

Viability of fish marketing in Andoni local government area, Rivers state, Nigeria

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Abstract: The study examined the viability of fish marketing in Andoni Local Government Area, Rivers State Nigeria. It was aimed at, describing the socioeconomic characteristics of the marketers, analyzing costs and returns in fish marketing, and identifying the problems associated with fish marketing. Multi-stage sampling techniques were used to select 80 marketers from which data were obtained using structured questionnaire. The data were analyzed via descriptive statistics, gross margin model, and 4-point scale rating technique. Findings from the study showed that, the fish marketers were prevalently females having 70.0% share over their male counterpart with only 30.0%. furthermore, it was observed that, majority (45.6%) of the marketers were between the ages of 31 – 40 years and that a substantial number (72.5%) of the marketers were married. Findings on costs and returns showed that the trade is profitable with a monthly profit of ₦623,386.67. Meanwhile, analysis from the 4-point scale rating technique showed that with a mean score of 3.60 the major constraint faced by the marketers was unfavourable weather condition and which was followed by inadequate capital with a mean score of 3.21. Government and Non-governmental organisations should provide soft loan facilities to marketers so that their capital structure can be boosted.

Keywords: Viability, Fish marketing, profitability, Andoni, River State

INTRODUCTION

Seafood is among the top traded goods in the world and about 20% of the exports in agriculture and food processing in developing countries come from the export of fish produce and this is likely to increase as demand steadily rises (Reheim and Sutinem, 2006). Olalekan and Wahab (2018) argued that in Nigeria, fisheries, an important subsector, contributes about 3.00–5.00% to the agriculture share of the Gross Domestic Product (GDP). In Nigeria, fish serves as a trivial protein source to the increasing population, and it is composed of 40% of dietary protein consumption in the country (Kainga and Adeyemo, 2012). It contains omega 111 fatty acids which are proven to reduce cardiovascular diseases, hypertension, and arteriosclerosis, thus acting as a preferred source of protein for the aged (Ovie and Raji, 2006). It equally poses as a major source of protein to Nigerians on the coastal areas, creeks and rivers and is essential for healthy human growth (Nwabunike, 2015). The fishery sector has the capacity for creating employment opportunities and food security for millions of Nigerians especially those involved in direct fishing, processing and marketing. (Babalola *et al.*, 2015).

Fish marketing involves all activities undertaken in conveying fish from producer to consumer. It includes processing, storage, preservation, transportation, wholesaling, and retailing (Essien *et al.*, 2018). The Nigerian fish market is characterised by indigenous mechanism depending on season, ability of buyers to bargain and of course the concept of demand and supply (Irhivben *et al.*, 2015).

Regrettably, there has been a fall in the supply of fish in Nigeria, this is linked to the fall in the country's key source of food fish, the artisanal fisheries (Ugwumba and Chukwuji, 2010). This

development is however disturbing especially in the knowledge that Nigeria is blessed with a vast expanse of inland fresh waters and marine brackish ecosystem, which are very rich in aquatic life (Tall, 2004). Perhaps, the deficit in supply could be the reason why Nigeria stands as one of the largest importers of fish with a per capita consumption of 7.52kg and a total consumption of 1.2million metric tons with imports making up about 2/3 of the total consumption. (Olopade and Olaokun, 2005). This shortage in supply could also be tied to the problems faced by the marketers of the commodity, according to Nwankwo and Ogalue (2000) faced with the problems of how to process and preserve fish in a condition that gives customers satisfaction. After drying, they are further faced with the problems of inadequate handling and transportation, moulding and smashing. Furthermore, Nwabunike (2015) asserted that if the marketing process is efficient, it will go a long way in providing sufficient food to the populace. It is on this premise that the study was tailored towards the following objectives:

- i. describe the socioeconomic characteristics of the fish marketers;
- ii. analyse the costs and returns in fish marketing;
- iii. identify the possible problems associated with fish marketing.

