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Analysis of Marketing Channel and Market Structure of Dried Fish in Maiduguri Metropolis of Borno State, Nigeria

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ABSTRACT
The study examined channel and market structure of dried fish in Maiduguri Metropolis of Borno State, Nigeria. Data were obtained using structured questionnaire. Three (3) major dried fish markets were purposely selected out of the seven (7) markets in the study area to reflect areas where dried fish sellers are predominantly found. A total of 100 respondents from the three (3) markets were randomly selected for the study. Descriptive statistics, Ginni coefficient, least square simple regression and budgetary techniques were used as analytical tools. The result reveals that marketing channel is divided into wholesalers and retailers of fresh and processed fish (dried fish). The finding also indicates that the values of Ginni coefficient were (0.5478) and (0.5252) for wholesalers and retailers, respectively. And the dried fish market had non competitive behaviour with monopolistic nature. The finding also reveals that (82%) of the marketers engaged in marketing Grade C dried fish products. The result of economies of scale reveals that the coefficient of wholesalers was (-0.005) while that of retailers was (-0.741) and are all negative but, statistically significant at 1% and 5%, respectively. It was recommended that local dried fish marketers should be organized into cooperative groups and government should provide adequate infrastructural facilities such as good road net work and market facilities.
Keywords: Marketing channel, Market Structure, Dried fish, Borno State, Nigeria.

INTRODUCTION

Marketing channel is simply the path of a commodity from its raw form to the finished product or the path of a product as it moves from the producers to the final consumers (Olukosi *et. al.*, 2005). In other word, it is the sequence of intermediaries or middle, and the marketers through which goods passes from producers to consumers (Olukosi *et. al.*, 2005). Marketing channels are important in evaluating marketing system because they indicate how the various market participants are organized to accomplish the movement of a product from the producer to the final consumers. Thomas *et. al.* (2000) indicated that modern society goods are marketed through a very complex distribution structure in which exist a variety of different forms of specialization. The channel of distribution is a combination of institutions through which a smaller markets his product to the user or ultimate consumer channel is not only instrumental in facilitating the physical flow of goods, but it is also the structure through which much marketing effort is channeled to buyers.

Market structure is the physical appearance of the market in term of the degree of product differentiation, market integration, concentration (number and size of buyers and sellers). Okereke and Anthonio, (1988) reported concentration as an important variables in market structure analysis. In the study of market structure, it is also ideal to investigate buyers' condition, however, this is not applicable here because the consumers are not industrial users of the commodity in which case, an Oligosony –oligopoly may result (Yusuf *et. al.*, 2003)

Fish marketing enterprise is an important agricultural domain. Roheim and Sutinem, (2006) declared that seafood is one of the most extensively traded commodities in the world and export of fish produce from developing countries, comprise 20% of agriculture and food processing exports and is likely to increase as demand for fish produce continues to increase. Neiland *et. al*, (2005) revealed that in 2004, the fishery sub-sector contributed to the food and nutritional security of 200 million Africans and provided for the 10 million engaged in fish production, processing and trade.

Nigeria is blessed with a vast expanse of inland fresh waters and marine brackish ecosystem, which are very rich in aquatic life. Tall (2004), however, observed that Nigeria's fish production volume of 0.5 million tones cannot meet the annual demand of 1.3 million tones. Average annual fish consumption in the country has therefore stagnated at 9.2kg per capita, which is quite below the world average of 13kg per capita, a situation that resulted in a huge supply and consumption gap. Fish and fish products contributed 6% to the gross domestic product (GDP) of the country in 2006 (Kainga and Adeyemo, 2012). About 90% of fish produced in Nigeria is sold in the local market as a cheap source of protein to the growing population and fish is made up 40% of dietary protein consumption in the country (Kainga and Adeyemo, 2012). Nigerian fish market is characterized by indigenous mechanism depending on season, ability of buyer to bargain and of course the concept of demand and supply. Fisheries development depends on improved production and processing technology and also on effective marketing system. The Inter Academy Council (IAC) (2004) has also reported that future projections indicate a wider supply-demand gap. Over 90% of domestic fish supply in Nigeria comes

from artisan capture. The process of transferring the produce from the landing point to the end-users, introduces the concept of marketing.

