IMPLEMENTATION OF HYGIENIC FISH MARKET MODEL AND ITS IMPLICATION ON MARKET STRUCTURE AND MARKETING EFFICIENCY OF SEA FISH IN JEMBER REGENCY

Syamsul Hadi, Edi Sutiarso, Arief Awaluddin, and Toni Herlambang

Universitas Muhammadiyah Jember Jl. Karimata No. 49 Kotak Pos 104 Jember 68121 East Java Province, Indonesia

email: syamsul.hadi@unmuhjember.ac.id

Abstract

The increasing trend of fishery business development in Jember Regency, in fact not accompanied by a decent Fishermen's (proportional) Exchange Rate. This is due to the limited fishermen to access market opportunities, technology, and easy capital, so that the fishermen have not enjoyed much real results. This condition is caused by the production of the catch is still low, the quality of the fish has not met the standard, the price of fish is low and the lack of support from the business world as well as the prerequisite condition of the fish market facilities and infrastructure are clean, so less attract consumers to come buy. The purpose of this research is to analyze the impact of the implementation of marketing strategy model of marine fish marketing through hygienic fish market to new market structure, marketing channel pattern, and marketing efficiency of marine fish in Jember Regency. In order to achieve the purpose of this research, it is used descriptive quantitative and qualitative research methods through survey technique of acidental sampling and snowbolling sampling. Types of population in this study are Fishermen, Traders including groups who are members of Poklaksar, and Consumers. The data collection techniques used FGD, Indepth Interview and observation. Data analysis used included descriptive analysis, and marketing margin. The results of the research conclude: 1) Market structure in Hygienic Fish Market model in Jember Regency is classified as Monopolistic Market which is more aimed at oligopoly market, 2) Pattern of marine fish marketing channel that occur in hygienic fish market model is covering three kinds of marketing channel pattern, and 3) Hygienic Fish Market Model can provide a fairly high share of Fisher (Farmer's share) margin (58.95%), meaning that the marketing of marine fish model has been achieved Efficiency.

Keywords: Market Structure, Marketing Channel Pattern and Marketing Efficiency

BACKGROUND

The increasing trend of economic development of central fisheries in Indonesia and East Java has not been followed by perkembangnya in Jember regency. Even according to East Java BPS that the Fisherman Exchange Rate (FER) of East Java in March 2014 decreased by 0.31 percent, from 105.31 in February 2014 to 104.99 in March 2014. This is because the price index received by fishermen experienced An increase of 0.04 percent while the price index paid by fishermen increased by 0.34 percent. The ten major commodities that experienced an increase in the price indexes received by fishermen are mackerel, snapper, swordfish, swallow / swada fish, swanggi fish, crabs, grouper fish, goldfish, and skipjack. While the ten major commodities that experienced a decrease in the price indexes received

by fishermen were lemuru fish, squid, fish, tembang, kuwe / bebara, peperek, pomfret, shrimp, lotung fish and stingrays.

The above conditions are caused by the low yield of fish, the quality of the fish has not met the standard, the price of fish is low and the lack of support from the business world as well as the condition of fish market facilities and infrastruc- ture that less attract consumers come to buy. The existence of Fish Auction Place (FAP) as a glossary market that local governments are expected to be able to use as a fish trading center is not optimally utilized by fish market participants. Several facts on the ground show that in general the society's appreciation of the traditional marketing model of marine fish tends to be negative, that is, for example, seems slums, smelly and less hygiene. This condition implies the lack of maximum market role in an effort to encourage economic activity in coastal areas that lead to the dependence of fishermen fate economically.

The utilization of marine resources in Jember Regency is still around 22%, while the potential is wide open because the consumption level of fish population in Jember regency is 19.2 kg / capita / year which is expected to reach ideal condition that is 31,4 kg / capita / year (DG Fishery , 2007). In order to improve the marketing aspect so that the fishermen can enjoy the results and the consumers are guaranteed the level of satisfaction, it is necessary to develop an integrative marketing strategy. Several facts on the ground show that in general the appreciation of the community toward conventional managed marine fish marketing model tends to be negative, that is, for example, seems slums, smelly and less hygiene. Inefficient marketing system encourages less maximally the role of the market in an effort to drive economic activity in coastal areas. Economic growth in this region will be faster, if all stakeholders including local institutions can perform their functions and roles optimally in a conceptual framework model of integrated strategy of fish marketing holistically.