METHODOLOGY

The study was conducted in Andoni Local Government Area (LGA), of Rivers State, Nigeria. Andoni lies between latitude 4° 32' 57" N and longitude 7° 26' 47" E, with total land area of 233km² (NPC, 2006). It is bounded by the Atlantic Ocean in the South, the Ogoni in the North, Bonny in the West, and Akwa-Ibom State in the East. Fishing is the predominant occupation of the

people, this is because, a significant part of the towns and villages are situated on islands. Furthermore, the area is also endowed with mineral resources and wildlife.

The sample for the study was obtained using Multi-stage sampling techniques. In the first stage, purposive sampling technique was employed in selecting 5 communities on the basis of the high concentration of trading activities within them. Secondly, simple random sampling technique was adopted in choosing 80 marketers (16 retailers each) within those 5 communities. In all, a total of 80 respondents formed the sample size of the study.

Objective (i) which sought to describe the socio-economic characteristics of the fish marketers was analysed using descriptive statistics; objective (ii) which was aimed at analysing the costs and returns in fish marketing was achieved using budgetary analysis; finally, objective (iii) which sought to identify the possible problems associated with fish marketing, was analysed using Likert scale.

Budgetary Analysis

Gross margin model served as a pathway within which the profit from fish marketing was estimated. The model is specified as follows:

$$GM = TR - TVC \dots\dots\dots (1)$$

Where:

GM = Gross margin

TR = Total revenue

TVC = Total variable cost

TFC = Total fixed cost

π (profit) = GM- TFC

Likert Scale Rating Technique

The use of 4-point scale rating technique was employed in analysing objectives (iii). The rating was in this order: strongly agreed (SA) = 4, agreed (A) = 3, disagree (D) = 2, and strongly disagree (SD) = 1.

The mean scores of the respondents based on the 4-point scale were $4 + 3 + 2 + 1 = 10$, $10/4 =$

Cost and returns of fish marketing

In the study, the profit for the marketing of fish was determined using budgetary analysis. As indicated in Table 2, the total revenue realised by an average marketer per month stood at ₦182,458.33 and the total variable cost was at ₦113,405 and consequently, this generated a gross margin of ₦69,053.33. Worthily, gross margin is used as a budgeting tool for measuring efficiency and profitability among different enterprises. The

2.50. On this basis, mean score greater than or equal to 2.50 was considered relevant and hence agree (A). While mean score less than 2.50 was considered irrelevant and hence disagree (D)

RESULTS AND DISCUSSION

Socioeconomic characteristics

The result in Table 1 showed that while 30.0% of the fish marketers were male while 70.0% of them were female. This finding revealed that fish marketing in the study area was dominated by females. This result agrees with the findings of Adeleke and Afolabi, (2012) who observed that fresh fish markets were dominated by females. In another development, information on age showed that 45.6% had ages between 31 – 40 years. This result is in consonance with the findings of (Adedeji *et al.*, 2019) who reported that majority of the fish marketers in Ondo State, Nigeria was in their active middle age. Table 1 also reflected that fish marketing was dominated by the married at 72.5%. Consequently, this may mean that fish marketing served as a source of livelihood for the marketers and their families. On education, the Table showed that while 1.2% of the respondents had no form of education, a majority of 46.3% received secondary education, The high literacy level would positively influence the marketing activities as observed by Madugu and Edward (2011). Furthermore, entries on years of experience indicated that a large section (63.7%) of the respondents had trading experience of about 11-20 years. Sadiq *et al.*, (2015) posited that years of experience enhances risk management in businesses. This may also mean that years of marketing experience can be instrumental in facilitating efficiency and profit-making ability of the marketer. More so, the respondents' position on membership of association was such that, 48.8% were indifferent to associations and 51.2% were not.

value of the total fixed cost components stood at ₦80,000. Meanwhile, the profit recorded by the marketers per week stood at ₦623,386.67. This is evident that the marketing of fish is profitable in the study area and as such has the capacity to enhance the welfare of the traders and by extension their families. This result is supported by the findings of Adedeji *et al.*, (2019) who showed that marketing of smoked fish in Ondo State, Nigeria is profitable.

