

Consumer Preferences of Cakalang Fufu Product in Ternate City based on Survey Data

Musda Mulyani, Sundari, Bahtiar

Master Program of Biology Education, Universitas Khairun, Ternate, Indonesia 97723

Keywords: References, Consumers, Fufu, Skipjack, Fish.

Abstract: The cakalang fufu product is one of favorite fish food in Ternate city. This food products are found in the traditional market and fufu skipjack fish home industry in Ternate city. The purpose of this research is to describe consumer preference to cakalang fufu product in Ternate city. This research was conducted in Mei until Juli 2018 with survey method by purposive sampling. The instruments used were questionnaire and interview guides. Respondents from 130 people consisting of skipper fufu skipjack fish, traders and buyers or consumers of Fufu skipjack fish. The communities in Ternate city have trending a preference to cakalang fufu with characters such as: skipjack tuna treatment is split or not intact, brightly colored fufu fish, slightly wet, medium size, sold in traditional markets. The other character is: Fresh fufu skipjack fish and sold not in packaging. The consumer preferences of Fufu skipjack fish products is the basis for the policy of developing productive economic local superior products.

1 INTRODUCTION

One of the main commodities of fishery products on Ternate Island is fufu skipjack. Fish is one type of food that is familiar to people in Indonesia and especially at Ternate city. Fish is a food that has the advantage of containing essential amino acids needed by the body, in addition to its biological value reaching 90% with a little connective tissue so that it is easily digested, besides the price is much cheaper than other protein sources (Adawyah, 2007, Codex, 2009).

The processing technique of fufu skipjack in Ternate island is a very popular technique. The purpose of fufu fish processing in addition to inhibiting the decay process is the method of fumigation also gives a pleasant aroma, brownish or blackish color, good texture and distinctive and delicious taste in processed fish meat (Wibowo 1996). The method of fumigation that is often carried out by the people of Ternate is fumigation that is traditionally carried out and hereditary heat, which is fumigation using high temperatures reaching 100°C and even 120°C by placing fish that will be smoked directly above the heat source, so that direct contact between smoke particles and fish very large (Wibowo, 1996).

The product of smoked skipjack (fufu) in Ternate city is quite abundant. The fufu fish fog centers in Ternate are among others in the villages of Tafure, Dufa-dufa, Siko, Kalumata, Ngade, gambesi, sasa and Rua. The fufu fish marketing center in Ternate city includes Dufa-dufa Market, Gamalama market, Kota baru market and the Bastiong market. This study aims to determine the level of preference for consumers of fufu fish in Ternate city. It is expected that the results of this study can provide recommendations for fufu skipjack smokers in an effort to produce fufu skipjack which is popular with the community.

2 METHOD

Research on consumer preferences towards fufu skipjack fish in Ternate city was carried out by survey and interview methods. The survey was conducted from May to July 2018 in 4 traditional markets in Ternate, namely the Dufa-dufa market, Gamalama market, the city market Baru and the Bastiong market. In addition, interviews were conducted at several fish fogging places in the Ngade, Kalumata, Siko, Dufa-dufa and Tafure villages.

Consideration sampling technique (purposive random sampling) of 130 respondents. Respondents consisted of fufu fish traders, fufu skipjack smokers and fufu skipjack buyers as consumers (buyers of fufu skipjack fish consisting of: housewives, students, students, civil servants and entrepreneurs).

Consumer preference is the main target of the information reviewed through this survey, so that in addition to general consumers, traders of fufu skipjack fish and fufu skipjack smokers are important respondents because they are directly related to consumers and fufu skipjack products. The information wanted to be studied from the respondents consisted of 8 criteria of fufu fish from buyers / consumers and 10 criteria for fufu fish from traders and fufu skipper. 8 criteria from buyers are: types of fufu fish; the condition of fufu fish; fufu fish color; fufu fish texture; fufu fish size; fufu fish packaging; frequency of buying fufu fish and where to buy fish. While the criteria for fufu fish from fish traders and smokers consist of: fufu fish types; the condition of fufu fish; fufu fish color; fufu fish texture; fufu fish size; fufu fish packaging; number of fish sold; whether or not the product is sold out; sale of fufu fish for tomorrow and endurance of fufu fish.

Data were analyzed descriptively to explain the number of respondents who chose a category of fufu fish characters. which is described using tables and histograms Determination of the dominance of 1 character category on another category is based on the percentage of respondents' preferences.

3 RESULT AND DISCUSSION

3.1 Result

Data were analyzed descriptively about the numbers of respondents who chose a category of fufu fish characters. which is described using tables and histograms. Determination of the dominance of character.

Table 1: Descriptions of Research Respondents.

Cluster of Respondent	Number of Respondent	Cluster of Respondent
1. Civil Servants (Lecturers, Teachers, Local Government)	30	Civil Servants (Lecturers, Teachers, Local Government, BUMN)

, BUMN)		
2. Entrepreneur	20	Entrepreneur
3. Trader	12	Trader
4. Smoker	18	Smoker
5. Student	25	Student
6. Housewife	25	Housewife

Source: 2018 Primary Data Processed.

Respondents in this study consisted of heterogeneous groups of people to represent real conditions in the field. The people who were used as respondents in this study were people who were found in the place of fish fuming, markets, and at home or office where the respondent worked. The character of fufu skipjack which is preferred by consumers based on the results of this survey can be seen in table 2 below

Table 2: Consumer / Buyer Preferences on Cakalang Fufu Fish in Ternate City.

