MARGIN ANALYSIS OF TRADE ADMINISTRATION AND MARKETING STRATEGY OF FISH CATCH USING CANTRANG AT PPP KLIDANG LOR, BATANG CENTRAL JAVA

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ABSTRACT

PPP Klidang Lor Batang is one of the fishing ports still dominated by cantrang fishing gear. The purpose of this study was to analyze the margins of trading and marketing strategies by the waiters who use cantrang. This study used a descriptive method with data collection by observing directly in the field at PPP Klidang Lor. The population used in taking respondents in this study were fishermen who used cantrang fishing gear. Data analysis was carried out using qualitative analysis and quantitative analysis. The catch and variety is one of the factors for the high and low income of fishermen. The catch that is traded to TPI, middlemen, retailers, or even consumers without a good trading strategy will not maximize the income earned by fishermen. By analyzing the trading system margins of fishermen, TPI, middlemen, retailers, and consumers, alternative strategies for fishermen will be known in order to increase marketing of the catch they get. The purpose of this study is to determine the margin of trade and the composition of catches, marketing channels. Analysis of the data used to determine the value of the margin of trade using BEP, HPP, R/C, Fisherman's share. Meanwhile, the marketing strategy uses SWOT analysis to determine the internal and external factors of marketing the fisherman's catch using cantrang fishing gear.

INTRODUCTION

Batang Regency is one of the regencies located on the north coast of Java. According to the Marine and Fisheries Service of Batang Regency (2015), Batang Regency is located on the north coast of Central Java with an area of 788,642 km² and has a coastline of 38.72 km, stretching along the north coast, which is a coastal area. Most of the population make a living in the fishing sector (Riza & Islamy, 2020). Batang Regency has a very large capture fisheries resource potential. The fishing gear used in Batang Regency, the fishing gear used in Batang Regency varies, including Gill Net, Trammel Net, Wadong/Bubu, Cantrang and Arad. Cantrang fishing gear used in Batang Regency is still widely used by fishermen. The results of catching fish using various cantrang fishing gear such as kurisi fish, kuniran, swanggi, peperek / petek, sand-sand, squid, cotton-kapar, coral jackfruit seeds, and other fish (Farhaby & Gustomi, 2019).

High fishery production in Batang Regency will be meaningless if it is not supported by the right trading/marketing system. With the right marketing system, the marketing system can provide benefits, so it requires the right strategy so that the results obtained can be maximized (Yapanto, Harahab, & Sudarto, 2021). The right strategy makes the capture fisheries business grow and can provide benefits for those concerned in selling the fish catch.

Thus, the role of the trade or marketing strategy will be increasingly important for fishermen to know (Shapiro, 1989).

The marketing process of fish caught by fishermen in Batang Regency, especially in PPP Klidang Lor Batang, varies widely. This variation in the marketing process is due to the high diversity, so that directly or indirectly form a complex trading system institution, both in terms of distribution, market structure, market behavior and the interaction of each market participant (Layton, 2009). The problem of trading or marketing fishery products is still the length of the distribution chain, the high price difference (disparity) from producers to consumers, product continuity that is not guaranteed, product scarcity in certain periods, and limited marketing support infrastructure (Ilbery & Maye, 2005).

The problems that occur in PP Klidang Lor Batang are colliding with the marketing network, limited marketing infrastructure, still lack of knowledge about business management so that the quality of the catch is not maintained. Therefore, with this background, this research was taken to find out "Analysis of Trading Margins and Marketing Strategies for Fish Catches Using Cantrang at PPP Klidang Lor, Batang, Central Java"

METHOD RESEARCH
The study used a descriptive method with data collection by observing directly in the field at PPP Klidang Lor (Tu, Ge, Zhang, & Huang, 2013). The population used in taking respondents in this study are fishermen who use cantrang fishing gear, both fishermen who have ships and those who do not have ships, then traders, collectors, retailers, and stakeholders.

Data analysis

Data analysis was carried out using qualitative analysis and quantitative analysis. The qualitative analysis was carried out descriptively with the aim of knowing in depth the pattern of the trade system channel, the involved trading system, the functions of the trade system performed by each trading system as well as the structure and behavior of the market. Quantitative analysis is carried out using the analysis of the margins of the trade system, the share of prices received by fishermen and the ratio of profits and costs.

