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RESEARCH ARTICLE

Analysis Of Production and Prices Of Sky Fish And Mackarel Tuna At The Ocean Fishery Port Lampulo Aceh

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Abstract
This research aims to determine production patterns, production quantities and factors that influence the prices of tuna and flying fish at auctions at PPS Kutaraja Lampulo Banda Aceh, namely (1) descriptive statistics and (2) simple linear regression parametric statistics. The results of the research show that the production patterns of tuna and flying fish fluctuate, due to the influence of the fishing season. Using a simple linear regression research method. The results of the regression analysis show that there are two variables that influence the price of tuna, namely the amount of production with a significant degree. Meanwhile, the price of flying fish is not significantly influenced by production factors.

Keywords
Production, Analysis, Price, Sky Fish, Mackarel Tuna, Fishery Port

1 | INTRODUCTION

Flying fish and tuna are very potential species and are caught in almost all Indonesian waters, both in large and small quantities. Observing the economic value of flying fish and tuna which is quite high and the frequent fluctuations in fish prices, it is necessary to analyze information regarding production patterns [1], production quantities and factors that influence the price of flying fish and tuna at the port. Kutaraja Ocean Fisheries Banda Aceh. Based on the problems above, this analysis aims to determine production patterns, production quantities and production values of flying fish and tuna as well as factors that influence prices at the Kutaraja Ocean Fishing Port, Banda Aceh. It is hoped that the results of this analysis will be useful as an initial identification of problems faced by the Aceh Maritime Affairs and Fisheries Service (DKP) as the Manager of the Banda Aceh Kutaraja Ocean Fisheries Port, especially regarding production patterns and fish price fluctuations that occur. Implementation of field data information collection starts from January to December 2023 and January to April 2024. The data collected is time series primary data by fish data recording officers at the Kutaraja Ocean Fisheries Port, Banda Aceh [2].

2 | LITERATURE REVIEW

Fisheries resources have enormous potential so that the fisheries sector is often called the sleeping giant [3]. Research results from the National Fish Stock Commission state that the national fishery resource stock is estimated at 6.4 million tons per year. The fisheries sector is the sector most relied on by the Indonesian people because this sector plays an important role in the regional and even national economy in meeting needs and helping solve poverty problems [4]. Adding that the maritime and fisheries sector is one of the economic sectors that has a role in national economic development, especially in providing fish food, earning foreign exchange and providing employment opportunities. During the economic crisis, the role of the fisheries sector becomes increasingly significant, especially in terms of generating foreign exchange [5]. However, ironically, the fisheries sector has so far not received serious attention from the government and business circles, even though if the fisheries sector is managed seriously it will make a greater contribution to national economic development, and can alleviate poverty among the Indonesian people, especially fishing communities and fish farmers. Fish prices are also influenced by the level of demand [6]. Demand is the quantity of a good that a consumer wants and is able to buy at various price levels assuming other factors remain constant (ceteris paribus) [7]. This theory explains the relationship between price and the quantity purchased per unit of time, ceteris paribus [8]. Demand theory also explains about goods that are demanded at a certain price and time or something that someone wants to have in order to fulfill their life needs [9]. This is in accordance with the law of demand that there is a relationship between the demand for an item and its price level [10]. Someone makes a request for goods, meaning a request accompanied by purchasing power for an item. The demand for a good to meet people's needs results in the good being consumed. Consumption of a good within a certain period of time at a price level that shows the quantity of the good demanded. If the price of goods is linked to the time dimension, then prices will change over time [11]. These changes are due to changes in production costs, competition, economic conditions and other influences. Therefore, the price of an item will vary within a certain period of time, so it is called demand [12]. There are three important aspects of demand: (1) the quantity demanded is equal to the quantity needed; (2) something desired will not only be in effective demand but also a number of people who are willing to buy at the price that must be paid for the commodity, (3) the number of goods desired as a continuous purchase [13].

