

## Investigation of Producer Exploitation Along Dried Fish Marketing Channels in Benue State, Nigeria

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### Abstract

*The study examined the level of producer exploitation by middlemen along the dried fish marketing channels in the rural and urban areas of Benue State, Nigeria. A multistage sampling technique was used to select 226 dried fish marketers from Makurdi, Otukpo, Guma, and Agatu LGAs in the State. Data were collected using questionnaire and analysed with the aid of descriptive statistics (figures) and Marketing Margin. The results revealed that the producers/processors sold dried fish directly to wholesalers, retailers, consumers and hotels/restaurants. It also revealed that the producer exploiters along the marketing channels were the wholesalers in both the rural (0.19) and urban markets (0.16).*

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### Introduction

Fishery is one of the fastest growing subsectors of Nigerian agriculture competing highly with livestock and crop production. Its importance is extended to all nations, especially, the developing and low-income earning countries like Nigeria. This is evident from the report of Food and Agriculture Organization – FAO (2007) which noted the contribution of fish to be more than 60.0% of the world total supply of protein. The significance of fish and its products in human and livestock feed as reported in several studies cannot be overemphasized (FDF, 2007). While commenting on the benefits of fish, Abiodun *et al.* (2016) observed that fish products are relatively cheaper than other animal protein sources such as beef, meat, mutton and turkey. He also noted that fish is suitable for complementing high carbohydrate diets common among developing countries like Nigeria. Nigeria is a country blessed with vast natural and human resources suitable for fish production on a large scale. The country has over 14 million hectares of reservoirs, flood plains, natural and artificial lakes, ponds and major rivers (Federal Department of Fisheries – FDF, 2007: Olaoye *et al.*, 2017). These make the country to have the potential of increasing agricultures' contribution to Gross Domestic Product (GDP) through increased fish farming. Despite the favourable conditions that support fish production, the Nigerian governments spent billions of Nigeria's hard-earned naira on importation of frozen fish, turkey and chickens in order to bridge the gap between fish supply from local production and the increasing fish demand of the teeming population of the country (FDF, 2007: Olaoye *et al.*, 2017). This is also irrespective of the proactive

programmes of the government like the National Fadama Development Projects that aimed at increasing fish production in Nigeria. Reasons for the deepening gap between the demand and supply of fish is not limited to low local production it includes post-harvest losses of fish. This is because fish is highly susceptible to deterioration without any preservation or processing measures (Okonta and Ekelemu, 2005). The deterioration is caused by series of changes brought about by enzymes and bacteria in dead fishes. Hence, fish deteriorates as soon as it is caught or dies (Obasohan *et al.*, 2012). On these bases, immediate attention needs to be given to proper handling and preservation of fish as soon as it dies so as to extend its shelf life, while retaining its quality. A good means of achieving this is through smoking/drying of fish which is the removal of most of the water content from the flesh and the depositing of preservative chemical on the fish's flesh (Adewuyi *et al.*, 2013). Smoking/drying imparts a unique taste and flavour to the fish besides its preservative effect (Obasohan *et al.*, 2012; Ezike *et al.*, 2013). The annual increase in the demand for local fish in Nigeria (Ali *et al.*, 2008) makes marketing of dried fish a viable enterprise to explore. There are various channels through which dried fish must pass before reaching the final consumers in time and in their desired form. The prices of fish changes as it passes through the middlemen so that by the time it gets to the consumers it becomes quite expensive resulting in its unaffordability, as well as its unavailability to the average buyers.

Satish and Sharangoud (2020) noted that despite implementing plans to increase farmers' incomes, the government fails to bring profits to farmers as middlemen take a significant portion of their profits. Intermediaries specialize in performing essential activities in the buying and selling of goods on their way from farm to final consumer. They usually don't produce anything, but they have extensive knowledge of the market, so they charge commission for their services. It is a common belief that middlemen are responsible for the low share of farmers in the consumer's revenue, and they are accused of exploiting farmers. Much work has been done on the economics of fish marketing. However, studies on the investigation on the level of producers' exploitation along dried fish marketing channels in Benue State are still scarce. This study is designed to bridge the gap by identifying the marketing channels adopted in the study area as well as estimate the level of producers' exploitation by middlemen along the marketing channels.

