Jurnal Ilmu Sosial dan Humaniora
Volume 13, Number 3, 2024 pp. 672-685
P-ISSN: 2303-2898 | E-ISSN: 2549-6662
Open Access: https://doi.org/10.23887/jish.v13i3.84867

An Empirical Study of Sustainability Strategies in Women-Led Fish Processing Enterprises on the Depok Coast

Ayu Kumala Sari[1], Zulfa Nur Auliatun Nissa'[1]*, Miftahul Ajri[1], Ali Hasyim Al Rosyid[1]

[1]Universitas Pembangunan Nasional Veteran Yogyakarta, Indonesia

ARTICLE INFO

Article history:
Received September 10, 2024
Revised October 21, 2024
Accepted November 4, 2024
Available online December 31, 2024

Keywords:
Fish Processing Enterprises; Sustainability; Strategy; SWOT; Women; Coastal

This is an open access article under the CC BY-SA license. Copyright © 2024 by Author. Published by Universitas Pendidikan Ganesha.

ABSTRACT

This study explores sustainability strategies for women's fish processing businesses in Depok, Bantul Regency, where economic conditions remain underdeveloped despite Indonesia's vast coastal potential. Women fish processors face constraints in accessing technology, markets, and capital. The research aims to develop sustainable adaptation strategies to strengthen their resilience amid social, economic, and environmental challenges. A mixed-methods approach was used, surveying 75 women fish processors, supplemented by interviews, observations, and document reviews. Internal and external factors were analyzed through IFE and EFE matrices, while IE and SWOT analyses helped identify strategic alternatives. The women's fish processing businesses were positioned in cell V of the IE matrix, indicating a "Hold and Maintain" strategy, with an IFE score of 2.01 and an EFE score of 2.43. The recommended strategies include market penetration and product development. Despite strengths in product variety and competitive pricing, the businesses struggle with unstable raw material supplies. Key strategies for sustainability emphasize market expansion, product development, and strengthening external networks. Social capital—particularly norms, cooperation, and trust—plays a significant role in business growth. Norms received the highest score (1.95), followed by trust (1.62) and networks (1.48), highlighting strong social cohesion but a need for improved network development to access resources and markets. These strategies have crucial implications for the long-term sustainability of women's fish processing businesses, underscoring the importance of diversifying products and building stronger networks to ensure more stable and profitable operations.

1. INTRODUCTION

Indonesia is an archipelagic country with a coastline of 99,093 km (Statistic Ministry Fisheries and Marine Indonesia, 2019). Most of Indonesia's territory borders directly on the sea, where various potentials can be developed in coastal areas. The condition of the coastal regions that are rich in potential is not always directly proportional to the people's welfare level. The abundant potential of the sea does not necessarily bring prosperity to coastal communities. The poverty level of coastal communities in the Special Region of Yogyakarta (DIY) still needs to be more prosperous. DIY is one of the provinces in the southern coastal region of Java Island, with a total coastline of 126 km (Ayuandina & El Hasanah, 2023; Ratnadewati et al., 2024). However, it is known that the combined total Gross Domestic Product (GRDP) in 2021 in the 3 Regencies of DIY Province, which are located in coastal areas, namely Bantul, Gunungkidul and Kulon Progo Regencies, is only 40.81% smaller when compared to the combined total GRDP of Sleman Regency and Yogyakarta City (BPS Provinsi D.I. Yogyakarta, 2022). Based on poverty levels, coastal areas bordering the sea have more poor people than non-coastal areas (Pasda et al., 2019). One of the potentials being developed in coastal areas is fish processing. Fish is a fishery commodity that only lasts for a short time (perishable) and undergoes a swift decay process. Therefore, efforts need to be made to maintain the quality of fish. On the other hand, fish is a source of high protein, so fish processing is an alternative food source. Processing is an effort to overcome these problems. Through processing, the quality of fish can be maintained for a long time, has added value, and remains famous for consumption. Fatchiya et al. (2019)explained that traditional fish processing methods are more dominant than modern processing methods, so it can be said that the percentage of traditional fish processing is always high compared to modern methods. According to (2015),

*Corresponding author
E-mail addresses: zulfa.nur@upnyk.ac.id

there are 25,602 micro-scale fish processing businesses, 37,464 small-scale fish processing businesses, and 650 medium-scale fish processing businesses.

Traditional fish processing at the micro and small business level still has many obstacles. According to Zamroni dan Purnomo (2005)small and medium businesses generally need help developing their businesses, such as limited access to technology, markets, and raw materials, which, if traced, all come from limited business capital. Natalia (2012)said that obstacles in developing fish processing businesses are due to weak quality assurance, high levels of loss, lack of promotion intensity, limited fish handling facilities, lack of or no standardization of raw materials, limited technological information, uncertainty in prices and production, triggered by fluctuations—market demand, uncertain climate factors, as well as limited infrastructure and distribution of fish production. Deswati & Hikmah, (2016) the obstacles and problems experienced in the fish processing business in Pacitan are that the stock of raw materials is not guaranteed, and it is not easy to find market destinations. In the context of Pesisir Depok, Bantul Regency, the challenges faced by women fish processors are increasingly complex, with changes in spatial planning due to plans to develop an integrated tourism area and the threat of coastal abrasion (Setiawan & Amanda, 2022; Suhamdani, 2024). This condition exacerbates existing constraints, such as access to capital and markets, with additional pressure from relocation policies and changes in the coastal environment (Hasanudin & Cahyana, 2019; Setiawan & Amanda, 2022). Therefore, the sustainability strategy must combine aspects of adaptation to changes in spatial planning policies and environmental conditions and focus on optimizing opportunities for tourism development. With an expanded SWOT approach, women fish processors can be better prepared to face local dynamics and existing challenges while maintaining the resilience of their businesses amidst social, economic, and environmental changes. This difficulty results in the vulnerability of livelihood capital for women fish processors. This research aims to formulate a new concept as an adaptation strategy to strengthen the resilience of women fish processors in facing social, economic, and environmental challenges. This research will focus on identifying internal and external factors that influence adaptation strategies and formulating a strategy model for the sustainable development of women's fish processing businesses using a modified SWOT approach relevant to the factual conditions and factors that have been identified. Together with the social capital approach to identify how women fish processors survive their business.