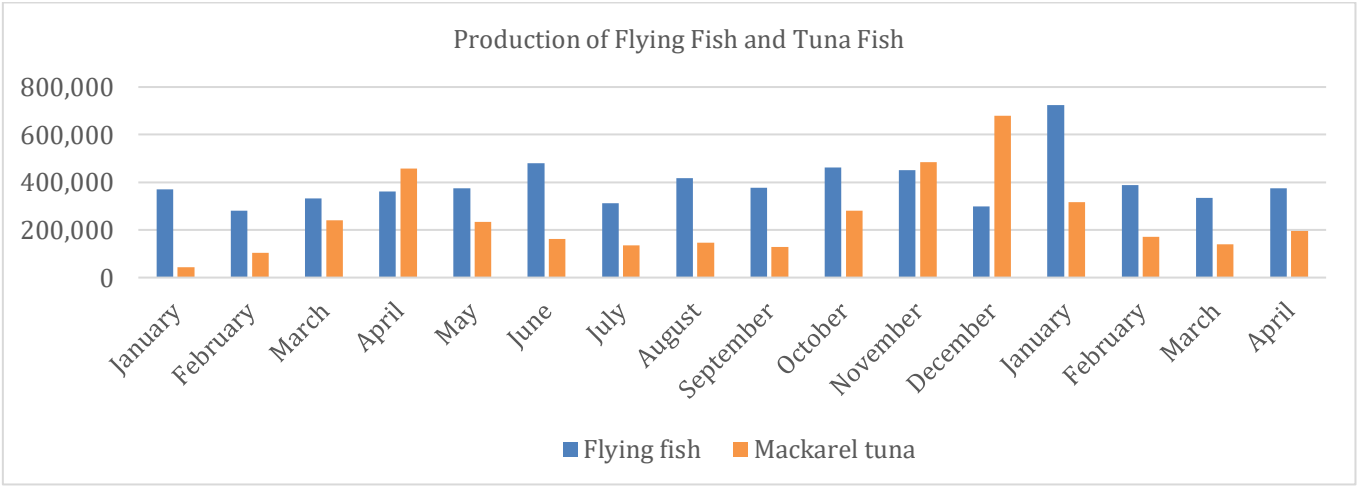
3 | METHODOLOGY

The analytical method used is a case study or phenomenon that occurs at PPS Kutaraja, namely fluctuations in fish prices, especially tuna and flying fish. To obtain the data needed for this analysis, primary data was taken which included production data and data on the average daily price of tuna and the price of flying fish. This data is the catch of fishermen who are landed every day and auctioned at PPS Kutaraja. The secondary data taken is production data. The analytical tool used in this study is statistics. Data analysis of production patterns and seasonal or daily prices is carried out using descriptive analysis, which is described and explained in tabular form. Meanwhile, for statistical analysis, computer assistance and the statistical software program Eviews 12 were used with a simple linear regression model approach, namely:

