors hindering digital transformation in the MSME sector. Business operators with minimal technological capabilities tend to continue using traditional equipment in production processes, considered easier and cheaper despite long-term inefficiency. These limitations impact slow productivity enhancement and difficulties in meeting broader market demands. Furthermore, Fauziah & Suarantalla (2025) emphasize that consistent social media usage can enhance MSME marketing reach and performance. However, most business operators cannot optimally utilize digital platforms due to technological knowledge constraints and lack of marketing innovation. Thus, digital literacy enhancement and simple technology adoption become important steps enabling squid egg cracker businesses to accelerate production processes, expand markets, and enhance competitiveness in the digital era.

e. Environmental Factors

Primary raw materials, specifically squid eggs, are seasonal and difficult to obtain during certain periods. To address this, business operators store raw material stock in refrigerators to maintain availability when orders arrive. This strategy demonstrates adaptation capability to environmental challenges. These conditions align with findings by Ai et al. (2023), explaining that MSME operators dependent on seasonal raw materials need to implement adaptive production strategies, such as determining safety stock and managing inventory efficiently to continue meeting demand when raw materials are difficult to obtain. Proper stock management helps maintain production process continuity while reducing supply shortage risks outside harvest seasons. Additionally, Mufaidah et al. (2023) emphasize that cold storage system implementation becomes an important step in maintaining raw material quality and availability in marine processing industries. This strategy not only extends raw material shelf life but also enhances production stability and product market competitiveness. Thus, business operator efforts in storing squid egg stock in refrigerators reflect effective inventory management implementation to overcome seasonal raw material risks.

f. Legal Factors

From the legality perspective, this business lacks formal permits such as Business Identification Number (NIB) and Household Food Industry certification (PIRT). Although not yet encountering direct legal obstacles, this condition potentially limits access to formal markets and business financing. These conditions align with findings by Fatimah et al. (2025), explaining that business legality such as NIB, PIRT, and halal certification play crucial roles in enhancing credibility and expanding MSME product marketing networks. Legality serves not only as regulatory compliance evidence but also as a factor strengthening consumer trust in processed food product safety and quality. Furthermore, Soimah & Imelda (2023) emphasize that business permit ownership provides broader access to financing, business partnerships, and formal market entry opportunities. Therefore, legality permit processing becomes a strategic step requiring squid egg cracker business operators to strengthen legal positions, enhance consumer trust, and expand market potential.

2. Competitive Position Analysis Using Porter's Five Forces
 - a. Rivalry Among Competitors

Research findings indicate that competition levels among squid egg cracker business operators in Pulau Abang remain relatively low. Currently, only approximately three active producers exist, with some not producing regularly. This causes relatively weak industry competition intensity. Small, unsaturated market conditions provide opportunities for business operators to expand reach without strong competitive pressure. These conditions align with research by Pitoyo & Hibatullah (2021), finding that specialty food MSMEs in certain regions tend to face low competition levels due to limited business operator numbers. Such situations create separate market spaces and light competitive pressure, enabling business operators to survive without continuous aggressive innovation. Meanwhile, research by Sandini et al. (2024) also demonstrates that low competition intensity in processed food sectors is often accompanied by limited information access and marketing technology. Consequently, many MSME operators cannot optimally expand markets despite widely open opportunities. Thus, low competition in Pulau Abang can become both opportunity and challenge for business operators to enhance production capacity and strengthen marketing strategies to maximize still-open market potential.

- b. Bargaining Power of Buyers

Based on interviews with two buyers, loyalty to squid egg cracker products remains quite high due to unique taste unavailable in other products. Buyers consider relatively high prices still acceptable due to quality and different raw materials, although some consumers suggest packaging improvements and distribution expansion to make products more accessible to tourists. This indicates buyer bargaining power remains low to moderate, as satisfaction with product quality and uniqueness reduces their likelihood of switching to other brands. These findings align with research by Segoro et al. (2024), explaining that product quality and customer satisfaction play important roles in suppressing consumer tendencies to switch brands. Consumers valuing high-quality products tend to be more tolerant of higher prices, feeling the value received is commensurate. This strengthens loyalty and lowers buyer bargaining power. Additionally, Zha et al. (2025) emphasize that sensory experiences such as taste, aroma, and product appearance greatly influence consumer value perceptions and emotional attachment. Products providing unique experiences more easily build long-term loyalty. Thus, squid egg cracker taste uniqueness and quality constitute primary factors maintaining consumer loyalty despite suggestions for packaging and distribution improvements.

