

SWOT Analysis for the Development of Small-Scale Shrimp Paste Enterprises

Haji Saediman*

Department of Agribusiness, Faculty of Agriculture, Halu Oleo University, Kendari, Indonesia

Abstract: Shrimp paste production plays a significant role in the livelihoods of coastal communities. This study analyzes the development of small-scale shrimp paste (*terasi*) enterprises in Lampopala Village, Southeast Sulawesi, using a SWOT analysis approach. The study identifies strengths such as experienced producers, fresh local raw materials, and a distinctive product profile. Weaknesses include inconsistent product quality, reliance on basic processing technology, and limited marketing strategies. Opportunities arise from high consumer demand, digital marketing platforms, and supportive government policies, while threats include weather disruptions, raw material shortages, and competition from branded products. Strategies to enhance enterprise sustainability could be done by maximizing strengths and opportunities, transforming weaknesses into strengths, and mitigating threats. Key recommendations include adopting improved drying technology, building cooperatives, and utilizing digital platforms to increase market access.

Keywords: enterprise, SMEs, SWOT, shrimp paste, strategy.

1. Introduction

The fisheries sector is crucial in national economic development, particularly in improving living standards and fulfilling food and nutrition security. As a vital component of coastal community livelihoods, fishery product processing supports economic growth and local employment [1]. Coastal areas, rich in diverse marine ecosystems such as fish, shrimp, and crabs, provide abundant raw materials that sustain various fishery processing activities. In Indonesia, particularly in rural coastal areas, fish processing is often conducted by small household industries, which contribute to local economies despite facing challenges in production volume and product quality. Frequently faced challenges include raw material procurement, technology, facility and infrastructure, human resources, and limited access to capital and market [2]. Nonetheless, fishery processing is crucial for adding value to raw materials, preserving fish products, and meeting consumer demand for affordable, healthy seafood products [1].

Shrimp paste, also known as *terasi*, is a popular method of processing fishery products in many coastal areas in Indonesia [3]. This product is widely appreciated for its distinctive aroma and flavor resulting from the fermenting process. It is commonly used as a flavor enhancer in vegetable and seafood dishes, fruit salads (*rujak*), or as the base for a popular condiment known as *sambal terasi* [3], [4]. *Terasi* is typically

made from small shrimp known as *udang rebon* (acetes shrimp), which are abundant in coastal waters, including in Southeast Sulawesi. The production process begins with the cleaning and drying of *udang rebon*, which is then fermented, ground into a paste, and then shaped and dried [3]. The resulting product is rich in protein and essential minerals, which makes it a valued condiment in Indonesian cuisine. Despite its artisanal nature, *terasi* production faces challenges due to the seasonal availability of *udang rebon* and the artisanal production methods that rely heavily on favorable weather conditions for drying.

Terasi is produced mainly by micro and small-scale enterprises (MSEs), many of which are run by coastal households [5]–[7]. *Terasi* production, as a type of small-scale enterprise, has several advantages, including using local raw materials, creating job opportunities, and preserving traditional knowledge and customs. However, *terasi* producers, like other micro and small businesses, face substantial challenges such as limited access to capital, variable raw material supply, and limited market reach [7]–[9]. Small-scale producers may also have difficulty maintaining product quality consistency due to the lack of modern processing technology and business management expertise. Despite these limitations, MSEs in the shrimp paste sector play an important role in reviving the local economy and contributing to food security by producing cheap and nutrient-rich products to the market.

Being the second largest fishery producing region in Indonesia [10], Southeast Sulawesi is noted for its abundant coastal resources that make it a suitable location for fisheries-related businesses. Within the province, Bombana District is known for its abundant raw materials, including *udang rebon*, which serves as the primary ingredient for shrimp paste production. Several coastal areas in Bombana, such as Lampopala Village in Rumbia Subdistrict, have emerged as notable centers for *terasi* production. Lampopala is particularly suitable for this industry due to its proximity to fishing grounds, the availability of traditional knowledge passed down through generations, and a strong community involvement in fishery-based livelihoods. Additionally, the local government's support for small-scale fisheries enterprises through development programs and infrastructure improvements has further strengthened the potential for expanding *terasi* production in this region.