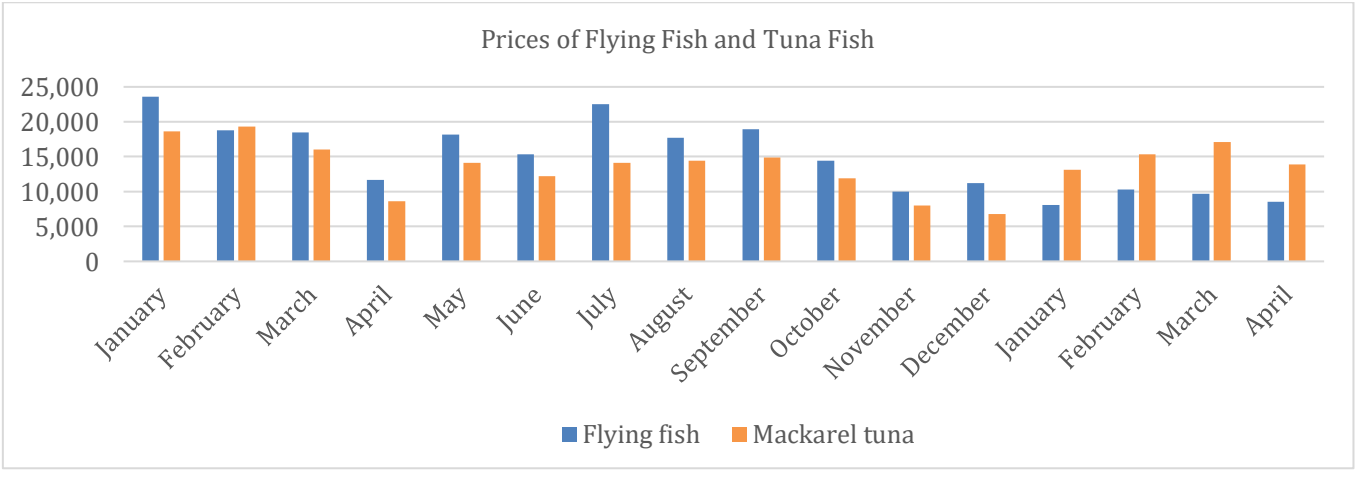
$$Y = a + bX.$$

4 | RESULT

PPS Kutaraja, Lampulo is located in Banda Aceh City. Geographically, the city of Banda Aceh is located at 050 16'15" - 050 36'16" N latitude and 950 16'15" - 950 22'35" East Longitude; and borders several regions, namely: The north borders the Strait of Malacca, the south borders Aceh Besar Regency, the east borders Aceh Besar Regency, the west borders the Indonesian Ocean. In 2 Fishery Management Areas between 571 and 572, this strategic position is a great opportunity to access markets, both local and domestic, as well as international markets. PPS Kutaraja, Aceh Province has several fish resources which are the main catch of marine fishermen, namely skipjack tuna, Frigate mackerel, Roughear scad, yellow fin, Northen pilchard, Oxeye scad, Eastern little tuna, Trigger fish, Bullet tuna, and Rainbow runner. PPS Kutaraja has a land area of 51 ha with a dock area of 80 ha. And almost half of the land area is devoted to large-scale industrial development. A small portion or around 26,000 m2 of the land area is designated for small-scale industrial development. At PPS Kutaraja, Lampulo, based on 2021 data, the number of fishermen actively carrying out their business activities reached 5,561 people. Meanwhile, the total fish production that was produced during the last year was 26,489 tons per year, or an average of around 82 tons per day. The most dominant type of catch is Cakalang fish with a catch of around 39 tons per day. If we look at the economic value of the catch, the annual production value reaches 529 billion rupiah per year, or 1.6 billion rupiah on average per day. Meanwhile, the number of fishing fleets and fishing boats docked at the PPS Kutaraja Lampulo pier pool currently reaches 815 boats. Of this number, 454 units are 0 - 5 GT, 75 units are 6 - 10 GT, 58 units are 11 - 20 GT, 110 units are 21 - 30 GT, 101 units are 31 - 60 GT and 17 units are over 60 GT. Data on the production of tuna and flying fish for 2023/2024 can be seen in the graph below.



Graph 1. Production of Flying Fish and Tuna at PPS Kutaraja



Graph 2. Prices of Flying Fish and Tuna at PPS Kutaraja

Data Processing Results

In table following This served results data processing with use help Eviews statistics application version 12 as following:

Table 1. Price of Tuna Fish

Variables	Coefficient	Std. Error	t-Statistics	Prob
C	17499.53	997.4524	17.54423	0.0000
Mackarel Tuna	-0.027928	0.004510	-6.192807	0.0000
R-squared	0.732574	Mean dependent var		12221.88
Adjusted R-squared	0.713472	S.D. dependent var		3873.025
SE of regression	2073.166	Akaike info criterion		18.22801
Sum squared resid	60172222	Schwarz criterion		18.32458
Log likelihood	-143.8241	Hannan-Quinn criter		18.23296
F-statistic	38.35086	Durbin-Watson stat		0.870998
Prob(F-statistic)	0.000023			

Output Eviews 12

From table results processing the above data show that the price of tuna is greatly influenced in a way significant by factor production reached 71 %.

Table 2. Prices of Flying Fish

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	17086.87	4274.472	3.997421	0.0013
Flying Fish	-0.002413	0.012165	-0.198353	0.8456
R-squared	0.002802	Mean dependent var		16262.50
Adjusted R-squared	-0.068426	S.D. dependent var		3866.415
S.E. of regression	3996.508	Akaike info criterion		19.54070
Sum squared resid	2.24E+08	Schwarz criterion		19.63727
Log likelihood	-154.3256	Hannan-Quinn criter.		19.54564
F-statistic	0.039344	Durbin-Watson stat		1.109379
Prob(F-statistic)	0.845621			

Output Eviews 12

From the table above show that price of flying fish influenced by factors production However No significant.

