

Full Length Research Paper

Attitudinal analysis of women involvement in fish processing and marketing in Ondo State

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Generally, it is believed that attitude, to an extent, determines participation in any vocation. This study sets out to investigate and analyze the attitude of women involved in fish processing and marketing in Ilaje Local Government Area (LGA) of Ondo state. The study also determined the profitability and constraints faced by the respondents in the business. The influence of selected respondent's socio-economic characteristics on fish processing and marketing were also determined. Data were collected with structured questionnaires. A total of 83 respondents were randomly selected across the wards in the LGA. The study revealed that the involvement of respondents in fish processing and marketing was significantly affected by age, marital status, household size and educational level. Furthermore, the study confirmed that women have negative attitude towards fish processing and marketing. The women's negative attitude was significantly determined by their perception that, fishing activities were stressful and repulsive and also by the use of crude methods of processing.

Key words: Attitudinal, women, involvement, fish, processing.

INTRODUCTION

Nigeria, with a population of about 150 million (2008 estimate), is the largest single consumer of fish and fish products in the African region (FOS, 1999). In Nigeria, like all coastal West African countries, fish is the cheapest form of animal protein in the diet of the people for many decades. Therefore, the importance of the fisheries products in satisfying the nutritional needs of the people as well as, providing employment cannot be overstated (Ajayi and Talabi, 1984). Entire family units; men, women and children in the fishing communities are engaged in the sector. Most of the coastal fishing is carried out by local fisher folks from canoes operating from surf-beaten beaches and riverine areas. In Nigeria, women play a crucial role in fish production, processing, distribution and marketing. In addition, some of the women are crucial in financing fish production units. Since the 1960s, the fisheries sector has contributed between 1.11 to 2.4% of Nigeria's Gross Domestic Product (GDP) and 3.0 to 6.0% of agricultural production. Fish as a major source of

animal protein has continued to grow in importance over the years, particularly, as a substitute to beef. Recent studies confirmed the increasing shift from meat to fish consumption among households in Nigeria (CBN/NISER, 1992). The artisan fisheries sub-sector constitutes a major source of employment, especially, in the Southern coastal maritime areas. The estimated revenue from fish is over five hundred million naira. Fish in Nigeria is caught from the sea, inland and more recently from ponds and other artificially cultured systems (Lawal and Idega, 2004). A down turn in the economy of the country naturally affects all sectors. Consequently, the fishing sector is also being affected by the impact of the worsening economic situation. The artisan catches, which have therefore, started dwindling since 1983 got worse with the introduction of Structural Adjustment Programme and have continued unabated and thus, resulting in demand being far below supply (FOS, 1998).

Statement of the problem

Post-harvest fisheries' activities, especially, those

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involving preservation of products over several days, are an essential component of fisheries development in riverine areas in Nigeria. Indeed, what is the point of catching fish if it becomes unfit for consumption, resulting from lack of means of distribution, processing and preservation? Harvesting of fish is not usually on the basis fishermen-consumer (Lawal and Idega, 2004), therefore, price of fish changes as it passes through middlemen such that, it becomes expensive. Women are found to be more involved in the processing and marketing of fish while their men counterparts are found more in actual fishing (Samson, 1997). Though both men and women could be found in either of the fishing activity, relatively, each could be said to be more involved in one than the other. If fishing industry must be improved through the use of improved facilities, accessibility to credit and better information in the marketing structure for fish, the attitudes and perception of the women in the processing and marketing structure for fish, need to be more understood. It is against this background that this study investigated and determined the attitudes of women in fish processing and marketing in Ondo state, specifically the study is based on:

1. Examining the socio-economic characteristics of the respondents.
2. Identifying the processing and marketing methods used by the respondents.
3. Ascertaining the constraints faced by fish processors and marketers.
4. Determining the attitudes of respondents towards fish processing and marketing.