*Corresponding author: saediman@yahoo.com

Terasi production in Lampopala Village has significant potential due to the availability of raw materials and the high local demand for shrimp paste products [7]. However, the sector faces significant obstacles at different levels of the value chain. In terms of raw material procurement [11], the seasonal nature of *udang rebon* frequently causes supply changes that interrupt production schedules. In addition, the reliance on conventional processing methods, such as solar drying, makes the production process highly dependent on weather conditions, which can affect product consistency. In the field of marketing, limited market networks and lack of formal branding and packaging hinder access to larger markets, especially those outside the local area [7].

Given the potential and challenges that the *terasi* production enterprises have faced, it is crucial to conduct a comprehensive analysis to help them grow. This study aims to use a SWOT analysis to identify the key factors that influence the growth and sustainability of shrimp paste enterprises.

2. Materials and Methods

This research was conducted from October to November 2017 in Lampopala Village, Rumbia Subdistrict, Bombana District. The location was selected purposively due to the presence of 12 micro and small-scale shrimp paste producers in the area. A census method was employed to determine the sample, following the approach outlined by Arikunto [12], which suggests that when a population consists of fewer than 30 individuals, all members should be included in the sample. Therefore, the research population, comprising 12 *terasi* producers, served as the entire sample for the study. The data and information were collected through interviews, documentation, and observation.

The observed variables in this study included the characteristics of the shrimp paste enterprises and the factors analyzed through SWOT, encompassing Strengths (S), Weaknesses (W), Opportunities (O), and Threats (T). A SWOT analysis was utilized as the primary analytical tool to systematically identify and categorize internal and external factors [13], [14] that influence the development of shrimp paste enterprises. The analysis aimed to develop strategies for maximizing strengths and opportunities while addressing weaknesses and mitigating threats. This approach follows the strategic framework given by Rangkuti [15], stressing a situational analysis to support decision-making and development planning. The SWOT analysis results were then used to provide recommendations for improving the resilience and sustainability of the *terasi* industry in Lampopala Village, based on the principle of maximizing strength and opportunities, transforming weaknesses to strengths, and minimizing threats [16].

3. Results and Discussion

A. Characteristics of Small-Scale Shrimp Paste Production Enterprises

The small-scale shrimp paste enterprises show distinct characteristics that reflect their artisanal production methods

and local economic conditions. The primary raw material used in shrimp paste production is *udang rebon*, a small shrimp harvested from nearby coastal waters. The simplicity of the required ingredients—*udang rebon* and saltwater—underscores the traditional nature of the industry. However, the availability of *udang rebon* is seasonal, which can affect production volume throughout the year.

Production equipment gradually improved over time. Initially, producers relied on makeshift tools, but then there was a gradual change to better processing equipment. Nevertheless, most production processes remain labor-intensive and tasks such as grinding and shaping shrimp paste are done manually. The production process involves mixing shrimp with salt water, grinding until smooth, shaping into various sizes, and drying. The final product is sold without labels or formal packaging to maintain the traditional appearance of local products.

The enterprises primarily offer their products directly from home-based production sites or through small-scale distributors. The *terasi* price of IDR 10,000 per portion ensures that it remains accessible to a wide variety of consumers.

Monthly sales turnover among the 12 enterprises varies, with most earning between IDR 1.5 million and IDR 2 million, as indicated by 41.67% of respondents. This classifies the enterprises as micro-scale businesses according to national regulations on micro, small, and medium enterprises (MSMEs). The classification aligns with Ministry of Finance Regulation No. 12/PMK.06/2005 and Law No. 20 in 2008 on MSMEs. The low turnover may be attributed to the relatively advanced age of the producers, with many respondents over 60 years old, limiting their physical capacity for higher output.

The enterprises are generally small in scale, with minimal labor absorption. Production is typically managed by household members, often requiring only one person to operate the business. This structure reflects the nature of the enterprises as family-run operations rather than formal business units with hired labor.

The enterprises have been in operation for a considerable amount of time; with 75% of respondents indicating business durations between 15 and 20 years. The average period of 17 years suggests a long-standing cultural and economic dependence on shrimp paste production. The length of time spent in this sector is a reflection of the traditional knowledge and specific skills needed that distinguish it from more general professions like trading or transportation services.