Marketing Margin Analysis / Fisherman's Share

Analyzing marketing margins, according to (Schroeter & Azzam, 1991) uses the following formula:

a. Marketing Margin

MP = HK - HP

Where :

MP = Marketing Margin

HK = Price at consumer level

HP = Price at fisherman's level

BP = Marketing costs borne by the marketing agencies involved

KP = Profit earned by the marketing agency involved

b. Total Marketing Cost

BP = BP1 + BP2 + BP3 + ... + BPk

Where :

BP = Total marketing costs

K = 1, 2, 3, ... , n, i.e. the number of marketing agencies involved

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c. **Total Marketing Profit**

KP = MP - BP

Where :

KP = Total marketing profit MP = Marketing margin BP = Total marketing costs

d. **Fisherman's Share**

FS = $\dfrac{HP}{HK}$ X 100%

FS = Fisherman's share HP = Price at fisherman's level HK = Price at consumer level

Marketing Strategy Analysis

The analysis of the marketing strategy used in this study uses descriptive analysis. Descriptive analysis is used to determine the internal and external factors that influence the marketing development of cantrang boat production at TPI Klidang Lor Batang and the analysis used is SWOT analysis (Fauziah & Mulyana, 2018).

RESULT AND DISCUSSION

Marketing Margin

Marketing Margin is the amount of difference in value that exists at the level of consumers and producers. There are two fish marketing channels in PPP Klidang Lor, Batang Regency. The total marketing margin (Rp/Kg) on channel one is Rp13,200/Kg. The percentage of marketing margin on marketing channel one is 38%. Fisherman's share value in marketing channel one is 38%. The percentage of marketing margin in channel two is 64% with a total marketing margin of Rp.4501/Kg. The high and low marketing margins can be an indicator of the efficiency of a marketing system, but in fisheries marketing, marketing margins are not the only determinant of marketing efficiency. Determination of marketing efficiency in the fishery marketing system is by comparing the value of fisherman's share (Bambang, 2018).

Fisherman's Share

Fisherman's share is an analysis used to compare the price received by fishermen with the price paid by the final consumer. There are two fish marketing channels in Batang Regency. Each marketing channel has a different Fisherman's share value. The first channel has a Fisherman's share of 38%. The second channel with fisherman's share of 64%. The value of Fihserman's share from marketing 1 is 38%. Fihserman's share has a meaning that is inversely proportional to the marketing margin, the larger the fisherman's share, the higher the share obtained by fishermen. This is confirmed by (Dacks, Lewis, James, Marino, & Oleson, 2020) which states that marketing is categorized as efficient when the value of fisherman's share is greater than the marketing margin.

Marketing Efficiency

Marketing efficiency is an indicator of how the marketing system works. The marketing system can be considered efficient if the value of the marketing margin is lower than the value of Fisherman's share. Marketing efficiency in the marketing system can be determined by the percentage of Fisherman's share and marketing margin. Marketing channel I shows that fisherman's share is 38% and marketing margin is 62%. Marketing channel 2 has a fisherman's share of 64% and a marketing margin of 36%. The value of marketing margin

and fisherman share in channels I and II are 65% and 35%, respectively. Marketing efficiency research conducted by (Cahyono et al., 2020) shows that if the fisherman's share received by fishermen is >50%, it indicates that the marketing is efficient, whereas if the share received by fishermen is <50%, then the marketing is not efficient.

Marketing in the Covid-19 Era

The Covid-19 outbreak has hit the whole world and has caused obstacles to human activities. Human activities such as work and trade are restricted in their movement to prevent the spread of the epidemic. This research was conducted during Covid-19 in Indonesia in September 2020 (Huveneers et al., 2021). Fishery marketing has its own problems, especially in big cities. People in big cities prefer to avoid crowded places such as markets which are synonymous with slums and social conditions that are difficult to regulate. Marketing in this modern era is certainly easier because of the existence of information technology that allows buying and selling transactions online. According to fish traders at TPI Klidang Lor, consumers from outside the city are currently facilitated by communication applications such as Whatsapp, which can send photos quickly and easily. A situation in the middle of a pandemic like this requires you to be creative.