- c. Bargaining Power of Suppliers

Primary raw material suppliers, specifically squid eggs, originate directly from local fishermen. Based on interview results, squid egg availability highly depends on fishing seasons, causing limited supply during certain periods. Additionally, suppliers also sell raw materials to several other business operators, meaning no exclusive relationships exist between suppliers and producers. These conditions position supplier bargaining power as high, especially when raw material availability decreases. Research by Rahim & Soelistya (2023) demonstrates that raw material suppliers possess significant influence over marine processing industries. When raw material supply decreases due to seasonal or other factors, suppliers can raise prices or control availability. Therefore, business operators need to develop more diverse procurement strategies to reduce dependence

on single suppliers and maintain production stability when raw material supply decreases.

d. Threat of Substitute Products

Squid egg crackers face threats from substitute products such as fish crackers and shrimp crackers. However, both products possess different consumption functions; fish and shrimp crackers are more frequently consumed as side dish complements, while squid egg crackers are more popular as specialty snacks. Taste uniqueness and raw materials become competitive advantages difficult for other products to replace, making substitution threats relatively low. These results align with research by Islam et al. (2025), stating that product differentiation through taste uniqueness and customer experience drives MSME competitiveness despite many similar products available in markets.

e. Threat of New Entrants

Threats from new entrants are assessed as low to moderate. Generally, cracker-making processes are relatively easy, but squid egg supply limitations and seasonal raw material nature become primary obstacles for potential new operators. Additionally, experience and knowledge of processing techniques are required for products to possess stable texture and taste. This aligns with findings by Badriyah et al. (2023), stating that primary MSME weaknesses lie in capital limitations, processing skills, and marketing. Therefore, raw material limitations and technical capabilities become primary inhibiting factors for new entrants to enter the squid egg cracker industry.

Table 1. Porter's Five Forces Analysis of Squid Egg Cracker MSMEs in Pulau Abang

Porter's Five Forces Aspect	Key Research Findings	Power Level
Rivalry Among Competitors	Only approximately three active producers exist, some do not produce regularly, resulting in low competition. Market remains small and unsaturated	Low
Bargaining Power of Buyers	Consumers loyal due to unique taste and different quality, price still considered reasonable. However, suggestions for packaging and distribution improvements exist	Low-Moderate
Bargaining Power of Suppliers	Raw materials depend on seasons, suppliers are non-exclusive and sell to multiple parties. Limited supply increases supplier bargaining position	High
Threat of Substitute Products	Substitute products exist (fish and shrimp crackers), but functions differ. Squid egg crackers serve more as specialty snacks	Low
Threat of New Entrants	Production processes are relatively easy, but raw material limitations and technical skills become entry barriers	Low-Moderate

Source: Processed by the author (2026)

Overall, the competitive position of squid egg cracker MSMEs in Pulau Abang is relatively strong. Low competition, high consumer loyalty, and distinctive product differentiation constitute primary advantages. However, raw material limitations make supplier bargaining power the most dominant factor affecting business sustainability.

3. Key Success Factors Analysis

Key success factors (KSF) identified using quatitative strategic planning matrix (QSPM) constitute internal and external key factors that significantly determine MSME success and competitiveness (David & David, 2017; Rini et al., 2023). According to Sumaedi et al. (2023), success determinant factors for innovative food producers include product quality consistency, product innovation capability, quality management, and effective marketing networks. These aspects play crucial roles in maintaining product reputation while building consumer loyalty in specialty food markets. Consistently, Rini et al. (2023) demonstrate that food product success highly depends on MSME capabilities in maintaining quality consistently, conducting clear product differentiation, and utilizing marketing channels and effective branding strategies to enhance consumer awareness and product added value. Based on previous Key Success Factor (KSF) findings, weighting analysis of internal and external factors was conducted through Internal Factor Analysis Summary (IFAS) and External Factor Analysis Summary (EFAS) matrices to determine strategic position and development direction for squid egg cracker MSMEs.

Table 2. Internal Factor Weighting (IFAS)

Internal Factors	Weight	Rating (1-4)	Score (Weight × Rating)
<i>Strengths</i>			
Unique and distinctive taste	0.15	4	0.60
Loyal customers	0.15	4	0.60
Wide market reach to external regions	0.10	3	0.30
Family support in production	0.10	3	0.30
Accepted by local community	0.10	3	0.30
Raw material stock maintained through storage	0.10	3	0.30
<i>Weaknesses</i>			
Lack of government support	0.10	2	0.20
Seasonal raw materials	0.10	2	0.20
Manual and slow production	0.05	2	0.10
Limited digital marketing	0.03	2	0.06
Lack of formal business permits	0.02	2	0.04
Total	1.00	-	3.20

Source: Processed by the author (2026)

Tables 2 and 3 demonstrate that an external score of 3.00 indicates that the MSME possesses significant external opportunities to capture, although threats from raw material fluctuations and substitute products require anticipation. Based on IFAS (internal score= 3.20) and EFAS (external score= 3.00) weighting results previously established, the strongest internal factors for squid egg cracker businesses are taste and raw material uniqueness, customer loyalty, and family support, while the largest external opportunities include wide and open markets, potential online market expansion, and business legality. From this combination, five superior KSFs for squid egg cracker MSMEs can be formulated as follows: (1) Product differentiation based on local materials (squid eggs); (2) Product quality and production consistency; (3) Supplier networks and stable

raw material availability; (4) Digital marketing and wide distribution; (5) Business legality as market credibility.

