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Analysis Of Factors Determining Fish Selling Prices and Its Implications On Fishermen's Welfare In The Southern Coastal Area Of Yogyakarta

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Abstract: This study aims to analyze the factors influencing fish prices and their impact on the welfare of fishermen in the southern coastal areas. The research method employed involves a conceptual examination of theories to identify factors affecting fish prices, such as fish size, season, market access, and others. Data used are sourced from previous studies then linked with market uncertainty theory for market dynamics analysis. The analysis results based on the theory indicate that demand and supply, production costs, and consumption trends significantly influence fish prices and consequently impact the welfare of fishermen. However, this research also identifies several limitations, including dependence on secondary data and limitations of the analytical model used. Discussion on the limitations of the study provides guidance for further research that is more comprehensive and holistic in understanding the dynamics of the local fish market.

Keywords: Fish selling price determinants, Fisherman welfare implications, market uncertainty analysis

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1. Introduction

The southern coastal regions of Indonesia heavily rely on the fisheries sector as their primary source of income, especially for local fishermen. Particularly in the southern coastal areas of Yogyakarta, the livelihoods of fishermen are highly dependent on fish sales. Fisheries not only serve as the main occupation for many residents in those areas but also act as a key driver of local economic growth. Fisheries resources have significant potential to enhance the welfare of fishermen and coastal communities as a whole. However, in reality, many fishermen still face economic difficulties because their catch is insufficient to improve their income. Yet, the income earned by fishermen can serve as an indicator of the welfare of their families (Zalsabila, 2023).

The welfare of fishermen heavily depends on their catch. If the catch is good, their income will increase, and vice versa. Therefore, Sujarno (2008) states that there are several social and economic factors that influence fishermen's income, such as costs, number of boats, number of workers, distance traveled, and experience (Hasyim et al., 2022). Issues in capture fisheries that also affect fishermen's income, according to Murdiyanto (2007), include factors such as high fuel prices, resource degradation, and fluctuations in fish prices (Amali, 2021).

To improve the welfare of fishermen and support regional autonomy, strategic steps are needed in the development of the fisheries and marine sectors aimed at increasing fisheries productivity and ultimately fishermen's welfare. The improvement of community welfare can be achieved if their income increases significantly so that it can meet basic needs such as food, clothing, housing, health, and security (Pusung et al., 2022). The goal of fishermen's work is to earn income to meet their living needs, and to achieve this, they require adequate equipment and must overcome various factors that influence the success of their endeavors. Therefore, one significant concept in this situation is the theory of uncertainty, which explains how uncertainty in market factors such as demand, supply, and prices can affect economic decisions as well as the welfare of individuals or economic groups like fishermen.

The theory of uncertainty in financial economics states that financial markets are often influenced by external factors that are difficult to predict. In this context, fluctuations in fish selling prices can be seen as a manifestation of economic uncertainty in the fisheries sector. The implications of fluctuations in fish selling prices on fishermen's welfare are highly significant. Fishermen often face difficulties in planning and managing their finances due to this uncertainty. Additionally, income instability can also hinder long-term investments in production capacity or fisheries infrastructure.

Therefore, research on the factors influencing fish selling prices and their impact on fishermen's welfare in the southern coastal region becomes highly significant. By understanding the variables contributing to fish price fluctuations and their effects on fishermen's welfare, it can assist in formulating more efficient policies to improve their economic conditions. Furthermore, this research can provide valuable insights to fishermen in managing risks and making more informed economic decisions in facing the uncertainties they encounter. Based on the above description, this research is important to conduct, which motivates the author to undertake a study with the title "**Analysis of Factors Determining Fish Selling Prices and Their Implications on Fishermen's Welfare in the Southern Coastal Area of Yogyakarta.**"

2. Conceptual Framework

X₁: Demand and Supply

- Volume of fish sales in local, regional, and global markets.
- Factors influencing fish demand, such as season, weather, and changes in consumption trends.
- Availability of fish stocks in the market and the level of supply.

X₂: Production Cost

- Production costs within the fish supply chain, including fuel costs, vessel maintenance, and fishing equipment expenses.
- Factors influencing fluctuations in production costs, such as fuel prices and interest rates.
- Production costs in relation to fish selling prices in the market.