2. METHOD

The researcher used a quantitative supported by qualitative approaches in this study. This study is a survey study supported by a qualitative approach. *Survey research* is a study that takes samples from one population and uses questionnaires as the primary data collection tool. The analysis section focuses on the efforts of women fish processors on the coast of Depok Beach, Bantul Regency. The number of respondents was 75 from 150 women fish processors in Depok Beach. They were selected using simple random sampling. There are no separate respondents because almost all of the women fish processors in Depok Beach are in small-scale businesses. and they were selected using simple random sampling. Researchers obtained secondary data sources for this study through literature reviews and collaboration with the Bantul Regency Fisheries and Marine Service. The literature review in this study serves to identify relevant theories and concepts, such as women's empowerment and local economy and gender roles. In addition, the literature review helps find research gaps that have not been explored by reviewing previous research. Researchers can also choose appropriate methodologies and place findings in a broader context. Researchers collected primary data through interviews, observations, and document examinations. These data include the identities of women fish processors and their involvement in fish processing and marketing groups. Data analysis was carried out based on three critical components, namely:

1) Identifying external factors of women's fish processing businesses using the EFE matrix. According to David &David (2017), the External Factor Evaluation Matrix (EFE Matrix) allows strategists to summarize and evaluate economic, social, cultural, demographic, environmental, political, governmental, legal, technological, and competitive information.
2) Identifying internal factors of women's fish processing businesses using EFI. The Internal Factor Evaluation Matrix (IFE Matrix) is a strategy formulation tool that summarizes and evaluates the main strengths and weaknesses in functional areas of the business and serves as a basis for identifying and evaluating the relationships between these areas (David & David, 2017).
3) processing strengths, weaknesses, opportunities, and threats so that, in the end, it can provide alternative strategies to improve weaknesses to become strengths in facing threats and optimally utilizing opportunities that come using the IE and SWOT matrices. So far, we have discussed how a business uses IE and SWOT analysis to assess its situation. Companies can use IE and SWOT to generate

several alternative strategies that illustrate how the company's internal strengths and weaknesses can be combined with specific external opportunities and threats (Wheelen & Hunger, 2012).

The researcher tried to add qualitative information to enrich the data and understand the social phenomena being studied. This qualitative data was collected using a slip, a piece of paper specially provided, in addition to using a questionnaire (Creswell, 2008). In addition to using slips, this qualitative data was collected through case studies and observations.

3. RESULT AND DISCUSSION

The External Factor Evaluation (EFE) Matrix

The identification of opportunities and threats produced results from an analysis of external environmental factors women fish processors face in running their businesses, as shown in Table 1. In the opportunities section, the high public interest in consuming processed marine fish products is the most significant opportunity, with a weight of 0.12 and a balanced score of 0.35, showing that women's fish processors can utilize this positive consumption trend to increase sales and expand the market. The second main opportunity factor followed this: loyal customers coming to buy back products, getting a weighted score of 0.32. Quality is the main thing that fish processors pay attention to because it can increase customer satisfaction. In line with that, Fikri (2022) revealed that the selling value of processed fish is not only due to its competitive price but also because the sound quality is always maintained over time so that customers can return and buy the product.

The third foremost opportunity for women fish processors is easy access to capital from cooperatives and banks, getting a value of 0.29. Capital access is available on Depok Beach through the Mina Bahari cooperative, BRI Bank, and informal loans (loan sharks). Cooperatives provide loan facilities through money and goods such as cooking utensils given to active fish farmers in routine cooperative meetings. Meanwhile, banks provide loans to fish farmers with different systems. It optimizes business management by adding capital to maximize the goods produced. Special programs such as KUR to provide easy loans for small business owners are still provided for businesses that have been running for at least six months. Banks mandate the management of customer funds by channeling loans to businesses already running well to reduce risk (Haryanti, 2024).

Table 1. The External Factor Evaluation Matrix

No	Key External Factors	Weight	Rating	Weighted Score
	Opportunities			
1	There is high public interest in consuming processed marine fish products	0,12	3	0,35
2	Government support and guidance from fisheries extension workers	0,10	2	0,20
3	Easy access to capital from cooperatives and banks	0,10	3	0,29
4	Continuity in obtaining primary raw materials	0,09	3	0,28
5	Loyal customers come to repurchase products	0,11	3	0,32
	Threats			
1	Fluctuating prices of auxiliary raw materials	0,09	2	0,18
2	Difficulties in cashless purchasing transactions	0,10	2	0,20
3	Changes in consumer tastes	0,08	2	0,17
4	Climate and weather changes	0,10	1	0,10
5	Issues of chemical use and pollution on the quality of processed fish	0,05	3	0,15
6	Duplication of the same product by other producers	0,07	3	0,20
	Total	1,00		2,43

Continuity in obtaining raw materials scored 0.28. The raw materials used are fresh fish with the best quality taken directly from fishermen on the coast of Depok. Fresh fish is always available for women's fish processing businesses from year to year, which aligns with the opinion of Mrs. Tursiwen, one of the female fish processing resource persons.

> *"... the last five years, fresh fish raw materials have increased; if there are none now, there are many frozen alternatives ..."*

The ease of obtaining the primary raw materials also dramatically affects the sustainability of fish processing businesses or operational activities. Another opportunity factor is government support and fisheries extension workers, with a balanced score of 0.20. Although it represents an opportunity we can utilize, the government's lack of participation in group skills improvement activities—highlighted by Mrs. Tusiani, one of the resource persons—has hindered its appropriate utilization.

> *"... the agency provides fish processing extensions if friends invite me to join. Nevertheless, sometimes I miss information and do not participate when there is training..."*

Meanwhile, the biggest threat faced by women fish processors is mainly related to the development of the business world in the form of changes in transaction methods using non-cash methods and duplication of the same product by other producers. Both have the same weighted score as the biggest threat. The solution to facing rapid changes in the business world is learning to innovate products and services, such as implementing digital payments and changing the mindset from always wanting to compete to always wanting to collaborate. Before profoundly, the third most significant threat faced by women fish processors was the fluctuating price of auxiliary raw materials. The supply of auxiliary raw materials in each business is undoubtedly different in quantity and type; this is possible because each business has a different scale of production and production results. Auxiliary raw materials are one of the determining factors in the smooth running of the production process, so every business must have sufficient auxiliary raw materials supplies to support the company's production activities. The disruption of the production process will undoubtedly affect the level of output produced. Rising prices of auxiliary raw materials, fluctuations in exchange rates, customers switching to similar competitors, the entry of new competitors that are not similar, the number of substitute products, and other companies with more innovative products (Karamoy et al., 2022). Increasing product sales to anticipate the presence of materials with fluctuating prices based on a direct statement from one of the respondents, Mrs. Catur Istuti.

> *"... the price of auxiliary raw materials here goes up and down, sis, so it affects the selling price of processed fish, but that is an agreement between fish processors, so it is the same; it just affects the arrival of visitors ..."*

On the other hand, threats such as changes in consumer tastes, climate change, chemical use, and pollution of the quality of processed fish are important threat factors. However, they have a lower impact than others. Overall, the total score of these opportunities and threats is 2.43; based on David & David (2017)this score indicates that the business strategy of women's fish processors needs to take advantage of opportunities and avoid external threats.

The Internal Factor Evaluation (IFE) Matrix

The IFE matrix shows the internal conditions, which consist of strengths and weaknesses, in developing women's fish processing businesses in Depok Beach, as shown in Table 2. It is known that the human resource factor experienced in processing fish has a weight of 0.08 and a balanced score of 0.25, indicating that this aspect strongly supports business operations. In addition, the variety of processed fish products is also an essential strength with the same weight and score, providing flexibility in meeting consumer demand. This is in line with research by Atmajaya et al. (2021), where a relatively long production experience factor causes the productivity of a business. Diverse variants are also a strength factor because they can attract consumer interest in buying. Mrs. Ngatinem also conveyed this as one of the speakers.