In rural and fishing communities in Nigeria, fish is known to play a significant role in the diet, providing up to 75% of the total animal protein intake (Department for International Development-Food and Agriculture Organization, 2002). In many developing countries, the dependency on fish remains high as substitutes in the form of other animal foods are inaccessible to the poor (Kent, 1987).

Marketing havoc faced by fish marketers was a direct confirmation of Farrington *et. al.*, (2002) assertion that farmers need extension education on a diverse range of rural development options, including: information on markets, rural enterprises and other income generating opportunities. Okonko (2001) also opined that fish handling is a very delicate business and needs several strategies to reduce post-harvest losses. This is a disconcerting confirmation of Tall (2004) postulation, to the effect that there is a low dissemination of appropriate fisheries related technologies in Nigeria, resulting to insufficient knowledge of fish handling, preservation, processing and distribution methods.

The sustainable fisheries livelihood program attributed this trend to the limited contribution of fisheries research to fishery policy formulation in Nigeria (SFLP/DFI/FAO, 2002). This is because the main actors in the fisheries policy development process are government administrators rather than key fisheries research (Neiland and Bene, 2004). The situation above has resulted in a lot of negative consequences for the fishery sub-sector of the economy, most especially with respect to lack of appropriate coordinated policies for fish trade. Ladu *et. al.*, (2000) asserted that the Nigerian government has no specific policy on fish trade, except for levy of taxes. The negative fallouts from forgoing reported situation include the threat of weak fisheries governance, elite capture of wealth and benefits emanating from fish trade and failure of the dominant poor, who are the direct stakeholders in the fishery industry to capitalize on the potentials for development action provided by the over US 50 million dollars per annum wealth inherent in the fish marketing industry (Neiland and Bene, 2004; Neiland *et. al.*, 2005).

Nigerian fish marketers are, therefore, 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 (Nwankwo and Ogalue, 2000). There appears to be no existing study carried out on channel and market structure of dried fish in the study area to the knowledge of the researcher. It is against this background that this study was conceptualized to examine channel and market structure of dried fish in Maiduguri Metropolis of Borno State, Nigeria towards bridging the gap in dried fish marketing research in the study area.

The study attempts to provide answers to the following questions:

i) What are the various marketing channels for dried fish in the study area?

ii) What is the structure of dried fish market in terms of degree of buyers and sellers concentration, product differentiation and ease of/or barrier to entry/exist?

Objectives of the Study

The main objective of the study was to examine channel and market structure of dried fish in Maiduguri Metropolis of Borno State, Nigeria. Specific objectives are to:

i) identify the various marketing channels for dried fish in the study area;

ii) describe structure of the market in terms of degree of buyer and sellers concentration, product differentiation and ease of/or barrier to entry/exist;

THEORETICAL FRAMEWORK

A market is generally believed to be a point or avenue for buying and selling, a place where demand and supply forces interact. These interactions determine the market price and quantity of the product. A pair or set of goods would fall under the same market and interact amongst themselves based on how close they are in terms of the satisfaction derived from them by the consumers i.e. how substitutable they are. Asche *et. al.* (1997) described a market based on microeconomic theory as being defined over a set of commodities; and that these commodities interact and compete with each other in the same market based on consumer preferences.

Marketing channel is simply the path of a commodity from its raw form to the finished product or the path of a product as it moves from the producers to the final consumers. In other word, it is the sequence of intermediaries or middlemen, and the marketers through which goods passes from producers to the consumers (Olukosi *et. al.*, 2005). Marketing channels are important in evaluating marketing system because they indicate how the various market participants are organized to accomplish the movement of a product from the producer to the final consumers. Thomas *et. al.* (2000) indicated that modern society goods are marketed through a very complex distribution structure in which exist a variety of different forms of specialization. The channel of distribution is a combination of institutions through which a seller markets his product to the user or ultimate consumer. Marketing channel is not only instrumental in facilitating the physical flow of goods, but it is also the structure

