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# Dry fish marketing: The potentials and challenges for employment creation and poverty alleviation among urban women in Nigeria

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#### Abstract

This study assessed the prospects in dry fish trade and factors limiting its potentials for job creation and poverty alleviation. The dry fish marketers in Warri Area of Delta State were used as a case study with specific focus on their socio-economic characteristics, factors limiting their level of operation and the profit margins from the trade. Data collected were analysed using descriptive statistics such as means, frequencies, while the profitability was assessed using gross margin, net profit and percentage returns to invested capital. The result showed that the trade is profitable with net returns of between  $\frac{12}{2440} - \frac{13}{2675}$  per 20kg basket of dry fish. The returns per Naira invested varied between  $\frac{10}{20}$  for those who traded on 2 baskets a week to  $\frac{10}{20}$  and  $\frac{10}{20}$  for those who traded on 5 baskets of dry fish per week. The Large household size of dry fish marketers (7 – 10 persons per household) and the high commercial bank lending rates (20 – 25 percent) are the major challenges facing the trade. The study recommends government assistance by way of providing cheaper means of transportation and essential infrastructures and the banks reducing their lending interest rates to one – digit.

Keywords: Dry Fiah, Marketing, Potentials, Challenges, Employment creation

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## 1. Introduction

Unemployment and poverty are today the two major development problems the government of Nigeria is faced with despite the abundant idle natural resources and huge revenue from crude oil export. From recent reports about 40 million persons of working age in the country were unemployed by the year 2010 representing 28.57 percent of the entire 140 million population (Punch, 2010). The country's former Finance Minister, Olusegun Aganga, who further gave a breakdown of the figures noted that 49 percent of youths between 15 and 24 years living in the urban areas were jobless compared to 39.7 percent of their counterparts in the rural areas (Punch, 2010). In the same vein, the then World Bank Managing Director, Dr Ngozi Okonjo- Iweala in April 2010 asserted that 50 percent of Nigerian University and polytechnic graduates whose present population is well over half a million had no jobs (Punch, 2010). Among the secondary school graduates (who account for 50 percent of the unemployment crisis) 40 percent of them are said to be within the age group of 20 - 24 years and 31 percent in the 15 - 19 year age bracket (Economy Watch, 2010).

Unemployment has serious negative economic and social consequences. Apart from the loss of potential production to the economy, the effect of unemployment on the children of the unemployed range from matters relating to health, security, educational opportunities as well as their entire future which is endangered. With so many of the productive members of the society remaining jobless, the purchasing power and consequently the demand for goods and services would be low thus causing shut-downs of productive sectors and fueling the unemployment crisis through lay-offs.

About 70% of the Nigerian population are reported to be living below the poverty line (Borokini et al, 2008). Apart from the health implications, high poverty level is a reflection that many persons in the society may not even be productive, as their food intake levels will be below the minimum recommended Kcal (energy) requirement for an active or a moderate days activity. The recent worsening security situation in the country characterized by robberies, kidnappings and political upheaval in some states are also evidence of the social consequences of the high unemployment rate in the country.

Many factors have been blamed for this worsening state of the economy. Among them are the abandonment of systematic and rigorous planning for ad-hoc and tentative approaches to the management of the economy, absence of essential infrastructures especially roads and electricity, the continued dependence on oil monoeconomy, the unfriendly business environment created by insecurity and commercial banks poor trading loan granting policies and the increased focus on growth rather than development. The United Nations Development Programme (UNDP) 2006 report on the Millennium Development Goals noted that despite Nigeria's great mineral wealth put at \$72.2 billion in 2004, the country may not meet the MDGs by 2015 (Nwokeoma, 2010). 'The petroleum/oil sector, which has been the main focus of the government, generates over 90% of the nations external revenue, contributes 40% of the national GDP but employs only 0.15 percent of the population (Nwokeoma, 2010). As previous national statistics have also shown, unemployment levels in Nigeria did not decline with economic growth hence pursuance of growth would probably not provide the solution to the unemployment problem in Nigeria.