The artisanal character of production, limited technological adaption, and longstanding community involvement all contribute to the small-scale shrimp paste businesses in Lampopala Village, which collectively demonstrate a blend of tradition and resiliency. The results emphasize the importance to address the issues of market accessibility, production efficiency, and raw material supply in order to guarantee the long-term viability of these microenterprises.

B. SWOT Factors

1) Strengths

The small-scale shrimp paste production enterprises in Lampopala Village possess several strengths that contribute to

their adaptability and potential for growth:

1. *Experienced Producers*: Most shrimp paste producers have long been involved in shrimp paste production, often gained over decades. This long-standing experience enables them to maintain consistent product quality and adapt traditional knowledge to evolving market demands.
2. *Fresh and Natural Raw Materials*: The primary ingredient, *udang rebon* (small shrimp), is sourced fresh from nearby coastal waters and processed without the use of synthetic additives or preservatives that enhance the natural flavor and ensure product safety.
3. *Available Workforce*: The enterprises benefit from the availability of household labor, with family members typically engaged in production activities. This reduces labor costs and maintain traditional practices.
4. *Simple and Easy-to-Master Production Process*: The steps involved in the production process, which consists of cleaning, mixing, grinding, shaping, and drying, is straightforward and easily transferable within families and communities.
5. *Good Taste and Distinct Aroma*: The shrimp paste from the study area is known for its rich flavor and unique aroma, which differentiates it from competitors and enhances its market appeal.
6. *Relatively Well-Known Product*: Despite its artisanal nature, the shrimp paste from the survey village has been well-known in the local market and is often sought after by visitors as a local specialty.
7. *Affordable Price*: Despite limited promotional efforts, the product's competitive price makes it accessible to a broad range of consumers and enhances its market reach..

2) Weaknesses

Despite their strengths, the shrimp paste enterprises in the study area have a number of internal weaknesses that limit their ability to grow and compete:

1. *Inconsistent Product Quality and Lack of Branding*: The production of shrimp paste lacks standardized quality control and the product does not have packaging, labels, or formal brand names. This condition can damage consumer trust and limit the product's appeal in a larger market.
2. *Remote Business Location*: The enterprises are located in a relatively remote area with poor infrastructure, making it challenging for consumers and suppliers to access production sites easily. This restricts market visibility and increases logistical challenges.
3. *Simple Processing Technology*: The production process relies on basic tools and manual labor, making the process labor-intensive and less efficient compared to modernized production systems. This also makes the enterprises vulnerable to disruptions due to weather-dependent sun-drying methods.
4. *Seasonal Raw Material Availability*: *Udang rebon*, the main raw material, is prone to seasonal variations and

only reaches its peak availability during specific seasons of the year. This condition can lead to schedule disruptions and shortages of supplies.

5. *Lack of Legal Entity and Business Licensing*: The shrimp paste enterprises generally operate informally, without official business registration or licenses, limiting their eligibility for government assistance and formal market access.
 6. *Suboptimal Marketing Management*: Marketing strategies remain limited to conventional methods, such as direct sales and word-of-mouth promotion. The enterprises have not adequately adopted online marketing and promotional efforts through modern channels, which restrict their ability to reach wider markets.
- ## 3) Opportunities

The shrimp paste businesses in the survey village have several external opportunities that, if properly utilized, can support their growth and development:

1. *High Consumer Demand*: Shrimp paste is a common condiment in many households and is in high demand, especially in regions where seafood-based products are popular. This demand provides a stable market base and potential for growth.
2. *Consumer Preference for Branded Products*: There is a growing trend among consumers to prefer products with recognizable brands and proper labeling, indicating an opportunity for the enterprises to establish strong branding and improve packaging to attract more buyers.
3. *Online Learning and Product Innovation*: Producers have the chance to improve their knowledge and abilities, especially in product diversification and business management, thanks to the availability of digital platforms and online learning resources.
4. *Advancements in Information and Communication Technology*: The rise of digital tools and platforms facilitates broader market access through e-commerce and social media marketing, allowing producers to reach consumers beyond their local area at relatively low costs.
5. *Online Marketing and Social Media*: Platforms like Facebook, Instagram, and e-commerce marketplaces present significant potential for direct-to-consumer sales. These platforms enable producers to showcase their products to a wider audience without relying solely on traditional marketing channels.
6. *Supportive MSME Policies*: Government programs aimed at supporting micro, small, and medium enterprises (MSMEs) through funding, training, and infrastructure development create opportunities for the shrimp paste producers to receive assistance and improve their operations.