> *"If there are many variations and many menus, it makes customers comfortable choosing according to their tastes because some like fish, shrimp, and squid; there are various things, right? So if there are many variations, customers are also happy to buy at our stalls ..."*

Competitive price factors and quality products have the same score of 0.22. The price of processed fish sold on Depok Beach between stalls is similar because the selling price and cooking price have been set within the group based on Mrs. Warti's statement.

> *"... here the price has been set together, so there is no price competition here between fellow traders; for example, the cooking service is 35 thousand per dish ..."*

Deeper still, to create competitiveness, what can be done is to maintain the quality of processed fish. This is based on the research of Purnomo and Murniawati (2021), where the product produced is of good quality, which is the main strength for fish processing business owners because the products produced are

of good quality and can be assessed directly by consumers. In producing quality products, it is balanced with SOP in the processing process. A processing process that has a good SOP can produce quality products. The SOP factor in the processing process has a balanced score of 0.21, which is included in a reasonably high score. Other factors, such as strategic business locations and modern and automatic production technology, contribute positively to the competitiveness of women's fish processing businesses even though they are not their three main strengths.

On the weak side, women fish processors face several challenges in running their businesses; one of the main challenges is the threat of instability in the price of supporting raw materials, making the unstable product price factor a significant weakness with a balanced score of 0.07. Uncertainty in business planning makes it difficult to plan investment or business development because it is impossible to estimate the income obtained from selling processed fish (Abrar et al., 2024). In line with that, Mrs. Sri Lestari expressed her opinion as one of the female fish processors.

> *"... although fresh fish is always available, the price of basic ingredients for processing fish tends to increase, making it very difficult for us to process fish, especially when cooking oil is scarce ..."*

Another major weakness highlighted is that the administration of the fish processing business is still being carried out, which is one of the weakest factors. The simple administration factor gets a balanced score of 0.06. In carrying out administration, women fish processors use manual bookkeeping, which must be systematic. Payments are not all businesses with digital payments; some only accept cash payments. Undoubtedly, it is a weakness that can hinder the running of the business. A simple bookkeeping system related to the management and administration system is necessary to properly organize the development plan for activities at partners (Mufarida et al., 2022).

Table 2. The Internal Factor Evaluation (IFE) Matrix

No	Key External Factors	Weight	Rating	Weighted Score
	Strengths			
1	Experienced human resources in processing fish	0,08	3	0,25
2	Has several variants of processed fish products	0,08	3	0,25
3	Competitive prices	0,07	3	0,22
4	Quality products	0,07	3	0,22
5	Strategic business location	0,07	3	0,21
6	Modern and automatic production technology	0,05	2	0,10
7	Has SOP for processing process	0,07	3	0,21
	Weaknesses			
1	Having debts to loan sharks	0,03	2	0,05
2	Lack of human resources	0,03	2	0,05
3	Unattractive packaging	0,05	1	0,05
4	Does not have a packaging design	0,05	1	0,05
5	Does not have an agent/branch	0,04	1	0,04
6	Lack of business capital	0,05	1	0,05
7	Product prices are unstable	0,07	1	0,07
8	The administration is still simple	0,06	1	0,06
9	Marketing is still done conventionally	0,05	1	0,05
10	Not yet certified halal and BPOM	0,02	1	0,02
11	The economic life of the product is too short	0,07	1	0,07
	Total	1,00		2,01

Furthermore, the economic life of the product needs to be longer, and it is also one of the top three main weaknesses of women's fish processors, with a balanced score of 0.07. It has a reasonably high score, so this is a significant weakness factor. Processed fish cooked with various spices has a short economic life that can quickly go bad. It is different from fried seafood, which has a longer economic life. Mrs. Eny Siswanti conveyed this.

> *"... dishes like shrimp in oyster sauce, grilled fish, and others, if wrapped and taken home, will go stale quickly if not reheated immediately, except for fried anchovies. Fried shrimp last longer if wrapped as souvenirs; it can still last for three days, at most the taste is not too crispy..."*

Other weaknesses include debt to loan sharks, lack of human resources, unattractive packaging, not having a packaging design, not having an agent or branch, lack of business capital, marketing is still done conventionally, and not having halal and BPOM certification will reduce the competitive value of women's fish processing businesses if not handled efficiently and effectively. Furthermore, the total weighted score for the strengths and weaknesses of women's fish processing businesses is based on Table 2. The Internal Factor Evaluation (IFE) Matrix is 2.01. David & David (2017), stated that a weighted score below 2.5 indicates that the organization has internal weaknesses, so it can be concluded that women's fish processing businesses need to be improved to transform internal weaknesses into distinctive competencies.

Determining the Position of Women-Led Fish Processing Enterprises

Determining the position of the business is based on the analysis of the total score of internal and external factors using the Internal-External Matrix model (Wheelen & Hunger, 2012). Based on the results of the IE matrix mapping with a total weighted score of IFE 2.01 and a total weighted score of EFE 2.43, the business is in cell V. The position of the business in III, V, and VII is included in the category of being held and maintained. The strategies that can be applied are market penetration and product development strategies. *Market penetration strategy* is a strategy that can be carried out to improve the company's position through the same products and markets with aggressive marketing efforts. Market penetration strategy can be carried out in three ways: the company stimulates consumers to increase purchases, the company makes efforts to influence competing consumers, and the company makes efforts to attract non-users or potential consumers in its marketing environment. A *product development strategy* is a strategy that emphasizes improving product quality for the same target market to increase sales. The standard method businesses use is growing through lowering selling prices, improving product and service quality, and opening up broader markets.

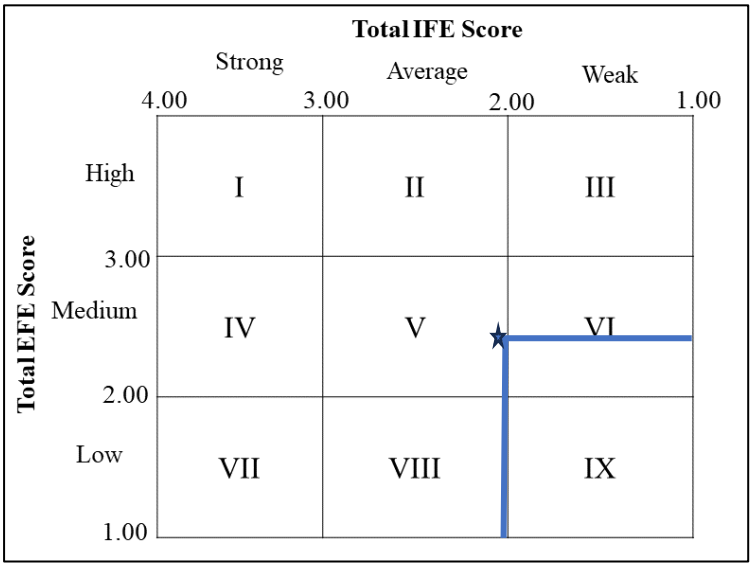

Figure 1. Internal-External Matrix

The strategy that can be applied to women's fish processing businesses in Depok Beach is a growth strategy through horizontal integration, which is an activity to develop a business by increasing the types of processed products to have many product variations, in line with the research of Rusdiana et al. (2024), on the CV Putra Kresna pindang fish business, which is also in cell V and supported by Mrs. Rita's statement as an informant.