Factor affecting price

In general, increasing production will cause fish prices to fall. This follows the law of supply and demand, where abundant production can cause prices to fall. Increased production causes prices to rise, and prices are also greatly influenced by the condition of the quality of the fish caught when it is landed.

5 | CONCLUSIONS AND FUTURE WORK

a. Price of tuna at PPS Kutaraja Lampulo, is strongly influenced by factors results catch fisherman. During production or number of fish landed increase cause price So down, or follow law request
b. flying fish relatively stable, or factor production No to influence price. This matter can be seen at level significance results regression in the table above.
c. Amount based fish production Field observations are also influenced by the fleet's unloading schedule results catch in time simultaneously or simultaneously, so cause happen accumulation of deep fish amount big with type relative fish commodities The same.

REFERENCES

[1] Scotland, S. (2021). Nontji, A. 1984. Peranan Zooxanthellae dalam Ekosistem Terumbu Karang. Oseana IX: 3: 74-87 Nybakken, JA 1088. Biologi Laut: Suatu Pendekatan Ekologis. Ahli Bahasa: HM Eidman dkk. Penerbit PT Jakarta; Gramedia Odum, W. E & EJ Heald. 1974. The Detritus Based Food Web of An Estuarine. Sistem Perikanan Dan Kelautan Di Wilayah Kepulauan.

[2] DKP Aceh. (2019). Profil Peluang Usaha Dan Investasi Kelautan Dan Perikanan Provinsi Aceh (Kota Banda Aceh Dan Kabupaten Aceh Besar). Kementrian Kelautan Dan Perikanan Republik Indonesia, 1–25.

[3] Yusda, Y. N. (2022). Pengaruh Barang Subtitusi Terhadap Permintaan Ikan Tongkol di Provinsi Aceh (Doctoral dissertation, UIN Ar-Raniry).

[4] Sunaryo, T. (2001). Analisis Permintaan Ikan di Provinsi Kalimantan Tengah. Jurnal Saun vol 3. No 2.

[5] Mulyadi. (2005). Ekonomi Kelautan. Jakarta: PT. Rajagrafindo Persada.

[6] Turuis, A., Kumenaung, A. G., & Kalangi, J. B. (2021). Analisis Permintaan Ikan Laut Di Kabupaten Kepulauan Sangihe. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi, 9(1). DOI: https://doi.org/10.35794/emba.v9i1.33203.

[7] Sugiyanto, F. X., & Romadhina, A. P. (2020). Pengantar Ilmu Ekonomi Mikro dan Makro. Banten: Yayasan Pendidikan dan Sosial Indonesia Maju (YPSIM).

[8] Masfufah, M. (2023). Analisis Permintaan dan Penawaran Sari Apel UD. Kholifah Kopwan Yasmin Desa Andonosari Pasuruan Dalam Mikro Ekonomi Islam. Jurnal Mu'allim, 5(1), 112-131. https://doi.org/10.35891/muallim.v5i1.3593.

[9] Tan, C., Valeria, J., & Safero, B. (2022). Pengelolaan Permintaan Dan Kapasitas Produksi Pada Umkm Miky Salon. J-MAS: Jurnal Pengabdian Masyarakat, 1(3), 327-336. DOI: https://doi.org/10.59004/jmas.v1i3.129.

[10] Venny, S., & Asriati, N. (2022). Permintaan dan Penawaran dalam Ekonomi Mikro. Jurnal Pendidikan Ekonomi (JURKAMI), 7(1), 184-194. DOI: https://doi.org/10.31932/jpe.v7i1.1583.

[11] Hanani, N., Toiba, H., Asmara, R., Nugroho, T. W., Andajani, T. K., Nugroho, C. P., ... & Andrianto, B. (2023). Pengantar ekonomi pertanian. Universitas Brawijaya Press.

[12] Jaya, W. K. (2023). Ekonomi industri. UGM PRESS.

[13] Dewi, D. M., Nugroho, L., Sukmadilaga, C., & Fitijanti, T. (2020). Tinjauan sukuk korporasi di Indonesia dari perspektif penawaran, permintaan dan regulasi. Journal of Business and Economics Research (JBE), 1(1), 11-16. DOI: https://doi.org/10.47065/jbe.v1i1.57

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