## Methodology

The study was conducted in Benue State, which is one of the 36 States of Nigeria located in the North-Central. The State has 23 Local Government Areas (LGAs), and its Headquarters is Makurdi. Benue State lies in the middle belt region of Nigeria between longitudes 6°35'E and 10°E of the Greenwich meridian and latitudes 6°30'N and 10°N of the Equator. The State has a landmass of 30,955 square kilometers (Benue State Agricultural and Rural Development Authority (BNARDA), 1998) as well as estimated population of 7,992,784 with 413,159 farm families (National Population Census, 2006). Most of the people in the State are farmers while inhabitants of the riverine areas engage in fishing as their primary or important secondary occupation. Benue State experiences two distinct seasons, the wet season and the dry season. The rainy season lasts from April to October with annual rainfall in the range of 150-180mm and the dry season begins in November and ends in March. Benue State is acclaimed the nation's food basket because of its

diverse rich agricultural produce which include yams, rice, beans, cassava, soya beans, benniseed, maize, millet, tomatoes and a lot of fruits. Poultry, goat, sheep, pigs and cattle are the major domestic animals kept.

### **Sampling Techniques and Data Collection**

Multi-stage sampling technique was used for sample selection in the study. The first stage was purposive selection of four LGAs which include Makurdi, Otukpo, Guma and Agatu because of their high level of dried fish marketing activities as well as their urban and rural status. Secondly, four markets prominent in fish marketing were purposively selected from the urban areas and four markets from the rural areas as well. The urban markets include Wadata, Wurukum, Otukpo main market and Ella markets and the rural markets include Gbajimba, Abinsi, Obagaji and Oweto giving a total of eight markets for the urban and rural areas. Taro Yamene formula was used to determine the sample size of 226 from a population of 517 dried fish marketers, while Bowley's proportional allocation technique was used to allocate sample respondents to each of the selected LGAs based on their population. A total of 226 respondents were administered questionnaires but 208 questionnaires were retrieved and used in data analysis. Data were collected on socio-economic characteristics of the fish marketers, fish prices, marketing costs and fish quantities sold, using questionnaire.

### **Analytical Techniques**

Data collected and analyzed using figures to describe the marketing channels adopted and Marketing margin to estimate the level of producers' exploitation by middlemen.

#### ***Marketing margin analysis***

The Marketing Margin was employed to establish producers' exploitation along the marketing channels and expressed as follows:

$$\text{Marketing margin} = \frac{\text{selling price} - \text{purchase price}}{\text{selling price}} \times 100 \quad (1)$$

According to Olukosi *et al.* (2005) a larger variation between the marketing margins of participants indicates a wide price variation along the chain, while a participant with higher marketing margin is said to have a larger share of the marketing benefits.

### **Results and Discussion**

#### **Marketing Channel for Dried Fish in Rural and Urban Markets**

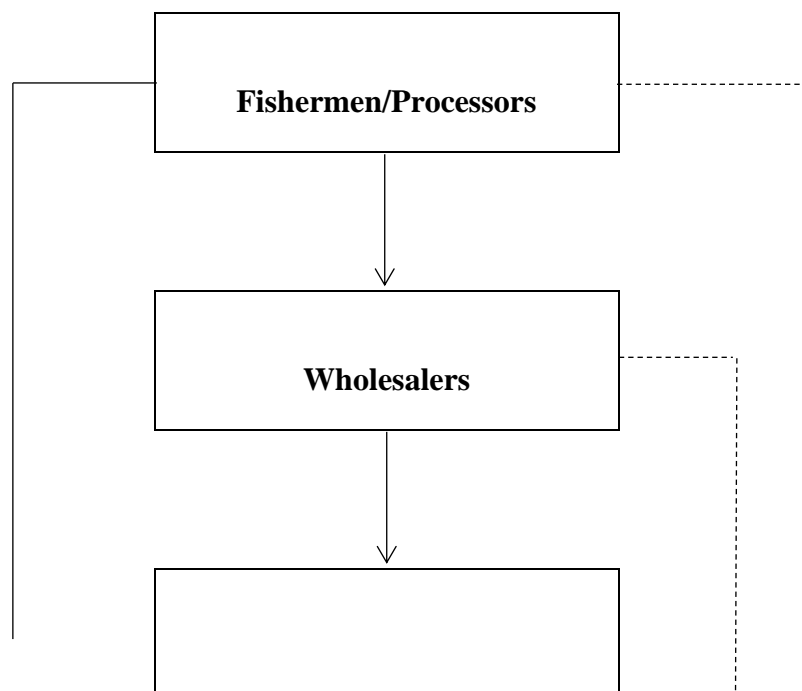
Marketing channel is the sequence through which dried fish passes from the producers to the consumers or the marketing intermediaries. The analysis of the marketing channels for dried fish is intended to provide an inside knowledge of the flow of the product from their primary source (origin/producers) to the final destination (consumers). The marketing channels of dried fish in rural and urban areas of Benue were examined and the findings are presented in Figure 1 and Figure 2 respectively.