"There has often been fishing processing training, but until now, not many have been implemented by mothers...."

The opportunity for government support through fish processing counseling has the potential to increase the ability of women fish processors to produce new products. Another strategy that can be applied is to develop new products and improve the quality of products or services—the research of Djojoatmodjo et al. (2022) The results of the IE analysis in quadrant V, namely growth and stability, were also obtained. The implementation of this strategy is supported by the strength of human resource factors experienced in processing fish and the opportunity for easy access to capital so that they can develop new products and improve the quality of products and services.

Alternative Enterprises Strategies for Wome-Led Fish Processors

Various alternative strategies are formulated based on the SWOT matrix. The Strengths-Weaknesses-Opportunities-Threats (SWOT) Matrix is an important matching tool to help managers develop four types of strategies: SO (strengths-opportunities) Strategy, WO (weaknesses-opportunities) Strategy, ST (strengths-threats) Strategy, and WT (weaknesses-threats) Strategy (David & David, 2017). Based on the SWOT analysis results, the first strengths-opportunities strategy (SO1) for women's fish processing businesses in Depok Beach is to improve digital marketing skills through group coaching facilitated by the government, with support from cooperatives and banks. Fish processors already have several advantages, such as product variety, competitive prices, and guaranteed product quality. Optimizing the opportunity for high public interest in consuming processed marine fish products, digital marketing training is very important so that they can utilize online platforms and social media to reach more consumers (da Silva Wegner et al., 2023; Thébaud et al., 2023). Coaching from the government, women fish processors will get more structured support, while cooperatives and banks can provide the funding needed to build digital marketing infrastructure. This first SO strategy will strengthen the product's position in the local market and expand access to a broader market through online sales, which is increasingly essential in today's digital era (Miller & Wang, 2024). Next, the second strength-opportunity strategy (SO2) is that standardization of the processing process is crucial to maintaining production stability and product quality, especially in maintaining the continuity of raw materials. The implementation of established SOPs, this female fish processing business can optimize the production process consistently to maintain product quality even when demand increases. Standardization also allows this business to meet greater market demand without sacrificing quality (Turovets & Vishnevskiy, 2023). The alternative third strength-opportunity strategy (SO3), the government's relocation of a more integrated fish processing business, can be a long-term solution to utilize a more optimal strategic location. The new integrated location, this fish processing business on Depok Beach, can improve accessibility for customers and overcome space constraints that may be faced in the current location. This can also strengthen the business's position in facing competition and ensure long-term growth because loyal customers will continue to come to buy quality products from a more strategic location.

The ST strategy is to leverage the strengths of women fish processors in Depok Beach and simultaneously overcome possible threats in the fish processing business. The first strategy (ST1), by focusing on superior products, this business can maintain competitiveness amidst changes in consumer tastes and product duplication by other producers. Products with high quality and competitive prices can continue to be put forward as added value that is difficult for competitors to imitate. The variety of processed fish products also allows this business to adapt to changes in market preferences, while the experience of human resources ensures that quality is maintained despite challenges (Menozzi et al., 2020). The following alternative strategy (ST2), namely increasing production efficiency, is very important to deal with fluctuations in raw material prices and maintain profit margins. Modern and automated production technology can be utilized to reduce costs and speed up the processing process so that there is less dependence on unstable raw material supplies (Ravishankar & Elavarasan, 2023). In addition, with established SOPs, this business can be more consistent in producing quality products, even though changes in climate and weather can affect production (Subash et al., 2024). Third (ST3), an alternative strategy that can be done is building human resource capacity through groups that will strengthen this business in facing various external challenges, such as issues of chemical use and pollution, through training and capacity building of experienced human resources, they can be more ready to adopt environmentally friendly technology or innovations in processing processes that are safer and by quality standards (Farida & Setiawan, 2022). Strategic locations can also be utilized for better access to coaching and mentoring from the government or extension workers related to these issues.

The Weaknesses-Threats strategy addresses the company's internal weaknesses while responding to external threats. The first strategy (WT1) is restructuring the financial structure and debt management. In this case, the company must restructure its financial strategy, especially concerning loan shark debt and limited business capital. Fluctuating raw material prices and the issue of product price instability further exacerbate this condition. Thus, debt restructuring, finding more affordable alternative funding sources, and strengthening financial risk management are fundamental (Moses et al., 2021). In addition, there needs to be a strengthening in capital management and more stable price regulation to ensure that the company can survive changes in market conditions and the threat of contamination of raw material quality. The second strategy (WT2) is the development of a modern administration and marketing system. Currently, this fish processing business still uses conventional marketing methods and simple administration. In facing the threat of difficulties in cashless transactions and changes in consumer tastes, modernization of the operational management system needs to be implemented (Rahman et al., 2022). It can be done by

implementing digital marketing technology and technology-based administration systems, increasing efficiency and expanding market reach. Products are more easily accessible to consumers who switch to cashless payment methods, allowing businesses to be more flexible in adapting to dynamic consumer preferences (Ong & Chong, 2023). Lastly (WT3), collaboration with universities is a strategic step that can help develop product innovation, including extending the economic life of the product. Product packaging and preservation innovation are crucial to face the threat of raw material fluctuations and weather changes (Yadav & Kaur, 2024). Universities can play a role in helping develop more attractive and environmentally friendly packaging designs while providing research-based solutions to improve the quality and shelf life of processed fish products. In addition, this collaboration can help businesses obtain halal and BPOM certification, ultimately increasing product competitiveness in the market, especially when facing threats from other producers offering similar products.

Further, alternative strategies of weaknesses and opportunities are designed to overcome the weaknesses faced by the women's fish processing in Depok Beach and take advantage of the existing opportunities. First (WO1), marketing that involves the community is a strategy to increase sales by taking advantage of the high public interest in processed marine fish products.

