

Assessment of the Profitability and Viability of Catfish Marketing in Onitsha North and South Local Government area of Anambra State Nigeria

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ABSTRACT---- *The study was carried out in Onitsha north and Onitsha south local government area of Anambra State Nigeria. The main objective of the study was to assess the profitability and viability of catfish marketing. Data were collected with structured questionnaires administered to 65 randomly selected catfish marketers. Mean, frequency, percentages, gross margin, Net profit, Gross margin ratio, Operating ratio and Return on investment were all employed to analyze the objectives. The result revealed that transportation cost is the most militating factor against catfish marketing in Onitsha north and Onitsha south local government area of Anambra State Nigeria. The study also revealed that, catfish marketing in the study area was profitable and viable with return on Investment (ROI) of 22.17% and a Gross Margin ratio of 18.14%. The study therefore, recommends that government should provide storage facility and rehabilitate our roads to reduce the cost of transportation in marketing.*

Keywords---- profitability, viability, catfish, marketing, gross margin

1. INTRODUCTION

Catfish are highly diverse Ostariophysan fishes with a probable ancestral benthic habit and are commonly found in fresh water on all continents except Antarctica.

In Nigeria, the contribution of the fisheries sub-sector to agriculture GDP was estimated to be 4.0% in the year 2007, out of the total estimate of 40% being contributed by agriculture to the GDP (FDF, 2008). The Food and Agricultural Organization of the United Nations (FAO, 2006), stated that Nigeria is a protein-deficient country. Protein deficiency in diet can be primarily remedied through the consumption of either protein-rich plants or animals; which catfish is one of the sources.

Catfish is the major fish cultured in Nigeria because it is found all over the Country, eaten by most tribes, resistant to harsh environmental conditions, commands good price, tasty and can be kept alive for days during marketing. Estimates put the current production output of *Clarias gariepinus* in the Country at over 253,898 metric tonnes per year (FDF, 2013).

Currently, about 90% of fish farm in Nigeria is catfish; during the last four years, almost all hatchery infrastructure and table fishes production systems have exclusively targeted toward catfish production due to its unquantifiable benefit to human existence in terms of dietary composition in all meals (FDF, 2005). As a result of this, according to FAO (2006a), fish supply in Nigeria amounts to 400,000 tons of supply in comparison to the 800,000 tons of demand. This makes Nigeria one of the largest importers of fish in the developing world, importing above 600,000 metric tons annually (Moehl, 2003). According to Olasunkanmi, (2012) Increasing demand for fish products has resulted in the growth of fish farms to meet a substantial part of the world's food requirement.

2. STATEMENT OF THE PROBLEM

Nigeria is one of the less developed countries of the world with average protein intake below the estimated minimum standard per individual (Olayide, 1976). Globally, fish provides about 3.0 billion people with almost 20 percent of their intake of animal protein, and 4.3 billion people with about 15 percent of such protein (FAO, 2012). Catfish is one of the good sources of animal protein that would help to improve this trend. Despite the overwhelming importance of catfish as a source of protein globally, low availability, low level of profit margin, low protein intake and other related constraints have remained a huge challenge even when the production of catfish seems to be on the increase.

It is in view of these amongst other issues that this study seeks to assess the profitability and viability of catfish marketing in Onitsha north and south LGA of Anambra state Nigeria.

The study therefore is set out with the following specific objectives to;

- i. delineate the socioeconomic of catfish marketers in Onitsha north and Onitsha south local government area of Anambra state Nigeria
- ii. determine factors militating against catfish marketing in Onitsha north and Onitsha south local government area of Anambra state Nigeria
- iii. assess the profitability and viability of catfish marketing in Onitsha north and Onitsha south local government area of Anambra state Nigeria

3. METHODOLOGY

Study Area

The study was carried out in Onitsha north and Onitsha south local government area of Anambra state Nigeria. The state is bordered by Enugu state, Imo state, Delta state, and Abia state. The state has a total population of 4,182,032 of which 2,174,641 are males while 2,007,391 are females (NPC, 2006). The local government areas are found within the rainforest belt or zones. Their major occupation is trading and commerce, fishing activities and transportation.

