

Case Study

Analysis of Consumer's Preference on Purchasing Fresh Fish (Case Study in MuaraBaru Modern Fish Market, DKI Jakarta)

ABSTRACT

The fisheries sector is one of the agricultural sub-sectors that has a role in providing food for the people of Indonesia. Consumers have behavior in purchasing fish in meeting their needs or desires to obtain a product. This study aims to analyze consumer preferences for the type of fish and the order of attributes. The method used in this research is a case study. The research location was carried out at the MuaraBaru Modern Fish Market (PIM) DKI Jakarta. The data used are primary data and secondary data. The primary data collection technique used accidental sampling with a sample of 100 respondents while the secondary data were obtained from PerumPerikanan Indonesia as the manager of the MuaraBaru Modern Fish Market, the Library, the Central Statistics Agency (BPS) DKI Jakarta, the National Statistics Agency (BPS). Consumer preference analysis used attitude measurement analysis which was measured by Chi-square and based on rank orders analysis to determine the order of attribute importance. Based on the results of the study, it was shown that all the attributes observed in this study were significantly different at the 95% confidence level, while the analysis of the level of importance of the attributes showed that the priority of consumers' interests on fish in the MuaraBaru Modern Fish Market (PIM) were price, freshness, cleanliness, texture and fish scent.

Keywords: preferences, consumers, fish.

1. INTRODUCTION

Fisheries have important roles in economic development of a nation, especially on providing jobs, income source for fishermen, high-nutrient animal protein source, as well as a highly potential source of foreign exchange income. Indonesian Government mainly utilizes marine fisheries commodities for domestic public consumption, notably in increasing nutrients derived from animal proteins [1].

Central Statistical Agency of DKI Jakarta in 2021 informed that the fish consumption in Jakarta in 2015 – 2020 period had a significant increase which started from 36.75 kg/capita to 50.08 kg/capita [2]. Furthermore, aside from showing increases of fish consumption on consumer level directly, it also signified the Indonesian public has transformed toward healthier diets.

As the increase continues, it is necessary to analyze supporting factors related to increase of consumerism in public through identifying consumer's behaviors. The word *konsumen* (in

Bahasa) derived from consumer (in English) or *consument/konsument* (in Dutch). It literally translates as a person or a company which purchases a certain object or uses a specific service; or a person which depletes supplies or objects [3]. Consumer is a dynamic term; it includes interactive relationship between affective and cognitive as well as behavior and environment. Consumer behaviors, whether individually or collectively acquires satisfactory or utility by consumed a certain amount of commodity in a certain period of time. Cost elasticity concept could also observe changes which happened in consumer's outcome when there is price fluctuation.

Consumers, in principle, only visits particular market they want, and this research studied that market has become means between customers and sellers to establish transaction to fulfill desired objects. Producer held a role in product marketing in a market. Consumer's behaviors are tightly related on how producers done their marketing in promoting their goods/services. The amount of goods affects consumer's demand. Demand could also be assumed as desire to acquire goods and services which followed by purchasing power. Consumer's demand in consumption of fresh fish will be fulfilled as long as the product serving and haul yield are according to marketing processing procedures, whether it is in traditional or modern market [4].

The higher the quality of a product, tendency of a person to be attracted to the product goes higher. This correlates to one's behavior to find high quality product in consideration of the feasibility of the product [5]. The increase rate of the amount of consumer needs is influenced by the increase in the standard of living and knowledge of the population on the superiority of fish consumption compared to other food sources.

Marketing also closely related with consumer as a target market, thus researching consumer's behaviors became an important subject in order to put a particular product can compete with other products in the market. Therefore, producers/companies need to understand how consumers behave and how to apply different marketing strategies on higher social class consumers and lower social class consumers. Thereafter, a study is held titled, "Analysis of Consumers Preference on Fresh Fish Purchase (Case Study in Modern Fish Market in Muara Baru, DKI Jakarta)" to further knowing general characteristic of consumer such as sex, age, education, income, and occupation.

2. METHODOLOGY

This research held in MuaraBaru Modern Fish Market, DKI Jakarta with an objective to acquire data and information from customers who wants to buy fresh fish products. This research was carried out since May of 2021 to December of 2021. Method used in this research is case study. While the case unit is the costumers which shop in the MuaraBaru Modern Fish Market, DKI Jakarta. Case study is a form of research about condition of particular research subject which related with a specific phase of typical data from whole personality. The goal of this study is oriented by questionnaire and direct observation on specific object in questionnaire. Data types that will be used in this study are primary and secondary data, primary data acquired directly from interviewees or informant. Secondary data acquired from various related agencies such as PerumPerindo as the administrator on MuaraBaru Modern Fish Market, libraries, Central Statistical Agency (BPS) of DKI Jakarta, National Central Statistical Agency of Indonesia and other agencies related to this research.