The recent alert from the study by the British Council informing the nation of a pending demographic disaster has added another dimension to the unemployment and poverty problem of Nigeria. The study reported that the nation's present population of 150 million people is estimated to swell by another 63 million by 2050 with more than 40% of the population younger than 14 years (Nwokeoma, 2010).

A number of solutions to the unemployment problem have been put forward in the recent past and have continued to be reemphasised. Amongst them is the need to improve and provide more basic infrastructures, improved electricity supply and the repositioning and diversifying of the economy from the exclusive oil sector to agriculture, manufacturing, services, etc. This study is also of the view that adding value to agricultural produce and trade will greatly generate employment opportunities for the large population of women and youth. However, a number of issues need to be addressed for them to assume a significant and continued job creation role.

Specifically this study assessed the prospects in dry fish trade and factors limiting its potentials as a major source for job creation in Nigeria. The dry fish marketers in Warri Area of Delta State were used as a case study, with specific focus on their socio-economic characteristics, factors limiting their level of operation and the profit margin realizable from the trade.

## 2. Material and methods

#### 2.1. Data collection methods and analysis

The primary data used for the study were collected from dry fish marketers in Warri South Local Government Area of Delta State. Delta state was created 1991 out of the former Bendel state. The state is made up of 25 Local Government Areas (LGAs) and Warri South LGA lies along the coastal region of the state. The traditional occupation of the people in Warri South LGA include fishing, mat making, trading and to a very limited extent farming. There are several markets within the Local Government Area but two markets - Ogbe-Ijoh and Pesu were purposively chosen for this study because of the large population of dry fish marketers there and the cosmopolitan nature of the markets.

An equal sample of 28 retail marketers were randomly selected from both markets making a total of 56 respondents. Structured questionnaire and personal interviews were used in generating the data analysed for this study. Data collected were on the marketers socio-economic characteristics, source of funds and the amount invested in the trade, costs and returns element in dry fish marketing and the constraints in dry fish marketing. The data were analysed using descriptive statistics such as frequencies, means, percentages, etc. The gross and net profit margins were used in assessing the profitability of the trade.

#### 3. Results and discussion

#### 3.1. Socio-economic characteristics of the marketers

#### 3.1.1. Sex and gender distribution of respondents

The sex and gender distribution of respondents is presented in Table 1.

Gender	No of Res	pondents	Percent	age
	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
Male	-	-	-	-
Female	28	28	100.0	100.0
Total	28	28	100.0	100.0

# **Table 1.** Gender Distribution of Respondents

Source: Field Survey, 2008

The result from the study showed that the fish marketers from both markets were all women. This suggests that dry fish marketing in the study area is probably gender specific with the female dominating the trade.

#### 3.1.2. Age of respondents

The age distribution of the respondents is presented in Table 2. A large number of the respondents (60.7% in Ogbe-Ijoh and 53.6% in Pesu) were within the age group of 40 years and below. This is followed by those within the age bracket of 41 - 50 years - 32.7% in Ogbe-Ijoh and 39.3% in Pesu market. The age bracket of 18 - 40 years is usually regarded as the active labour force. A greater proportion of the respondents fell within this category (18-40 years). This implies that the trade is managed by very active individuals who have both strength and reasonable level of maturity. Studies have also shown that this category of persons is the more preferred group for granting loans by informal and formal banking institutions (Onwumere, 2008).

## 3.1.3. Marital status of respondents

Married persons are usually expected to have more responsibilities as they no longer care for themselves alone. Table 3 shows the result of the survey on the marital status of the dry fish marketers sampled. Over 64% of the respondents were married or at some time married.

This would imply that dry fish marketing may be a business for those who have the desire to provide some financial support towards the upkeep of their families. As much as 36% of the respondents in both markets were single suggesting that the financial gains from the trade is probably quite attractive for the yet unmarried women.