Table 3. SWOT Matrix

	Strengths	Weaknesses
	1. Experienced human resources in processing fish 2. Has several variants of processed fish products 3. Competitive prices 4. Quality products 5. Strategic business location 6. Modern and automatic production technology 7. Has SOP for processing process	1. Having debts to loan sharks 2. Lack of human resources 3. Unattractive packaging 4. Does not have a packaging design 5. Does not have an agent/branch 6. Lack of business capital 7. Product prices are unstable 8. The administration is still simple 9. Marketing is still done conventionally 10. Not yet certified halal and BPOM 11. The economic life of the product is too short
Opportunities	SO Strategies	WO Strategies
1. There is high public interest in consuming processed marine fish products 2. Government support and guidance from fisheries extension workers 3. Easy access to capital from cooperatives and banks 4. Continuity in obtaining primary raw materials 5. Loyal customers come to repurchase products	1. Improving digital marketing skills with group coaching from the government in collaboration with cooperatives and banks (S2, S3, S4, S6, O1, O2, O3) 2. Standardization of processes for production stability (S1, S7, O4) 3. Relocation of integrated fish processing businesses by the government (S5, O1, O5)	1. Marketing that involves the community to increase product sales (W5, W7, W9, W11, O1, O5) 2. Integration of social capital to strengthen women fish processors through groups (W1, W2, W3, W4, W6, W8, W10, O2, O3, O4)
Threats	ST Strategies	WT Strategies
1. Fluctuating prices of auxiliary raw materials 2. Difficulties in cashless purchasing transactions 3. Changes in consumer tastes 4. Climate and weather changes 5. Issues of chemical use and pollution on the quality of processed fish 6. Duplication of the same product by other producers	1. Focus on superior products (S1, S2, S3, S4, T1, T3) 2. Increasing product production efficiency (S2, S4, S5, S6, T5, T6) 3. Building human resource capacity through groups (S1, S4, S7, T2, T4)	1. Restructuring of financial structure and debt management (W1, W2, W6, W7, T1, T5) 2. Development of modern administration and marketing system (W5, W8, W9, T2, T3, T6) 3. Collaboration with Universities in conducting product innovation (W3, W4, W10, W11, T1, T4, T5)

Community involvement can help overcome weaknesses in conventional marketing and expand sales reach through social networks (Algharabat & Rana, 2021; Zhang et al., 2022). For example, local communities and loyal customers can be encouraged to become agents or intermediaries in product distribution so that the business is no longer dependent on local marketing alone. It can also help expand market access and stabilize product prices. By improving the marketing system and involving the community, it is hoped that products can be sold faster before their economic life runs out. Second (WO2), integration of social capital through women's fish processing groups can strengthen their position in facing problems of weaknesses such as lack of human resources, lack of business capital, and simple administration. By forming a solid group, women fish processors can work together to manage capital through group contributions or more accessible access to cooperatives and banks. Also, reduce dependence on loan sharks. In addition, support from the government and fisheries extension workers can be used for capacity-building training in packaging design and financial management. Fish processors can also share resources in groups to increase efficiency (Chambon et al., 2024).

Empowerment Strategy for Women Fish Processing Groups in Depok Beach focuses on enhancing the capacity of these women to overcome existing challenges while optimizing opportunities in the fish processing industry. Empowerment efforts aim to strengthen their skills, knowledge, and resources through targeted interventions such as capacity-building programs, access to financial resources, and collaborative partnerships (Torre et al., 2019). By fostering strong group dynamics, women fish processors can collectively manage resources, improve product quality, and modernize their operations (Manyungwa et al., 2019; Szymkowiak & Rhodes-Reese, 2020). In addition, government and institutional support can play a key role in empowering these groups, ensuring sustainable growth and resilience in a competitive market.

Empowerment Strategy for Women-Led Fish Processing Groups Enterprises

Pierre Bourdieu in Phillips & Pittman, (2009) defines social capital as an attribute of an individual in a social context. One can acquire social capital through deliberate action and can convert that capital into conventional economic benefits. However, the ability to do so depends on the nature of the social obligations, connections, and networks available to them. Pinem et al., (2018) defines social capital as organizational properties, such as trust, norms, and networks, that can increase the efficiency of society by facilitating coordinated actions. Affiliation in various groups or associations is one form of citizen engagement network that can increase community trust. Citizen engagement networks increase the potential costs for people who violate norms in each transaction, promote reciprocity norms, facilitate communication, increase the flow of information about individual trust, and recognize past successes in cooperation that can be useful as cultural examples for future cooperation. The central pillar of social capital is the social structure that creates interconnectedness in social networks that keep everyone connected so that obligations and sanctions can be imposed on everyone in the network (Coleman, 1986). Meanwhile, Lawang explained that social networks are formed because of a sense of getting to know each other, informing each other, reminding each other, and helping each other in carrying out or overcoming something. The analysis of social capital in this study is seen from three elements: the level of network ownership, compliance with social norms, and trust in the social environment. Each of these elements is seen from its constituent components, which show the index of the social capital of women fish processors in Depok Beach, which can be seen in Figure 2.

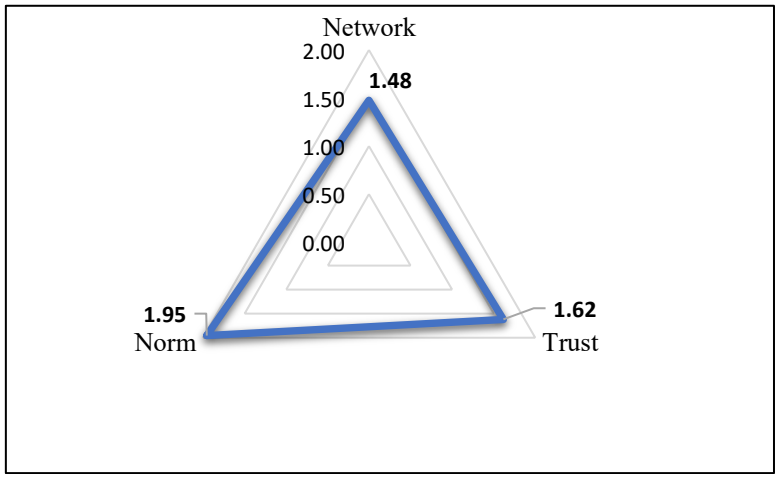

Figure 2. Elements Forming Social Capital Of Women Fish Processors On Depok Beach

Social capital is vital in developing women's fish processing businesses in Pantai Depok, Bantul, and Yogyakarta. The graph shows that norms have the highest value (1.95), followed by trust (1.62) and network (1.48). The high value of norms reflects the compliance of women fish processors with local traditions such as cooperation, which strengthens solidarity and community support. Moderate trust in neighbors, relatives, and the village government indicates that the relationship between individuals is quite good, although there is still room for improvement. Conversely, the low network value indicates limitations in connectivity with parties outside the village and related agencies, which hinders access to markets, information, and external support essential for developing their businesses.

In this context, social capital supports business sustainability through cooperation and compliance with norms and can also expand business development opportunities through strengthening external networks. Previous research shows that social capital can increase economic efficiency by facilitating coordination and cooperation (Coleman, 1986) and opening access to more comprehensive resources (Woolcock & Narayan, 2000). Therefore, efforts to increase social capital, especially in terms of networks, are very important for the welfare and sustainability of women's fish processing businesses on Depok Beach. UN Women, (2020) Emphasizes that strengthening external networks can increase access to broader market information, encouraging increased income for women fish processors. Other findings by Pinem et al., (2018) show that compliance with local norms increases trust and cooperation among community members, significantly strengthening the sustainability of businesses in the fish processing sector.

Women's empowerment is a systematic effort to increase women's capacity to act as autonomous and participatory individuals in various aspects of life. This concept includes increasing personal abilities and the ability to be actively involved in the planning, implementation, and evaluation processes of programs that affect their lives (Kandati et al., 2019). The expected result of this empowerment is the improvement of women's status in the family and society, which has direct implications for improving the social and economic status of the family. According to the theory of structural-functionalism sociology, women's empowerment is essential in strengthening social structures through the redistribution of power and access to resources, including technology, information, and capital. Parsons, (1954) emphasizes that to achieve effective empowerment, women must be given broad access to these resources, including decision-making relating to their own lives.