Questionnaire and interviews (which are held in the afternoon) were used in this research as techniques to collect data. Questionnaire is a technique of data collection which done by providing a certain set of oral or written questions that are needed to be answered by a series of respondents. The usage of questionnaire as data collection technique considered

as efficient method as long as researcher can specify measurable variables and expect specific subject from a respondent. Questionnaire could be in a form either closed or opened questions, and could be given to respondents directly or through postal services or internet [6].

3. RESULTS AND DISCUSSIONS

3.1 General state of respondents

Consumers' characteristics can be explained with descriptive analysis and processed through groupings, tabulated with average frequency then a brief narrative explanation given to provide empirical representation of the already collected primary data from respondents which are involved directly in fish transaction. Respondents in this research are consumer in fish transaction in MuaraBaru Modern Fish Market, and divided accordingly by sex, age, education, occupation, and income rate. Sex was one of the most influential characteristics on consumer decision to buy a product. In all of sex groups of respondents shopped in MuaraBaru Modern Fish Market, 54% were female consumers meanwhile, 46% others were males. Most of the consumers who purchase fish in the MuaraBaru Modern Fish Market were those in age range of 20-60 years old, this reflects in the percentage of dominating 41% in fish purchase. Consumer's characteristic with highest fish purchase are the consumers with high-school as their highest and latest education with percentage of 42%. Meanwhile, the highest number of respondents of MuaraBaru Modern Fish Market, in characteristic of their occupation, are those who work as private sector employee with sum of 35 people or 35%. Therefore, concluded that occupation and economic situation also affect consumption pattern. The better the job and position of said consumer, the higher the income. Consumers who bought fish from MuaraBaru Modern Fish Market have income ranged from Rp1.000.000 to Rp15.000.000 per month. Highest respondent of MuaraBaru Modern Fish Market, based on their income rate, were those in range of Rp5.000.000-Rp10.000.000 per month with percentage of 43%. Fish consumer are mostly from middle-high income groups.

Consumer characteristics divided accordingly by sex, age, education, occupation and income. Characteristics are consisted of 5 indicators which more detailly explained in Table 1.

Table 1. Consumer's Characteristics in MuaraBaru Modern Fish Market

Characteristics	Total (person)	Percentage (%)
Sex		
a. Males	46	46,00
b. Females	54	54,00
Total	100	100,00
Age (years):		
a. 20-30	18	18,00
b. 31-40	29	29,00
c. 41-50	41	41,00
d. 51-60	12	12,00
Total	100	100,00
Education level:		
a. Elementary school (SD)	5	5,00
b. Middle-high school (SMP)	13	13,00

c. High-school (SMA)	42	42,00
d. College (PT)	40	40,00
Total	100	100,00
Occupation		
a. Civil Servants	20	20,00
b. Private Sector Employees	35	35,00
c. Entrepreneurs	24	24,00
d. Housewife	8	8,00
e. Students	7	7,00
f. Others	6	6,00
Total	100	100,00
Income:		
a. Rp.1.000.000 – Rp. 3.000.000	16	16,00
b. Rp.3.000.000 – Rp. 5.000.000	30	30,00
c. Rp. 5.000.000 – Rp. 10.000.000	43	43,00
d. Rp. 10.000.000 – Rp. 15.000.000	9	9,00
e. >Rp. 15.000.000	2	2,00
Total	100	100,00

3.2 Preference and Consumer's Decision Making in Purchasing Fresh Fish

Consumer preferences towards type of fishes were exclusively the choices of respondents on either like and dislike towards type of fishes consumed. Those choices are varied in each of every respondent. Other attributes are being considered in decision making process including price, freshness, product's aroma, cleanliness, as well as fish's texture.

Table2. Price Attribute for Consumer's Choices

No.	Product Price	Total (person)
1.	Cheap	47
2.	Moderate	53
3.	Expensive	0
	Total	100

According to Table 2., it is shown, in 100 people as respondent, a total of 47 respondent would choose cheaper fish and 53 respondents (53%) rather chose moderate priced fish and fish with expensive price is not favorable by any.

According to the research results in table 3., from 100 studied respondents, resulted in 100 instead person (100%), in preference of fish freshness, consumer would choose fresh fish meanwhile 0 person would prefer non-fresh fish. Fish freshness is one of the most important attributes than some other fish's attributes.

Table3. Fish's Freshness Attribute for Consumer's Choices

No.	Product Freshness	Total (person)
1.	Fresh	100
2.	Not Fresh	0
	Jumlah	100

Comment [L1]: use Total instead of Jumlah, since it is Arabic word

Table 4. shown the results of 100 respondent who chose attribute of fish's aroma, 2 persons (2%) would choose smelly/not fresh fish, while the rest 98 persons (98%) prefer fish with fresher aroma. Concluded from an interview with those who prefer smelly fish prioritizes fishes which are kept froze or in ice

Table4. Fish's Freshness Attribute for Consumer's Choices

No.	Product Aroma	Total (person)
1.	Bad smelling/Not Fresh	2
2.	Not Smelly/Fresh	98
	Total	100

Table 5. shown that the number of respondents who would prefer clean fish attributes were 100 individuals (100%) of respondents, and no respondent decided to choose dirty fish attribute. Respondents judged the cleanliness criteria by how much dirt or mud on a fish, as well as the cleanliness of the kiosk judged by the community as consumers. Cleanliness attribute of the Modern Fish Market received highly positive ratings from most consumers in the market. This also can be seen on how the market management arranged fresh fishes neatly and cleanly, sufficiently iced to maintain hygiene of the fishes.

