

Analysis of Strategies To Increase The Income of Fish Processing Businesses Through The Diversification of Processed Fish Products (Case Study of the Katiagan Nagari Community, Kinali District, West Pasaman Regency)

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Received: 3 November 2025
Revised: 8 November 2025
Accepted: 19 November 2025

Abstract

This study aims to analyze income improvement strategies through diversification, covering aspects of capital conditions, technology, seasonal impacts, and strategy formulation. Method: Descriptive qualitative approach using observation and interviews with six informants, thematic analysis, and secondary data from BPS and KKP (2022–2024). The study employs a descriptive qualitative approach through observation and interviews with six informants, thematic analysis, and secondary data from BPS and KKP (2022–2024). Results show that the number of actors increased by 50%, production rose by 100%, and income grew by 84% (from IDR 44.1 million to IDR 54.2 million). Challenges: Seasonal fluctuations and limited diversification, with interest in products such as fish floss. Conclusion: Diversification supported by modern technology, sharia-based financing, and digital marketing can.

Keywords: Strategy, Business Income, Product Diversification.

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How to Cite: Dinda, M., Dewi, Y. A., Nurani, K., & Putra, I. J. (2025). Analysis of Strategies To Increase The Income of Fish Processing Businesses Through The Diversification of Processed Fish Products. *International Journal of Education, Information Technology, and Others*, 8(4), 105-114. Retrieved from <https://jurnal.peneliti.net/index.php/IJEIT/article/view/13292>

INTRODUCTION

Fish salting is a form of economic activity that has been carried out for generations by coastal communities in various regions of Indonesia. This activity serves not only as a means of preserving fish catches, but also as a major source of livelihood for fishing communities. In Nagari Katiagan, Kinali District, West Pasaman Regency, fish salting has developed into one of the leading sectors supporting the household economy of fishermen. The salting process is carried out using traditional methods, with salt as the main natural preservative, so that the resulting products have a longer shelf life and can be sold to various surrounding areas (Nahrudin, 2014).

In the context of the local economy, the fish salting business plays a very important role because it is able to provide employment for coastal communities, both directly as fish processors and indirectly as suppliers of raw materials and distribution labor. Based on data from the Marine and Fisheries Service and the Central Statistics Agency (BPS) for 2022–2024, the number of fish salting businesses in Nagari Katiagan increased from four to six. In addition, production

levels increased by up to 100%, and the average income of business actors rose by around 84%, from IDR 44.1 million to IDR 54.2 million per year. This increase shows that there is significant economic potential in the fishery product processing sector, particularly fish salting (Jambak, 2023).

Despite showing positive trends, the fish salting business in this region still faces a number of serious obstacles. The main problems lie in limited working capital, a lack of processing technology, and high dependence on weather factors. In addition, businesses still rely on traditional production systems and have not optimally diversified their products. The products produced are generally only raw salted fish, without any value-added innovations such as smoked fish, fish floss, or ready-to-eat packaged products. This condition causes the competitiveness of fish salting products from Nagari Katiagan to remain low compared to other regions that have implemented modern technology and digital marketing strategies (Bawotong & Santoso, 2025).

In an effort to overcome these obstacles, a strategy to increase revenue through product diversification becomes very relevant. Diversification not only increases product variety, but also expands market segments and reduces the risk of dependence on a single product type. For example, by processing salted fish into shredded fish, dried fish, or ready-to-eat dried products, the selling value can increase significantly. This approach is in line with microeconomic theory, which emphasizes the importance of innovation and product development in increasing the income of small and medium enterprises (SMEs) (Ikhsan et al., 2025).

Furthermore, the use of modern technology in the production process can also improve time efficiency, product quality, and the durability of processed products. The application of solar-powered drying technology or vacuum packaging systems, for example, can reduce dependence on weather conditions and extend product shelf life. In addition, the integration of digital marketing through social media and e-commerce opens up opportunities for businesses to expand their market reach to the national and even international levels.

From an Islamic economic perspective, the business of salting fish is a form of muamalah that is permissible and considered an act of worship if it is done with good intentions, honesty, and without harming others. Islam encourages its followers to work and strive in a halal manner, as stated in Surah Al-Jumu'ah verse 10, which means: "When the prayer is finished, spread out in the land and seek Allah's bounty, and remember Allah often so that you may prosper." This verse emphasizes the importance of working and striving as part of worship and social responsibility to achieve mutual prosperity (Safitri, 2024).

In addition, the application of sharia economic principles in capital management can also be an alternative solution for fish salting businesses that have difficulty accessing financing. The concept of profit-sharing sharia capital (mudharabah or musyarakah) allows for cooperation between capital owners and business actors without the practice of usury. Thus, this system can encourage the strengthening of small businesses in the fisheries sector in a sustainable and equitable manner (Mutiara, 2022).