through which much marketing effort is channeled to buyers. Marketing channels are important characteristics in the process of getting produce from source to consumers. Olukosi and Isitor (1990) categorized marketing channels into centralized and decentralized channels. Centralized channels deals with agents who serve as middleman between producers an d consumers while decentralized is a kind of channel where both consumers and agents can buy, directly from the producers (Madugu and Edward, 2011). Fish distribution channel is common to most developing countries with series of middlemen between producers and consumers (Moses, 1992). According to Eyo (2001) processed fish is sold as smoked or dried without varieties as fish fingers, cakes and other ready to serve fish foods to stimulate wider interest in marketing, distribution and consumption. Fish supply and marketing suffer from various setbacks ranging from shortage of supply, price fluctuations due to drying up of source, poor distribution and length of chain, spoilage in transit etc. (Tomek and Robinson, 1981). Furthermore, due to the cumbersome nature of fish distribution channel, the local fish seller is faced with the problem of profit maximization. According to Adeosun and Adebukola (2012) marketing channels can be identified using the respondents and the route through which fish was transferred from producers or wholesalers to consumers.

Market structure consists of the characteristics of the organization of a market which seems to influence strategically the nature of competition and pricing within the market (Harris, 1993). The set up of the market consist of the degree of concentration of buyers and sellers' integration, product differentiation and the degree of competition between buyers and sellers. Similarly, Okereke and Anthonio, (1988) indicated market structure as the physical appearance of the market in term of the degree of product differentiation, market integration, concentration (number and size of buyers and sellers). According to Okereke and Anthonio, (1988) market concentration is an important variable in market structure analysis. In the study of market structure, it is also ideal to investigate buyers' condition. However, it is not applicable where the consumers are not industrial users of the commodity in which case, an Oligosony –oligopoly may result (Yusuf *et. al*. 2003).
According to Dillon and Hardaker (1993) market structure can be examined by using the Lorenz curve or Gini coefficient. They noted that Lorenz curve can be obtained by plotting cumulative proportion of sellers from the smallest number to the largest against cumulative proportion of their sales earnings. If the distribution is totally equitable, the curve will fall on the 45 – degree line. The greater the inequality level, the greater farther away from 45 – degree line. While Gini coefficient is the rate of the area between the curve and the 45 – degree line to the area under the 45 – degree line (Dillon and Hardaker, 1993). It is also a measure of inequality. Gini coefficient value greater than 0.35, indicates inequitable distribution (Dillon and Hardaker, 1993). In other words, higher Gini coefficient value means higher level of concentration and consequently, high inefficiency in the market structure. Adeleke and Afolabi (2012) indicated Gini –coefficient value of 0.5292 for fresh fish market in Ondo State, Nigeria, which shows high level of concentration and consequently high inefficiency in the Ondo State fish market structure. Similarly, Dillion and Hardaker (1993) in their finding indicated that value of Gini coefficient greater than 0.35 is high, indicating inequitable distribution of sales income/sales among marketers. Gona *et. al.* (2004) showed that the degree of concentration of marketers is indicated by the value of Gini coefficient. The Gini coefficient value ranges from zero to one. A perfect equality in concentration (low) of sellers is expected if Gini coefficient tends towards zero, while perfect inequality in concentration (high) of sellers is expected if Gini coefficient tends towards one. That is, if Gini coefficient = 1 market is imperfect, and if Gini coefficient = 0 market is perfect and competitive. Barriers to entry into marketing is measured in terms of cost of initial capital investment into a business, meaning only those that can afford such a huge amount of money as initial capital are financially buoyant to enter the business (Gona *et. al.*, 2004; Alamu *et al.* (2004). According to Gona *et. al.* (2004) product differentiation indicates goods of the various sellers in the markets whether heterogeneous or homogenous in terms of appearance and name. The product differences may exist in terms of flavour, taste and preparation methods. Afolabi (2004) noted that majority of the sellers of agricultural products used both open display and persuasive methods to draw the attention of consumers. Imoudu and Afolabi (2002) opined that market structure for agricultural products in Nigeria is not perfectly competitive due to collusive tendencies of sellers by forming associations for particular product.

METHODOLOGY

Study Area

The study area is Maiduguri Metropolis, the capital of Borno State of Nigeria. It lies within latitudes 10–14^{0}N and longitude 11^{0}30^{1}E, and 14^{0}45^{1}E. It occupies a total landmass of 50,778sq km (Ministry of Land and Survey Maiduguri, 2008). It shares boundaries with Konduga Local Government Area to the North and Northwest and Jere Local Government Area to the South.