NO OF RESPO		Percentage	
Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
4	2	14.3	7.1
7	8	25.0	28.6
6	5	21.4	17.9
9	11	32.7	39.3
2	-	7.1	-
-	2	-	7.1
28	28	100.0	100.0
	Ogbe-Ijoh           4           7           6           9           2           -	4     2       7     8       6     5       9     11       2     -       -     2	Ogbe-Ijoh         Pesu         Ogbe-Ijoh           4         2         14.3           7         8         25.0           6         5         21.4           9         11         32.7           2         -         7.1           -         2         -

# Table 2. Age distribution of respondents

Source: Field Survey, 2008

Marital Status	No of Respondents		Percentage		
	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu	
Single	10	10	35.7	35.7	
Married	16	15	57.1	53.6	
Divorced	1	2	3.6	7.1	
Widowed	1	1	3.6	3.6	
Total	28	28	100.0	100.0	

## Table 3. Marital status of respondents

Source: Field Survey, 2008

#### 3.1.4. Number of children of respondents

The focus here is on household size with emphasis on the number of children of the respondents. High birth rates that characterize the developing countries (Nigeria inclusive) has been one major source of the high unemployment rate and poverty confronting the region. In Nigeria, the legislated family size is six made up of a father, mother and four children. In Table 4, the number of children recorded during the survey per marketer is presented. About 71% and 86% of the dry fish marketers in Ogbe-Ijoh and Pesu respectively had between 5 and 8 children. Adding the married parents to those numbers will bring the household size to between 7 and 10 persons, which is higher than the legislated family size of six for Nigeria. The implication of this fairly large population of children per marketer is that there is increased burden and greater level of responsibility on them. According to Onwumere (2008) larger household size amounts to high rate of consumption and a disincentive to money lenders (both formal and informal) who view it as reducing the investors probability of paying back borrowed funds because of many mouths to feed. Apart from the unemployment problem created by the large family size, it also reduces the chances of such households securing loans either for the commencement or the expansion of an existing business from the formal and informal lending institutions. Large household size is sometimes blamed for the high illiteracy rates in developing economies because of insufficient funds to train the large numbers.

	No of Respondents		Percentage	
No. of Children	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
None	4	2	14.3	7.15
1-4	4	2	14.3	7.15
5-8	20	24	71.4	85.70
Total	28	28	100.0	100.0

Table 4. Number of children of respondents

Source: Field Survey, 2008

#### 3.1.5. Educational status of respondents

The educational status of the respondents is presented in Table 5. The secondary school grade was the highest level of education attained by any of the marketers. About 43% and 61% of the marketers in Ogbe-

Ijoh and Pesu respectively had secondary school qualification. This was followed by those with primary school qualification. In all, the result revealed that about 89% of the marketers in Ogbe-Ijoh and 93% in Pesu had formal education. However that level of education can be classified as low to middle level manpower. The implication of this result is that adoption of new techniques in the trade will be faster because education is known to bring about enlightenment. Onwumere (2008) also showed a positive relationship between education and access of borrower's to formal rural banking credit. The reason being that enlightened (educated) borrowers are less frightened with the bottlenecks associated with the process of borrowing (Onwuemere, 2008).

	No of Respondents		Percentage	
Level of Education	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
No. education	3	2	16.7	7.1
Primary	8	8	28.6	28.6
Secondary	12	17	42.8	60.7
Adult Education	2	1	17.9	3.6
Total	28	28	100.0	100.0

#### Table 5. Educational status of respondents

Source: Field Survey, 2008

#### 3.1.6. Marketing experience of respondents

The number of years each of the respondents have been in the dry fish trade is shown in Table 6. The result shows that those with over 6 years experience were about 82% in Ogbe-Ijoh and 68% in Pesu market. For such a large percentage of the marketers still in the business would suggest that the profitability is high and probably has low level of risk as well.