METHODOLOGY

The study was carried out in Ondo state of Nigeria. The state covers 20, 9955 s km. The state is made up of 18 local government areas. It is bounded in the South by the Atlantic Ocean, in the North by Kogi State, in the Western parts by Ogun and Osun States and in the Eastern side by Edo and Delta States. The study was focused purposively on Ilaje LGA along the coastal area of Ondo state. The predominant occupation of the people is fishing. Two communities who were predominantly fishermen/women were purposively selected. From each of the communities, five wards were selected, from each selected ward; ten women fish processors and marketers were randomly selected giving a total sample size of 100. Data were collected by means of structured questionnaire/interview schedule, however, only 83 respondents' copies of questionnaire were found suitably completed to be included in the study and were analyzed using descriptive statistics and chi-square analysis (Ogunfiditimi, 1986). The attitudes of the respondents were measured using 4 and 5 point-Likert scale of "Very satisfied", "Just satisfied", "Don't know", and "Not satisfied", and "Strongly Agree", "Agree", "Undecided", "Disagree" and "Strongly Disagree" respectively. The former (4-point scale) was scored 4, 3, 2, and 1 and the later (5-point scale) was scored 5, 4, 3, 2 and 1 for positive statements but were reversed for negative statements as 1, 2, 3, and 4, and 1, 2, 3, 4, and 5 respectively. The means obtained from this scoring was used to categorize the respondents' attitude into "unfavorable attitude," (<2.5) "indifferent attitude" (2.5 to 3.4) and "favorable attitude" (>3.4).

RESULTS AND DISCUSSION

Respondents' demographic characteristics

The demographic characteristics of the respondents identified included age, marital status, household size, educational level and religion, which are presented in Table 1. The age of respondents as presented in Table 1 shows that majority of the respondents (60.2%) were in the age range of 25 to 40 years, while 24.1% were below 25 years and only 15.7% of the respondents were above 40 years. This finding implies that most of the women involved in fish processing and marketing are in their youth or active age and as such have strength and vigor to carry out these activities.

The marital status of respondents also as presented in Table 1 indicates that 53% of the respondents were married, 25% were single and 6.0% were widowed. This implies that most of the women involved in marketing and processing of fish in Ondo state are married implying that marriage is a cherished value in the society. Those who were still singles may be due to their young age. The low percentage of divorcee is indicative of compliance with the African tradition which frowns at divorce and sees a divorced woman as being irresponsible. Furthermore, household size of the respondents as shown in Table 1 shows that 42.2% had between 6 to 10 people in their families. 27.7% of the respondents had between 1 to 5 people in their families, while only 2.4% had above 10 people in their household. This finding shows that most of these respondents had rather large household sizes. It could also be attributed to the fact that they got married or started child bearing at an early age. Large household size could imply that more hands would be available for labour in fish processing but may also imply that a large percentage of income would go for consumption.

A total of 16.9% of respondents had no formal education, 61.4% of the total respondents had primary school education as their highest level of education, and 18.1% had secondary education while only a paltry 3.6% had post-secondary education. This shows that majority of the women involved in fish processing and marketing have little or no formal education and can barely read or write. The implication of this finding is that many of them may not be able to keep records of their production or processing activities and income.

Table 1 showed that the majority of the respondents in the study area were Christians. This is a common trend in the Southern Nigeria where people are predominantly Christians. The religion or belief of the people does not likely to hold any restraint against fishing activities. This is because, acceptance of certain technologies and farming practices are often influenced by the individual's belief (Ekong, 2003).

Table 2 shows how respondents got into the fish business. Majority of them got involved in the business by inheritance from their mothers and or other female relations (79.5%), 16.9% of the respondents were trained

Table 1. Socio-economic characteristics of the respondents.

Variable	Frequency	Percent	Cumulative percent
Age			
	<25	20	24.1
Valid	25-40	50	60.2
	>40	13	15.7
	Total	83	100.0
Marital status			
	Single	21	25.3
	Married	53	63.9
Valid	Separated	3	3.6
	Widowed	5	6.0
	Abandoned	1	1.2
	Total	83	100.0
Household size			
	1-5	23	27.7
	6-10	35	42.2
	>10	2	2.4
Valid	Total	61	73.5
	Missing system	22	26.5
	Total	83	100.0
Educational level			
	No formal education	14	16.9
	Primary education	51	61.4
Valid	Secondary school education	15	18.1
	Tertiary education	3	3.6
	Total	83	100.0
Religion			
Valid	Christianity	83	100.0

Field Survey (2010).

formally by NGOs and other bodies while 2.4% were apprentices. This shows that most of the women involved in the business did so through their families as it is being passed from one generation to the other. About 10.8% of the respondents were engaged in the processing of fish only, 16.9% were involved in the marketing of fish only, while the remaining 72.3% were involved in both marketing and processing of fish. This indicates that majority of the women were involved in both processing and marketing of fish in Ondo state.

Table 2 also shows that 28.9% of the respondents have been in the fishing business for between 1 to 5 years, 27.7% between 6 to 10 years while 43.3% were in it for more than 10 years. This result indicates that the women got into fish processing and marketing quite early in life. More importantly, it agrees with the earlier finding that they had little formal education (Table 1) because going

by their ages (Table 1) and the number of years they have put into the business, they had little time for schooling.