4) Threats

The shrimp paste enterprises in Lampopala Village also face several external threats that could hinder their growth and sustainability:

1. *Weather-Related Disruptions*: The production process relies heavily on sun-drying, making it highly vulnerable to rainy seasons. Prolonged rains can halt production, leading to delays and reduced output.
2. *Strict Government Quality Standards*: Government regulations regarding food safety and product quality have become more stringent. Enterprises that fail to meet these standards may face restrictions that can affect their ability to sell in formal markets.
3. *Price Control by Traders*: Local traders often determine pricing, particularly when producers lack access to broader markets. This dependence on intermediaries can lead to unfavorable pricing for producers.
4. *Competition from Branded Products*: Shrimp paste from other regions, particularly those with established brands and modern packaging, poses significant competition, especially in larger markets.
5. *Supply Shortages Due to Adverse Sea Conditions*: Unfavorable weather or rough sea condition can limit the availability of *udang rebon*, the primary raw material, thereby disrupting production.
6. *Economic Instability and Inflation*: Economic volatility and raising inflation can lower consumers' purchasing power, which will affect the demand for non-essential items like shrimp paste.

C. Strategies for Promoting Shrimp Paste Enterprises in Lampopala Village

Using the principles of maximizing opportunities and strengths, turning weaknesses into strengths, and reducing threats, strategic initiatives can be developed based on the identified SWOT variables to improve the growth and sustainability of shrimp paste businesses. These strategies can be divided into three main categories: market expansion, institutional support, and production improvement.

1) Maximizing Strengths and Opportunities

To capitalize on existing strengths and external opportunities, the following strategies are recommended:

- *Product Diversification and Quality Branding*: The distinctive taste and aroma of Lampopala's shrimp paste should be highlighted through effective branding initiatives. The product can reach wider consumer markets by creating eye-catching labels and packaging, which will satisfy consumers' desires for branded and attractively displayed goods. This result is in line with a study by Permadi [4] that consumers show a strong preference for shrimp paste that is made purely from shrimp, packaged in plastic strips, pre-grilled for convenience, and available in 10-gram portions. This combination highlights the importance of both quality and practical packaging in meeting consumer demands [17].
- *Utilization of Digital Platforms for Marketing*: Social media and e-commerce channels offer more affordable opportunities for producers to expand their market reach [18]–[20]. Digital marketing training can equip

producers with the skills to use these platforms effectively so that they can increase the visibility of their products and increase sales.

- *Participation in MSME Support Programs*: The enterprises should actively engage with government initiatives that provide grants, training, and marketing assistance for MSMEs. This can enhance their access to resources and improve their operational capacity.

2) Transforming Weaknesses into Strengths

Addressing internal challenges is crucial for bolstering businesses:

- *Investment in Simple Drying Technology*: Producers can adopt affordable drying technology to reduce their reliance on weather condition, such as solar dryers. This investment can ensure consistent production even during the rainy season.
- *Business Management Training*: The ability of producers to operate their companies efficiently can be improved by offering training in marketing, financial management, and operational efficiency. This includes advice on how to formalize their company so they can get institutional and financial assistance.
- *Supply Chain Partnerships*: Building alliances with fishers and suppliers can help ensure a more consistent flow of raw materials. Such alliances can also protect producers from price fluctuations and raw material shortages.

3) Minimizing External Threats

To reduce the impact of external risks, the following strategies can be employed:

- *Collaborative Marketing Initiatives*: Producers should prioritize reducing or eliminating individual selling habits by forming cooperatives or associations [21], [22]. Forming cooperatives or associations can help producers collectively negotiate better prices with traders and reduce dependence on intermediaries. A cooperative structure can also facilitate bulk marketing and cost-sharing for promotion and transportation.
- *Compliance with Food Safety Standards*: Producers should get training on upholding hygienic practices and following food safety guidelines in order to comply with strict government regulations. Compliance with food safety standards, including halal certification [23] is important to produce high-quality shrimp paste. High-quality shrimp paste is typically dark brown in color, has a distinctive shrimp paste aroma without rancidity, and is free from impurities such as sand or shrimp residues [24], [25]. In this regard, support from local government agencies might be requested to assist with certification processes.
- *Weather-Resilient Production Scheduling*: Producers can maximize their business operations during the maximum shrimp abundance season by tracking weather patterns and modifying production schedules.