The results of research Hadi et al. (2015) reveals that: 1) The market structure of marine fish marketing in Jember Regency is Monopolistic Competition Market that leads to negative cover (monopoly market), marketing channel aspect (there are 6 marketing chain patterns); Market behavior Fish prices are determined by traders and Pengambek, and there is no significant institutional role; 2) As many as 58.33% of economic actors stated that FAP managers did not do a good market management model, so as many as 45% of respondents stated that they are not satisfied. The condition is further aggravated by the absence of government efforts to facilitate the involvement of local institutions such as financial institutions and partnerships with related institutions that support the marine fish enlargement system in the study area. The phenomenon in this research area also occurs in other coastal areas as revealed by the results of research Kurniawan et al. 2013 in Kecamatan Kelok Pasuruan that the weakness of the implementation of programs and activities of the agency is an element of institutional strengthening and strengthening partnerships with financial institutions have not been met.

The development of hygienic fish market (HFM) model in Jember District is very urgent to be implemented because considering the fishery result in Jember Regency still not served its needs maximally. This is because the fish marketing model in Jember is still scattered in different places. Similarly, technical standards of quality and hygienic fishery products have not been optimally applied, especially in traditional markets. Whereas the future development of the demands of the application of quality and hygienic technical standards is an absolute necessity for consumer protection. Based on these matters, in Jember Regency should be built facilities and marketing infrastructure of fishery products centered on several areas of hygienic fish market. Therefore, the objectives of this study are as follows: to analyze the impact of the implementation of marketing strategy model of marine fish marketing through hygienic fish market (HFM) to new market structure, marketing channel pattern and marketing efficiency of fishery.

METHODS

Methods, Time and Location Research

This type of research is descriptive quantitative and qualitative research, namely research that aims to find facts with appropriate interpretation. Meanwhile, the method used in this research is survey method, descriptive method of continuity (continuity descriptive) with panel technique, Snowbolling Sampling (Nazir, 1985) and other methods as needed both Probability Sampling and Non Probability Sampling.

Determination of Time and Location Research

This follow-up study was conducted in 2016 and the location of this research was conducted in FAP Puger area of Puger Sub-district of Jember Regency by purposive sampling on the consideration that HFM development was placed in FAP Puger kasawan as pilot project. In addition, the institutional research sites are conducted at the Livestock, Fisheries and Marine Service Office of Jember Regency, local FAP office and other literature studies. **Resources, Types and Data Collection Techniques**

Based on the source that the data collected in this study includes primary data and secondary data. Primary data were obtained from Fishermen, Merchants (Marketing Institutions), Consumers, and FAP Managers collected by combining several complementary data collection techniques that include: FGD, Indepth Interview and observation. While for secondary data collected from institution related to this research. The determination of population and sample of respondents is done by data collection technique is done by accidental sampling and Snowbolling sampling, and purposive sampling (Singarimbun and Effendi, 1987).

Data analysis

In order to know the impact of the application of integrative marketing model of marine fish marketing through development of HFM Model to new market structure and marketing channel pattern, the quantitative and qualitative descriptive analysis is used. As for knowing the level of marketing efficiency of fish at HFM on each pattern of channel that was built, then used marketing margin analysis.

RESULTS AND DISCUSSION

Market Structure of Sea Fish on HFM Model

Before discussing the structure of PIH, the following is disclosed the condition of HFM model in this research, ie there are restaurant (restaurant) culinary at HFM business is a small part that is at UD Kerapu Jaya (model that already operated first) and Restaurant Ikan Bakar Seefood (HFM model engineering results). Freezerbox equipment, cool boxes, motor boxes, toilets, musholla, bulk ice equipment and parking lots as well as electrical installation equipment of some traders have been built (available) and others have not. The other facilities such as fish storage pond, sorting room, quality test room, office space, waste disposal and live fish aquarium equipment, processed fish case show, sorting, waste processing, and water installation have not been built most of the traders are not yet available.

Nevertheless, the shape of the building looks modern equipped with open culinary restaurants and exhibition halls as well as open spaces to play for children's customers (consumers). Because of the modernity of the form and building facilities are always clean it is clear hygiene and place the product offered. In addition, hygiene is seen in the trades culture where traders always group and mark the fish that have been sorted to be more organized and every morning, afternoon and afternoon always clean and spray water on the streets of the market with Go Fresh Spray like Free Biolet made From the coconut shell so as

not to smell fishy. In addition, to keep it looking clean, dry and hygienic, the kitchen and bathroom should be designed open to optimize air circulation. Therefore, the need for building materials with water absorbent material (coral and con blocks) to keep it dry or not easy to moist. The design of the PIH building is done through the approach of local cultural characteristics of how to trade coastal communities in the research area. Because with this approach HFM building will be more interact or accepted by the surrounding community which also become an icon that characterizes the local culture of Jember community.