## 3.2. Sources of finance for the dry fish trade

For large scale commercial business operation, some amount of external financial support is always necessary if it is to enjoy the economies of scale. Personal funds at the startment of a business may be enough but to remain competitive or have a slight edge in the long-run, there is need to source for funds from some

established financial institutions. The sources of funds used by the dry fish marketers are shown in Table 7. A greater percentage of the respondents at Pesu market (61%) got their funds from relatives while Ogbe-Ijoh marketers depend more on their personal savings (39%) for the trade. Very few got their funds from cooperative societies and none from the banking sector. The great reliance on personal savings and relatives greatly limit the scope of the business and the profit margin from it. Two reasons can be advanced for their apathy towards bank loans. The first could be that the interest rates charge by banks for commercial loans are considered too high to make the business worthwhile. A second possible reason could be that the profit margin from dry fish marketing is rather low compared to the cost of capital from the banks. The risk element in dry fish marketing in the area especially with respect to spoilage, volume of daily sales and high transportation costs may probably be what they assess in deciding to stay away from bank loans. On a global level it has been asserted that about 25% of the dried fish produced provides nothing for either the consumers or the producers, due to physical, economic and nutritional losses (Clusas and Ward, 1996). Similarly low volume of daily sales and transportation risk could also be some major factors that have discouraged them from sourcing for funds from the banks.

Table 6. Marketing experience of respondents					
Experience (in years)	No of Respondents		Percentage		
	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu	
<than 1<="" td=""><td>-</td><td>1</td><td>-</td><td>3.6</td></than>	-	1	-	3.6	
1-5	5	8	17.9	28.6	
6-10	13	17	46.4	60.7	
>10	10	2	35.7	7.1	
Total	28	28	100.0	100.0	

# Table 6. Marketing experience of respondents

Source: Field Survey, 2008

# 3.3. Sources of dry fish supplies and the marketing channel

Dry fish sold at Ogbe-Ijoh and Pesu markets are not from Warri metropolis rather they are purchased from Ogulagha a small coastal town in Burutu Local Government Area of Delta State. It has been reported also that neighbouring villages in Bayelsa State also sell their dry fish to wholesale marketers at Ogbe-Ijoh water side

(Ikporukpo, 2005). However the marketing chain identified during the survey is shown in Figure 1. The marketing chain starts with the fishermen at Ogulagha who harvest the fishes from the coastal waters and sell them to the wholesalers there.

	No of Respondents		Percentage	
Source of Funds	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
Personal Savings	11	8	39.3	28.6
Loans from banks	-	-	-	-
Relatives	10	17	35.7	60.7
Co-operatives	7	3	25.0	10.7
Others (e.g. Union)	-	-	-	-
Total	28	28	100.0	100.0

Source: Field Survey, 2008

Wholesalers in turn process and dry the fishes. Thereafter the dried fishes are loaded into the jetties from where dry fish marketers from Warri and the environ purchase them in bulk. Usually five to ten members of the retail marketers association nominated from Warri markets, travel to Ogulagha to buy the dried fish from the wholesalers on behalf of its members.

These trips are made with speed boats or out-board engine boats. When the fishes are bought down to Warri they are shared among the members of the dry fish market associations based on individual member order. Marketers who are non-members of the association and are unable to make bulk purchases also buy from the association members.

The association members mainly sell to final consumers as shown in Figures 1. The dry fish marketers sampled for this study were all classified as retail marketers because the amount of fish purchased and traded per trip was just 2-5 baskets. A basket on the average contains about 40 - 50 dry fishes weighing approximately 20 kilogrammes.

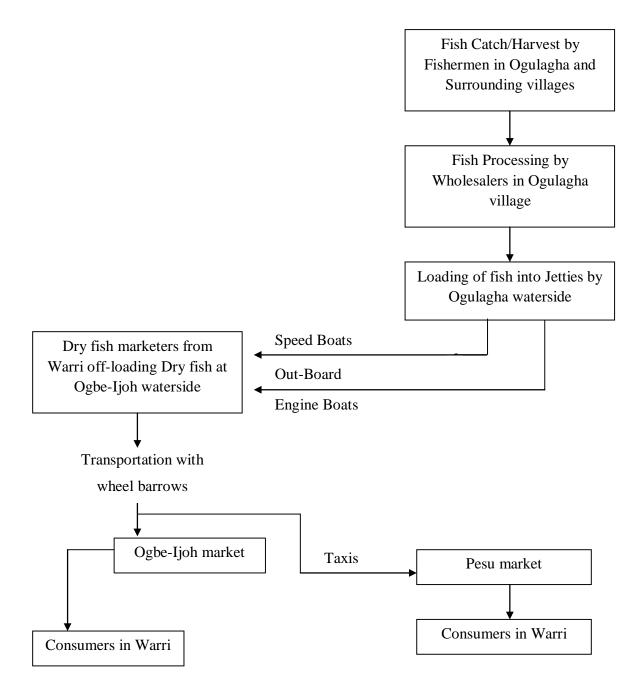


Figure 1. Dry fish Marketing Channel for Warri South Local Government Area (Source: Field Survey, 2008)