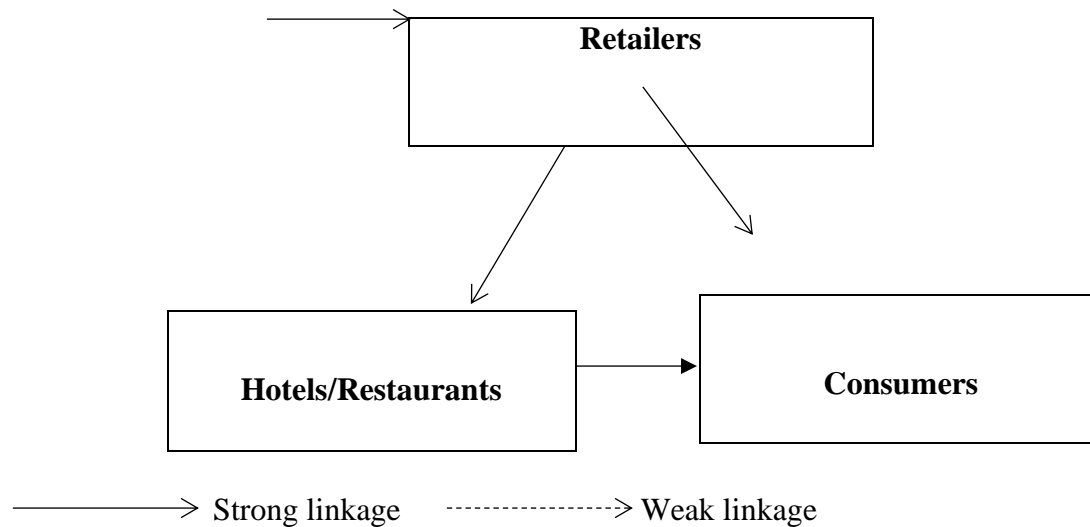
Analysis of the marketing channel provides a systematic knowledge of the flow of dried

fish from their origin (fisherman/processor) to the final destination (consumer). Dried fish marketing channel started with fishermen/processors and ends with the fish consumers and in between, intermediaries were involved. The involvement of these market intermediaries provided services of cleaning, sorting, grading, processing (drying), preservation, packaging and transporting of fishes. Such activities resulted in cost addition at every stage of marketing (Das *et al.*, 2013). The major intermediaries in the marketing channels were identified as dried fish wholesalers and retailers.

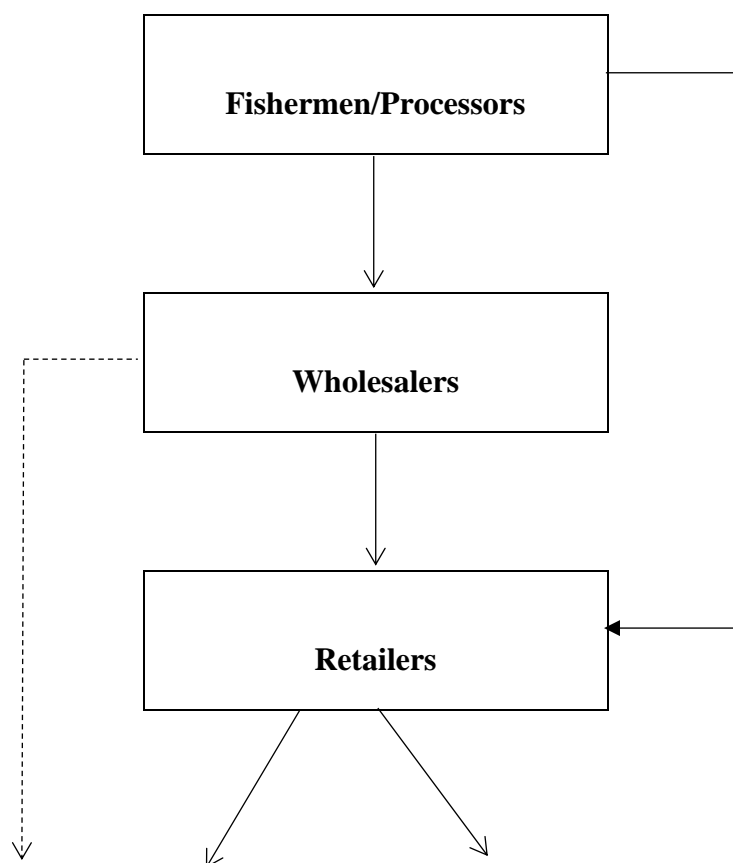
In this study, it was found that in the rural areas, the fishermen/processors sold dried fish to wholesalers who in turn sell to retailers and consumers. It was also observed that fishermen/processors sold directly to retailers and to consumers. It was observed that retailers sold dried fish to hotels/restaurants and consumers. For the urban areas, Majority of the dried fish sold was sourced from fishermen/processors of other states such as Maiduguri, Jigawa, Yola and Nasarawa States by wholesalers who sold majorly to retailers who in turn, sold to consumers. It was observed that they also sold to hotels/restaurants.