Table 1: Responses on socioeconomic characteristics of the respondents, n = 80

Variables	Frequency	Percentage %
Sex		
Male	24	30.0
Female	56	70.0
Age (Years)		
21- 30 Years	4	5.1
31 – 40 Years	36	45.6
41 – 50 Years	14	17.7
> 50 Years	25	31.6
Marital Status		
Single	9	11.3
Married	58	72.5
Divorced	1	1.2
Widowed	12	15.0
Education		
Primary	30	37.5
Secondary	37	46.3
Tertiary	12	15.0
None	1	1.2
Years of Marketing Experience		
1-10 Years	12	15.0
11-20 Years	51	63.7
21-30 Years	16	20.0
31-40 Years	1	1.3
Membership of Association		
No	39	48.8
Yes	41	51.2
Total	80	100.0

Source: Field Survey, 2021

Table 2: Cost and Returns of Fish Marketing

Item	Amount (₦)/Annum	Amount (₦)/Month	Cost Share% (Month)
Variable Costs			
Transportation	68,000	5666.67	4.99
Packaging	8,960	746.67	0.66
Total purchase of fish per basin	1,131,300	94275	83.13
Sanitation Fee	127,000	10583.33	9.33
Ticket Fee	25,600	2133.33	1.88
Total Variable Cost (TVC)	1,360,860	113,405	
Fixed Cost			
Rent	80,000	6,667	
Total Fixed Cost (TFC)	80,000	6,667	
Returns			
Revenue from fish sales (TR)	2,189,500	182,458.33	
Gross Margin (GM=TR-TVC)	828,640	69,053.33	
Profit (TR – TCV + TFC)	748,640	623,386.67	

Source: Field Survey, 2021

Constraints to fish marketing

Entries on the constraints to fish marketing in Table 3, showed that the constraint with the highest mean score as identified by the respondents was unfavourable weather condition with a score of 3.60. This was sharply followed by inadequate capital which scored 3.21. Inadequate capital

hindered the marketers from getting the necessary marketing resources and technologies which supposed to increase their profit margin and marketing efficiency (Agbebi and Adetuwo, 2018; Agbagwa *et al.*, 2021). With a mean score of 3.00, the respondents also admitted that lack of good means of preserving the fish was a constraint. This

problem may lead to the perishability of the fish and could account for severe losses hence diminish marketers' profit. Inadequate transportation also

stood out as a major problem with a mean score of 3.00.

Table 3: Constraints to Fish Marketing, n = 80

Items	Total sum	Total mean score	Std. Deviation	Remark
Unfavourable weather condition can cause low profit	288	3.60	0.493	Agree
Inadequate capital (No money for start-up) is a big problem	257	3.21	0.469	Agree
Marketing price varies always as a result of available fish	229	2.86	0.670	Agree
No good transportation means for marketing products.	240	3.00	0.712	Agree
No good means of preservation	240	3.00	0.616	Agree
No good marketing information.	223	2.79	0.867	Agree
Increase in water pollution.	209	2.61	1.000	Agree
No sufficient water supply.	226	2.82	0.938	Agree

Source: Field Survey, 2021

CONCLUSION AND RECOMMENDATIONS

At this standpoint, the study has established that the marketing of fish in Andoni Local Government Area is profitable even though it is faced with major problems such as unfavourable weather condition and inadequate capital.

On the premise on the findings, the study recommends that:

- i. Government and Non-governmental organisations should provide soft loan facilities to marketers so that their capital structure can be boosted.
- ii. Groups and Association in the market should form one strong voice and set up cold rooms for the preservation of fish. This effort will clamp down on the losses suffered by marketers in the area owing to the perishability of the commodity.

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