X₃: Consumption Trends

- Consumption trends of fish at local and regional levels, including consumer preferences for specific types of fish.
- Factors influencing changes in consumption trends, such as health factors, cultural influences, and economic conditions.
- Implications of changes in consumption trends on fish selling prices.

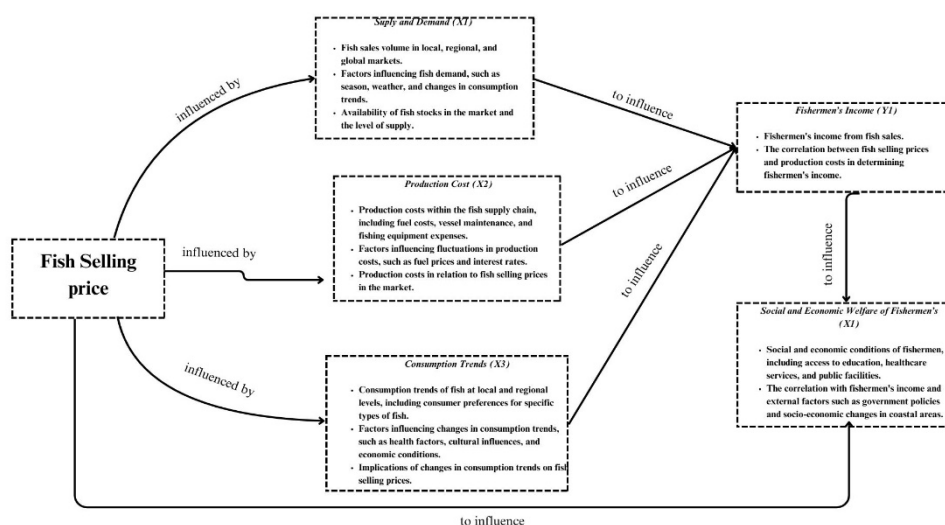
Y₁: Fishermen's Income

- Fishermen's income from fish sales.
- The correlation between fish selling prices and production costs in determining fishermen's income.

Y₂: Social and Economic Welfare of Fishermen

- Social and economic conditions of fishermen, including access to education, healthcare services, and public facilities.
- The correlation with fishermen's income and external factors such as government policies and socio-economic changes in coastal areas.

The interrelation between variables X₁, X₂, and X₃ with variables Y₁ and Y₂ will demonstrate how factors influencing fish selling prices also affect fishermen's income and welfare in the southern coastal area of Yogyakarta. For example, increasing fish selling prices and reducing production costs may positively contribute to fishermen's income and welfare, while changes in fish consumption trends may affect the market and, in turn, fishermen's income.



3. Literatur Review

After various economic crises and environmental changes, the fish market has now become not only a location for commercial transactions but also a field of significant uncertainty for industry players and coastal communities. The theory of uncertainty in the context of the fish market provides important insights into the constantly changing market dynamics. External uncertainties, such as weather fluctuations, regulatory changes, and supply uncertainties, have significant impacts on fish selling prices. These factors create complex uncertainties for fishermen, suppliers, and traders in determining fish selling prices.

Research on the factors influencing fish selling prices has been a primary focus in coastal economics studies. In the context of uncertainty theory, these factors pose challenges in predicting and managing risks but also open up new opportunities that can be explored to improve fishermen's welfare.

By investigating relevant literature, we aim to understand the various factors influencing fish selling prices in the southern coastal area of Yogyakarta, as well as the implications of uncertainty associated with these factors on fishermen's welfare. Through this review, we hope to provide a deeper understanding of fish market dynamics in the context of economic uncertainty and support the development of more effective policies to enhance fishermen's welfare in the region.

a) Uncertainty Theory

Uncertainty plays a crucial role in understanding how the fish market operates and its impact on the welfare of fishermen in coastal areas. The theory of uncertainty in economics refers to a conceptual framework used to understand economic behavior under conditions of uncertainty. In the context of fish markets in coastal areas, this theory is important to understand how fluctuations in fish prices are influenced by unpredictable external factors, such as weather, regulatory changes, or supply uncertainties. Research conducted by Knight (1921) and Friedman (1953) have become the foundation for the development of this theory which emphasizes the importance of understanding how economic agents react to uncertainty in order to make optimal decisions.