The climate of the study area is characterized by dry and hot season, with mean annual temperature of 25^{0}C. The hottest months are March and April with maximum temperature of 35–37^{0}C, while the coldest months

are December and January with rainfall of about 500 – 700mm per annum (Nigeria Meteorological Agency, 2008). The vegetation is tropical Sahel Savannah consisting of mainly grasses with few drought resistant trees like *Acacia albida*, Neem Trees, etc.

Maiduguri Metropolis has a estimated population of 521,492 people out of which 290,449 were male while 231,043 were female (NPC, 2006). Majority of the inhabitants are farmers, fishermen, traders or civil servants. The major ethnic group is Kanuri, others include Shuwa Arabs, Babur/Bura, Marghi, Fulani and Hausa, and many immigrant settlers from within and outside Nigeria, and English is the official language (BOSADP, 2007). Major crops produced in the area include millet, sorghum, maize and groundnuts.

Sampling Techniques

Three (3) markets were purposively selected out of the seven (7) markets in the area. These are markets where dried fish are predominantly sold. These markets include: Tashan Baga Market, Gamboru Market and Monday Market. A total of 100 dried fish marketers were randomly and proportionately selected from the three (3) markets which were used for the analysis.

Data Collection

Data for the study were obtained from both primary and secondary information sources. The primary data were collected with the aid of a structured questionnaire administered to 100 fish sellers. Personal interview was also conducted and results of the interview were interpreted in the questionnaire. While the secondary information was obtained from textbooks, journals, past projects, internet, conference papers, etc.

Analytical Techniques

Descriptive statistics such as frequency, percentage and charts were used to interpret the marketing channels of dried fish, product differentiation and Ginni coefficient was use to determine market concentration while simple regression model was used to determine scale economies.

Marketing Channel

Marketing channel is simply the path of a commodity from its raw form to the finished product or the part of a product as it moves from the producers to the final consumers. In other words it is the sequence of intermediaries or middlemen, and the marketers through which goods passes from producers to consumer (Olukosi *et. al.,* 2005).

Market Structure

The structure of dried fish markets was described based on findings on concentration, product differentiation, market knowledge and ease of/or barrier to entry or exist.

a) **Concentration**

The Ginni coefficients were used to determine the degree of market concentration of sellers in the market. According to Okereke and Anthonio (1988), Ginni coefficient is more precise than Lorenz Curve. But other researchers like Pomeroy (1989) suggested Lorenz Curve as precise as Ginni coefficient. The Ginni coefficients were computed by using the following formular according to Okereke and Anthonio (1988):

$G = 1 - \sum xy$

Where:

G = Ginni coefficient.
x = Percentage share of each class of seller.
y = Cumulative percentage of the sales.

The Ginni coefficient ranges from zero to one. A perfect equality in concentration (low) of sellers is expected if GC tends towards zero, while perfect inequality in concentration (high) of sellers is expected if GC tends towards one, if G = 1 market is imperfect, and if G = 0 market is perfect and competitive.

b) **Product Differentiation**

Simple percentage and descriptive statistics were use to classify dried fish into grade A, B and C.

c) **Ease of/or Barrier to Entry or Exit**

In a perfect competitive market, there is ease of entry or exit by sellers. The market becomes imperfect when sellers concentration is not even (imbalance).Scale economies is the measure that was use to determine entry and exit conditions in the market. It is a measure that examines the average cost function associated with the sellers' marketing activities. This was computed using least square regression of the form:

$y = b_0 + b_i x_i + e$ (Pomeroy, 1989).

Where:

y = Total cost of marketing per class of seller per week (₦).
x_i = Number of dried fish (cartoon) sold per week.

b_i = Coefficient of explanatory variables.
bo = Intercept

e = Error term.
If the coefficient of b_i is negative, it means as quantity increases, cost decrease. This increase in cost could form barrier to entry especially by sellers that are not financially sound.

