

The Demand Analysis of Stripped Mackerels (*Rastrelliger neglectus*) Which Landed in the Fishery Port Muara Kintap, South Kalimantan

Yarna Hasiani*

Department of Agribusiness, Faculty of Agriculture, Islamic Kalimantan University, Jl. Adyaksa No. 2Kayu
Tangi Banjarmasin 70123, South Kalimantan, Indonesia

Received: March 5, 2017

Accepted: May 31, 2017

ABSTRACT

The purpose of this study are to (1) determine the factors that affect the demand for mackerel in the fishing port of Muara Kintap; and (2) determine the magnitude of the elasticity of demand for mackerel in the fishing port of Muara Kintap. This study was conducted in November 2016 to the month of January 2017 FDI Fishery Port Muara Kintap, with the object of research mackerel, as the dominant fish landed in this port. The data collected are primary data sourced directly from the observation in the study site, and secondary data obtained from statistical reports of fisheries production landed in the port of Muara Kintap Fisheries, which was recorded by the officer during an observation port in progress. The results showed that the demand for mackerel in the fishing port of Muara real Kintap is not influenced by the price of flying fish, but the real is influenced by the price of mackerel itself and capital baskets / buyer. Elasticity of demand mackerel are in elastic, where the percentage changes in price causes a smaller percentage change in demand in the opposite direction. In this case, mackerel including essential goods or goods subject always purchased, without a close relationship with the flying fish.

KEYWORDS: demand analysis, fishing ports, mackerel.

1. INTRODUCTION

South Kalimantan, covering 120,000 km² of marine waters and the sustainable potential of about 180,000 tons a potential biological resources should be optimally utilized to improve the welfare, especially for the fishing community in South Kalimantan in general [1].

There are various fish species resulting from fishing effort in the sea, such as mackerel, tuna, fish float, snapper, pomfret and so forth. Fishery Port Muara Kintap noted that during 2016 there were 15522.44 tons of fish landed at the port [2]. Production of fish catches are dominated by mackerel, followed by fish float and tuna, while for other fish varies with the production range is not too large.

In general, the formation of the price of fishery products the quantity of which is determined by supply and demand, the size of the fish, and the volume and price of substitutes [3]. No exception to the catch of fishermen in South Kalimantan, especially landed at the fishing port of Muara Kintap.

Mackerel (*Rastrelliger neglectus*) is one of the pelagic fish species that are common in marine waters of Indonesia. In South Kalimantan, mostly fish is caught by gill net fishing, though many fishes are caught by purse seine fishing gear (purse seine). Fishing port of Muara Kintap informs that the price of mackerel were landed at the port in 2016 (based on the production of each month) ranges from 15,000 - 25.000, with an average Rp.21.700 [4]. This price is the price that is formed in the port and not at the level of the final consumer. Market participants consist of a seller who is a fish collector and the buyer is a trader intermediary and / or retailers. Price formed is likely to be relatively stable over the price of fish landed kites were also dominant in this port, although the production of the fish float were abundant or not.

Demand mackerel, as the dominant fish landed at the fishing port of Muara Kintap, certainly not without the influence of various factors. For that, the problem formulated in this research activity are the factors that influence the demand for mackerel in the fishing port of Muara Kintap and how elasticity. On the phenomenon of the above, the purpose of this research are to (1) determine the factors that affect the demand for mackerel in the fishing port of Muara Kintap; and (2) determine the magnitude of the elasticity of demand for mackerel in the fishing port of Muara Kintap.

2. MATERIALS AND METHODS

Research activities take place at the Fishery Port Muara Kintap, Kalimantan Selatan. The research type is survey. Data collected in this research activity include the primary and secondary data. Primary data is data that is sourced directly from the observation in the study site, recorded with writing and documentation. Sample of

*Corresponding Author: Yarna Hasiani, Department of Agribusiness, Faculty of Agriculture, Islamic Kalimantan University, Jl. Adyaksa No. 2Kayu Tangi Banjarmasin 70123, South Kalimantan, Indonesia
Email :yarna903@gmail.com

respondents taken by purposive sampling. The secondary data is the basic data from the reports on production statistics fishery landed at the fishing port of Muara Kintap, recorded by the clerk port during the observation took place, as well as other supporting data obtained from various sources, such as research results, literature and information of the relevant institutions, related to research activities.

Basic data collected includes:

1. Data price and production volume mackerel (secondary data).
2. Data on the number of buyers (merchants / basket) lafyang fish (secondary data).
3. Data buyer capital (primary data / sampling).
4. Fish float price data (secondary data).

