

Women Perception of Factors Associated with Post Harvest Fish Loss in Fishing Communities of Ogun Waterside Local Government Area, Ogun State, Nigeria

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Abstract

Fish is highly susceptible to deterioration when preservative or processing measures are not applied, due to its chemical composition. There is strong evidence in fisheries that fish processing and preservation methods are mostly done by women. This paper therefore examined the factors associated with postharvest fish loss as perceived by women in Ogun Waterside Local Government Area, Ogun State, Nigeria. Forty-five respondents were randomly selected from four locations, Enuwaya, JK Camp, Okun-Elefon and Mosafejo. Data were collected from primary source only through the administration of open and close-ended questionnaires. Descriptive and inferential statistics were employed to analyse the data. Findings in this study confirmed inadequate access to loans and credit as the major cause of factor aiding postharvest fish loss. Financial assistance is needed by the women in order to improve their processing and preservation method. Therefore, intervention is urgently needed in order to strengthen women and also to remove obstacles that hinder their fish business. This will go a long way in improving the standard of living of the women.

Keywords:

Deterioration, fish postharvest, gender

Introduction

In West Africa, FAO (1981) reported that, women play prominent role in most postharvest fish activities which include sorting and size grading that are important for fish processing and marketing. As women form the majority that engage in post harvesting in many countries, revised estimates of employment in fisheries indicate that the sector is predominantly a female one, challenging the long held notion that fisheries is male dominated. Over the years, women have been known to actively participate in fisheries at every level. Big Numbers Project (BNP), preliminary data for nine significant fish producing countries based on available statistics and case studies revealed that 47% of the labour force in fishery sector (including postharvest) are women (Eyo, 1992).

The major roles women play in the fishery sector is to preserve and process the fish so as to retain some freshness. Consumers' acceptability depends on the freshness of the fish and generally demand and pay more for good quality fish. Poor quality fish constitutes an economic loss to fishermen and fish traders. Freshness of fish can be maintained by processing and preservation, through which spoilage can be slowed or stopped (Tobor, 1985). Women get involved in activities such as frying, smoking, drying just to extend the fish's shelf life and satisfy a proportion of the ever growing population demand for fish according to Tobor (1990).

Fish is a highly perishable commodity because its components are water, protein and fat (Agbon *et al.*, 2002). The spoilage of fish is a complicated process brought about by actions of enzymes, bacteria

and chemical constituents, and the resultant effect is the decomposition of the fish (Akinola *et al.*, 2006). Fresh fish spoilage can be very rapid after it is caught. The spoilage process (Rigor mortis) will start within 12 hours of their catch in the high ambient temperatures of the tropics (Berkel *et al.*, 2004). This study is of relevance because different methods used by fish mongers during processing and preservations will be revealed. Moreover, the gravity of underlying factors associated with fish spoilage will also be pointed out. The information obtained from this study would help the women fish processors in the study area. The general objective of the study to know the underlying factors associated with postharvest fish loss as perceived by women in the study area. The specific objectives are to identify the socio-economic characteristics of the fish mongers in the study area, identify the different methods of processing and preservation, and investigate the underlying factors associated with fish spoilage in the study area.

Materials and Methods

Study Area

The study was carried out in Ogun State, a South-Western part of Nigeria. Ogun State has a total land area of 16,762km which is about 2% of the country's land mass. It is bordered in the south by Lagos State and Atlantic Ocean, the north by Oyo and Osun State, the east by Ondo State and the West by republic of Benin (Oloruntoba and Adegbite, 2006). Ogun waterside is the only area of Ogun State with a coastline on the Bight of Benin and which borders Lagos Lagoon. It is bound in the west by Ijebu East Local government area and in the east by Ondo and Lagos Lagoon.

Population of the Study

Study population respondents targeted for the study were women fish mongers in Ogun waterside Local Government Area , Ogun State, Nigeria.

Sample Size

Forty-five respondents were randomly selected from four locations, Enuwaya, JK Camp, Okun-Elefon and Mosafejo from the study area based on fishing activities.

Sampling Techniques

Data for this study were collected from primary source only which was obtained through the administration of open and close-ended questionnaires to elicit information based on the objectives of the study.

Method of Data Analysis

Descriptive and inferential statistics were employed to analyse the data. The descriptive statistics such as frequency count, percentage and statistics were used to summarize the data. The respondents were asked to indicate on a 4- point Likert type scale the gravity of their perceptions towards the shortlisted factors responsible for fish spoilage. Their response categories and the corresponding weighted values were: high =4, moderate=3, low =2, and not at all=1. These values were added to obtain a value of 10 which when divided by 4 gives a mean score of 2.5. The respondents mean were obtained on each of the items. Any mean score greater than or equal to 2.5 was regarded as “high”, while any mean score less than 2.5 was regarded as “not at all”.