RESULTS AND DISCUSSION

Marketing Channel for Dried Fish in Maiduguri Metropolis of Borno State, Nigeria

The marketing channel of dried fish was examined. The findings are presented in figure 1 below:

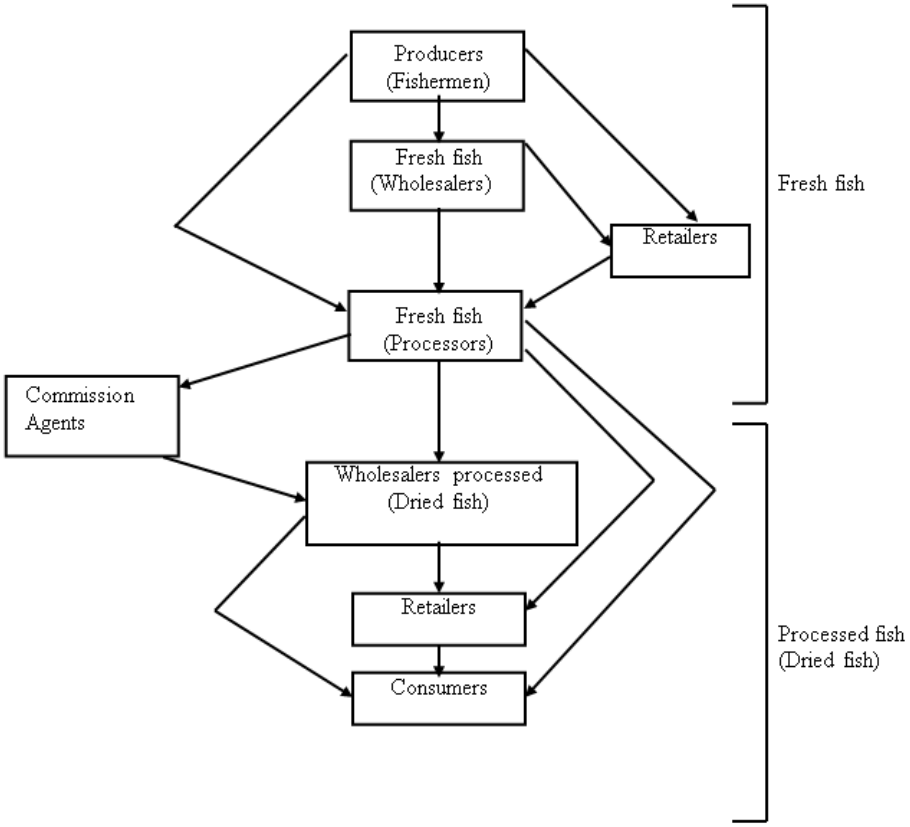

Fig. 1: Marketing channel for dried fish in Maiduguri Metropolis of Borno State, Nigeria.

Source: Market Survey, 2010.

Analysis of the finding in Figure 1 shows that marketing channel of dried fish is divided into two parts. That is, wholesalers and retailers of fresh and already processed fish (dried fish). The wholesalers and retailers of fresh fish are located on the upper part of the channel followed by raw fish processors who also sell the processed fish. The raw fish processors buy from the wholesalers and sell through commission agents or directly to wholesaler of already dried fish, who then sell to the retailers and consumers. There are also retailers of raw fish who buy raw fish from producers and wholesalers, processed it through fish processors, before selling to the consumers. On the lower part of the channel are wholesalers of dried fish who use the services of commission agents to buy from fish processors who are wholesalers of processed dried fish or buy directly from the processors and sell to retailers and consumers.

Analysis of the marketing channel also provides a systematic knowledge of the flow of goods and services from their origin (producer) to the final destination (consumer). Along the channel are agents who perform physical functions in order to obtain economic benefit. The market channel for dried fish in Maiduguri metropolis is as long as there are many intermediaries in the marketing system, resulting in high price, Omamo (2001) showed that transaction cost drive largely enough wages between producer and consumer prices and with

significant reduction in these transaction costs, the lesser the difference in prices between producers and urban consumers.

Market Structure of Dried Fish in Maiduguri Metropolis

The structure of dried fish markets was examined based on the degree concentration, product differentiation, market knowledge and ease of/or barrier to entry or exist.

Degree of Market Concentration of Sellers in the Market

The degree of market concentration was examined from both wholesalers and retailers of dried fish. The findings are presented in Table 1 and 2.