The data is analyzed by the smallest quadrature method. Data were analyzed include:

1. Factors affecting demand for mackerel in the fishing port of Muara Kintap.
2. Elasticity of demand mackerel.

3. RESULTS AND DISCUSSION

Factors Affecting Demand Fish Bloating

Regression analysis to estimate the relationship between the demand mackerel (Y) with variable factors / variables (Xi) alleged influence are as follows:

$$\ln Y = -1,030 - 0,950 \ln X_1^{**} + 0,925 \ln X_2^{**} + 0,006 \ln X_3$$

(0,042) (0,023) (0,052)

$$R^2 = 0,991 \quad F = 932,89^{**} \quad d = 2,09$$

**) Valid at test level 99%

Price variables mackerel (X1) indicates that changes in these variables lead to real change on the demand for fish float up to test level of 99%. Thus, accepting H1 and rejecting H0 means X 1 influence significantly Y.

Buying and selling of fisheries products in the fishing port of Muara Kintap basically occurred between collectors with intermediate traders and / or retailers, so that regardless of mackerel which offered buyers will still buy. This condition indicates that the basket as a buyer and also the seller as mackerel in the harbor is not a direct determinant of price. In this case the price is offered by large / small depending on the price at the level of fishing (producer) and the price at the level of the final consumer.

The price of the fishermen is generally influenced by the price of production inputs [5, 6]. Changes in input prices are accompanied by changes in output prices in the same direction. If input prices increased production would decrease, because the manufacturers are trying to adjust production costs by reducing the use of production factors. Furthermore, the manufacturer will seek to maximize profits by raising prices customize output with production being obtained. Conversely, if the input prices decreased, the producers would try to increase production by increasing production factors in order to adjust to the decline in output prices.

Mackerel production changes due to changes in the price of course impact on the volume of purchases / requests per basket / buyer. If production is reduced, the volume of purchases are also reduced because it is limited by the stock of production, while the market mechanism shows that the mackerel stock is always sold out and the number of baskets / buyers relatively stable between 180-200 people. This means the price change causes changes in demand for fish float.

Variable capital baskets / buyer (X2) indicate that changes in these variables lead to a real change to demand swift fish on a test level of 99%. In this case, the buyer capital change will cause changes in demand for fish float in the same direction. Thus, accept and reject H0 H1 meaning X2 changes significantly affect the change Y.

Venture capital sourced from the fishery in general operating revenues. Thus, the buyer of capital can be considered as part of income which is owned by the buyer, so the greater the income, the greater the purchasing power. In other words, changes in capital or earnings will have an impact on changes in demand mackerel. This means consistent with the theory that the demand of goods / services of one of them is determined consumer income [7, 8, 9, 10].

Fish float price variable (X3) indicates that the change this variable does not lead to a real change to the request mackerel on a test level of 95%. Thus, accepting H1 and rejecting H0 means X 1 influence significantly Y.

This condition illustrates that the mackerel and fish float do not have a complementary relationship (complementary) or be replaced (substitution), in which case the price increase of the product, the buyer will not reduce or limit purchases of products experienced a price increase for later divert them to another product. In other words, demand for these two products did not change significantly.

Elasticity of Demand Fish Bloating

The regression coefficient -0.950 at variable prices mackerel (X1) shows that any increase in the price of mackerel by 100% will reduce demand by 95%, or vice versa. These results indicate that the price elasticity of mackerel in the Fishing Port in Muara Kintap is elastic, because the percentage changes in demand for mackerel less than the percentage change in the selling price.

Negative mark on the regression coefficient indicates the direction of change of price elasticity which is in accordance with the theory of the law of demand, whereby if the price of good increases, the demand for these goods will go down. Conversely, if the price of the item goes down, then the demand for these goods will rise *ceteris paribus* (other factors are assumed constant) [11, 12].

Next, the value of the regression coefficient 0.925 at variable capital buyer (X2) indicates that any capital increase of 100% will increase the demand for fish float amounted to 92.5%, or vice versa. This suggests that the mackerel is an essential item for buyers, because the value of its elasticity lies between 0 and 1. This means fish float including the most sought after commodity / must be purchased at the Fishery Port Muara Kintap (essential goods).

Furthermore, the value of the regression coefficient of 0.006 at a variable price fish float (X3) shows that any increase in the price of fish float of 100% will reduce the demand for mackerel by 0.6%, or vice versa. This indicates the absence of a close relationship between the mackerel and fish float at the Fishery Port Muara Kintap, because the value of cross-elasticity (0.006) very close to 0.

Mentioned earlier that there are a variety of commodities fishery products landed in the fishing port of Banjarmasin, such as flying fish, mackerel, tuna, mackerel, milkfish, trevally and others. These fish, like fish float, also had a request, so that the economic difference is the amount of production and the selling price.

In the structure of the market as happened in the fishing port of Muara Kintap, where among market participants in competition so that the formation of prices are not determined by them, the buyer can only buy one or more types of products, depending on the level of prices and the volume of production of each product [13, 14,15].

