

SOCIO-ECONOMIC ANALYSIS OF FRESHWATER FISH MARKETERS IN OSOGBO METROPOLIS, SOUTH-WEST, NIGERIA

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Abstract

This research investigated the socio-economic status of freshwater fish marketers in Osogbo Metropolis with the view to examine how it impacted on the livelihood of its operators. A Structured questionnaire was used to collect data from ninety randomly selected respondents on demographic parameters like age, sex, educational and marital status among others. The results showed that 61.1% of fish marketers were women, with average age being between 30 - 39 years. Fish for sale were obtained from private fish farms (64.8%) and fishermen (22%) and were sold mostly fresh (61.5%), processed (18%), or frozen (12%) to consumers. Most (52.7%) were married, 23.1% single, 12.1% widowed and 7.7% divorced. About 90% respondents had formal education. Family size among fish marketers ranged between 1 and 6. Capital for the business was obtained through either personal savings (79.1%) or family members (20.9%). Only 6.6% had access to loans from commercial banks and none of them received any form of financial aid from government agencies. Most operators (71.5%) have been in the business for at least 6 years. Only 58.2% sold fish on a full-time basis while others were involved in farming (both crop and animal husbandry), trading and teaching. It was found that freshwater fish marketing was found to be profitable with a benefit-cost ratio of 1.21. It was recommended that operators should pull resources together to form cooperatives in order to have better sources of finance for the business.

Keywords: Freshwater fish, Fish marketers, Socio-economic status, Demographic parameters.

Introduction

Agricultural marketing plays vital role in agribusiness because it acts as a link between production and consumption. Marketing is an important aspect of agriculture through which agricultural products reach the final consumers. Market structure is the characteristics of the organized market which seem to influence strategically the nature of competition and pricing behaviour within the market. The price efficiency approach analyses marketing in its dimensions of space, time and form (Bressler and King, 1970). Essential to the analysis of markets is the identification of market participants, channels and arrangements. Availability of fish to the consumers at the right time and right place requires an effective marketing system. Kumar *et al.* (2008) reported that fish marketing in India is characterised by a

large number of intermediaries between fishermen and consumers. In marketing, fish passes through various market participants and exchange points before they finally reach the final consumers (Ali *et al.*, 2008). The most prominent intermediaries in fish marketing are wholesalers and retailers. In Africa, a large percentage of both market oriented and non-market oriented aquaculture systems rely heavily, if not exclusively on family labour, although this labour may be somewhat segregated along gender lines, with men managing and women marketing, thus rural aquaculture is typically a family affair (Moehi, 2003). Women are key players in Africa's agricultural sector and their participation is critical to achieving food security and economic well-being (Werby, 2001). According to Kohli and Tewari (2002), employment of

fisherwomen is paramount for the sustenance of fisher families. Women are either wholly involved or are seen to play complementary roles to men in sustenance of their household and obtaining leverage over harsh economic conditions. Yisa *et al* (2011) reported that women's contribution in fishery sub-sector is particularly important especially in the area of marketing and processing. However, most fish farming systems are non-traditional and gender delineation less well documented.

Fish is an important component of the diet of an average Nigerian. This is because fish is the cheapest form of animal protein in the diet of the people (Kaiga and Adeyemo, 2012). Therefore the importance of marketing of the fisheries products in satisfying the nutritional needs of the people as well as providing employment cannot be overstated (Olasunkanmi, 2008, Ayo-Olalus, 2010). Fish as a source of protein is available in most market as fresh, smoked, dried, canned or frozen and as such the problem of scarcity can be avoided (Yisa *et al.*, 2011). Fish marketing does not usually involve the fishermen and consumers only but there are other players in the fish distribution channels especially middlemen (Lawal and Idega, 2004). Consequently, prices of fish change as it passes through these middlemen such that by the time it reaches the final consumers, it becomes expensive. Bryceson (1993) reported that the middlemen involved in marketing earned higher profits in the marketing system. As the fishermen approach their landing sites, fish marketers come around to purchase the fish. Williams (2006) argued that the socio-economic potentials of women in riverine small scale fishery in Nigeria is significant. Women in Africa provide 60 to 80% of agricultural labour force (Sofranko, 1984). Rural women play a vital role in production and provision of food for household, post-harvest activities and marketing of farm produce in order to supplement family income. Ladipo and Oshuntogun (1985) observed that most of the fish processors and sellers from the village level to the city