Table 3. External Factor Weighting (EFAS)

External Factors	Weight	Rating (1-4)	Score (Weight × Rating)
<i>Opportunities</i>			
Few competitors, market still open	0.25	4	1.00
Potential government assistance	0.20	3	0.60
Opportunities to expand online market	0.20	3	0.60
Legality can enhance trust	0.10	3	0.30
<i>Threats</i>			
Unstable supply and material prices	0.10	2	0.20
High dependence on suppliers	0.05	2	0.10
Substitute products exist in market	0.05	2	0.10
Potential emergence of new competitors	0.03	2	0.06
Need for packaging and distribution improvements	0.02	2	0.04
Total	1.00	-	3.00

Source: Processed by the author (2026)

Interview results reinforce that taste uniqueness and squid egg raw material use, along with consumer loyalty, constitute primary capital for business success. However, obstacles in the form of still-manual production processes and seasonal raw material availability indicate the need for efficiency enhancement and production innovation. Additionally, digital marketing development becomes an important need alongside market expansion strategies to external regions, while business legality aspects are required to strengthen consumer trust and enable access to formal markets. Combining field findings with previous research results, it can be concluded that for this MSME to enhance competitiveness and expand market share, strategic focus needs to be directed toward product differentiation and quality strengthening, supply chain optimization, marketing digitalization, and business licensing acceleration.

4. Integration of PESTEL, Porter's Five Forces, and Key Success Factors (KSF) Analyses

Integration results of the three analyses demonstrate interconnections between external and internal factors forming the competitive position of squid egg cracker MSMEs in Pulau Abang. From the PESTEL perspective, primary challenges lie in limited government support and absence of business legality, revealing weaknesses in political and legal aspects. This relates to Porter's Five Forces analysis results, indicating that although cracker-making processes are relatively easy, enabling new entrants to enter markets, limited raw material availability and absence of government policy support become obstacles for new businesses to develop.

Conversely, Key Success Factors such as taste uniqueness, consumer loyalty, and wide market potential support findings that buyer bargaining power is low and substitute product threats are limited. These conditions demonstrate that product differentiation constitutes the MSME's primary strength in facing dynamic external environments. Additionally, integration of the three analyses proves that business legality enhancement,

production capacity, and marketing digitalization become the most relevant priority strategies for strengthening the competitive position of squid egg cracker MSMEs in both local and regional markets

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that the external environmental conditions of the Squid Egg Cracker MSME in Pulau Abang are influenced by limited government policies and business legality aspects, the stability of raw material prices that depend on seasonal conditions, and community social support, which serves as a major strength. However, technological aspects remain relatively weak due to the lack of digitalization in production and marketing processes. Based on the analysis of Porter's Five Forces, the level of competition among producers and buyers' bargaining power is relatively low. Nevertheless, suppliers hold strong bargaining positions due to dependence on seasonal raw materials, while the threat of substitute products remains low, accompanied by moderate entry barriers for new competitors. Therefore, the key success factors of this business lie in product differentiation based on local raw materials, consistency in product quality, supply stability, and the importance of strengthening digital marketing and business legality to enhance credibility and sustainably expand market reach at both local and regional levels.

This study offers several managerial implications. First, it is important to strengthen the product identity of squid egg cracker MSMEs through branding development and packaging innovation, as well as to pursue business legality such as obtaining a Business Identification Number (NIB) and Household Food Industry Certification (PIRT). These efforts may enhance consumer trust and increase opportunities to gain easier access to financial support. Second, business owners should consider supplier diversification to maintain raw material stability. Finally, optimizing digital marketing through intensive use of marketplaces and social media is essential to accelerate business growth. Furthermore, this study is expected to provide a foundation for designing business development programs for coastal business operators, particularly in facilitating business certification and digitalization training.

In addition, although this study was conducted comprehensively, several limitations remain and may provide directions for future research. This study was limited to a single business case, specifically within the MSME sector in coastal areas; therefore, caution should be exercised when generalizing the findings to other sectors. Future studies may adopt quantitative research designs involving MSMEs in coastal regions and incorporate mediating or moderating variables to better understand the broader impacts on business sustainability.

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