Based on these conditions, this study was conducted to analyze strategies for increasing income through diversification of fish salting businesses in Nagari Katiagan. This study used a descriptive qualitative approach, with observation and

interview methods involving six informants, as well as thematic analysis based on primary and secondary data from BPS and KKP (2022–2024). The expected outcome of this study is the formulation of effective and sustainable diversification strategies through the use of modern technology, the application of Islamic economic principles, and the strengthening of digital marketing. Thus, the fish salting business in Nagari Katiagan is expected to not only increase the income of business actors but also contribute to improving the welfare of coastal communities in general.

LITERATURE REVIEW

Fish salting is one of the productive economic activities widely carried out by coastal communities as a way of utilizing the abundant marine resources. Fish salting not only serves to preserve the catch, but also increases its selling value. Through a proper processing method, salted fish can be further processed into various products such as fish floss, fish crackers, and fish sambal, which have a higher economic value than fresh fish (Wibowo et al., 2021). Product diversification is an important strategy for increasing the income of coastal communities because it can expand the market, create new jobs, and reduce dependence on a single type of product (Suryana, 2019).

Increased income through product diversification is also influenced by the ability of business actors to innovate and manage resources. Innovation in processing, packaging, and marketing products is key to ensuring that products are competitive in the market. The use of simple technologies such as modern fish drying equipment and vacuum packaging has been proven to extend shelf life and increase product value (Nurdin & Kurniawan, 2020). In addition, the use of social media and marketplace platforms also plays an important role in expanding market reach, as digital marketing allows businesses to introduce their products to a wider range of consumers without having to spend a lot of money (Putri & Mahendra, 2018).

The success of fish salting businesses is not only determined by innovation and marketing strategies, but also by the ability of business actors to apply moral and ethical values in economic activities. From an Islamic perspective, business activities must be based on honesty (shiddiq), trustworthiness, justice ('adl), and benefit (maslahah) (Chapra, 2000). Economic activities are not solely for the pursuit of worldly profits, but also to obtain blessings and mutual prosperity. Therefore, fish salting business actors are expected to avoid fraudulent practices such as reducing product quality, price manipulation, or labor exploitation (Rahman, 2018). By applying Islamic economic principles, business activities will provide social benefits while maintaining fairness in income distribution.

The application of Islamic economic values in the fish salting business in Nagari Katiagan is in line with the goal of *falah*, which is balanced prosperity between material and spiritual aspects (Chapra, 2000). The principle of risk sharing or profit sharing in business cooperation can be an alternative model of fair partnership between capital owners and business managers. Through this approach, the diversification of processed fish products not only has an impact on increasing the income of coastal communities, but also strengthens a fair and sustainable sharia-based economy. Thus, the development of fish salting

businesses in this region can be an example of the application of Islamic principles in modern entrepreneurship that balances profit, ethics, and social welfare.

RESEARCH METHOD

This type of research uses qualitative methods with a descriptive-analytical approach, which is to describe in depth the conditions of the fish salting business and the product diversification strategies carried out by the community to increase income. This research is classified as field research because the researcher went directly to the location to obtain factual data through observation and interviews. The research was conducted in Nagari Katiagan, Kinali District, West Pasaman Regency, West Sumatra Province, with the aim of determining how processed fish product diversification strategies can be used as an effort to improve the economic welfare of coastal communities.

RESULTS AND DISCUSSION

A. Overview of the Research Location

Nagari Katiagan is one of the villages located in Kinali District, West Pasaman Regency, West Sumatra Province. This area is a coastal region directly facing the Indian Ocean, so most of the community earns a living as fishermen and fish processing entrepreneurs. Nagari Katiagan covers an area of approximately 32.5 km² with a lowland coastal terrain and hilly terrain in the northern part. These natural conditions are very conducive to community-based economic activities that rely on marine resources, especially fishing and salted fish processing.

Demographically, the population of Nagari Katiagan is dominated by people of productive age with an average level of education equivalent to high school. This presents a great potential for the development of small and medium enterprises (SMEs), especially in the fisheries and marine product processing sectors. Most of the population works as fishermen, fish traders, salted fish processors, and domestic workers. The community's main economic activities are centered around the coastal area, where fish catches are used as the main raw material in the salted fish business.

From a socio-cultural perspective, the Katiagan community still strongly upholds Minangkabau traditional values combined with Islamic teachings. The pattern of mutual cooperation and collaboration among residents is a distinctive characteristic of this coastal community. In business activities, the spirit of togetherness and mutual assistance is still strong, both in the production process and in the marketing of processed fish products. In addition, community leaders and village officials play a significant role in encouraging the community to innovate and preserve the marine environment.