Distribution of Dried Fish Sellers (Wholesalers)

Table 1: Weekly Sales Distribution of Dried Fish (Wholesalers) in Maiduguri Metropolis of Borno State, Nigeria

Sales Interval (₦)	No. of Whole-Salers	% of Wholesalers (x)	Cumulative Percentage	Total Value of Weekly Sales (₦)	% of Total Sales	Cumulative Percentage (y)	∑xy
200,000-250,000	2	4.17	4.17	450,000	1.54	1.54	0.0006
251,000-300,000	4	8.33	12.50	1,102,000	3.81	5.35	0.0045
301,000-350,000	3	6.25	18.75	976,500	3.37	8.72	0.0055
351,000-400,000	5	10.42	29.17	1,877,500	6.48	15.20	0.0158
401,000-450,000	6	12.50	41.67	2,553,000	8.82	24.02	0.0300
451,000-500,000	8	16.67	58.34	5,608,000	19.37	43.39	0.0723
501,000-550,000	7	14.58	72.92	5,432,000	18.76	62.15	0.0906
551,000-600,000	3	6.25	79.17	1,726,500	5.96	68.11	0.0426
601,000-650,000	4	8.33	87.50	3,704,000	12.79	80.90	0.0674
651,000-700,000	2	4.17	91.67	1,351,000	4.67	85.57	0.0357
701,000-750,000	1	2.08	93.75	725,500	2.51	88.08	0.0247
751,000-800,000	3	6.25	100	3,453,000	11.92	100	0.0625
Total	**48**	**100**		**28,959,000**	**100**		**0.4522**

Source: Market Survey, 2010.

Mean value of weekly sales = ₦603, 312.5

Ginni coefficient = 1-0.4522

GC = 0.5478

Analysis of the finding in Table 1 indicates that 16.67 percent of the wholesalers had weekly sales between ₦451, 000 – ₦500, 000 representing 19.37 percent of the total volume of weekly sales. About 12.50 percent of those with average weekly sales ranging from ₦401, 000 – ₦450, 000 accounted for 8.82 percent of total weekly sale. The mean value of weekly sales was ₦603, 312.5. The empirical results indicate that the wholesaler of dried fish were concentrated with Ginni coefficient of 0.5478, indicating the possibility of existence of non-competitive behaviour with monopolistic nature.

Distribution of Dried Fish Sellers (Retailers)

Table 2: Weekly sales distribution of dried fish (retailers) in Maiduguri Metropolis of Borno State, Nigeria

Sales Interval (₦)	No. of Retailers	% of Weekly Sales (x)	Cumulative Percentage	Total Value of Weekly Sales (₦)	% of Total Sales	Cumulative Percentage (y)	∑xy
10,000-50,000	4	7.69	7.69	120,000	1.45	1.45	0.0011
51,000-100,000	8	15.38	23.07	604,000	7.28	8.73	0.0134
101,000-150,000	10	19.23	42.30	1,255,000	15.13	23.86	0.0459
151,000-200,000	15	28.85	71.15	2,632,500	31.74	55.60	0.1604
201,000-250,000	9	17.31	88.46	2,029,500	24.47	80.07	0.1386
251,000-300,000	6	11.54	100	1,653,000	19.93	100	0.1154
Total	**52**	**100**		**8,294,000**	**100**		**0.4748**

Source: Market Survey, 2010.

Mean value of weekly sales ₦159, 500.

Ginni coefficient = 1 – 0.4748

= GC = 0.5252.

Analysis of the finding in Table 2 indicates that about 28.85 percent of the retailers had sales range of ₦151, 000 – ₦200, 000 representing 31.74 percent of the total weekly sales. This was the highest, followed by retailers with sales range of ₦101, 000 – ₦150, 000, constituting 19.23 percent of the total retailers and handling 15.13 percent of the total sales. The mean weekly sale was ₦159, 500. The empirical findings also revealed that

the market was non competitive with Ginni coefficient of 0.5252. This indicates that the market is concentrated with monopolistic nature.