In seasons when the supply of shrimp is limited, producers can carry out other activities to diversify their sources of income, such as making shrimp-based snacks.

4. Conclusion

The shrimp paste enterprises in the study area show significant potential due to the producers' extensive experience, the availability of fresh local raw materials, and the product's distinctive taste and affordability. However, these strengths are accompanied by challenges such as inconsistent product quality, a lack of business management skills, and dependence on seasonal raw supplies and traditional production methods. Despite these weaknesses, there exist external opportunities for growth, such as high consumer demand, digital marketing platforms, and supportive MSME policies. On the other hand, some external threats pose significant risks to sustainability, such as weather-related disruptions, stringent government regulations, and market competition from branded products.

To improve the enterprises' resilience and market competitiveness, strategies have been proposed to maximize strengths and opportunities, transform weaknesses into strengths, and mitigate threats. Key recommendations include adopting basic drying technology, bolstering business management and branding, utilizing online marketing, and establishing cooperatives to improve market access and supply chain stability. By implementing these strategies, the shrimp paste enterprises can enhance their operational capacity, increase their market reach, and contribute to sustainable local economic development.

References

- [1] H. Saediman, J. Merlina, I. S. Rianse, S. A. A. Taridala, and R. Rosmawaty (2021). Economic returns and constraints of traditional fish smoking in North Buton District of Southeast Sulawesi, *IOP Conf. Ser. Earth Environ. Sci.*, vol. 782, p. 022049
- [2] H. Yanfika, S. Amanah, A. Fatchiya, and P. S. Asngari (2018). Strategy to Develop Traditional Fishery Business in Implementing the Principle of Sustainable Business, *J. Penyul.*, vol. 14, no. 2, pp. 271–280.
- [3] T. N. Fadilah, N. Rahmania, Z. Dwi, F. Qurrata, and M. Kibtiyah (2024). Industri Pengolahan Terasi dan Upaya Pemasarannya di Desa Sendangsikucing, Rowosari, Kendal, *Panggung Kebaikan J. Pengabd. Sos.*, vol. 1, no. 4, pp. 17–22.
- [4] R. Permadi (2016). Analisis Preferensi Konsumen Terhadap Produk Terasi Udang, *J. Soc. Econ. Agric.*, vol. 5, no. 1, pp. 49–57.
- [5] Surni, K. Jusoff, A.M. Padangaran, T.L. Ola, Saediman, Meisanti, Asnani, Muhidin, D. Wahab, M. Kamaluddin, I. Yamin and N. Rahmah (2013). Packaging of an Instant 'Terasi' for Diversified Marketing. *World Applied Sciences Journal*, vol. 26, pp. 89–93.
- [6] Z. Musthofa and R. Ainiyah (2018). Analisis Usaha Terasi Udang di Desa Tambaklekok Kabupaten Pasuruan, *J. Teknol. Pangan*, vol. 9, no. 2, pp. 123–131.
- [7] N. I. S. Muwatir, S. Yusuf, and A. Mansyur (2019). Strategi Pengembangan Produk Terasi Udang Rebon di Kelurahan Lampopala Kecamatan Rumbia Kabupaten Bombana, *J. Sos. Ekon. Perikan.*, vol. 4, no. 3, pp. 231–245.
- [8] A. Mauliza (2020). Strategi Pemasaran Terasi Udang di Desa Kuala Peunaga Kecamatan Bendahara Kabupaten Aceh Tamiang, Fakultas Ekonomi dan Bisnis Islam Universitas Islam Negeri Ar-Raniry.
- [9] N. Rahmadiyah, I. Irwan, M. N. Aisah, M. R. S. F. Lubis, K. F. Batubara, and D. Diana (2023). Analisis Strategi Pemasaran Dalam Meningkatkan Penjualan Terasi Udang Di Desa Rantau Panjang, *J. Ekombis Rev.*, vol. 11, no. 1, pp. 923–930.