Results and Discussion

The result as presented in Table 1 shows that a large percentage of the women fish mongers are within the age category of 25-46 years constituting 66.67%. This age group is regarded as active group. The illiteracy level among the women is very high. As shown in Table 1, 51.11% of the women had no formal education. This could have the disadvantages of limiting their access to information, application of innovation and new techniques to their ways of fish processing and preservation. Result from table 1

Table 1: Distribution of respondents by socio – economic characteristics

Variables	Frequency	Percentage
Age (years)		
<20	2	4.44
21-30	5	11.11
31-40	13	28.89
41-60	17	37.78
> 60	8	17.77
Marital status		
Married	39	86.67
Single	4	8.89
Widow	2	4.44
Education Qualification		
No formal Education	23	51.11
Primary Education	13	8.89
Secondary Education	5	11.11
Tertiary Education	4	8.89
Years of Experience		
5- 10	12	26.67
11 – 15	18	40.00
16 - 20	10	22.22
> 20	5	11.11
Source of Capital		
Personal saving	32	71.11
Loan from cooperative	8	17.11
Loan from friends	3	6.67
Loan from relatives	2	4.44
Bank loan	-	-
Monthly Average Income Level (NGN)		
< 10,000	12	26.67
11,000-20,000	28	62.22
21,000-30,000	5	11.11
>30,000	-	-

further revealed that 86.67% were married and 71.11% of the respondents started fish business from personal saving. The dominance of married respondents implied that fish business ensured income and fish food security for the general improvement of the wellbeing of members of the household. It was indicated in Table 1 that majority (62.22%) of the respondents had between 11 and 20 years of experience. This implies that they will have very good performance in fish business based on the fairly long years of experience in the fish business. The survey revealed that, all the women interviewed were full time fish mongers showing, that a greater percentage of the respondents depended on fish business to sustain their livelihood and improve their standard of living. And this also appears to be a traditional occupation of people in the study area.

Data also revealed that majority (73.33%) of the respondents earned a monthly income average of between ₦11, 000 and ₦30, 000 basically from fish business. This reflects the economic standard of the fish mongers. This finding may have been as a result of the subsistence nature of their fish mongering activities and this indicates why some respondents cannot afford some fishing inputs.

According to Table 2, the processing and preservation methods commonly practiced by the respondents were basically salting, drying, and smoking. Other method such as canning was not practiced by the women. The result revealed the level at which processing and preservation method was undertaken at the study area.

Table 2: Distribution of respondents based on the different processing and preservation methods

Methods of processing and preservation	Frequency
Smoking	45*
Sun –drying	45*
Salting	45*
Freezing	15
Frying	20
Other method	-

*Results indicate multiple responses

The respondents perceived factors such as inadequate access to loans and credit (M= 3.90), inadequate infrastructure (M = 3.63) and lack of equipment for processing (M= 3.90) as high as presented in Table 3. Other factors considered as high include, high cost of inputs (M=3.80), bad processing and preservation method (M=3.83), poor transport system (M=3.68), inadequate extension advisory services ((M=3.53), lack of storage facilities (M=3.50) and long distance from catchment area to market (M= 3.33). While poor information dissemination (M=2.68) and inconsistent government policies (M=2.60) were regarded as moderate factors. This implies that all the factors mentioned could lead to fish spoilage thereby affecting the income and standard of living of fish mongers. Incompetent fishermen (M= 1.90) had no effect on fish spoilage because the fishermen in the study area were all experienced according to the respondents.

Table 3: Distribution of respondents based on factors associated with fish spoilage among fish mongers

Factors associated with fish spoilage	Mean (M)	Standard Deviation
Incompetent fishermen	1.90	1.008
Inadequate access to loans and credit	3.90*	0.365
Inadequate infrastructure	3.63*	0.506
Lack of equipment for processing	3.90*	0.335
Inadequate extension advisory services	3.53*	0.490
High cost of inputs	3.80*	0.405
Bad processing and preservation method	3.83*	0.385
Poor transport system	3.68*	0.474
Poor information dissemination	2.68	0.572
Lack of storage facilities	3.50*	0.555
Long distance from catchment area to market	3.33*	1.072
Inconsistent government policies	2.60	0.496

*= High ($M \geq 2.50$)

Conclusion and Recommendations

Spoilt fish are less nutritious and have unpleasant taste and the women claimed not to sell or consume but dispose fish when spoilt. This implies that spoilt fish has a great effect on the lives of fish mongers by reducing customer patronage, income, nutrition and finally, affecting their standard of living. The study revealed the gravity of listed underlying factors that causes fish spoilage as perceived by women fish mongers in the study area. It also revealed that the women fish mongers in the study area are practicing traditional methods of fish processing/preservation. The findings revealed the subsistence nature of fish mongering activities. Findings in this study confirmed inadequate access to loans and credit as the major underlying factor causing postharvest fish loss. Financial assistance is needed by the women in order to improve their processing and preservation method. Therefore, intervention is urgently needed in order to strengthen women and also to remove obstacles that hinder their fish business. This will go a long way in improving the standard of living of the women.

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