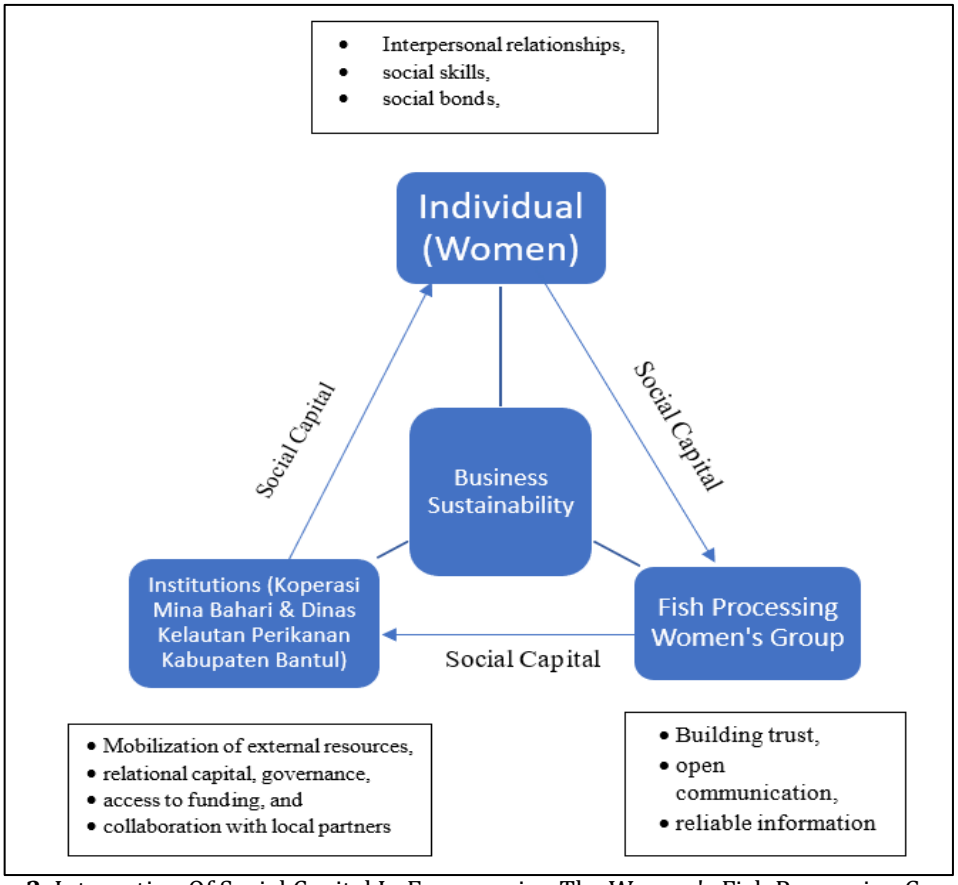

Figure 3. Integration Of Social Capital In Empowering The Women's Fish Processing Group

Women's empowerment strategies in the fisheries sector, especially among women fishermen in Depok Beach, Bantul, must be integrated into poverty alleviation and economic development policies. Research Deris et al., (2022) shows that integrating women in development policies increases their economic participation and strengthens their collective capabilities. In the context of women fishermen, this empowerment can be carried out through individual, group, or collective approaches, which place women on an equal footing with men in the social and economic context. One of the obstacles identified in empowering women fish processors in Depok Beach is the need for more supervision and application of the training results provided by the Marine and Fisheries Service to the Mina Bahari Joint Business Group (KUB). The lack of continuous control and evaluation of the training resulted in the training results needing to be applied optimally, resulting in limited diversification of processed fish products and stagnation in marketing. Recent research supports the importance of controlled periodic training to strengthen the internal capabilities of the group and ensure the application of acquired skills in daily practice, which in turn can increase income and business sustainability (Akbar & Haeruddin, 2023). In addition, supervision of KUB activities must be increased to encourage active participation of women in production and marketing, as well as expanding the market reach of processed fish products to increase economic added value so that, if described, social capital can be integrated into the empowerment of women's fish processing groups as a strategy to maintain business sustainability can be described as in Figure 3.

4. CONCLUSIONS AND RECOMMENDATIONS

The Internal-External (IE) matrix places the women's fish processing businesses in cell V, indicating that their position falls under the "Hold and Maintain" category. With an IFE score of 2.01 (average internal strength) and an EFE score of 2.43 (medium external opportunities), the recommended strategies include market penetration and product development. The External Factor Evaluation (EFE) Matrix highlights critical opportunities and threats for women fish processors, focusing on high consumer interest in processed fish, loyal customers, and easy access to capital as top opportunities. However, threats include the rise of cashless transactions, product duplication, fluctuating raw material prices, and changes in consumer preferences. The Internal Factor Evaluation (IFE) Matrix identifies experienced human resources, product variety, and competitive prices as key strengths. However, weaknesses such as unstable raw material prices, simple administration, and short product shelf life pose challenges. The overall business position suggests the need for market penetration and product development strategies to address internal weaknesses and external threats. Alternative strategies include improving digital marketing, standardizing processes, leveraging government support, and restructuring financial and administrative systems to ensure growth and sustainability. Social capital is vital in developing women's fish processing businesses at Depok Beach, Bantul Regency, Yogyakarta Province, particularly in fostering cooperation, trust, and adherence to local norms. The study shows that while social norms and trust are relatively strong, networking remains limited, hindering access to external resources and markets. Strengthening these external networks and continuous empowerment through training and supervision is crucial for improving the sustainability and economic success of the women fish processors in the region. This study emphasizes the critical role of social capital in strengthening small-scale, women-led fish processing businesses, highlighting the need for a balanced approach that enhances both internal capacities and external support systems. Integrating digital marketing, stabilizing raw material prices, and improving access to markets and resources are key for sustainable growth. Policymakers should prioritize targeted financial aid, infrastructure, and fair market regulations, while practitioners need to focus on digitalization and improving business operations. Future research should explore the long-term effects of digitalization and how to better utilize social capital in rural business development. Strengthening networks and support systems can enhance the resilience and economic contribution of women fish processors.

5. ACKNOWLEDGEMENTS

This research was made possible thanks to the support and funding from the Internal Research Grant Fund of the "Beginner Lecturer Research" Program provided by Lembaga Penelitian dan Pengabdian Kepada Masyarakat UPN "Veteran" Yogyakarta. We express our deepest gratitude to the institution for the financial assistance provided.

6. REFERENCES

Abdi Akbar, Maulana Haeruddin, dkk. (2023). Pelatihan dan pengembangan SDM dalam perpektif ilmu manajemen: Sebuah studi literatur. *Southeast Asia Journal of Business, Accounting, and Entrepreneurship (SAINS)*, *1*(1), 1–7.