# 3.4. Cost of dry fish marketing

## 3.4.1. Purchase price per basket of dry fish

The price range for a basket of dry fish purchased by the marketers from Ogulagha in Burutu LGA is shown in Table 8. The mean purchase price per basket by marketers from Pesu market was \$14,089 as against

₩12,463 for Ogbe-Ijoh marketers. The difference is partly explained by the fact that a greater percentage of marketers in Pesu market (67.9%) bought baskets offish in the higher price range of over ₩14,000 per basket as opposed to 32.1% of marketers from Ogbe-Ijoh. Baskets with bigger size fishes cost more. The marketers at Ogbe-Ijoh invest between ₩24,926 and ₩62,315 for two to five baskets of dry fish purchased per trip. For Pesu marketers their investment per trip for the same quantity of dry fish is between ₩28,178 to ₩70,445. The wide margin between the lowest and highest investor suggest the need for some external financial assistance to aid the lower level investors in the business, for them to remain competitive. Again the wide margin and the relatively low invested capital in the business highlights the limitation of their heavy dependence on funds from personal savings and relatives.

Table 8. Cost per basket of dry fish (20kg)				
Cost of Purchase ( <del>N</del> )	No of Respondents		Percentage	
	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
< than 11, 000	9	3	32.1	10.7
11,000-14,000	10	6	35.8	21.4
14,001-15,000	9	19	32.1	67.9
Total	28	28	100.0	100.0

Mean for Ogbe-Ijoh marketers = N12,464.30 ± N1,212.70 Mean for Pesu marketers = N14,089.20 ± N1,616.20 Source: Field Survey, 2008

# 3.5. Transportation cost per basket of dry fish

Ogbe-Ijoh market is situated by Ogbe-Ijoh waterside on the coastline while Pesu market is in Warri mainland. The baskets of dry fish are conveyed first with speed boats to Ogbe-Ijoh waterside from where the marketers move them to their respective markets. While Ogbe-Ijoh marketers simply move theirs with wheel-barrows into the market due to its proximity, the Pesu traders have to hire buses or taxi cabs to convey theirs to Pesu market. The speed boat operators charge ¥1,250 per head and ¥750 per basket of dry fish. For those purchasing large number of baskets offish their average transport cost per basket will be lower as the per head cost is spread over more baskets. There is therefore some economies of scale in purchasing more baskets of fish or reducing the number of marketers chosen within the association who travel to Ogulagha per trip for the purchases.

## 3.6. Gross returns from marketing dry fish

## 3.6.1. Value of daily dry fish sales

The income realized from the daily sales of a product provides an indication of the level of demand for the product. The volume of the daily sales of dry fish by the marketers is presented in Table 9. The gross income from daily sales range from \$5,000 to \$9,000 with majority of them recording sales of between \$6,000 and \$9,000 per day.

Amount ( <del>N</del> )	No of Respondents		Percentage	
	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
< 5,000	5	-	7.9	-
5001 - 6,000	2	5	7.1	17.9
6001-7,000	10	5	35.7	17.9
7001 - 8,000	2	12	71.	42.9
8001-9,000	9	6	32.2	21.3
> 9,000	-	-	-	-
Total	28	28	100.0	100.0

# Table 9. Value of daily dry fish sales

Mean for Ogbe-Ijoh marketers =  $\$7,071 \pm \$505.7$ 

Mean for Pesu marketers = ₦7,482.20 ± ₦766.0

Source: Field Survey, 2008

Using the unit purchase price per basket, their daily sales will approximates to about half a basket per day. According to the marketers, the revenue realized from the daily sales is greatly dependent on the individual marketers outlet. While some concentrate their sales in the main market, others sell to restaurants and eateries. The latter group it is said exhaust their fish stock within 7 to 10 days whereas those who trade mainly in the market spend about two weeks or more to sell off theirs.