The reason is obvious, people differ in their risks preference and those with high propensity to take risks tend to choose more risky ventures, which could lead to larger earnings and more profits. This strengthens their market power and engenders concentration (Okereke and Anthonio, 1988). In the dried fish retail market, the low capital outlay makes entry easy. This makes seller concentration moderate less, and there is on the average, a disposition towards lower profits and hence the presence of many buyers and sellers

Product Differentiation

Dried fish products in the markets were classified into grade A, B and C. The findings are presented in Table 3

Table 3: Product Differentiation of Dried Fish (n = 100)

Class of dried fish	Frequency	Percentage*
Grade A	56	56
Grade B	74	74
Grade C	82	82
Total	212	212

Source: Market Survey, 2010.

* Multiple responses existed hence percentage is greater than 100.

The analysis of the result of product differentiation revealed that 56% of the respondents engaged in marketing of grade A of dried fish in the study area, 74% market grade B, while 82% of the respondents are involved in marketing of grade C. This shows that grade C is highly marketed in the study area.

Scale Economies

The average cost function with the dried fish sellers' marketing activities was used to determine entry and exit conditions in the dried fish market. The findings are presented in Table 4.

Table 4: **Least Square Quadratic Regression Estimates**

Marketers	Coefficients	Standard Error	T-value	F-value	R^2	Significant Level	Number
Wholesalers	-0.005	21,256.291	215.056	1.966	0.999	0.000*	48
Constant	0.017	78,501.047	569.61	–	–	0.000*	–
Retailers	-0.741	0.240	3.086	9.524	0.169	0.03**	52
Constant	10.397	0.716	14.519	–	–	0.000*	–

Source: Market Survey, 2010.

* = Significant at 1% level

** = Significant at 5% level.

Analysis of the result in Table 4 reveals that the coefficient of determination (R^2) was 0.999 for wholesalers, meaning that the average marketing cost explains 99% of the quantity of dried fish marketed. The coefficient of the quantity marketed is negative (-0.005) and statistically significant at 1% level. The implication is that as the quantity of dried fish marketed increases, the average marketing cost is reduced. This result from bulk purchases, transportation and processing. Thus, confirming the presence of economy of scale. For the retailers, the coefficient of determination (R^2) is (0.169) meaning that the average marketing cost explains 16.9% of the quantity of dried fish marketed. The coefficient of the quantity marketed is negative (-0.741) and statistically significant at 5% level. This implies that as the retailers increased the quantity, the average marketing costs were lowered and profit increased. This indicates the presence of scale economies. This supports the finding by Iheanacho (2000) that marketing cost among wholesalers decreased to the extent that unit costs are lower than their counterparts because of their size in business.

CONCLUSION AND RECOMMENDATIONS

The significant role of the fishery sub-sector in Borno State and Nigeria's economy cannot be overemphasized considering the fact that fish and fish products contributes larger proportion to the gross domestic product (GDP) of the country. About 90% of fish produced in Nigeria is sold in the local market as a cheap source of protein to the growing population. Fish also made up 40% of dietary protein consumption in the country and dried fish marketing in Maiduguri, Borno State of Nigeria is a lucrative business. Based on result of the study we conclude that in Maiduguri Metropolis of Borno State, Nigeria, dried fish pass through various marketing processes, participants and exchange points before they reach the final consumers. These market intermediaries are the whole sellers and retailers. Both play an important role in dried fish marketing system. We also concluded that the channel of dried fish marketing is divided into two wholesalers and retailers of fresh and already processed fish (dried fish). The market structures for wholesalers and retailers of dried fish were concentrated and have non competitive behaviours with monopolistic nature. The high market margin in

the dried fish market indicates an exploitative nature of the market, while the high market concentration suggests the presence of entry barriers and the price setting practices tend to be collusive. The study also indicates that grade C dried fish product was highly marketed and there were scale economies. The following recommendations are suggested based on the findings:

i) To improve the quality of dried fish handled by fish marketers, effort should be made to train the marketers on efficient fish processing and storage techniques. Attainment of such knowledge could help to reduce the level of losses and improve profit.

ii) The local fish marketers should be organized into cooperatives. This could be of help to members to improve their business through assistance such as loans and other benefits from the cooperative society.

iii) The private sector in collaboration with the Nigerian government should adequately provide infrastructural facilities such as good roads; good market facilities and so on to reduce marketing cost of dried fish in the study area.

iv) Government should make effort to standardize the unit of measurement for dried fish throughout the nation, so as to check the fraudulent activities in dried fish marketing.

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