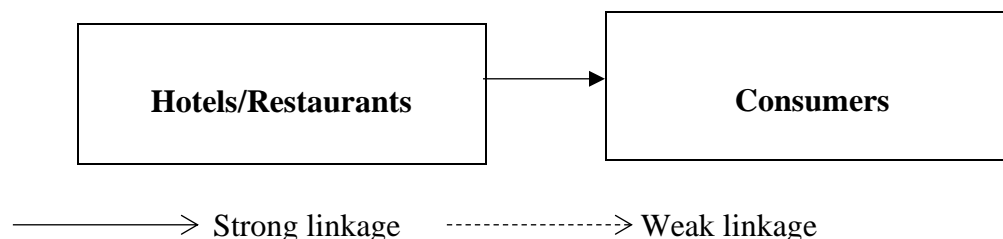
The study revealed a decentralized approach for the disposal of dried fish. A decentralized channel is usually a short chain which reduces the activities of middlemen thereby, minimizing the level of exploitation of buyers in the marketing channel. This is in consonance with Madugu and Edward (2011) who reported that there was a decentralized marketing channel for processed fish in Adamawa State, Nigeria as both consumers and middlemen bought their supplies directly from the producers. Also, the study of Girei *et al.* (2021) revealed a decentralized approach for the disposal of their fish and in consonance with this finding.





**Figure 1: Marketing channels for dried fish in rural markets.**





**Figure 2: Marketing channels for dried fish in urban markets.**

### Producers/Processors exploitation by middlemen

The results on Table 1 reveals the level of exploitation of the dried fish producers/processors by the middlemen in the marketing channel in both rural and urban markets. Wholesalers had the largest marketing margin of 0.19 and 0.16 marketing margin in rural and urban markets respectively and retailers had the smallest marketing margin of 0.04 and 0.08 in rural and urban markets respectively. This indicates that the wholesalers were the major exploiters of producers/processors in the rural and urban areas of Benue State. This supports the finding of Baba *et al.* (2015) which revealed that an average fresh fish marketer earned a market margin of 0.30 naira for every 1 naira paid by the consumer in the marketing process, the low level of marketing margin is largely attributable to the exploitative activities of the middlemen.

**Table 1: Producers' Exploitation by Middlemen**

Actors	Purchase price	Selling price	Marketing Margin $\frac{SP-PP}{SP} \times 100$
<b>Rural Areas</b>			
Wholesalers	5565.45	6883.05	0.19
Retailers	6883.05	7182.93	0.04
<b>Urban Areas</b>			
Wholesalers	7215.00	8588.82	0.16
Retailers	8588.82	9299.71	0.08

Source: Field survey data, 2024

### Conclusion and Recommendation

. A decentralized marketing channel was adopted by the dried fish marketers and the producers/processors were exploited by the wholesalers along the marketing channels in both the rural and urban areas of Benue State, Nigeria. However, it was more in the rural areas compared to the urban areas. Establishing a centralized marketing system where produce are bought from producers/processors at fair prices, stored in ware houses and distributed to middlemen when needed by private sector investment and or partnerships with local indigenes will go a long way to enhance dried fish production and marketing as well reduce exploitation.

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