4. CONCLUSION

From the research it can be concluded:

1. Request for mackerel in the fishing port of Muara real Kintap is not influenced by the price of fish float, but the real is influenced by the price of mackerel itself and capital baskets / buyer.
2. Elasticity of demand mackerel are in elastic, where the percentages change in price causes a smaller percentage change in demand in the opposite direction. In this case, mackerel including essential goods or goods subject always purchased, without a close relationship with the flying fish.

Based on the results of the study, it indicated that the production volume of mackerel still does not meet consumer demand as a whole, where the number of puffer fish production is always sold out every time there is a landing. For that, it is hoped this could be a trigger for producers (fishermen) to increase production.

In addition, the expected role of the government in improving the production can be further improved, by reviewing the issues raised in the fishing and provide solutions to these problems, so that the availability of stock production will be increased.

REFERENCES

- [1] Anonim, 2012. Peraturan Menteri Negara Lingkungan Hidup Republik Indonesia Nomor 14 Tahun 2012 tentang Panduan Valuasi Ekonomi Ekosistem Gambut.
- [2] Anonim, 2013. Peraturan Menteri Negara Lingkungan Hidup Republik Indonesia Nomor 14 Tahun 2012 tentang Panduan Valuasi Ekonomi Ekosistem Danau.
- [3] Adrianto, L., Mujio, Wahyudin, Y., 2004. Modul Pengenalan Konsep dan Metodologi Valuasi Ekonomi Sumberdaya Pesisir dan Laut. Pusat Kajian Sumberdaya Pesisir dan Lautan IPB. Bogor.
- [4] Badan Pusat Statistik, 2012. Survey Sosial Ekonomi Kabupaten Kota di Kalimantan Selatan. Banjarmasin.
- [5] Dadang Setiawan, 2012. Valuasi Ekonomi Kawasan Hutan Mangrove Muara Angke Jakarta. Perbandingan Hasil Penelitian 2002 dan 2012. Program Studi Ilmu Lingkungan Pascasarjana Universitas Indonesia. Jakarta
- [6] Djijono, 2002. Valuasi Ekonomi Menggunakan Metode *Travell Cost* Taman Wisata Hutan di Taman Wan Abdul Rachman, Propinsi Lampung. Skripsi pada Departemen Sosial Ekonomi Perikanan. Fakultas Perikanan dan Ilmu Kelautan IPB. Bogor.

- [7] Dickey, D.A., D.W. Jensen and D.L. Thornton, 2002. A Primer on Cointegration with an Application to Money and Income. In B.B. Rao (Ed) Cointegration for the Applied Economist. pp: 9-45. St. Martin's Press, Inc. New York.
- [8] Dixon, J. A., 1980. Penilaian Taman Publik Lumpinee di Bangkok, Thailand. *Economic Development Quarterly*. Vol 13 No. 2 pp 183-199.
- [9] Fauzi, A., 2000. Persepsi Terhadap Nilai Ekonomi Sumberdaya. Paper Presented at The Training for Trainers on Integrated Coastal Zone Management (ICZM) Proyek Pesisir, November. Bogor.
- [10] Gerhard, 2013. Valuasi Ekonomi Sumberdaya Alam Rawa Pening dan Strategi Pelestariannya di Kabupaten Semarang. Fakultas Eonomika dan Bisnis Universitas Diponegor0, Semarang.
- [11] Hakim, Z., 2007. Faktor-Faktor Yang Mempengaruhi Kunjungan Wisatawan pada Area Wisata Gili Trawangan. Skripsi.
- [12] Kirkley, J. and D. Squires, 1998. Measuring Capacity and Capacity Utilization in Fisheries. Background Paper Prepared for FAO Technical Working Group on The Management of Fishing Capacity. La Jolla, USA, 15-18 April 1998, 160 pp. Forthcoming, FAO Fisheries Report.
- [13] Kirkley, J. and D. Squires, 1999. Capacity and Capacity Utilization in Fishing Industries. Discussion Paper 99-16, University of California, Departemen of Economics, San Diego.
- [14] Koentjoroningrat, 1993. Metode-metode Penelitian Masyarakat Edisi 3. PT. Gramedia. Jakarta. 129 halaman.
- [15] Mahreda, E.S., Mahyudin, I., Mustika, R., Febrianty, I. 2016. Agrotourism Economic Value Services in Takisung South Kalimantan Indonesia. *J. Appl. Environ. Biol. Sci.*, 6(5)1-1, 2016.
- [16] Rian Eka Putra, 2011. Valuasi Ekonomi Keanekaragaman Hayati Rawa Bento Kecamatan Gunung Tujuh Kabupaten Kerinci Provinsi Jambi. Program Studi Biologi Program Pascasarjana Universitas Andalas Padang.