Marketing strategy
SWOT analysis

SWOT analysis was conducted to determine the factors of strength, weakness, opportunity and threat. This analysis is used to find out what are the strengths, weaknesses, opportunities and threats of a business (Piercy & Giles, 1989). This analysis can be used for decision making and determining strategic steps to face competition. The following is a SWOT analysis table presented in table 1.

Table 1. Internal Factors of SWOT

INTERNAL FACTORS					
STRATEGIC FACTORS		LEVEL	WEIGHT	RATING	SCORE
STRENGTH	Fish Products that Consumers are interested in	2	0,11	4	0,44
	Abundant Swanggi and Turmeric Catches	1	0,06	3	0,17
	ABK has experience at sea min. 2 years	1	0,06	3	0,17
	Fishing is not affected by the season	2	0,11	4	0,44
	Having more than … a fleet of ships	1	0,06	3	0,17
	Have other fishing gear in other fleets	1	0,06	3	0,17
WEAKNESS	The selling price of other fish catches is low	3	0,17	2,9	0,83
	Large operating costs	3	0,06	2,9	0,17
	Still using the traditional way of fishing	2	0,06	2	0,17
	Decreased fish catch due	3	0,11	2,9	0,44

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INTERNAL FACTORS				
STRATEGIC FACTORS	LEVEL	WEIGHT	RATING	SCORE
to climate change				
	3	0,11	2,9	0,44
Fish prices are determined by middlemen/TPI	3	0,06	2,9	0,17
TOTAL	18	1	37	3,78

Source: Research, 2020.

Based on the table above, it can be seen that the biggest profit is in fish products that are in demand by consumers and the abundant catches of kuniran and swanggi fish. The two fish are an advantage because the fishing gear used is cantrang and the two fish are demersal fish. Catching using cantrang is not affected by the season. This can happen because cantrang can be operated at any time. Cantrang operation is adjusted to the needs or wishes of the captain. Cantrang can be operated either day or night. These conditions allow cantrang not influenced by the season. Research by (Aithal, 2016). explains that the Internal factor matrix is used to analyze internal factors, classify them into strengths and weaknesses, then weight them. The EFE matrix is used to analyze external factors, classify them into opportunities and threats for the Cantrang business at PPP Klidang Lor, then weighted.

The strongest deficiencies or weaknesses are the low quality of fish, overfishing fishing areas and the low quality of the fish caught. The low quality of the catch will affect the selling price of the fish. If the fish sold is of good condition or quality, the selling price will increase, but if the quality of the fish is poor and not fresh, the selling price of the fish will decrease. The cost of large supplies is influenced by the distance to the fishing area or the frequency of fishing by fishermen.

Table 2. External Factors SWOT analysis

EXTERNAL FACTORS				
STRATEGIC FACTORS	LEVEL	WEIGHT	RATING	SCORE
	The demand for seafood in the big market	3	0,12	5	0,35
	There is a role for the government in providing fishing skills	1	0,12	3	0,35
Opportunity	The existence of business capital loans from banks and non-bank institutions	1	0,08	3	0,16
	The catch can be marketed online	2	0,12	4	0,35
	The catch can be sold elsewhere	2	0,12	4	0,35
	There is a fishing association	1	0,12	3	0,35

THREAT	High level of competition for fishermen	1	0,04	1	0,04
	Banning Cantrang by the Government	1	0,04	1	0,04
	High catch fees	1	0,04	1	0,04
	There are other fishing gear	1	0,04	1	0,04
	Overfishing area	3	0,12	2,9	0,35
	There is a conflict between cantrang fishermen and other fishing gear	1	0,04	1	0,04
	TOTAL	25	1	29,9	2,45

Source; Research, 2020.

Based on the table above, it can be seen that the highest profit is the increasing demand for seafood. The increasing demand for marine products creates added value or profit for capture fisheries business actors. The increase in demand can be used for the preparation of marketing strategies. A good strategy must of course be accompanied by good handling of the fish caught. If the quality of the fish catch is poor, the consumer's interest and demand for marine fish will decrease. Research by Mustajib states that the SO (Strengths-Opportunities) Strategy is a strategy that aims to use the strengths (S) of fisheries entrepreneurs in PPP Klidang Lor, Batang Regency to take advantage of existing opportunities (O). While the WO (Weakness-Opportunities) strategy is a strategy that serves to minimize existing weaknesses (W) to take advantage of existing opportunities (O). The SO strategy or strengths-opportunity strategy uses the company's internal strengths to take advantage of external opportunities. So if in a theme there are great internal strengths and visible external opportunities that affect the internal position, then this can be considered to have advantages.