Population of the Study

The population for the study was 650 registered catfish sellers in the study area.

Sampling Techniques

The study employed multistage sampling technique in selecting sample size of catfish sellers in Anambra state. First stage was purposive selection of two local government areas in Anambra state namely; Onitsha south and Onitsha north local government area. In the second stage was random selection of four (4) catfish markets in the two local government area of Anambra state in stage one above. The third stage was random selection of 20 catfish sellers at Ose markets, 15 catfish sellers from Ochanja market, Bridge head market and Onitsha main market respectively to arrive at a sample size of 65 catfish sellers. However, the reason for the selection of 20 catfish sellers in Ose market was as a result of high dominance of catfish marketers.

Methods of Data Collection

The method of data collection for the study was through primary and secondary sources. Primary sources of data collection were through structured questionnaire and in-depth interview. While, secondary source of data collection was done through reviews of relevant journals.

Methods of Data Analysis

The data collected for the study were analyzed using descriptive and inferential statistics. Descriptive statistics such as, mean, table, percentages and frequency were all employed for data analysis while gross margin, Net profit, Gross margin ratio, Operating ratio and Return on investment were all employed to assess the profitability and viability of catfish marketing in Onitsha south and Onitsha north local government area of Anambra states, Nigeria.

Pseudo Profit function:

Profit (π) = Total Revenue – Total Cost.

Gross margin (GM) = Total Revenue (TR) – Total variable cost (TVC)

Net Profit (NP) = GM – TFC (depreciated value)

GMR = $\frac{GM}{TR} \times 100$

Operating Ratio (OR) = $\frac{TVC}{TR} \times 100$

ROI = $\frac{GM}{TVC} \times 100$

Where; TR = Total Revenue, TVC = total variable cost, TFC = total fix cost

GM = Gross Margin, GMR = Gross Margin Ratio, OR = Operating Ratio

ROI = Return on Investment, NP = Net Profit.

4. RESULT AND DISCUSSION

Demographic Characteristics of the Respondents

Sex distribution

Table 1 shows the distribution of sex of the respondents. The results revealed that, 58(89%) of catfish marketers in the study area were female while, 7(11%). The results showed that catfish marketing is mostly engage by the female than their male counterpart.

Table 1 showing distribution of sex of respondents

Sex	Frequency	Percentage (%)
Male	7	11
Female	58	89
Total	65	100

Age distribution of the respondents

Table 2 below shows the age distribution of respondents. The result revealed that, majority age of catfish marketers were 21-30(24.6%), 31-40(23.1%), 41-50(18.5%), 51-60(16.9%). This indicates that, between 21-60 lies the active age of catfish marketers.

Table 2 showing distribution of age of the respondents

Age	Frequency	Percentage (%)
<20	8	12
21-30	16	25
31-40	15	23
41-50	12	19
51-60	11	16
>60	3	5
Total	65	100

Distribution of marital status of the respondents

Table 3 below shows the distribution of marital status of the respondents for the study. The results indicate that, 46(71%) catfish sellers were married while 19(29%) were single. This implies that catfish marketing is mostly practice by married persons as it contributes to their household income.

Table 3 showing distribution of marital status of respondent

Marital status	Frequency	Percentages (%)
Married	46	71
Single	19	29
Total	65	100

Distribution of the number of years spent in school of the respondent

Table 4 below shows the distribution of educational status of the respondents. The findings from the study revealed that, 19% had formal education, 46% had primary education, and 35% had secondary education while none had tertiary education. The result implies that at least most of the catfish sellers had elementary education that makes them understand the basic business mathematics.

Table 4 showing the distribution of number of years spent in school by the respondents

No. of years spent in school	Frequency	Percentage (%)
No education	12	19
Primary	30	46
Secondary	23	35
Tertiary	0	0
Total	65	100

Distribution of number of years in catfish marketing

Table 5 below shows distribution of numbers of years spent in catfish marketing by the respondents. The result revealed that, majority 22(34%) had spent above 10years in catfish marketing, 20(31%) spent 1-5years in catfish marketing,

15(23%) spent 6-10years in the marketing of catfish in Onitsha north and Onitsha south local government area of Anambra state Nigeria. it means that a majority number of the respondents are experienced and have been into catfish business over the years.