Tabel5. Fish's Cleanliness Attribute for Consumer's Choices

No.	Product Cleanliness	Total (person)
1.	Clean	100
2.	Dirty	0
	Total	100

According to table 6., tenderer fish textures were chosen by 98 respondents (98%) meanwhile, for firmer textures were chosen by 2 respondents (2%). According to one of the consumers, the texture of fishes in Modern Fish Market are considered to be rather fresh because of the served fishes in the market are visually recognized that the texture of those fishes is relatively elastic, and the colorization signifies drastic changes happened.

Tabel6. Fish's Texture Attributefor Consumer's Choice

No.	Product Texture	Total (person)
1	Tenderer	98
2.	Firmer	2
	Total	100

Consumer preference towards type of fishes were dependent on whether that said respondent like or dislike the type of fish the respondent consumed. According to table 7., it shown that all of observed attributes in this study were significantly different on 95% rate of confidence level or α 0,05 which can be concluded the H_0 hypothesis is rejected and H_1 hypothesis is accepted, and because in each of observed five attributes X^2_{count} are higher than X^2_{table} . Therefore concluded, consumer preferences towards fish in MuaraBaru Modern Fish Market are not similar or there are a few differences of consumers preferences toward fish. It is comparable to another study which conducted by Prayoto and Sudyarto (2012) stated that price, aroma, freshness, taste, size, visualization, texture, and cleanliness attributes have certain amount of influence on how consumers decided to purchase products in Sidoarjo Academic of Fisheries [7].

Table 7. Chi-Square Analysis Results

Fish Attribute	X^2_{count}	Df	X^2_{table}	Description
Price	64,900	4	9,488	Significant difference
Freshness	32,300	4	9,488	Significant difference
Aroma	93,600	4	9,488	Significant difference
Cleanliness	24,800	4	9,488	Significant difference
Texture	54,300	4	9,488	Significant difference

Consumer preferences towards fish in MuaraBaru Modern Fish Market could be discovered by identifying categories or attribute criteria which highly chosen by consumers. Consumer preferences towards fish are described in table 8.

Table 8. Consumer preferences towards fish in MuaraBaru Modern Fish Market

Fish Attributes	Consumer Preference
Price	Moderate
Freshness	Fresh
Aroma	Not Smelly/Fresh Aroma
Cleanliness	Clean
Texture	Tender

4. CONCLUSION

Characteristics of consumers in Modern Fish Market (PIM) in MuaraBaru towards type of fish with price attribute, freshness, aroma, cleanliness, and fish texture shown that all attributes observed in this study are significantly different in 95% confidence level and thus, H_0 hypothesis was rejected and H_1 hypothesis was accepted, also in all of five of the observed attributes X^2_{count} is higher than X^2_{table} . Importance rate analysis of the attributes shown that the consumers prioritized on fish in MuaraBaru Modern Fish Market (PIM) are price, freshness, cleanliness, texture, and fish's aroma.

REFERENCES

- [1] BPS Providers DKI Jakarta]. 2021. Penduduk and LajuPertumbuhanPendudukMenurutKabupaten / Kota di Provinsi DKI Jakarta, 2010 and 2020. Jakarta. BPS DKI Jakarta.
- [2] BPS Providers DKI Jakarta]. 2021. Penduduk and LajuPertumbuhanPendudukMenurutKabupaten / Kota di Provinsi DKI Jakarta, 2010 and 2020. Jakarta. BPS DKI Jakarta.
- [3] Barkatullah, A. H. 2007. UrgensiPerlindunganHak-hakKonsumenDalamTransaksi di E-Commerce. Journal Hukum No.2 Vol. 14: 247-270.
- [4] Liviaawaty, E., Afrianto, E. 2010. PenangananIkan Segar. WidyaPadjadjaran. Bandung.
- [5] Nazir M. 1999. PenelitianMetodologi. Jakarta: Ghalia Indonesia
- [6] Kotler, Philip and Gary Armstrong. 2008. Prinsip-prinsipPemasaran. Diterjemahkan oleh Bob Sabran M.M. EdisiKeduaBelas. Volume 1. Jakarta: Erlangga.
- [7] Prayoto., Sudiarto. 2012. PerilakuKonsumenBandengTanpaDuri di AkademiPerikananSidoarjo. Journal of Economics and Agribusiness. Vol. 5 No. 1.