The highest threat is overfishing fishing grounds. Overfishing fishing areas will affect fish catches. If a fishing area experiences overfishing, fishermen will increase their efforts to increase catches. If the effort made to get fish increases, the cost of supplies such as diesel fuel and the length of the fishing trip will increase and take longer. This can be a loss for fishermen if at the time of landing, but fish stocks are abundant, the selling price of fish will decrease. Research by Mandika states that after each SWOT element is calculated its score, then these elements are linked together in the form of a matrix to obtain several alternative policy strategies. To determine the priority of policies that must be carried out, then the score is summed from the relationship between the SWOT elements contained in an alternative policy, the total score will determine the priority ranking of policy alternatives in PPP Klidang Lor Batang.

SWOT Matrix

Based on the SWOT analysis used, several marketing strategy results are obtained based on what strengths and weaknesses exist. The analysis is done by combining Strength with Opportunity, Weakness with Opportunity.

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Table 3. The analysis is carried out by combining Strength with Opportunity, Weakness with Opportunity

Strength Fish products are in demand by consumers Abundant Swanggi and Turmeric Catches ABK has experience at sea min. 2 years Fishing is not affected by the season Having more than … a fleet of ships Have other fishing gear in other fleets		Weaknesses The selling price of other fish catches is low Large operating costs Still using the traditional way of fishing Decreased fish catch due to climate change Fish prices are determined by middlemen/TPI The low quality of the catch of fish at the time of catching
Opportunity The demand for seafood in the big market There is a role for the government in providing fishing skills The existence of business capital loans from banks and non-bank institutions The catch can be marketed online The catch can be sold elsewhere There is a fishing association	S – O . Strategy TPI arrangement to be more neat and hygienic ABK training before going sailing The catch is put into cold storage for a longer shelf life Fishermen association institutions can be a forum for marketing and training in online fish sales	W – O . Strategy TPI arrangement to be more hygienic and closed to reduce solar radiation Creating an integrated system between fishermen and traders regarding selling prices Rely on weather information systems and fishing area predictions to reduce mileage and fuel consumption
Threat High level of competition for fishermen Banning Cantrang by the Government High catch fees There are other fishing gear Overfishing area There is a conflict between cantrang fishermen and other fishing gear	S – T Strategi Strategy Adjusting fishing gear construction according to government recommendations Regulating the pattern of departure and return of fellow fishermen Movement of the auction system at the time of unloading	Strategy O – T The government is increasing its role by adjusting retribution rates and controlling fuel prices Development of the function of fishermen's associations as a forum for problem solving and selling fish

Source: Marketing Analysis Research at PPP Klidang Lor Batang, 2021.

Based on table 3, there are several marketing strategies based on the group of internal factors, namely strength - weakness and weakness - opportunity. Strategies that can be given to the strength-weakness group are structuring the TPI to be neater and hygienic, training the crew before going sailing, the catch being put into cold storage for a longer shelf life, fishing associations can be a place for marketing and training in online fish sales . The strategy is prepared based on the strengths and opportunities that exist from several factors that exist in PPP Klidang Lor Batang. Research by Triyastuti shows that SWOT analysis is used to obtain an optimal and appropriate marketing strategy. The strategy that exists in this group is the arrangement of the TPI to be more hygienic and closed to reduce solar radiation. Research by

Tarigan et al (2018) states that the WO Strategy is a weakness - opportunity strategy, this strategy is utilized based on the utilization of existing opportunities by minimizing existing weaknesses.