No	Criteria	Percentage
1	Type of fish	
	Madidihan/tuna	72
	cakalang	28
2	Fish condition	
	Whole	60
	split	40
3	Fish colour	
	Dark / blackish brown	21
	Bright / yellowish brown	79
4	Fish texture	
	Dry	77
	wet	23
5	Size of fish	
	Small	75
	big	25
6	Packing	
	Present	0
	absent	100
7	Frequency of buying in a week	
	1x	30
	>2x	70
8	Place to buy	
	market	70
	Smoke place	30
	Total	100=100%

Source: 2018 Primary Data Processed.

Based on table 2 above it is known that the average consumer likes fufu skipjack which is split in brownish yellow, dry texture, medium size bought in the market without packaging with frequency of buying more than 2 times per week. Pictures of fufu skipjack products that are most preferred by consumers (figure 1)



Figure 1: Consumer Fish Preference.

The character of fufu skipjack fish produced by fish smokers in Ternate city based on the results of this survey can be seen in table 3 below:

Table 3: Preferential Traders/Smokers of Cakalang Fufu Fish in Ternate City.

No	Criteria	Percentage
1	Type of fish	
	Madidihan/tuna	10
	cakalang	20

Based on table 3, it is known that fufu fish produced by fish smokers and traders in Ternate city are fufu fish of 2 types, namely Tuna (madidihan) and Cakalang which are difufu with split and whole with dark brownish brown color, dry texture, medium size and large, sold in the

2	Fish condition	
	Whole	13
	split	17
3	Fish colour	
	Dark / blackish brown	15
	Bright/yellowish brown	15
4	Fish texture	
	Dry	20
	wet	10
5	Size of fish	
	Small	19
	big	11
6	Packing	
	Present	0
	absent	30
7	The number of fufu fish sold per day	
	< 50 ekor	10
	>50 ekor	20
8	Selling place	
	Market	27
	Smoke place	3
9	reselling	
	Yes	18
	no	12
10	Fish endurance	
	1 day	0
	2 day	7
	3 day	23
	Total	30=100%

Source: 2018 Primary Data Processed.

market without packaging with the number of fish sold more than 50 birds per day, with a durability of 3 days and unsold fish sold the next day. Picture of fufu fish produced by fish smokers and traders in Ternate city (figure 2).



Picture 2: (a) Smoking process; (b) Seller of Fufu Fish

4 DISCUSSION

Fufu fish that is in demand by consumers in Ternate is fish made from raw skipjack. Basically the purpose of fumigation in fish is three things; First, process fish to be ready for direct consumption; second, giving a distinctive taste to be preferred by consumers; third, providing lasting power through heating, drying and smoke chemical reactions with fish meat tissue during the fumigation process. Smoked fish processing business has the potential to be developed. One aspect that needs to be studied in the development of the business is the system of quality control of smoked fish (Summer, 1996; Winarno, 1997).

The results of this study provide information that fufu fish products produced by smokers / traders are still universal. There are 2 types of fish in Fufu while the consumer preference is on skipjack species. The condition of the fish produced is intact and there is a split. Likewise the texture and color of fufu fish products so that the market share has not been maximized.

Fufu fish products produced by smokers / traders are universal still. There are 2 types of fish in Fufu while the consumer preference is on skipjack species. The condition of the fish produced is intact and there is a split. Likewise the texture and color of fufu fish products so that the market share has not been maximized.

Efforts should be made to provide functional facilities related to quality maintenance such as

inadequate places for receiving raw materials and processing facilities (DKP & JICA, 2009). The conditions of fish fumigation places such as fumigation stoves and fumigation materials are not in accordance with the provisions of the Indonesian National Standard (SNI) so that the resulting products are less attractive to consumers (BSN, 2009). Another thing is the limited sanitation facilities such as clean water, lack of knowledge of processors about good production methods and lack of ice capacity which can directly affect the quality of the products produced.

5 CONCLUSION

Preferences (tastes) of consumers in the city of Ternate in general have a preference (preference) for fufu fish products with the criteria of the type of skipjack, split with a yellowish brown dry and medium size texture, purchased in the market. Fish traders and smokers in Ternate produce fufu fish from both tuna and skipjack species with criteria in line with consumer preferences. The average fufu skipjack is sold more than 50 per day with an income of around 1 million per day.

REFERENCES

- Adawyah, Rabiatul. 2007. *Processing and Preservation of Fish*. Jakarta: Earth Literacy.
- National Standardization Agency. 2009. *SNI 2725.2.2009. Smoke Fish-Part 1: Specifications*. Jakarta.
- National Standardization Agency. 2009. *SNI 2725.2.2009. Smoke Fish-Part 2: Requirements for raw materials*. Jakarta.
- National Standardization Agency. 2009. *SNI 2725.3.2009. Smoke Fish-Part 3: Handling and Processing*. Jakarta.
- Codex Alimentarius. 2009. *Code of practice for fish and fishery products*. Rome.
- Director General of Fisheries, 1993. *Guidelines for Integrated Quality Management and Supervision System in Indonesia*.
- Directorate General of Processing and Marketing of Fishery Products. 2005. *"Indonesian Processed Fish Production Statistics, 2004"*. Directorate General of Processing and Marketing of Fishery Products. Jakarta
- DKP and JICA. 2009. *Technical Assistance for Small and Medium Scale Fish and Shrimp Industry in Indonesia*. Jakarta. 470
- Sumner J, Ross T, Ababouch L. 2004. *Application of Risk Assessment in the Fis Industry*. Rome: FAO
- Wibowo, S. 1996. *Fish Smoked Industry. Self Help Spreader*. Jakarta.
- Winarno, F.G. 1997. *Chemical Food and Nutrition*. Jakarta: PT. Gandedia Pustaka Utama

SCIENCE AND TECHNOLOGY PUBLICATIONS