Abrar, U., Febrianto, A., Norhaliza, S., Shabrina, U. N., Hasanah, W., & Aisyuzzalluma, M. (2024). *Unsul Abrar*

, Afdan Febrianto , Siti Norhaliza , Ummu Nihayati Shabrina , Nafi ul Umam , Wardhatul Hasanah , Mitha Aisyuzzalluma. *4*(2), 16–18.

Algharabat, R. S., & Rana, N. P. (2021). Social Commerce in Emerging Markets and its Impact on Online Community Engagement. *Information Systems Frontiers*, *23*(6), 1499–1520. https://doi.org/10.1007/s10796-020-10041-4

Atmajaya, O. D. D., Agam, B., & Wahyudi, A. (2021). Strategi Pengembangan Usaha Perikanan Tuna Di Pelabuhan Perikanan Pantai Pondokdadap Sendang Biru Malang Pasca Pandemi Covid-19. *Jurnal Perikanan Dan Kelautan*, *11*(1), 114–125. https://doi.org/http://dx.doi.org/10.33512/jpk.v11i1.11384

Ayuandina, F. G., & El Hasanah, L. lak N. (2023). Analysis of factors influencing poverty in special region of Yogyakarta. *Journal of Economics Research and Policy Studies*, *3*(1), 16–26. https://doi.org/10.53088/jerps.v3i1.655

BI. (2015). Profil Bisnis Usaha Mikro, Kecil Dan Menengah (Umkm). In *Bank Indonesia dan LPPI*.

BPS Provinsi D.I. Yogyakarta. (2022). *Indikator Pembangunan Berkelanjutan Daerah Istimewa Yogyakarta 2021/2022*. https://yogyakarta.bps.go.id/publication/2020/11/26/88741bf53c08bb6603931a24/indikator-pembangunan-berkelanjutan-daerah-istimewa-yogyakarta-2019-2020.html

Chambon, M., Miñarro, S., Alvarez Fernandez, S., Porcher, V., Reyes-Garcia, V., Tonalli Drouet, H., & Ziveri, P. (2024). A synthesis of women's participation in small-scale fisheries management: why women's voices matter. *Reviews in Fish Biology and Fisheries*, *34*(1), 43–63. https://doi.org/10.1007/s11160-023-09806-2

Coleman, J. S. (1986). Social Theory, Social Research, and a Theory of Action. *American Journal of Sociology*, *91*(6), 1309–1335. https://doi.org/10.1086/228423

Creswell, J. W. (2008). *Research Desing: Qualitative, Quantitative and Mixed Method Research*. Sage Publications.

da Silva Wegner, R., da Silva, D. J. C., da Veiga, C. P., de Fátima Barros Estivalete, V., Rossato, V. P., & Malheiros, M. B. (2023). Performance analysis of social media platforms: evidence of digital marketing. *Journal of Marketing Analytics*. https://doi.org/10.1057/s41270-023-00211-z

David, F. R., & David, F. R. (2017). *Strategic management: concepts and cases: A competitive advantage approach*. Pearson.

Deris, L., Binadhi, A., & Nuryadin, D. (2022). Jurnal Pendidikan Ekonomi indonesia Pengaruh Ketimpangan Gender Terhadap Pertumbuhan. *Jurnal Pendidikan Ekonomi Indonesia*, *4*(2), 65–76.

Deswati, R. H., & Hikmah. (2016). Keragaan Penerapan Teknologi Dan Kelayakan Usaha Performance of Technology Application and Feasibility of Tuna Fish Processing in The District Pacitan. *Buletin Ilmiah Marina Sosial Ekonomi Perikanan Dan Kelautan*, *2*(1), 29–35.

Djojoatmodjo, K., Ferdinand, & Mantikei, B. (2022). Strategi Pengembangan Usaha Pengolahan Hasil Perikanan Pada MEFs Foods and Snack Palangka Raya. *Of Environment and Management*, *1*(2), 112–123.

Farida, I., & Setiawan, D. (2022). Business Strategies and Competitive Advantage: The Role of Performance and Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(3), 1–16. https://doi.org/10.3390/joitmc8030163

Fatchiya, A., Amanah, S., & Sadewo, T. (2019). Faktor-Faktor Yang Memengaruhi Kemampuan Pengolah Ikan Tradisional Di Kabupaten Cirebon. *Jurnal Sosial Ekonomi Kelautan Dan Perikanan*, *14*(2), 239. https://doi.org/10.15578/jsekp.v14i2.7086

Fikri, E. K. (2022). Analisis Swot Bauran Pemasaran Pada Butik Dara Kabupaten Brebes. *Jurnal Sistem Informasi Bisnis (JUNSIBI)*, *3*(2), 54–62. https://doi.org/10.55122/junsibi.v3i2.436

Haryanti, N. (2024). *Peningkatan Akses Permodalan bagi Usaha Mikro Kecil Menengah (UMKM)*. *1*(2), 122–136.

Hasanudin, U., & Cahyana, B. (2019). *Pemerintah Desa Parangtritis Berharap Relokasi Pedagang Pantai Depok Setelah JJLS Tersambung*. Jogjapolitan.Harianjogja.Com. https://jogjapolitan.harianjogja.com/read/2019/07/14/511/1005596/pemerintah-desa-parangtritis-berharap-relokasi-pedagang-pantai-depok-setelah-jjls-tersambung

Kandati, F., Mantiri, M., & Monintja, D. (2019). Pemberdayaan Masyarakat Nelayan di Kecamatan Siau Barat Selatan Kampung Batusenggo (Suatu Studi pada Dinas Peikanan, Kabupaten Kepulauan Siau Barat Tagulandang). *Jurnal Eksekutif*, *3*(3), 1–8.

Karamoy, W. Y. R., Jan, A. B. H., & Karuntu, M. M. (2022). Analisis Persediaan Bahan Baku pada Moy Restaurant Tonsaru di Era Pandemi Covid-19. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *10*(1), 510–517.

Manyungwa, C. L., Hara, M. M., & Chimatiro, S. K. (2019). Women's engagement in and outcomes from small-scale fisheries value chains in Malawi: effects of social relations. *Maritime Studies*, *18*(3), 275–285. https://doi.org/10.1007/s40152-019-00156-z

Menozzi, D., Nguyen, T. T., Sogari, G., Taskov, D., Lucas, S., Castro-Rial, J. L. S., & Mora, C. (2020). Consumers' preferences and willingness to pay for fish products with health and environmental labels: Evidence from five european countries. *Nutrients*, *12*(9), 1–22. https://doi.org/10.3390/nu12092650

Miller, C. D., & Wang, R. D. (2024). Product digitization and differentiation strategy change: Evidence from the book publishing industry. *Strategic Management Journal*, *45*(7), 1241–1272. https://doi.org/10.1002/smj.3586

Moses, L., Prof, A., & Willis, O. (2021). *Debtors Management and Financial Performance of Firms . A Critical Review*. *12*(6), 45–47. https://doi.org/10.9790/5933-1206024547

Mufarida, N. A., Pratama, A. D., & Kosjoko, K. (2022). Pelatihan Kewirausahaan Dan Pengembangan Teknologi Pengolahan Ikan Laut Segar (Ikan Kunir) Dalam Rangka Peningkatan Kualitas Produksi Olahan Keripik Sebagai Bentuk Usaha Ekonomi Kreatif. *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan*, *6*(1), 202. https://doi.org/10.31764/jpmb.v6i1.7648

Natalia, D. (2012). Kinerja Daya Saing Produk Perikanan Indonesia Di Pasar Global The Competitiveness of Indonesia's Fishery Products in the Global Market. *Buletin Ilmiah Litbang Perdagangan*, *6*(1).