The next marketing strategy is in the strength – threat group. The strategies in this group are adjusting the construction of fishing gear according to government recommendations, regulating the departure and return patterns of fellow fishermen and moving the auction system at the time of unloading. The next strategy is the use of an auction system at each landing of the caught fish to make it more transparent and fair. Research by Yusuf and Muhartono (2017) explains that threat factors are conditions that originate from outside and have the potential to weaken the performance of capture fisheries business development in North Kayong. The next strategy is a combination of opportunity - threat. The strategy for this group is for the Government to increase its role by adjusting levy rates and controlling fuel prices and developing the function of fishermen's associations as a forum for problem solving and selling fish. Research by Simbolon states that a strategy for monitoring fishing areas needs to be carried out considering the potential for conflicts that occur due to foreign or non-local fishermen catching octopuses in Banggai Laut Regency.

Strategy Position

Based on the SWOT analysis, four types of strategies were identified: strengths – opportunities (use strengths to take advantage of opportunities), strengths-threats (use strengths to reduce threats), weaknesses – opportunities (reduce weaknesses by taking advantage of opportunities) and Weaknesses – Threats (reduce weaknesses by preventing threats). SWOT analysis using environmental performance data and economic evaluation. Based on the matrix above, it can be given an overview of what strategic quadrants can be given to fishery businesses in PPP Klidang Lor Batang which is presented in the following figure.
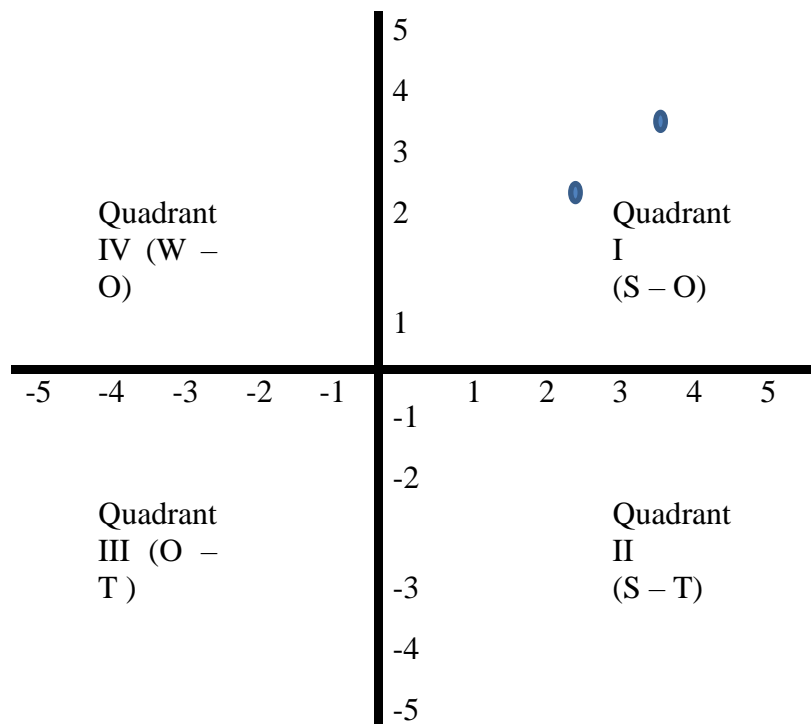

Figure 1. SWOT Analysis Position Matrix.

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Based on the SWOT scoring calculation, the results were 2.45 and 3.78. These results indicate that the total calculation is in quadrant I. Quadrant I is a SWOT strategy by combining strength – opportunity. Strategies in quadrant I include Structuring TPI to be neater and more hygienic, ABK training before going sailing, Catches are put in cold storage for a longer shelf life, Fishermen's association institutions can be a forum for marketing and training on online fish sales. Research by Astuti explains that the position in Quadrant I explains that the business being run has great opportunities and strengths so that it can take advantage of existing opportunities. This condition supports an aggressive growth policy (growth oriented strategy).

CONCLUSION

There are two fish marketing channels in Batang Regency, the first channel has a Fisherman's share value of 38% at Rp. 13,200/Kg, while the second channel with Fisherman's share is 64% at Rp.4501/Kg. The marketing strategy used in this study is based on a group of internal factors, namely strength - weakness and weakness - opportunity. In the strength – weakness group, they are arranged based on the TPI arrangement to make it more neat and hygienic, training crew members before going sailing, catches are put in cold storage for a longer shelf life, fishing associations can be a place for marketing and training on online fish sales, from groups weakness – opportunity is to market fish with good catch quality so that it can increase the selling price, on the other hand, increasing quality must be accompanied by costs.

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