Paper/Poster Title	ANALYSIS OF DISCOUNT PRICING AND MARKETING OF PROCESSED CATFISH IN KWARA STATE, NIGERIA

Abstract prepared for presentation at the 96th Annual Conference of the Agricultural Economics Society, K U Leuven, Belgium

4th – 6th April 2022

Abstract	200 words max

Studies on the effect of discount pricing on market margin of processed catfish are rare in the literature. This study identifies the common types of price discounts, describes the structure of catfish market, estimates the marketing margin and determines factors influencing price discounting strategies among marketers in the study area. Proportional sampling technique was employed to select 212 respondents. Data were collected with the aid of structured interview schedule. Descriptive statistics, Likert-scale, Herfindal Index, marketing efficiency model, marketing margin and multiple regression analysis were the analytical tools employed to achieve the research objectives. The result revealed a Herfindahl index value of 0.006. This showed a highly competitive and non-concentrated catfish market. Marketing efficiency value of (140.09%), indicated that catfish marketing was efficient. The estimated marketing margin value of 28.62%, suggested that every ⃞1 sale result to a price spread of about 0.29k in catfish marketing. The multiple regression analysis revealed that marketing margin, cost of spoilt fish, cost of marketing services, pond size and farm distance are the important variables explaining price discounting. We recommend training of marketers on the efficient fish processing and storage techniques. Policies towards increasing pond sizes should be encouraged by the government to enhance discount pricing.

Keywords	Catfish, Herfindal Index, marketers, policies, price discounting and strategies.
JEL Code	C. Mathematical and Quantitative Methods see: www.aeaweb.org/jel/guide/jel.php?class=Q

Introduction	100 – 250 words

Price discount is a depletion on the efficient selling price of any goods and service. This motivation is done to attract consumers and increase sales. Most managers use discount pricing to sell low-priced products in large quantities. It is an effective marketing strategy aimed at attracting consumers by giving incentive, thereby encourages the consumers to buy the promoted products (Yin and Huang 2014).

Marketing involves identifying consumer's needs and productive channels to reach them in order to enhance consumer's satisfaction and profit maximization. Myriad of agencies or intermediaries participate in marketing activities. These agencies reduce the number of transactions by creating assortment and providing varieties of goods and services in one location for customers to buy at the right time. The catfish marketing must be done with care in order to sustain its quality and nutritional value due to its short shelf-life. Therefore, for

enhanced growth and development of the fishery subsector, marketing efficiency is important. Marketing efficiency involves the movement of goods and services from the producers to the consumers at the lowest cost, at the right time and in the right place.

Surprisingly, catfish marketing is poorly structured in Nigeria. It is occupied largely by the problem of storability, perishability, processing and poor application of appropriate discount pricing strategies that could increase sales, leaving many fish farmers and marketers struggling to grow market share. Worst still, there is paucity of data on factors influencing price discounting and how price discounting can be used to enhance catfish marketing margin.

Methodology   *100 – 250 words*

This study was carried out in Kwara State, Nigeria. Proportional sampling technique was employed to select 212 respondents. Descriptive statistics, Likert-scale, Herfindal Index, marketing efficiency model, marketing margin and multiple regression analysis were employed.

The structure of catfish market was analysed using the Herfindahl–Hirschman Index (H). The Index is given as

$$H = \Sigma A_i^2 \quad .... \quad (1)$$
$$A_i = C_i/C \quad .... \quad (2)$$

Where A_i = Market share for respondent i,
C_i = total kg of catfish sold per cycle by respondent i, and
C= total kg of catfish sold per cycle by all respondents

Marketing margin (Mm) analysis was used to estimate the profitability of catfish marketers. It is given as

$$Mm = \underline{SP- PP} \times 100 .... \quad (3)$$
$$SP$$

Where:
Mm=Marketing margin
SP= Selling price (₦)
PP= Purchase price (₦)

Marketing efficiency (ME) was used to determine productivity in catfish marketing. The model is depicted as:
ME= Revenue generated from marketing / Cost of marketing services x 100………… (4)

Factors influencing price discounting strategies adopted by marketers were determined using multiple regression analysis. The model is stated as:
$$Q = b_0 + b_1k_1 + b_2k_2 + b_3k_3 + b_4k_4 + b_5k_5 + b_6k_6 + b_7k_7 + b_8k_8 + b_9k_9 + ei \quad ....(5)$$
Where
Q=average price discount (₦)
k_1=initial capital outlay (₦)
k_2=household size (number)
k_3=marketing service (₦)
k_4=total fish loss due to poor processing or spoilage (kg)
k_5=marketing margin (₦)
k_6=experience (years)
k_7=education (years)

k_8=farm distance to state capital (km)
k_9=cost of pond (₦)
ei = Error term
b_0 = intercept (or constant)
$b_1, b_2 \ldots b_9 = {}_i$th coefficient corresponding to $k_1, k_2 \ldots k_9$

Results	100 – 250 words

The result indicated that majority (95.8%) of the respondents were males while 4.2% of the respondents were females. This suggests that gender sensitivity is inclined towards men than women in catfish marketing in the study area. Furthermore, the common types of price discount adopted by marketers are: quantity, geographical, seasonal, trade and cash discounts. Most (44.3%) marketers adopted quantity discount. Quantity discount is offered to a buyer who purchased in large volumes. It leads to a decreased cost per unit of goods purchased.The Herfindah index value of 0.006 showed a highly competitive and non-concentrated catfish market. Marketing efficiency value of (140.09%), indicated that catfish marketing was efficient. The estimated marketing margin value of 28.62%, suggested that every ₦1 sale result to a price spread of about 0.29k in catfish marketing. Hence, catfish marketing is profitable and is therefore worthwhile. The multiple regression analysis indicated a R square value of 0.5435, which implies that 54.35% of the total variation in price discounting strategies employed by the respondents is explained by the estimated explanatory variables. Moreover, marketing margin, cost of spoilt fish, cost of marketing services, pond size and farm distance to state capital are the important variables explaining price discounting among marketers in Kwara state. Lastly, the study revealed that the most significant constraint hindering discount pricing strategies in catfish marketing is the cost of production.

Discussion and Conclusion	100 – 250 words

This study assesses discount pricing and marketing of processed catfish in Kwara state, Nigeria. The result revealed that catfish marketers make use of price discount and price discounting strategies to enhance sales. Majority of the respondents were male and are moderately aged. Quantity discount is mostly used price discounting type, while cash discount is least used by marketers. Of the different discount pricing strategies adopted by marketers, offering discount to new customer is mostly used by marketers, while offering free shipping to customers is the least frequently used strategy. In addition, the study showed that catfish marketing is competitive and non-concentrated, profitable and efficient. Furthermore, marketing margin, cost of spoilt catfish, and cost of marketing services pond size and farm distance to state capital are the important variables explaining price discounting strategies among marketers in Kwara state. Moreover, the most significant constraint hindering discount pricing strategies in catfish marketing is high cost of production and was ranked first. Marketers should be trained on efficient fish processing and storage techniques to improve the quality and reduce loses. They should also pool their resources together to gain economies of scale in order to reduce the cost of production. Policies towards increasing pond size should be vigorously pursued by the government at all levels to enhance discount pricing.