The study noted during the survey that the fishes sold in those markets were relatively well smoked hence the level of losses in terms of spoilage within the 7-14 day period each batch purchased is sold, will be

very minimal if any. However during the raining season when the atmospheric humidity is relatively higher the level of produce losses ;may be significant, .suggesting the need for the design of improved storage/preservation methods for dry fish. The dry fishes purchased are simply stored away in perforated baskets (without any further drying) until they are all sold out.

The study also noted that price of dry fish (which were sold per unit rather than per basket) was higher in Pesu market. As revealed in Table 10 most of the marketers at Ogbe-Ijoh sold each unit of fish between ¥350 and ¥450 while those at Pesu were mostly sold between ¥450 and ¥550 each.

Unit Selling Price of Fish ( <del>\</del> )	No of Respondents		Percentage	
-	Ogbe-Ijoh	Pesu	Ogbe-Ijoh	Pesu
250 - 350	2	0	7.1	0.0
351 - 450	18	11	64.3	39.3
451 - 550	8	17	28.6	60.7
> 550	-	-	-	-
Total	28	28	100.0	100.0

#### Table 10. Unit selling price of dry fish

Mean for Ogbe-Ijoh marketers = 4433.70 Mean for Pesu marketers = 4468.10

The difference in price can be greatly attributed to the bigger size fish marketed by Pesu marketers in addition to the higher transportation cost incurred by then, which is built into the unit price of the fish. However the profit margin made from the trade selling either the bigger size or smaller size fishes determines which option is better.

## 3.7. Costs and returns from dry fish marketing

Costs and returns from dry fish marketing were assessed at two levels - for those who purchase two baskets of dry fish per trip and for those who purchase as much as five baskets. It was not possible in the course of the survey to determine accurately the number of baskets of dry fish purchased on the average and brought into the market for every trip undertaken by the nominated members of the association who travel to Ogulagha. For this analysis therefore, the per head cost for the speed boat transportation was spread over the two or five baskets purchased by each marketer.

In Table 11 the costs and returns from trading on two baskets of dry fish per week is presented. There were two major cost items cost of dry fish purchase and transportation.

Items	Ogbe-Ijoh	Pesu
<u>Variable Cost (<del>N</del>)</u>		
No. of baskets of dry Fish	2	2
Unit Purchase Price	12,464.30	14,089.20
Total Cost of Dry Fish	24,928.60	28,178.40
Transportation Cost	2,703.60	2,803.60
Packaging	121.20	100.00
Total Variable Cost	27,753.40	31,082.00
<u>Fixed Cost (₦)</u>		
Basket	10.60	15.00
Wooden Table	23.00	21.00
Metallic Tray	50.00	38.00
Market Charges	20.00	20.00
Total Fixed Cost	103.60	94.00
Total Cost	27,857.00	31,176.00
Gross Revenue	33,228.56	36,057.14
Gross Margin	5,475.16	4,975.14
Net Profit	5,371.56	4,881.14
Returns/Naira	0.19	0.16

The costs of dry fish and transportation accounted for about 90% and 9% of the total marketing cost respectively. Together both accounted for 99% of the total cost of dry fish marketing implying that the fixed costs components are rather negligible. The lower net profit margin for Pesu marketers (¥4,881.14) showed that there was no relative advantage in purchasing more expensive baskets of fish containing bigger size fishes. The Ogbe-Ijoh marketers with lower priced baskets offish had a higher net profit margin of ¥5,371.56 as against ¥4881.14 for Pesu marketers. The difference amounted to ¥245 per basket of dry fish sold. On the average the net profit per basket varied from ¥2,440.75 for Pesu marketer to ¥2,685.78 for Ogbe-Ijoh marketers. The positive net profit margins, however show that the trade is profitable. The returns of 19 kobo and 16 kobo per ¥1.00 invested highlights a reality, that profit margins in Nigerian agriculture or agriculture related investments are low. With investment returns of 19% and 16% respectively, seeking for commercial bank loans whose interest rates are between 20 - 25% would amount to a chase of the mirage. The low investment returns may as well be due to the low invested capital in the business. This hypothesis was tested by examining the returns of marketers who purchased as much as 5 baskets of dry fish per trip. In particular