This theory of uncertainty not only provides conceptualization regarding the complexity of the fish market but also offers a framework for analyzing the interactions between fishermen and other market participants in the context of an uncertain environment. With this approach, researchers can understand how market participants respond to changes in external conditions that cannot be accurately predicted. For example, research conducted by Hamzah dkk (2021) indicates that fishermen tend to take adaptive actions in response to uncertainty such as weather fluctuations or fish selling prices, including increasing livelihood diversification or seeking alternative markets.

The research conducted by Zuraidah & Amarullah (2021) reveals that fluctuations in fish prices can lead to income instability for fishermen, ultimately affecting their ability to meet basic needs and improve overall quality of life. Additionally, economic uncertainty can also affect food security and the welfare of fishermen households,

especially in coastal areas. While this may pose challenges to fishermen's welfare, it can also present new opportunities for innovation and development. For instance, research conducted by Suciati dkk (2021) highlights how fishermen can develop adaptation strategies to address climate change and market uncertainty. With appropriate risk management approaches and policy support, the potential for new opportunities can be explored to enhance fishermen's welfare and overall coastal resilience.

b) Factors Influencing Fish Selling Prices

The fish market in the southern coastal area of Yogyakarta plays a central role in the economic activities that are crucial for the livelihoods of fishermen and the local community. In this context, understanding the factors influencing fish selling prices is of utmost significance for the welfare of fishermen. By reviewing recent literature and relevant research, researchers will identify the roles of factors such as fluctuations in fish supply, market demand, policy regulations, and other external variables contributing to the determination of fish selling prices in that southern coastal region. Besides resource access, the overall welfare of the fishing community depends on this sector.

1) Demand and Supply

The main factors influencing fish selling prices come from demand and supply. Research conducted by Pusung dkk (2022) highlights the important role of this relationship in shaping fish market prices in the southern coastal area. The findings of this study emphasize that fluctuations in fish prices are often caused by changes in fish supply and demand levels. This study indicates that when fish supply increases or demand decreases, fish prices tend to decrease in response to increased supply and decreased demand. Conversely, when supply decreases or demand increases, fish prices may increase because low availability cannot meet the increased demand. Therefore, a good understanding of fish demand and supply patterns is crucial for fishermen and fish traders to set their selling prices accurately.

Furthermore, research conducted by Zuraidah & Amarullah (2021) emphasizes that fluctuations in fish prices can also be influenced by external factors such as weather conditions. Unstable weather conditions can affect fishermen's catch and the availability of fish supply. This indicates that the availability of fish supply is not only dependent on fishing activities but also influenced by external environmental factors that are beyond the control of fishermen.

2) Production Cost

The selling price of fish is a crucial factor affecting fishermen in coastal areas. Factors influencing fish selling prices such as production costs have a significant impact on fishermen's livelihoods. The production costs incurred in fishing activities include fuel costs, equipment, and labor, all of which are important factors in determining fish selling prices. According to research conducted by Tri Darmawanto dkk (2020) production costs, especially fuel costs, can lead to a decrease in profit margins for fishermen. This can result in significant financial pressure for small-scale fishermen who depend on their income from fish sales.

Research conducted by Maros dkk (2021) found that high production costs can also hinder fishermen's access to equipment and modern technology that can improve fishing efficiency and the quality of their catch. For example, high equipment costs can prevent fishermen from investing in more efficient fishing gear, such as environmentally friendly fishing nets or advanced navigation equipment.

Therefore, it can be concluded that production costs, especially fuel costs, have a significant impact on the welfare of fishermen in coastal areas. Efforts to reduce the burden of production costs, such as through fuel subsidies or the development of efficient fishing technologies, can help increase fishermen's profit margins and ultimately improve their overall welfare.

3) Consumption Trends

Changes in consumption trends, both at the local and global levels, have significant impacts on fish selling prices. One relevant aspect in determining fish selling prices is consumption trends. Changes in consumer preferences for certain types of fish or processed fish products can have significant impacts on market prices and demand. For example, an increase in demand for certain types of fish that are considered healthier or more sustainable can lead to price increases in the local market. Conversely, a decrease in demand for certain fish species can lead to price decreases.