merchants were largely women. Moreover, most of the women are found to be full time fish processors and sellers. Yisa *et al.*, (2011) opined that knowing the demographic characteristics of the fish marketers will enable deduction of reasons for some of the observed behavior and the level of influence these characteristics have regarding fish marketing. Since women are the primary sustainers and providers of protein in sub-Saharan Africa where poverty and malnutrition persists, there is a strong reason to focus on their role in provision of protein through marketing of frozen fish (IUCN, 1992). It is also important to study the potential link between the nutritional value of fish, the role of women in the chains of activities involved in storage and distribution of fish. The objective of this study is to investigate the socio-structure of fish marketers and examine the impact of fish marketing on the livelihood of its operators in the study area.

Methodology

The Study Area

This study was carried out in Osogbo Metropolis (coordinates 7°46' North 4°34' East) comprising of three local government areas - Osogbo, Igbonna and part of Egbedore of Osun State. Major freshwater fish outlets in the area were identified and carefully structured questionnaires were randomly administered to ninety respondents selected based on their willingness to respond, a convenience sampling of non-probability strategy. Data relating to age, sex educational background, sources of capital, cost and return on sales, among others were collected and analyzed using descriptive statistics and profit analysis as well as Benefit-cost ratio analysis using,

$$\pi = TR - TC$$

Where

π = profit which is positive otherwise loss

TR = total revenue (calculated from total fish sold (kg) x unit price (in Nigerian Naira (₦))

TC = total cost (calculated from summation of total variable cost and total fixed cost in (₦))

$$ROR = TR/TC$$

Where

ROR = Benefit-cost ratio

TR = total revenue (calculated from total fish sold x unit price (₦))

Results and Discussion

The results obtained in this study are as presented in Tables 1 - 3. Socio-economic

characteristics of the fish marketers revealed that the marketers were well educated with only 10% of the respondents having never being to school to obtain formal education (Table 1). About eighty-one percent of the fish marketers were between 20 and 49 years old.

Table 1: Socio-economic Characteristics of Fish Marketers in the Study Area

	Classification	Frequency	Percentage
Age (years)	Below 20	5	5.5
	20 -29	21	23.3
	30 -39	28	31.3
	40 -49	24	26.6
	50 -59	11	12.2
	60 and above	1	1.1
Education	Non-formal	9	10
	Primary	31	34.5
	Secondary	29	32.2
	Tertiary	21	23.3
Gender	Male	35	38.9
	Female	55	61.1
Marital Status	Single	21	23.3
	Separated	11	12.2
	Married	58	64.5
Family size	Total		
	1- 3	12	13.3
	3 – 5	38	42.2
	6 and above	40	44.4
Status in the Family	Bread winner	55	63.2
	Dependant	32	36.8

Table 2: Economic Data of Fish Marketers in the Study Area

	Classification	Frequency	Percentage
Fish Species sold	Tilapia	32	27.6
	Catfish	71	61.2
	Mud Fish	4	3.4
	Carp	9	7.8
Source of fish	River (Self fishing)	6	6.9
	Artisanal fishermen	20	19.8
	Fish farmer	74	73.3
Condition of Fish Sold	Fresh/Live	45	46.4
	Processed (Smoked)	18	18.6
	Frozen	12	12.4
	All of the Above	22	22.7
Experience (Years)	1-5	24	26.4
	6-10	43	47.3
	11-15	13	14.3
	16-20	11	12.1

Marketing Channel	Direct to Consumers	59	66.3
	Retailers	10	10.9
	Wholesaler	19	20.7
	Processors	2	2.2
Alternative	Yes	33	38.4
Occupation	No	53	61.6
Sources of Capital	Personal Saving	34	37.4
	Thriffs Association	30	32.9
	Family Members	21	23.1
	Banks	5	6.6
Problem encountered	Electricity	39	42.9
	Fuel	1	1.1
	Freezer to preserve	18	19.8
	Others (Undefined)	33	36.3