Furthermore, Table 2 shows that 43.3% of the women were not involved in any other type of business but were engaged in either processing or marketing or both as their primary business, while 39.8 percent had other businesses apart from fish processing and marketing. In addition, 98.8% of the women involved in processing of fish identified smoking as the major means by which they processed their fish, while 1.2% used salting. Smoking is more popular with the women and could be because of its ease and longer shelf life of smoked fish compared with other methods. This could also be attributed to the more available fuel wood and charcoal in the study area when compared with the arid zone where fishing is also common but prefers other method of processing

Table 2. Fish processing and marketing business.

Variable	Frequency	Percent	Cumulative percent
How respondents got into business			
	Inherited	66	79.5
	Trained	14	16.9
Valid	Apprenticeship	2	2.4
	Total	82	98.8
	Missing system	1	1.2
	Total	83	100.0
Area of specialization			
	Processing	9	10.8
Valid	Marketing	14	16.9
	Both processing and marketing	60	72.3
	Total	83	100.0
Number of years in fish processing and marketing			
	1-5	24	28.9
Valid	6-10	23	27.7
	>10	36	43.4
	Total	83	100.0
Processing and marketing of fish as the only business activity			
	Yes	33	39.8
Valid	No	36	43.4
	Missing system	14	16.9
	Total	83	100.0
Method of fish processing			
	Smoking	82	98.8
Valid	Salting	1	1.2
	Total	83	100.0

Field Survey (2010).

as exemplified by Chad Basin, Majority of the women got their fish from fishermen and it was discovered during the survey that most of their husbands and sons were fishermen and as such, it was easy for them to get their fish, however, there were some who got their fish from fish dealers whose specialty is to get these fish from fishermen and then sell to those who would process them. It however, shows that getting supply of fish for processing is not a problem.

Table 3 shows that all the respondents agreed that fish processing and marketing is a profitable business. Although, all the women agreed that the business is profitable, but in Table 3, 27.7% of them said they would change the business if given an alternative, while the remaining 48.2% were not ready to change into another business. The majority's decision to stick to fish processing and marketing is a reflection of its being profitable, since that is the primary objective of any business. About 92% belongs to one market association

or the other, as seen in Table 3. Being a member of an association gives them a voice for better coordination and planning of their activities.

About 36% of respondents identified fish dealers as their main source of patronage, 15.7% had individuals as customers while 26.5% had individuals and market groups as customers. These finding shows that respondents preferred to sell more to fish dealers in bulk who then retail in smaller quantities to others and also to industries who use them as raw materials for their products. The survey revealed that the respondents who realized between N25, 000 to N50, 000 were in the majority (56.6%). While 26.6% of the respondents realized less than N25, 000 weekly, 16.9% made over N50, 000 weekly.

Findings further showed that 90.4% of the respondents had no means of transport of their own and this made their movement especially, those involved in marketing rather cumbersome. Dearth of transportation facilities

Table 3. Perceived profitability analysis of fish processing and marketing.

Variable	Frequency	Percentage	Cumulative percent
Source of fish for processing			
	Fishermen	26	31.3
Valid	Fish dealers	28	33.7
	Both fishermen and fish dealers	29	34.9
	Total	83	100.0
Interests in changing to alternative business			
	Yes	23	27.7
Valid	No	40	48.2
	Missing system	20	24.1
	Total	83	100
Profitability of fish processing and marketing			
Valid	Yes	83	100.0
Membership of marketing association			
	Yes	76	91.6
Valid	No	2	2.4
	Missing system	5	6.0
	Total	83	100.0
Buyers of fish from respondents			
	Individuals	13	15.7
	Market group	8	9.6
	Fish dealers	30	36.1
Valid	Individuals and fish dealers	22	26.5
	Market group and individuals	2	2.4
	Market group and fish dealers	8	9.6
	Total	83	100.0
Weekly income (Naira)			
	<25,000	22	26.5
Valid	25,000-50,000	47	56.6
	>50,000	14	16.9
	Total	83	100.0
Respondents owning means of transport			
	Yes	7	8.4
	No	75	90.4
Valid	Total	82	98.8
	Missing system	1	1.2
	Total	100	100.0

Field Survey (2010).

might be as a result of high cost of vehicles to move on land and also as a result of ever increasing price of outboard engines for transportation on water. High cost of transportation could increase costs of operation which could be passed to the consumers.