Research conducted by Usin (2022) provides important insights into how shifts in consumer preferences can influence the dynamics of the fish market. Additionally, the international market also plays a significant role in determining fish selling prices overall. Demand from the international market, especially for certain exported fish species, can create significant price fluctuations in the local market.

Based on the above explanation, it can be concluded that changing fish consumption trends can be an important factor in determining fish selling prices in both local and global markets. To address price fluctuations caused by changes in consumption trends, fishermen and fisheries industry players need to have sufficient skills and flexibility to adjust their strategies to the constantly changing market dynamics.

c) The Implications of Fish Selling Price Fluctuations on Fisherman's Welfare

Fluctuations in fish selling prices are a common phenomenon in the fish market and have significant impacts on the welfare of fishermen in southern coastal areas. Fluctuations in fish selling prices directly affect fishermen's income. When fish selling prices increase, fishermen's income tends to rise, which can improve their standard of living and welfare. However, conversely, a decrease in fish selling prices can lead to a decrease in income, worsening fishermen's financial conditions and increasing the risk of poverty.

Changes in fishermen's income due to fluctuations in fish selling prices can also affect their access to basic needs, such as food, education, and health. When selling prices are low, fishermen may struggle to meet their basic needs and those of their families, which can in turn affect their overall welfare. Moreover, these fluctuations in fish selling prices can also have significant impacts on fishermen's mental well-being and emotional health. Decreased income and economic uncertainty caused by price fluctuations can lead to stress, anxiety, and depression among fishermen and their families. This can negatively impact their mental health and quality of life (Jaswara & Martini, 2023).

Fluctuations in fish selling prices can also affect the overall socio-economic sustainability of coastal communities. Economic uncertainty resulting from price fluctuations can disrupt the social and economic stability of the community, which in turn can hinder economic and social development in coastal areas. In addressing these fluctuations in fish selling prices, government interventions through price policies, subsidies, or social assistance programs can play a crucial role in safeguarding the welfare of fishermen (Id et al., 2021). However, it is important to ensure that these policies are designed taking into account the long-term needs and sustainability of fishermen and coastal communities.

Thus, it can be concluded that fluctuations in fish selling prices have complex and significant impacts on the welfare of fishermen and coastal communities as a whole. In order to improve the welfare of fishermen and the sustainability of coastal economies, there is a need for a better understanding of the factors influencing price fluctuations and the implementation of appropriate and sustainable policies.

d) Risk Mitigation Strategies

The importance of risk mitigation in dealing with factors affecting fish selling prices on the welfare of fishermen in the southern coastal areas is a primary concern in the literature. Various risk mitigation strategies have been researched and formulated to assist fishermen in coping with price fluctuations and market uncertainty. Firstly, livelihood diversification is emphasized. Diversification of livelihoods is considered an effective strategy in reducing risks associated with fluctuations in fish selling prices. Rahim (2011) It is found that fishermen who have diverse sources of income, such as seaweed cultivation, tourism, or local crafts, tend to be more resilient to changes in fish prices and market conditions.

Furthermore, regarding social safety nets, the development of social safety nets is also an important strategy in reducing economic risks for fishermen. Social assistance programs such as fuel subsidies or fisheries insurance have been proven to help protect fishermen from financial losses due to fluctuations in fish selling prices. Moreover, involvement in cooperatives established by local governments and fishermen's associations is also a strategy that must be pursued to achieve equitable welfare for fishermen in coastal areas. Cooperatives and fishermen's associations serve as effective platforms in managing risks and enhancing fishermen's economic empowerment. Through involvement in cooperatives or fishermen's associations, fishermen can access shared resources, such as more efficient equipment or broader market access.

Increasing the capacity and knowledge of fishermen through education and training programs can also help reduce risks related to fish selling prices. Hasyim dkk (2022) Highlighting the importance of knowledge-based approaches in improving the welfare of fishermen in coastal areas. The integration of these risk mitigation strategies is expected to make fishermen in the southern coastal areas more resilient to fluctuations in fish selling prices and enhance their overall welfare. This can be achieved through the intervention of both government and non-governmental organizations as the third party, as well as the local community.