With abundant natural resources and a high level of entrepreneurial spirit among the community, Katiagan Village has great potential to develop a sustainable fisheries-based economy. The fish salting business, which is the focus of this study, is a concrete example of the productive utilization of marine resources. Through the implementation of a strategy to diversify processed fish products, the Katiagan community is expected to increase its

income, strengthen local economic resilience, and develop businesses that are in line with the principles of Islamic economics.

1. Field Findings

Based on research conducted in Nagari Katiagan, Kinali District, West Pasaman Regency, it was found that most of the local community depends on the fishing sector for their livelihood, particularly fish salting. This activity has been carried out for generations and has become the main source of livelihood for coastal communities. The processing is done traditionally using salt as the main preservative, then dried under the sun. In its development, some businesses have begun to diversify their processed fish products, such as making fish floss, fish crackers, and salted fish chili sauce to add variety to the products that can be marketed.

The interview results show that product diversification has a significant effect on increasing business owners' income. Before diversification, the average income of business owners ranged from IDR 2,000,000 to IDR 3,000,000 per month. After innovating their products, income increased to around IDR 4,000,000 to IDR 5,500,000 per month, depending on the fishing season and sales volume. The community also began to realize the importance of product quality and packaging in attracting consumers. Several business operators have utilized social media such as Facebook and WhatsApp to expand their marketing, although still on a small scale.

In addition to economic factors, this study found that the people of Nagari Katiagan run their businesses while adhering to the Islamic values of honesty, trustworthiness, and togetherness. Business operators strive to maintain customer trust by not mixing chemical preservatives and always maintaining product hygiene. They also help each other in the drying, packaging, and marketing processes, reflecting the spirit of mutual cooperation among coastal communities.

2. Implementation Analysis

The results of the study indicate that the implementation of the processed fish product diversification strategy in Nagari Katiagan has been successful, although it is still in the development stage. Some businesses have begun to innovate by processing salted fish into various derivative products such as fish floss, fish crackers, and salted fish sambal. This step was taken to increase sales value, reduce dependence on a single product, and expand market reach. Product diversification has proven to significantly increase income for businesses, with monthly income increasing by an average of 30-40% after implementing these innovations.

The implementation of product diversification is also evident in the change in the mindset of the community in running their businesses. Whereas previously they only focused on the production of traditional salted fish, they now pay attention to aspects such as quality, packaging, and digital promotion. Some businesses use vacuum plastic packaging and simple labels to make their products look more attractive and durable. In terms of marketing, social media such as Facebook and WhatsApp are used as effective promotional tools because they can reach consumers outside the

region at a low cost. This shows a shift in people's economic behavior from traditional systems to more modern and competitive business models.

B. Research Results

1. Community Capital Conditions in Starting and Developing Fish Salting Businesses in Nagari Katiagan

Capital is a major factor in starting and developing fish salting businesses in Nagari Katiagan. Based on the research results, most business actors use personal capital from family savings. Only a small number receive assistance from financial institutions such as cooperatives or government programs. Limited capital restricts production capacity and makes it difficult for business operators to innovate in product processing and packaging. This situation slows business development due to limited funds to purchase large quantities of raw materials or add production equipment.

Nevertheless, the people of Katiagan show a high spirit of independence in managing their businesses. They apply the principles of mutual cooperation and assistance in the form of interest-free loans (*qardhul hasan*) between fellow business owners. These Islamic economic values strengthen social relationships and provide an alternative solution to limited access to capital. With support from local governments and Islamic financial institutions, it is hoped that business owners can expand their production scale and increase the competitiveness of fish salting products in a sustainable manner.

2. Level of Understanding and Utilization of Technology by the Community in Running Fish Salting Businesses

The level of understanding of the Nagari Katiagan community regarding technology in fish salting businesses is still low to moderate. Most businesses still use traditional methods for drying and packaging. However, a small number of businesses have begun to utilize simple technologies such as electric dryers, sealing machines, and vacuum packaging to improve product quality and shelf life. These efforts have proven to extend the shelf life of salted fish and increase its market value.

Limited knowledge and costs are the main obstacles to the application of modern technology. Therefore, training and assistance from local governments or related institutions are urgently needed so that the community can optimize the use of technology in the production and marketing processes. Improving digital literacy is also important so that businesses can use social media and marketplace platforms to promote their products. With the right use of technology, the fish salting business in Nagari Katiagan can develop more efficiently, hygienically, and competitively in a wider market.

3. The Effect of Seasonal Dependence on Raw Material Availability and Fish Salting Business Income

Fish salting activities in Nagari Katiagan are greatly influenced by the fishing season. During the abundant fishing season, businesses can obtain raw materials at affordable prices, thereby increasing production and income. However, during lean seasons or bad weather, catches decrease

dramatically and fish prices rise sharply. These conditions make it difficult for businesses to obtain raw materials and force them to reduce production volume. These fluctuations have a direct impact on the income stability of coastal communities that depend entirely on marine resources.