Table 4 revealed that the respondents who were very

satisfied with the business were 48.2%. While 44.65% were just satisfied 2.4% were not satisfied. This high percentage of respondents who were satisfied with the job could be said to be responsible for the equal percentage of those who were not ready to change to another type of business if the opportunity arises. It can

Table 4. Extent of satisfaction by respondents.

Variable	Frequency	Percentage	Cumulative percent
Valid	Very satisfied	40	48.8
	Just satisfied	37	93.9
	Don't know	3	97.6
	Not satisfied	2	100.0
	Missing system	1	
	Total	83	100.0

Field Survey (2010).

Table 5. Women's attitude towards fish processing and marketing.

S/N	Item	Frequency					Mean (x)	Remark
		SA	A	U	D	SD		
1	People refuse to go into the business because it is a difficult job	7 (8.4)	3 (42.2)	4 (4.8)	3 (36.1)	7 (8.4)	2.59	U
2	It is a smelly and repulsive business	6 (7.2)	45 (54.2)	3 (3.6)	29 (34.9)	-	2.39	U
3	Processing and transportation requires large capital	30 (36.1)	5 (60.2)	-	3 (3.6)	-	1.67	D
4	Women prefer to market already processed fish than process the fish themselves	24 (28.9)	20 (24.1)	7 (8.4)	13 (15.7)	18 (21.7)	2.56	U
5	Rate of women leaving the business has increased due to hygiene and stress involved	10 (12.0)	28 (33.7)	12 (14.5)	28 (33.7)	5 (6.0)	2.77	U
6	The use of crude methods to process the fish makes other women run away from it	5 (6.0)	28 (33.7)	8 (3.6)	35 (42.2)	7 (8.4)	2.82	U
7	Fish processing and marketing is very profitable	59 (71.1)	21 (25.3)	2 (2.4)	-	-	4.65	SA
8	We are not being encouraged in the business by government	11 (13.3)	51 (61.4)	6 (7.2)	7 (8.4)	7 (8.4)	2.34	D
9	This business can be expanded if credit is made available	71 (85.5)	10 (12.0)	1 (1.2)	-	1 (1.2)	4.8	SA
10	I am just doing this business as a last resort	2 (2.4)	32 (38.6)	7 (8.4)	27 (32.5)	15 (18.1)	2.92	U
Total							29.51	

Total mean = 29.51; therefore $\frac{29.5}{10} = 2.95$

Computed data from field survey (2010).

be inferred that some women get involved in fishing business not out of interest but because of poverty. Okunmadewa (2001) concludes that the effect of poverty makes people to work on what does not even interest them.

Since 2.95<3.5 (Table 5), it shows that there was an indifferent attitude by women towards fish processing and marketing in Ondo state.

Relationship between the respondent's socio-economic characteristics and their fishing activity (processing or marketing or both) was presented in Table 6, the χ^2 values for ages (27.93), marital status (114.89), household size (54.34) and educational level (63.07) all had significant relationship with respondents' fishing activity. Age was significant because it is an important factor in

determining the type of activity one can engage in. The business of fish processing and marketing requires energy as could be obtained in women in their young and middle age. The older women may not be able to perform optimally be-cause of declining strength resulting from old age.

Marital status being significant could be attributed to the fact that fishing is a joint business

Table 6. Chi square analysis of relationship between respondents' demographic characteristics and their fishing activity (processing or marketing or both).

Demographic characteristic	Calculated χ^2	Tabulated χ^2	Degree of freedom	Decision
Age	27.93	9.21	2	S
Marital status	114.89	13.28	4	S
Household size	54.34	11.34	3	S
Educational level	63.07	11.34	3	S

Computed data from Field Survey (2010).

Table 7. Chi- square analysis of the relationship between factors affecting respondents' attitude and their participation in fishing activity.

Variable	Calculated χ^2	Tabulated χ^2	Degree of freedom	Decision
People refuse to go into the business because it is a difficult job	51.88	13.28	4	S
It is smelly and repulsive business	57.29	11.34	3	S
Processing and transportation require large capital	40.12	9.21	2	S
Women prefer to market already processed fish rather than process the fish themselves	10.56	13.28	4	N.S
Rate of women leaving the business has increased due to stress involved	27.66	13.28	4	S
The use of crude methods to process the fish makes other women run away from it	46.34	13.38	4	S
Fish processing and marketing is very profitable	61.63	9.21	2	S
We are not being encouraged in the business by government	92.15	13.28	4	S
This business can be expanded if credit is made available	164.85	11.34	3	S
I am just doing the business as a last resort	39.35	13.28	4	S

Computed data from field survey (2010); S – Significant, NS – Not significant.

between the members of the family, while the man is doing the fishing, the woman and other female members of the family engage in the processing and marketing. It is very likely that the larger the household size, the greater the production and consequently, the greater the income.