4. Previous Studies

Table 1. Previous Studies

No.	Name	Title	Method	Result
1.	Agus Tri Darmawanto, Djuanda Hatta, Meylin Rahmawati	Analysis of Factors Influencing the Income of Capture Fisheries Fishermen in the District of Central Tarakan	Quantitative	The factors of capital, costs, and the duration of fishing simultaneously have a significant impact on fishermen's income. Therefore, this also affects the welfare of fishermen who primarily earn income from fishing catches.
2.	Muhammad Amali	Factors Affecting Fishermen's Income in Tanjung Timur District	Quantitative	The factors affecting the income of traditional fishermen in Tanjung Jabung Brata Regency are capital, technology, work experience, and the distance traveled to sea. These factors influence the income of traditional fishermen.
3.	Erika Jaswara, Rusli, Andi Indra Martini	Analysis of the Influence of Catch and Fish Prices on Fishermen's Income in Karampuan Village, Mamuju Regency	Quantitative	Catch results and fish prices significantly affect fishermen's income.
4.	Asep Hamzah, Hery Sutrawan Nurdin	Fishermen's Adaptation Strategies During the Covid-19 Pandemic at the Nusantara Karangantu Fisheries Port	Quantitative	Fishermen adapt to market dynamics during the COVID-19 pandemic using several patterns, namely diversification, intensification, utilization of social networks, and mobilization of family members.

5.	Melania D. Pusung, Anderson G, kumenaung, Ita Pingkan F. Rorong	Analysis of Factors Influencing Fishermen's Income in the Amurang District of South Minahasa Regency	Quantitative	Labor, fish prices have a positive effect on the income level of fishermen in the Amurang District, while distance has a negative effect. However, simultaneously, these three factors
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5. Conceptualization

The analysis of factors determining fish prices and their implications for the welfare of fishermen in the southern coastal areas aims to investigate the complex dynamics affecting the socio-economic conditions of fishermen in the region. In this context, there are several key factors that need to be considered to understand the formation of fish prices and their impact on the welfare of fishermen.

Firstly, production costs are the primary factor influencing fish prices. Components of production costs, such as fuel, equipment, and labor, directly affect the profit margin obtained by fishermen. Fluctuations in production costs can impact the profitability of fishermen's businesses and their ability to meet their family's economic needs. Additionally, consumption trends also play a significant role in determining fish prices. Changes in consumer preferences for certain types of fish or processed products can create price variations in the local market. Furthermore, demand from the international market can also affect fish prices overall, especially for fish species that are exported.

The relationship between these factors and the welfare of fishermen in the southern coastal areas is crucial. A decrease in fish prices without adequate compensation can lead to a decline in fishermen's income and an increase in poverty levels in coastal communities. Therefore, a profound understanding of these factors and their implications for the welfare of fishermen is crucial in designing policies that support their sustainability and economic well-being.

Therefore, an analysis of the determining factors of fish prices and their implications for the welfare of fishermen in the southern coastal areas requires a holistic approach, considering the complex interactions among economic, social, and environmental factors. This is a crucial step in enhancing the welfare of fishermen and ensuring the sustainability of the fishing industry in coastal regions.

6. Implications And Relevance

Theoretical Implications

• In-depth Understanding of Fish Market Dynamics

A deep understanding of the factors influencing fish selling prices through consumption trends has broad implications in the context of fish market dynamics. Through this understanding, stakeholders can take more precise and adaptive strategic steps in responding to market changes and improve efficiency in their operations. A deeper understanding of consumer preferences and international market trends will enable fisheries industry players to develop more effective marketing strategies. By aligning their fish products with evolving market demand, they can enhance the attractiveness of their products to consumers and expand market share.

And by understanding the factors influencing fish selling prices, industry players can optimize their supply chains. They can identify vulnerable points in the supply chain susceptible to price fluctuations and develop strategies to reduce risks and enhance production efficiency. Additionally, by combining an understanding of consumption trends with knowledge of other factors affecting fish selling prices, industry players can improve the competitiveness of their fish products. They can develop products aligned with consumer preferences, optimize production processes to reduce costs, and strengthen their competitive advantage in local and global markets.

- **Validations of Economic Theory on Uncertainty**

The analysis of the determinants of fish selling prices and their implications for the welfare of fishermen in the southern coastal areas implicitly involves economic theory on uncertainty. External uncertainties such as weather fluctuations, changes in consumption trends, and international trade policies pose significant challenges in forecasting market behavior. Economic theory, particularly within the framework of uncertainty, has long recognized the role of uncertainty in economic decision-making. Theoretical references from Knight (1921) and Friedman (1953) emphasize the importance of understanding how economic agents react to uncertainty to make optimal decisions. In the context of the fish market, external uncertainties such as weather fluctuations can lead to instability in fish production and, consequently, price fluctuations.