The results revealed that the market structure in the hygienic fish market model (semimodern) in Jember District is aiming at the Monopolistic Competition Market that leads to positive kutup or oligopoly market. This condition is in accordance with the opinion of Teguh and Muhammad (2010) that the market of monopolistic competition is basically a market that lies between two types of extreme market, namely perfect competition market and monopoly market. There is also a mention that the monopolistic market is a combination of a perfectly competitive market with a monopoly market. Therefore, its properties contain elements of the nature of the monopoly market and the elements of the perfect market of competition. Monopolistic competition market can be defined as a market where there are many producers that produce differentiated products.

After the introduction of the HFM model into the traditional fish market system into a semi-modern marine fish market despite its small scale, the monopolistic market shifts in the direction of oligopoly and oligopsoni rivalries although it is unlikely to lead to a perfectly finalized (parietal) competition market, at least not to A powerful monopoly market. Nevertheless the implications of applying this model will at least improve the marine fish marketing system that is proving to run less efficiently. So that in the future it will become more efficient where all market participants will receive a share of proportional and rational profit levels. Especially if the commitment of the local institutional role is stronger to support the integration of marketing of marine fish to marketing systems that the level of efficiency is more massive. The condition is in accordance with the results of research conducted by Prihatmaji in 2012 that PIH Design in Rembang through Coastal Culture Characteristics Approach is intended for marine fish marketing can run more efficiently.

In terms of market structure, the characteristics of the product can be illustrated that the perishabelity of fish catch is tentative, which leads to absolute, since the characteristics of fishery products are easily damaged but in HFM there has been hygienic treatment and has remained fresh since from sea catch (ship), landing, And retail merchant displays can last at least 2 weeks after fishing. Nevertheless, the results of the study revealed that the perishabelity can be reduced even though there is not necessarily any hygienic treatment, because a small percentage of skipper/pengambek/pemodal treats the fish catch from the capitalized fishermen, ie coldstorage process, Or distributed directly to traders, retailers and collectors in the form of fresh fish, especially the type of lemuru fish, squid, layur and shrimp. Thus it is expected to create a level of maximum satisfaction as the results of research Sibghatallah in 2006 on Consumer Satisfaction at Hygienic Fish Market Pejompongan -Jakarta where the level of consumer increases more than 35%.

It is also illustrated by the characteristics of market structure in the barrier aspects of entry and exit in the traditional marine fish market in Jember Regency where the barriers are relatively easy. Fishermen who will sell their fish catch are very easy to sell to traders in FAP or outside FAP including HFM, especially most fishermen have skipper or investor to sell their catch. It's just that for new traders who will enter and run business in this market will not get much convenience, except coordinate with the pengambek and at the same time the FAP management does not determine the conditions. Therefore, the TPI managers who have two assisted groups (@ 20 fishermen) are trying to empower the marine fish business slowly. Some of its members formed a Forum called Marketing Executive Group and through this forum, fishermen, wholesalers / wholesalers / wholesalers and retailers based on hygiene are trying to engineer HFM slowly starting on a small scale.

The technological aspects of market structure prevailing in the traditional and semimodern market of marine fish in Jember Regency can also be revealed that the capital intensity of financial institutions at the local level tends to be positively responded. There are only two cooperative fishermen namely Nusa Barong Cooperative and Sumber Java Cooperative that can provide business capital for fishermen, but the results of research in this second year revealed that 66.66% will strengthen will help in capital and the rest helps in marketing. Although the traditional marine fish marketing system in the research area, some conventional financial institutions such as BRI. BPD latim and others have provided a blacklist for fishermen not to provide capital loans due to the very poor repayment rate that is below 25%. Or with others that the level of lending collectability in the study area is low. This condition is in line with the results of Kholifah, Hadi and Herlambang research on the Restoration of Collectability of Revolving PNPM Mandiri Urban Program Loans in Situbondo District in 2011 which revealed that most (60%) have a degree of collectability (K-5). This means that the Repayment Rate is very low and the return congestion rate is very bad (high risk). This phenomenon is relatively similar to the phenomenon that occurs in the research area because most of the research areas are located in coastal areas and with the same cultural background.

Meanwhile, the specialization of catch fish is almost non-existent, but there are several types of fish that are characteristic in each FAP, such as FAP Payangan - Ambulu type of lopter fish or shrimp and tuna, tuna species, lemuru, tengiri, and anchovy in FAP Puger, a type of squid fish from Gettem Gumukmas and Cakalang in Paseban Kencong. Meanwhile, deversification of fish that must be sold there are no binding rules because basically the types of fish that can be caught by fishermen occur naturally based on the fish season in the waters where fishermen go to sea. But in processed products, shrimp paste is characteristic of FAP Puger.