To overcome seasonal dependence, some businesses have begun to implement raw material storage strategies using refrigeration or semi-finished drying techniques. Others shift their activities to processing other products such as fish floss or fish crackers when salted fish raw materials are scarce. This product diversification is an effective solution to maintain business continuity throughout the year. With good production planning and storage facility support, seasonal dependence can be reduced, ensuring stable community income despite fluctuations in fish catches.

4. Fish Product Diversification Strategies that Can Be Implemented to Increase Community Income

Fish product diversification is a key strategy in increasing the income of coastal communities in Nagari Katiagan. Through innovation, businesses no longer rely solely on salted fish, but also develop derivative products such as fish floss, fish nuggets, fish crackers, and salted fish sambal. This strategy aims to expand the market, increase product added value, and adapt to increasingly diverse consumer tastes. The results of the study show that businesses that implement product diversification experience an average income increase of 30-40% compared to those that only produce conventional salted fish.

In addition to product innovation, the diversification strategy also involves improving packaging quality, digital promotion, and collaboration with souvenir shops or modern markets. The application of Islamic economic principles such as honesty (shiddiq), justice ('adl), and benefit (maslahah) serves as a guideline in managing businesses to obtain blessings and consumer trust. With the support of skills training and access to capital, the diversification of processed fish products has the potential to be a sustainable solution in improving the economic welfare of the coastal community of Nagari Katiagan.

C. Development of Fish Salting Business

The fish salting business in Nagari Katiagan, Kinali District, West Pasaman Regency has experienced significant development in recent years. Initially, this activity was only carried out traditionally by coastal communities to meet household needs and the local market on a small scale. However, with increasing market demand and advances in processing technology, the community has begun to expand production scale and improve product quality. Several businesses have started using modern drying equipment, vacuum packaging, and paying attention to hygiene standards in the processing. These improvements in quality and innovation have led to Katiagan salted fish becoming better known in regional markets and even beginning to penetrate markets outside the regency.

In addition, the diversification of processed fish products has become an important factor in the progress of the salting business. The community not

only produces salted fish, but also creates derivative products such as fish floss, fish crackers, and salted fish sambal. This innovation has proven to increase community income and expand market reach. Support from the local government through entrepreneurship training, production equipment assistance, and business group coaching has also strengthened the competitiveness of this sector. The development of the fish salting business in Nagari Katiagan has not only had an impact on improving the economy of coastal communities, but also reflects the application of Islamic economic principles such as honesty, trustworthiness, and benefit in business activities, making this business more empowered, ethical, and sustainable.

D. Interview Results (Quotes from Sources)

1. "In the past, we only sold regular salted fish, but now we have started making fish floss and fish crackers. The results are quite good, our income has increased, especially when it is fish season." (Mrs. Nuraini).
2. "Fish prices are often uncertain, so we have to find other ways to keep selling. Now we process it into salted fish sambal, which we sell to food stalls and through Facebook. Thank God, the results are better than before." (Mr. Ahmad).
3. "Now we use electric dryers. The fish dry quickly and are clean, so buyers are happy. We also vacuum-pack them to make them last longer." (Mrs. Salma).
4. "In buying and selling, we don't want to deceive buyers. The fish we sell must be clean and free of chemicals. We want this business to be halal and bring blessings." (Mr. Ridwan).

CONCLUSION

Based on the results of research and discussions that have been conducted, it can be concluded that the fish salting business in Nagari Katiagan, Kinali District, West Pasaman Regency has great potential in increasing the income of coastal communities through the application of a strategy of diversifying processed fish products. Most of the community has developed derivative products such as fish floss, fish crackers, and salted fish sambal, which have been proven to increase average income by 30-40% compared to traditional salted fish businesses. This diversification also helps the community overcome income fluctuations due to dependence on the fishing season and expands market reach through digital marketing and packaging innovations. In addition to economic aspects, business actors in Nagari Katiagan have also applied Islamic business ethics principles in carrying out their business activities. Values such as shiddiq (honesty), amanah (trustworthiness), 'adl (fairness), iffah (abstaining from what is forbidden), and maslahah (public benefit) are reflected in the daily behavior of business actors, such as maintaining product quality, avoiding fraud, and providing social benefits by creating job opportunities for the surrounding community. Thus, the development of fish salting businesses based on product diversification in Nagari Katiagan not only has an economic impact but also strengthens Islamic values in the business practices of coastal communities. Overall, the implementation of a fish product diversification strategy has proven

to be an effective measure in improving the economic welfare of coastal communities. However, to optimize the results, support from local governments and related institutions is needed in the form of skills training, capital assistance, and sharia-based business management assistance. With this collaboration, the fish salting business in Nagari Katiagan can develop further, become more competitive, and be based on Islamic values that bring blessings and benefits to the entire community.

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