Empirical research in this field can provide validation for economic theories regarding uncertainty. For instance, research by [specific researcher or institution] highlights how weather uncertainty influences fish market behavior in coastal areas. Such findings can affirm that uncertainty plays a crucial role in forecasting market behavior. Suciati (2021), especially in industries heavily influenced by external factors such as weather. The theoretical implications of this validation include the development of more accurate economic models to predict fish market behavior and manage risks associated with economic uncertainty. References such as the research conducted by Hatani (2023) It provides empirical basis for the development of these models, which can be used by stakeholders in planning more adaptive and responsive business strategies to market changes.

Practical Implications

- **Development of More Effective Policies**

An overview of factors influencing fish prices carries significant implications for the development of more effective government policies. With a deep understanding of fish market dynamics and its influencing factors, the government can design more targeted policies to support the sustainability of the fisheries sector. The government can provide direct subsidies or assistance in the form of infrastructure aimed at reducing fishermen's production costs. For example, fuel subsidies, vessel maintenance, or the procurement of energy-efficient fishing gear can help alleviate fishermen's financial burdens. This would make them more competitive in markets with more stable fish prices.

The government can also design promotional policies aimed at increasing demand for certain types of fish that are abundant in the market but less favored by consumers. For example, health promotion programs highlighting the nutritional benefits of consuming specific types of fish, or campaigns educating the public about sustainable fishing practices and marine environmental protection.

Investments in the development of fish market infrastructure and distribution networks can help strengthen the overall fish supply chain. Improving access to more modern and integrated markets, as well as adequate storage and processing facilities, will help reduce post-harvest losses and increase the value-added of fish products. The government needs to strengthen monitoring and law enforcement systems to ensure that fishing activities are conducted sustainably and in accordance with existing regulations. These measures include enforcing catch quotas, monitoring environmentally damaging fishing practices, and enforcing laws against violations by non-compliant parties.

- **Enhancement of Fisherman's Competitiveness**

Improving the competitiveness of fishermen is an important aspect in ensuring their sustainability and welfare in an increasingly competitive market. By gaining a deeper understanding of the factors influencing fish prices, fishermen can take strategic steps to compete more effectively. They can leverage advancements in technology within the fishing industry to enhance operational efficiency and reduce production costs. For example, utilizing more sophisticated fishing equipment or modern navigation technology can help fishermen increase their catch and reduce the time and costs involved in doing so.

Instead of relying solely on one type of fish, fishermen can consider diversifying their catch. This can be done by studying market consumption trends and adjusting their fishing activities according to evolving market demands. Diversifying catches can also help mitigate financial risks associated with price fluctuations of specific species. Training and education on effective management practices can help fishermen enhance their skills in

managing their fishing enterprises professionally. This may include sustainable fish stock management, financial management, marketing, and equipment maintenance.

With better knowledge of business management, fishermen can improve operational efficiency and make better decisions in facing market challenges. Adequate access to resources and information is also important for enhancing fishermen's competitiveness. This includes access to technology, broader market access, as well as information on market trends and the latest regulations in the fishing industry. Governments and non-governmental organizations can provide support to ensure fishermen have adequate access to these resources and information.

- **Empowerment of Coastal Communities**

Empowering coastal communities is a holistic approach aimed at enhancing the self-reliance and capacity of communities to address the social, economic, and environmental challenges they face. Involving coastal communities in decision-making processes related to fisheries policy and development programs will give them a voice in determining the direction of local development.

By listening to their aspirations and needs, formulated policies will be more suitable and relevant to the real situations faced by fishermen and coastal communities. Providing coastal communities with access to relevant information about fish market dynamics, consumption trends, fishing regulations, and business opportunities can help them make better decisions. This can be achieved through providing training, seminars, and workshops on fisheries management and fish marketing.