- [10] Miari, Firmansyah, S. Oktavilia, D. W. Puspita, and R. Prayogi (2020). Fisheries industry strategy in Indonesia, *IOP Conf. Ser. Earth Environ. Sci.*, vol. 530, no. 1, p. 012015.
- [11] D. Dahlia et al. (2021). Profile and Prospects of Fish Processing In Rokan Hilir Regency, *IOP Conf. Ser. Earth Environ. Sci.*, vol. 934, no. 1, p. 012093.
- [12] S. Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta, 2019.
- [13] I. E. Nikolaou and K. I. Evangelinos (2010). A SWOT analysis of environmental management practices in Greek Mining and Mineral Industry, *Resour. Policy*, vol. 35, no. 3, pp. 226–234.
- [14] H. Saediman (2015). Prioritizing Commodities in Southeast Sulawesi Province of Indonesia Using AHP based Borda Count Method, *Asian Soc. Sci.*, vol. 11, no. 15, pp. 171–179.
- [15] F. Rangkuti, *Analisis SWOT: Teknik Membedah Kasus Bisnis*. Jakarta: Gramedia Pustaka Utama, 2014.
- [16] H. Yuan (2013). A SWOT analysis of successful construction waste management, *J. Clean. Prod.*, vol. 39, pp. 1–8..
- [17] A. Arfanto, I. Salam, H. Hidrawati, and H. Saediman (2023). Marketing strategy for cassava-based ethnic snacks in the new normal period: A case of Gule Wa Muri home industry in Buton District, South East Sulawesi, in *Proceedings of the 4th International Conference of Animal Science and Technology (ICAST 2021) AIP Conf. Proc. 2628*, p. 120022.
- [18] M. S. Mboe, H. Saediman, A. Rifay, T. Utami, and A. O. Purnomo (2024). The Use of Mobile Phones Among Sweet Potato Farmers for Agricultural Information in Ranomeeto Subdistrict in Southeast Sulawesi, *Int. J. Res. Eng. Sci. Manag.*, vol. 7, no. 6, pp. 208–213.
- [19] L. O. Sarfan, H. Saediman, and W. O. Yusria (2024). Analisis Pemanfaatan Digital Marketing Sebagai Media Pemasaran Sayuran Hidroponik Di Kota Kendari, *Innov. J. Soc. Sci. Res.*, vol. 4, no. 3, pp. 1678–1696.
- [20] K. Dwi Rahmadania, H. Saediman, and S. Alam Fyka (2024). Analisis Pemanfaatan Digital Marketing sebagai Media Pemasaran Produk (Studi pada Usaha Kuliner yang Bermitra dengan Aplikasi Jasa Transportasi Online di Kota Kendari), *J. Ilm. Penyul. dan Pengemb. Masy.*, vol. 4, no. 1, pp. 1–11.
- [21] N. A. P. Lestari, B. Bahari, W. G. Abdullah, and H. Saediman (2023). Institutions and Partnership in Clove Farming Development: A Case of Puulemo Village in Kolaka District of Southeast Sulawesi, *Int. J. Res. Eng. Sci. Manag.*, vol. 6, no. 12, pp. 168–172.
- [22] H. Saediman, F. F. Syah, T. La Ola, M. Tufaila, and L. Daud (2019). Fishermen Group Dynamics Before and After the Implementation of a Capture Fisheries Development Program, *IOSR J. Humanit. Soc. Sci.*, vol. 24, no. 8, pp. 5–12.
- [23] R. F. Faradilla, S. Leomo, H. Saediman, and S. Rejeki (2023). Bimbingan Teknis Proses Produk dan Sertifikasi Halal bagi Pelaku Usaha Pangan Mikro Kecil di Desa Napalakura Kabupaten Muna, *HIRONO J. Pengabd. Masy.*, vol. 3, no. 1, pp. 21–27.
- [24] Kompas.com, "Terasi, Jangan Dimakan Mentah," *Kompas.com*, 2019. <https://lifestyle.kompas.com/read/2009/09/19/1011505/Terasi.Jangan.Di.makan.Mentah> (accessed Jan. 10, 2025).
- [25] N. Indriati and F. Andayani (2012). Pemanfaatan Angkak Sebagai Pewarna Alami Pada Terasi Udang, *J. Pascapanen dan Bioteknol. Kelaut. dan Perikan.*, vol. 7, no. 1, p. 11–20.