Furthermore if it may be categorized as a specialization or product differentiation according to aspects of product characteristics according to fish species, then in the study area divided into the fish class inferior - normal (middle to lower) is the result of tangkaoan fish the middle of the sea by collected such as species of tuna, banyar, Putian, solop and others. While the upper-middle-class category is a fish species whose presence in the seabed section is captured by means of lures such as tengiri fish specialist, rock grouper, red grouper, dorang, snapper and others. The more specialist, especially in the lonely fish months in the coastal area Payangan Ambulu, then it is a large shrimp specialist fish (lopter) much hunted by local fishermen through diving or fishing. In the lonely months of fish with big wave waves like today, many fishermen go to sea to lure nener (seed/lopter seed) is divided into three categories, namely: the type of stone, pearl and white where the price per tail can reach IDR 75.000, - at the fisherman level.

Channel Marketing Patterns

In the marketing channel of marine fish in Jember Regency before the HFM model was built there were five kinds of marketing channel pattern. After the HFM model is applied, although on a small scale, the marketing pattern of marine fish still forms one marketing channel pattern. Fish trade is conducted directly between traders and buyers along with bargaining systems for price agreements. This is to suit the cultural trades of coastal communities in general. Fishermen or fish traders can rent or buy space (retail) in special in FAP or its surroundings with PIH facility to sell their fish. Retail-retail is grouped and segregated by type of fish to facilitate visitors to choose fish. With this simple engineered HFM, the fishermen have the opportunity to sell their fish not only to middlemen, fishermen group / traders and retailers, but directly to individual consumers (retail) so that HFM is expected to stand but FAP will still operate. In this simple HFM engineering group of fishermen (Forum Poklaksar) has a major role as the main marketing agency for hygienic fish marketing because it is still newly conditioned deliberately. The following illustrates the marketing channel pattern with both the old (FAP) and semi-modern (HFM) systems in the research area as presented in Figure 3.1.

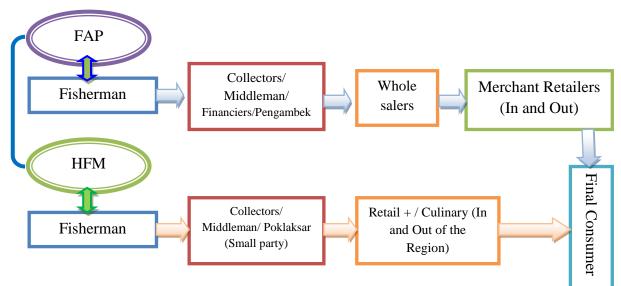


Figure 3.1. Sea Fish Marketing Channel in Jember District (Source: Primary Data Processed, 2016)

Sea Fish Marketing Efficiency After Implementation of HFM Model

Discussion of marine marketing marine marketing margin of HFM in the research area is described based on the marketing channel pattern that was developed along with the discussion about marketing efficiency to answer the proposed hypothesis. In table 3.3 it is revealed that the pattern of marketing channels that occur in HFM can give the share of fishermen's margin (Farmer's share) is quite high, ie 58.95%. This means that marketing of marine fish based on hygiene in the research area runs efficiently. Based on the opinion of Gultom (1996) in Son Bisuk (2009) that in general a system of trading for (some) agricultural products can be said to be efficient if the share of farmers' margin is above 50%. Furthermore, in the opinion of Gultom (1996) based on the calculation of Marketing Efficiency (Em) with the formulation of mathematical formula: Em = (Marketing Cost/Selling Price) x 100% each (IDR/Kg) then the smaller the value of Em, the marketing of agricultural commodities more efficient and vice versa. To find out which channels are most efficient, each marketing channel compares Em's value to the number of marketing agencies involved.

The results of the second year study show as shown in Table 3.1 that the hygienic fish marketing institutes such as the Collector/Poklasar (Small Party) have Em = 4.8, while the marketing institutions such as Retail + / Culinary (In and Out of the Region) 3.58. This means that the marketing efficiency experienced by HFM Collectors/Poklaksar/Medlemen (Small Party) is no more efficient than that experienced by Retailers+ / Culinary (In and Out Area). This is due to the marketing costs incurred by the Collector/Poklaksar/ Medlemen than others despite having a higher margin share (20%). The marketing costs incurred by the Collectors/Poklaksar/ Medlemen than include: the cost of hygienic treatment, labor costs, and transportation. However, proportionately the profit gained by each marketing agency involved is fairly fair, since the profit rate of collectors/Poklaksar/Medlemen is higher (4,28) than at the retail level (4,00).