The reason why level of education was significant could be that, the higher the level of education the greater the quantity and quality of fish produced. Higher level of education affords the fish processor and marketers to take adequate record to maximize their profit and also higher access to improve processing methods and

marketing information that could enhance production.

Chi- square analysis of the relationship between the factors affecting respondents' attitude and their participation in fishing activity was shown in Table 7. Findings revealed that there is a significant relationship between the respondents' perception of the factors that affect their attitudes and their participation in fishing activities, except for their preference for one or both of the activities (processing and marketing), where no significant relationship was found. The result agrees with Fazio (1986) who pointed out that one's behavior

is dictated by one's attitude. The implication of this is that the women's perception of the factors affecting their attitude towards fish processing and marketing is influenced by the following; i) that it is a difficult job, ii) that it is a smelly and repulsive job, iii) that transportation/processing requires large capital, iv) the use of crude methods to process fish makes them run away from it, and v) they are not being encouraged in the business by the government.

The result of correlation in Table 8 shows that there was a high correlation between women's unfavorable attitude towards their fishing activity

Table 8. Correlation analysis showing the relationship between women's attitude and their involvement towards fishing activities.

Parameter	People refuse to go into the business because it is a difficult job	It is smelly and repulsive business	Processing and transportation requires large capital	Women prefer to market already processed fish than process the fish themselves	Rate of women leaving the business has increased due to hygienic and stress involved	The use of crude methods to process the fish makes other women run away from it	Fish processing and marketing is very profitable	We are not being encouraged in the business by government	This business can be expanded if credit is made available	I am just doing the business as a last resort
People refuse to go into the business because it is a difficult job	1									
It is smelly and repulsive business	0.269*	1								
Processing and transportation requires large capital	0.094	0.069	1							
Women prefer to market already processed fish than process the fish themselves	0.273*	0.160	0.400**	1						
Rate of women leaving the business has increased due to hygienic and stress involved	0.340**	0.175	0.486**	0.601**	1					
The use of crude methods to process the fish makes other women run away from it	0.460**	-0.019	0.025	0.135	0.318**	1				
Fish Processing and marketing is very profitable	0.168	-0.058	0.308**	0.239*	0.222*	0.195	1			
We are not being encouraged in the business by government	0.417**	0.066	0.069	0.173	0.141	0.262*	0.120	1		
This business can be expanded if credit is made available	-0.209	-0.315**	0.053	0.096	0.117	0.173	0.409**	-0.067	1	

Table 8. Contd.

I am just doing the business as a last resort	0.106	0.152	-0.073	0.362**	0.177	0.153	0.009	0.025	0.031	1
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*Correlation is significant at 0.05 level (2 tailed); ** correlation is significant at 0.01 level (2 tailed).

and their perception that fishing business is a smelly and repulsive job. Unfavorable attitude of the respondents also correlates positively with their preference to market rather than processing of the fish, the stress involved, use of crude methods to process the fish and the non-assistance by the government. This result corroborates the view of Higgins (1996) who opines that one's attitude has effect on the actions and decisions one takes. Meanwhile, there is low correlation between the women's negative attitude and transportation difficulties, profitability of fish, fish business expansion and doing the business as a last resort. It therefore, implies that, women who would like to engage in fish processing and marketing would likely do so because of the profitability.

CONCLUSION AND RECOMMENDATION

The study has shown that although, majority of the women agree that fish processing and marketing is highly profitable, they still have an indifferent attitude towards fish processing and marketing. This is due to the constraints they face in the business and their negative perceptions towards the business in general. The government's nonchalant attitude towards providing necessary inputs to enhance the starting and sustenance in the business has not been encouraging and this is one of the problems faced by those in the business, however, there is urgent need to educate the women towards going into

the business as it is a very profitable and viable business as this creates employment opportunities and increases revenue for the state and nation as a whole. In view of the findings from the study, the following are therefore recommended to improve the attitude of women's involvement in fish processing and marketing in Ondo state.

- i. The women fish processor and marketers should be encouraged to form themselves into cooperatives. This will afford them the accessibility to government patronage and assistance such as government guaranteed credit facilities that would enable the women being able to overcome some teething problems like means of transportation and processing equipment.
- ii. The women also need environmental sanitation education and orientation; this will enable them to reduce the unattractive environment that makes their operations smelly and repulsive.
- iii. The fish marketers also need information on markets so that they can identify and locate markets where profit can be optimally maximized.

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