Table 5 Showing distribution of number of years in catfish marketing

Years spent in catfish marketing	Frequency	Percentages (%)
<1	8	12
1-5	20	31
6-10	15	23
>10	22	34
Total	65	100

Factors Militating against Catfish Marketing in Anambra state

Table 6 below identified the factors militating against catfish marketing in Onitsha south and Onitsha north local government area in Anambra state as opined by respondents as; Lack of finance, Lack of credit facilities, inconducive environment, High cost of transportation, In adequate storage, Seasonality. Above all the factors highlighted, the study revealed that transportation cost is the most affected factor militating against catfish marketing.

Table 6: Showing the distribution of the Factor militating against catfish marketing

Factors	Frequencies (F)	Percentages (%)
Lack of finance	13	21.7
Lack of credit facilities	8	13.3
In conducive environment	12	20
High cost of transportation	20	30
In adequate storage	9	15
Seasonality	3	5
Total	65	100

Profitability and viability analysis of catfish marketing in Onitsha north and south LGA of Anambra state:

Table 7 below shows the result of the profitability and viability of catfish marketing in Onitsha north and south LGA's of Anambra using; gross margin, net income, gross ratio, return on investment and operating ratio. The results revealed that catfish marketing is a profitable and viable with average total revenue of ₦25,641.63/50kg; Gross margin of ₦4,652.47/50kg; and return on investment of 22.17%. This means that catfish marketing is a profitable and viable in the study area.

Table 7: Showing Profitability and viability analysis of catfish marketing in Onitsha north and south LGA of Anambra state:

Markets	Main market	Amount in ₦/50kg Ose markets	Ochanja markets	Bridge H	Ave
Total Revenue (TR)	25,850	26,000	24,191.50	26,525	25,641.63
Variable/operating cost					
i. Cost Price	19,775	19,900	19,608	20,108.50	19,847.88
ii. Packaging cost	180	150.6	100	120	137.65
ii. Disposable Apron	200	180.8	150	180	177.88
iii. Transportation	585	721	367	512	546.25
iv. Storage charges	358	282	243	235	279.50
Total Variable Cost (TVC)	21,098	21,234.40	20,468	21,155.50	20,989.16
Fixed cost (depreciated cost)					
i. Table	28.8	35.3	25.6	30.0	29.93
ii. Pan/basin	35.0	-	35.8	-	35.4
iii. Cutting board	10.0	12.0	10	8.0	10.0
iv. Axe	20.0	25.0	-	-	35.4
v. Shop rentage	32.5	25.0	15.0	-	24.17
vi. Market charges	-	-	20.0	24.0	22.0
vii. Scale	65.8	50.0	-	45.8	53.87
Total Fixed Cost (TFC)	192.1	147.3	106.4	107.8	197.86
Gross Margin(GM) = (TR-TVC)	4,752	4,765.60	3,722.50	5,369.50	4,652.47
Net Income (NI) = (GM-TFC)	4559.10	4618.30	3616.10	5261.70	4454.61
GM Ratio = (GM/TR)%					
Operating Ratio(OR)=(TVC/TR)%	18.38	18.33	15.39	20.24	18.14
ROI = (GM / TVC) %	81.61	81.67	84.61	79.76	81.85
	22.52	22.44	18.19	25.38	22.17

5. CONCLUSION AND RECOMMENDATIONS

The study revealed that catfish marketers in the study area are dominated by experienced middle aged married women with basic education. It was also revealed that lack of finance, inconducive environment, high transportation cost and lack of storage facility were the major factors militating against catfish marketing in the study area. It also showed that catfish marketing is profitable and viable.

Therefore, it is recommended that the government should provide financial support, good environment, storage facility and good transportation network for the marketers who make their livelihood from the business and also contributes to food security.

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