NO	Type of Marketing Institute of Sea Hygienic Fish	Buying Price (Seasonal Fee) (IDR / Kg)	Selling Price (IDR / Kg)	Marketing Costs with Hygienic Treatment (IDR/ Kg)	Profit /(IDR/Kg)	Fisherman's Share (%)
1	Average Prices of all types of fish Fisherman's level (Pf)	3.500	28.000	1.500	23.000	58,95
2	Collectors/Poklaksar/ Medlemen (Small Party)	28.000	37.500	1.800	7.700	20,00
3	Retail+/ Kuliner (Inside and Outdoors) (Pr)	39.000	47.500	1.700	6.800	17,89
Share Margin of Market (%)				10,53	30,53	
Marketing Margin (MP) 19.500			Total Share Margin			100,00

Table 3.1. Results of Marine Marketing Margin Analysis on Hygienic Fish Market In Jember Regency Year 2016

Source: Primary Data Processed

CONCLUSION

- 1. The market structure of marine fish marketing in Jember Regency is Monopolistic Competition Market and more aimed at perfect competition market,
- 2. The pattern of marketing channels formed after the implementation of HFM is still one kind of marketing channel pattern: Fisherman → Collectors / Poklaksar/Small Wholesaler → Retailer + / Culinary (In and Out of Area) → Final Consumer
- 3. Share of fisherman's margin (Farmer's share) is high enough that is equal to 58,95%, meaning that marketing system in HFM model run efficiently. Because the system for trading (part) of agricultural products can be said to be efficient if the share of farmers' margins are above 50%. Furthermore, hygienic fish marketing institutes such as Pengepul / Poklaksar (Small Party) have Em = 4.8, while marketing institutions such as Retail + / Culinary (In and Out) have Em = 3.58.

THANK-YOU NOTE

The team of authors conveyed the acknowledgment to DRPM DIKTI Ministry of Research and Technology of the Republic of Indonesia who has funded this research activity through the Research Fund of Competitive Grant Scheme, so that the manuscript of this article can be written to be published in accredited national journal.

BIBLIOGRAPHY

- Bisuk, P. 2009. Analysis of Trading and Elasticity of International CPO Price Transmission on FFB Price (Fresh Fruit Bunch) of Palm Oil (Case Study: Mananti Village, Sosa Subdistrict, Padang Lawas Regency). Essay. Faculty of Agriculture USU. Field. Http: // repository.usu.ac.id. Downloaded on February 09, 2014.
- BPS East Java Province, 2015. The Development of Fisherman Exchange Rate March 2014. file: /// H: /BPSJatim/.htm. Retrieved March 15, 2016.

- DG Fisheries, 2007. Issues and Policies of Increasing Fishery Products for Community Nutrition Fulfillment. Presented at the National Seminar on World Food Day in Jakarta on Thursday, November 21, 2007.
- Hadi, S., Sutiarso, E., and Prayuginingsih, H., 2016. Proceeding International Conference "Agribusiness Development of Human Welfare by Department of Agribusiness, Agriculture Faculty, University of Muhammadiyah Yogyakarta May14 2016. ISBN: 978-602-7577-70-1. Hal: 112 - 120.
- Kholifah E., Hadi., S., and Herlambang, T., 2012. Restoration of Collective Credit Fund Scheme PNPM MP through Local Community-Based Community Organizing System in Situbondo Regency. Journal Politico FISIPOL UM Jember. 12 (01): 115 - 125.
- Kurniawan, A., Budimawan, and Darma, R., 2013. The direction of Development of Fish Processing and Marketing Center in Kecamatan Lekok Pasuruan Regency. Thesis. Http://pasca.unhas.ac.id. Downloaded on December 27, 2015.
- Nazir, 1985. Research Methods. Jakarta: Ghalia Indonesia.
- Prihatmaji, Y.P. And Rustiani, A.D., 2012. Design of PIH in Rembang (Approach Characteristic Culture of Coastal Coast Trading). Journal of Architectural Dimensions Engineering. 35 (2): 172 - 182.
- Sibghatallah, 2006. Analysis of Consumer Market Satisfaction of Hygienic Fish (PIH) -Pejompongan - Jakarta. Bogor Agricultural Institute. Http://iirc.ipb.ac.id. Retrieved February 10, 2015.

Singarimbun and Effendi, S., 1987. Survey Research Methods. LP3ES. Jakarta.

Teguh, Muhammad. 2010. Industrial Economics. Jakarta: PT. Raja Grafindo Persada.