the issue of economies of scale was assessed by looking at the returns from marketers who purchase as much as 5 baskets of dry fish per trip. As shown in Table 12 the net profit per basket varied from  $\frac{1}{42}$ ,855.35 to  $\frac{1}{43}$ ,074.76 for marketers at Pesu and Ogbe-Ijoh respectively. Comparing these returns to the profit margins of  $\frac{1}{42}$ ,440.57 to  $\frac{1}{40}$ ,685.78 for marketers who trade on only two baskets per trip it shows that marketers who purchased more baskets of fish had higher profit margins a factor that can be attributed to economies of scale. Returns per Naira invested were 23 kobo and 19 kobo for Ogbe-Ijoh and Pesu marketers respectively. The higher rate of return for Ogbe-Ijoh marketers (23%) compares favourably with the commercial bank lending rates of 20 - 25% but leaves no reasonable margin for the borrower. The two scenario point to a major fact that for banks to play a major role in solving Nigeria's unemployment and poverty problems, their lending rates particularly for agriculture and its related sub-sectors, would have to be reduced to at least one-digit lending rates. Dry fish marketing like other related agricultural businesses have proven to be profitable but their scale of operations are still low making it impossible for the business are consumed, thus nothing is left for reinvestment and expansion of the businesses. The result is that these low scale investors continue to operate within the viscious cycle of poverty hence poverty remains pervasive.

## 4. Conclusion

This study has attempted to examine the potentials and challenges of dry fish marketing as a way of complementing governments' effort at solving Nigeria's twin problems of unemployment and poverty alleviation. The study noted that an integrated approach involving the citizens, the government and the banking sector would probably be the only way out of the crises. Among other things a stronger legislation on birth control has to be introduced. With a household size of about 7 to 10 persons which was observed among the dry fish marketers in Warri area, the problem of unemployment is being further worsened while the little margin from the dry fish trade will also not make any major impact in solving the poverty problem due to the high household consumption rate. The study noted in particular the economies of scale in dry fish marketing: the more baskets of dry fish purchased and traded the higher the unit profit margin and the higher the returns per Naira invested. This suggests a need for the marketers to scale up their level of operation. This appears to be only possible through the assistance of formal banking who should be compelled by the government to implement unit-digit interest rates for loans to small - to medium scale businesses. The marketers present dependence on personal savings and contributions from relatives in the management of the dry fish trade, have not done much to improve their scale of operation. The study noted that the dry fish trade is profitable with investment returns of between 16% and 23% but all were relatively lower than the commercial bank lending rates of 20 - 25%. The issue of government providing a cheaper means of transportation for those living and operating in the Riverine areas was also stressed in this study. Transportation cost accounted for 10% of the total dry fish marketing cost. This was viewed as rather high. If the issues raised in this study are addressed, dry fish trade provides a viable option for solving Nigeria's twin problem of unemployment and poverty.

Items	Ogbe-Ijoh	Pesu
<u>Variable Cost (₦)</u>		
No. of baskets of dry Fish	5	5
Unit Purchase Price	12,464.30	14,089.20
Total Cost of Dry Fish	62,321.50	70.446.00
Transportation Cost	4,953.60	5,053.60
Packaging	303.00	250.00
Total Variable Cost	67,578.10	75,749.60
<u>Fixed Cost (N)</u>		
Basket	26.50	37.50
Wooden Table	23.00	21.00
Metallic Tray	50.00	38.00
Market Charges	20.00	20.00
Total Fixed Cost	119.50	116.50
Total Cost	67,697.60	75,866.10
Gross Revenue	83,071.40	90,142.85
Gross Margin	15,493.30	14,393.25
Net Profit	15,373.80	14,276,75
Returns/Naira	0.23	0.19

# Table 12. Costs and returns from dry fish marketing

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