Table 3: Profit analysis

Variable	Value (
Average Total Revenue	
Average Total Cost	
Benefit/Cost Ratio	

Age

The mean age of fish marketers was 30 - 39 years (Table 1), a result similar to the findings of Olasunkanmi (2012), Olasunkami *et al.*, (2012) and Olasunkanmi (2013). Most of these people are still in their active age and therefore, they have the tendency to be more productive while training and extension services could have positive effects on their economic activities. Skirberkk (2008) reported that nurses aged between 30 and 40 years were more productive while Ayo-Olalus (2010) reported that age range 21-50 is the age for economic activity in humans. Thus, it can be concluded that fish marketing in the study area is an economic activity in which many able-bodied people are involved. Gender, Family size and Household Headship

More women (61.1%) were involved in fish marketing than men and 55% of them were bread winners (Table1). FAO (2014) reported that aquaculture technologies are relatively “gender and age neutral” and youth (in

particular young women) face constraints in accessing productive resources leading to gender and age related divisions of labour. Similarly, Hecht (2005) and IFAD (2011) reported that women play an important role in post-harvest activities, marketing, sales and poverty reduction and their assets are vital, particularly in relation to the household. This assertion might be said to have been confirmed in this study. Family size averaged 3 – 5 persons per house hold, although more 44% of the respondents have family size greater than six persons per household. According to Lanjouw and Ravallion (1994), a larger household size may be better off since it also means larger free household labour on the farm. It may make for a more secure and easily supervised labour force for own-production activities, or it may offer greater security in old age.

Education

Generally, fish marketers in the study area were literate with only about 10% who did not have formal education. Oparinde and Ojo (2014)

believed that education can assist artisanal fish marketers in the area of adoption of innovations brought to them by the extension agents and in making decisions that will enhance their marketing strategies. Good education also suggests that innovations will be easily adopted.

Marital Status

The marital profile of respondents indicated that 64.5% were married, 21% were single while 12.2 were divorced. Thus, people of marital status were involved in fish marketing.

Sources of Capital for Business

Capital for fish marketing business was raised either through personal savings (37.4%), thrifts association (37.2%) or family members (23.1%) with only 6.6% having access to bank loans. Sebata *et al.*, (2014) listed factors that prevent smallholder farms, in Zambia and indeed Africa, from being able to access financial aid to include, reluctance of financial institutions to lend to the agricultural sector, high risks associated with lending to the agricultural sector especially smallholder farmers who lack collateral and production and political risks prevalent in Africa. Koopmans (2006) recommended that farmers should form (or join existing) cooperatives in order to mobilise more resources than they can individually supply. It is very important fish marketers form cooperatives in order to improve their financial base.

Sale outlet

Fish were mostly sold out direct to consumers this will eliminate middlemen who are known to increase prices paid by consumers thereby improving their purchasing capacity. Condition of fish sold and time of procurement.

Alternative Occupation

Most respondents (61%) were full time fish marketers with experience of at least six years. This indicates that given adequate capital for investment, freshwater fish marketing is a worthwhile business.

Problems Encountered

Lack of electricity and other undefined problems top the list of challenges faced by the marketers. However, many also complained about lack of refrigerator which is very important in order to avoid loss of left-over fish that cannot be processed immediately.

Profitability

Fish marketing was found to be profitable with an average net profit margin of ₦1,824,961.00 and a benefit cost ratio of 1.2 (Table 3).

Summary, Conclusions and Recommendations

In this study, it was found that people of all age brackets, mostly women, are involved in freshwater fish marketing. Fish marketers were mostly literate and married with an average family size of 3 -5 persons per household. Freshwater fish including catfish, tilapia and mud fish among others were sold fresh/live, smoked or frozen. Fish marketers raise their own capital through various means and generally complained that epileptic power supply and lack of refrigerator was limiting to their business. More women were involved in fish marketing than men and fish marketing impacted positively on the lives of its operators. Most fish marketers were on full time basis and are bread winners of their families. On the whole fish marketing was a profitable venture.

Fish marketers should form cooperative association and pool resources together so as to improve their financial base and to be able to procure refrigeration equipments which will reduce losses they incur through spoilage of unsold fish.

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