Capacity-building programs and training can help enhance fishermen's skills and knowledge in various aspects, such as sustainable fishing techniques, fisheries resource management, fish product marketing, and economic risk management. This will strengthen fishermen's position in facing complex market challenges and enhance their competitiveness. Encouraging entrepreneurship and innovation among coastal communities can help diversify livelihoods and create added value for fish catches. Support in the form of entrepreneurship training, business mentoring, and financial assistance can help fishermen develop side businesses or value-added processed fish products that are more economically viable.

7. Discussion

The key findings from the analysis of factors influencing fish prices and their impact on the welfare of fishermen in the Southern Coastal Region of Yogyakarta highlight several aspects that need to be considered in efforts to improve the economic status and welfare of fishermen. Here are some discussion points that can be drawn from the research findings:

- **Determinants of Fish Price :** The finding that certain factors directly affect fish prices is closely related to the welfare of fishermen. Discussing how changes in fish prices can affect fishermen's income and standard of living will provide insights into the economic resilience of fishermen households and clarify efforts that can be made to improve their welfare.
- **Implications for Fisherman's Welfare :** The finding that certain factors directly affect fish prices is closely related to the welfare of fishermen. Discussing how changes in fish prices can affect fishermen's income and standard of living will provide insights into the economic resilience of fishermen households and clarify efforts that can be made to improve their welfare.
- **Role of Public Policy :** This discussion also opens up space to explore the role of public policy in improving fish prices and fishermen's welfare. Further analysis of the government's policy impacts on the local fish market, including subsidies, incentives, or price regulations, can help formulate policies that are more responsive to the needs of fishermen.
- **Challenges and Opportunities :** Discussion on the challenges faced by fishermen in obtaining profitable selling prices and the opportunities available to increase the added value of local fish products will provide a holistic view of the dynamics of the local economy. This can also serve as a basis for designing more sustainable and inclusive economic development programs for fishing communities.

The limitations of this study that need to be noted are related to the methods and models used in analyzing fish selling prices. Although careful efforts have been made in selecting methods suitable for the research objectives, there are still some factors that cannot be fully considered. One major limitation is the reliance on secondary data, which may have limitations in terms of accuracy or completeness. Additionally, external factors such as weather fluctuations, changes in government policies related to the fisheries sector, or complex socio-economic factors.

Furthermore, the approach used in the analysis may have limitations in depicting the overall dynamics of the fish market. For instance, linear regression analysis may not be able to capture non-linear patterns that may occur in the relationship between the factors under investigation and fish selling prices. Therefore, the interpretation of results should be done considering these limitations.

Discussion of the limitations of this study provides an opportunity to reflect on the direction of future research. To address the existing shortcomings, future research could consider using more comprehensive and accurate primary data and integrating relevant external factors into the analytical model. Additionally, a more holistic approach such as systems analysis or interdisciplinary approaches could provide a more comprehensive understanding of the dynamics of the local fish market. Thus, future research is expected to make a greater contribution to understanding the factors influencing fish selling prices and their implications for fisheries resource management and local economic development.

By deepening the discussion on these factors, it is hoped that this research can make a significant contribution to understanding the factors influencing fish selling prices and the welfare of fishermen in the South Coastal Area of Yogyakarta, inspiring more effective policy measures to support local economic development.

8. Conclusion

In this study, an analysis of the determinants of fish prices and their implications for the welfare of fishermen in the southern coastal areas has been conducted. Through the collection of secondary data and linear regression analysis, several key factors influencing fish prices have been identified, including fish supply availability, market demand, and production costs. The analysis results also indicate that fluctuations in fish prices can have a significant impact on fishermen's income and welfare.

However, this study has several limitations that need to be considered, including limitations in the use of secondary data and the linear regression analysis approach, which may not be able to capture non-linear patterns in the relationships between the factors under investigation. Therefore, interpretation of the results should be done with caution, and future research is expected to address these limitations.

Overall, this research makes a significant contribution to understanding the dynamics of the local fish market and its implications for the welfare of fishermen in the southern coastal areas. The results of the analysis can be used as a basis for designing policies that support sustainable fisheries resource management and enhance the economic welfare of fishermen. Furthermore, this study also provides a foundation for further research that is more comprehensive and holistic in understanding the factors influencing fish prices and fishermen's welfare overall. Thus, it is hoped that this research can make a significant contribution to the development of the local economy and the improvement of the welfare of fishing communities in the southern coastal regions.

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