Ong, H.-B., & Chong, L.-L. (2023). The effect of cashless payments on the internet and mobile banking. *Journal of Financial Services Marketing*, *28*(1), 178–188. https://doi.org/10.1057/s41264-022-00145-0

Parsons, T. (1954). The Social System. T alcott P arsons. In *American Anthropologist* (Vol. 56, Issue 3). https://doi.org/10.1525/aa.1954.56.3.02a00240

Pasda, S., Bado, B., & Hasbiah, S. (2019). *Model of Poverty Reduction by Strengthening Institutional Cooperatives for Coastal Areas of South Sulawesi*. *75*(ICMEMm 2018), 255–259. https://doi.org/10.2991/icmemm-18.2019.34

Phillips, R., & Pittman, R. H. (2009). *An Introduction to Community Development*. Routledge.

Pinem, A. A., Immanuella, I. M., Hidayanto, A. N., Phusavat, K., & Meyliana. (2018). Trust and its impact towards continuance of use in government-to-business online service. *Transforming Government: People, Process and Policy*, *12*(3–4), 265–285. https://doi.org/10.1108/TG-02-2018-0008

Purnomo, C. A. P. N., & Murniawati, I. (2021). Strategi Pengembangan Produksi dan Pemasaran Usaha Pengolahan Ikan Fillet. *Economic Education Analysis Journal*, *2*(1), 18–23. https://doi.org/10.15294/eeaj.v10i1.28217

Rahman, M., Ismail, I., Bahri, S., & Rahman, M. K. (2022). An Empirical Analysis of Cashless Payment Systems for Business Transactions. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(4). https://doi.org/10.3390/joitmc8040213

Ratnadewati, A., Samudro, B. R., & Widiastuti, N. (2024). *Uneven Development Principles in Geo-Map Perspective : How Does Infrastructure Play a Role in Crushing the Poverty in the Special Region of Yogyakarta ? 25*(1), 135–152. https://doi.org/10.23917/jep.v25i1.23641

Ravishankar, C. N., & Elavarasan, K. (2023). *Innovations in Fish Processing Technology BT - Transformation of Agri-Food Systems* (K. C. Bansal, W. S. Lakra, & H. Pathak (eds.); pp. 205–221). Springer Nature Singapore. https://doi.org/10.1007/978-981-99-8014-7_16

Rusdiana, N. D. A., Tain, A., & Sutanto, A. (2024). Strategi Pengembangan Usaha Pindang pada CV Putra Kresna Desa Brondong Kabupaten Lamongan. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *6*(7), 5433–5456. https://doi.org/10.47467/alkharaj.v6i7.2867

Setiawan, S. D., & Amanda, G. (2022). *Sultan Sebut akan Bangun Kawasan Wisata Terpadu di Pantai Depok*. News.Republika.Co.Id. https://news.republika.co.id/berita/rfbdml423/sultan-sebut-akan-bangun-kawasan-wisata-terpadu-di-pantai-depok

Statistic Ministry Fisheries and Marine Indonesia. (2019). *The Number of fishermen in Indonesia*. Statistik-KKP.

Subash, A., Ramanathan, H. N., & Šostar, M. (2024). From catch to consumer: enhancing seafood processing management with Industry 4.0 innovations. *Discover Food*, *4*(1), 43. https://doi.org/10.1007/s44187-024-00115-6

Suhamdani. (2024). *Abrasi di Pantai Depok Kian Parah, BPBD DIY Imbau Warga Geser Bangunan Sejauh 100 Meter dari Garis Pantai*. Joglosemarnews.Com/. https://joglosemarnews.com/2024/10/abrasi-di-pantai-depok-kian-parah-bpbd-diy-imbau-warga-geser-bangunan-sejauh-100-meter-dari-garis-pantai/

Szymkowiak, M., & Rhodes-Reese, M. (2020). Addressing the Gender Gap: Using Quantitative and Qualitative Methods to Illuminate Women's Fisheries Participation. *Frontiers in Marine Science*, *7*. https://doi.org/10.3389/fmars.2020.00299

Thébaud, O., Nielsen, J. R., Motova, A., Curtis, H., Bastardie, F., Blomqvist, G. E., Daurès, F., Goti, L., Holzer, J., Innes, J., Muench, A., Murillas, A., Nielsen, R., Rosa, R., Thunberg, E., Villasante, S., Virtanen, J., Waldo, S., Agnarsson, S., … Vastenhoud, B. M. J. (2023). Integrating economics into fisheries science and advice: progress, needs, and future opportunities. *ICES Journal of Marine Science*, *80*(4), 647–663. https://doi.org/10.1093/icesjms/fsad005

Torre, J., Hernandez-Velasco, A., Rivera-Melo, F. F., Lopez, J., & Espinosa-Romero, M. J. (2019). Women's empowerment, collective actions, and sustainable fisheries: lessons from Mexico. *Maritime Studies*, *18*(3), 373–384. https://doi.org/10.1007/s40152-019-00153-2

Turovets, Y., & Vishnevskiy, K. (2023). *Standardization in Smart Manufacturing: Evaluation from a Supply-Side Perspective BT - Intelligent Systems in Digital Transformation: Theory and Applications* (C. Kahraman & E. Haktanır (eds.); pp. 191–218). Springer International Publishing. https://doi.org/10.1007/978-3-031-16598-6_9

UN Women. (2020). *Women's Economic Empowerment in Fisheries in the Blue Economy of the Indian Ocean Rim*. 135.

Wheelen, T. L., & Hunger, J. D. (2012). *Strategic Management and Business Policy toward global sustainability 13th ed*. Pearson Education, Inc., publishing as Prentice Hall.

Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *World Bank Research Observer*, *15*(2), 225–249. https://doi.org/10.1093/wbro/15.2.225

Yadav, N., & Kaur, R. (2024). Innovations in Packaging to Monitor and Maintain the Quality of the Food Products. *Journal of Packaging Technology and Research*, *8*(1), 15–50. https://doi.org/10.1007/s41783-024-00163-4

Zamroni dan Purnomo. (2005). Identifikasi kebutuhan modal usaha. *Identifikasi Kebutuhan Modal Usaha Berskala Kecil Dan Menengah Dalam Industri Pengolahan Perikanan*, *11*(3), 41–50.

Zhang, Q., Wu, J., ZHAO, J. L., & Liang, L. (2022). The antecedents and consequences of social interactions in firm-sponsored community: a social network perspective. *Electronic Commerce Research*. https://doi.org/10.1007/s10660-022-09586-0