

THE STRUCTURE OF WHOLESALE AND RETAIL MARKETING OF FARM RAISED CATFISH (*Clarias gariepinus* BURCHELL, 1822) IN SOUTHWEST, NIGERIA

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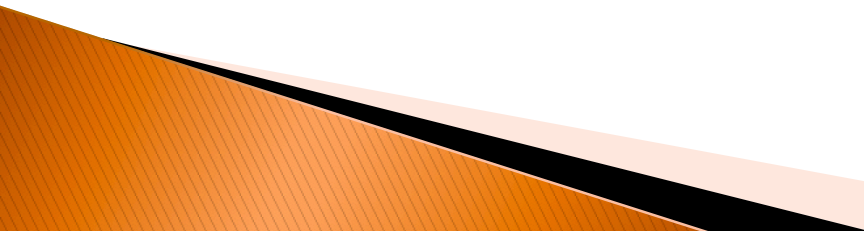
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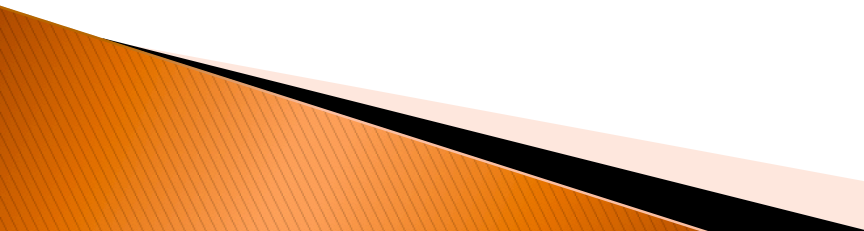
INTRODUCTION

- ▶ The African catfish *Clarias gariepinus* (Burchell, 1822) is one of the most suitable species for aquaculture in Africa.
 - ▶ The market for African catfish in sub-Saharan Africa is developing and demand for it is continuously increasing.
 - ▶ Over 70 percent of cultured African catfish is currently sold fresh.
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INTRODUCTION CONTD

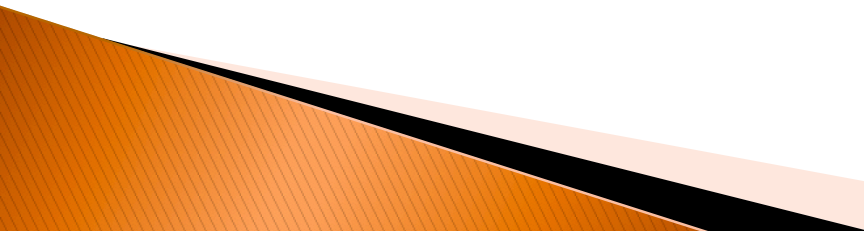
- Structure influences the performance of a market
 - Knowledge of the structure gives an indication about market competitiveness
 - Market structure is measured by variables like
 - Degree of market concentration
 - Condition of entry into the market and
 - Magnitude of product differentiation (Acharya and Agarawal, (2004))
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PROBLEM STATEMENTS

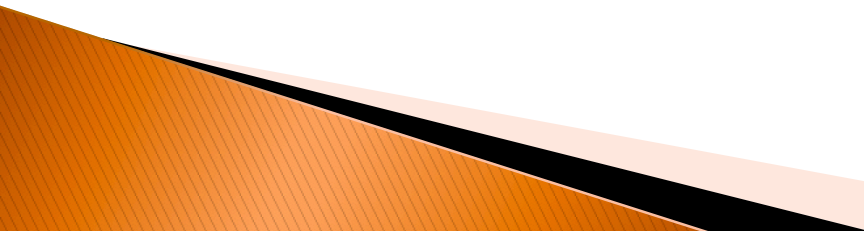
- ▶ Farm raised catfish (*Clarias gariepinus*) is concentrated in few and designated markets.
 - ▶ It is consumed by some classes of people, and
 - ▶ There are fewer number of sellers and buyers in Nigeria.
 - ▶ This study is therefore necessary to look into the structure of the market of farm raised African catfish.
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OBJECTIVES

To determine

- ▶ the degree of market concentration,
 - ▶ the condition of entry in the market and
 - ▶ the magnitude of product differentiation.
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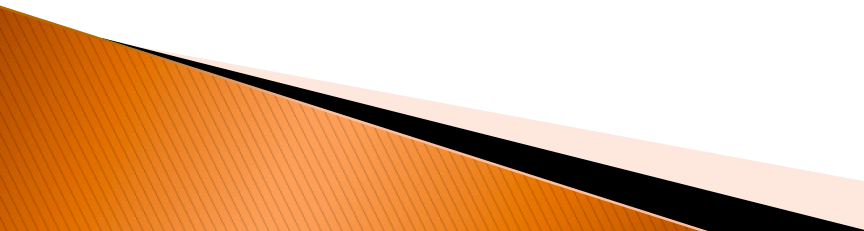
MATERIALS AND METHODS

- ▶ A multi stage random sampling method was employed to select the respondents for the study.
 - ▶ The six urban towns chosen for the purpose of the survey were; Ibadan, Abeokuta, Ikeja, Osogbo, Akure and Ado Ekiti all in Nigeria.
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MATERIALS AND METHODS CONTD

- ▶ 64 wholesalers and 137 retailers of farm raised *Clarias gariepinus* were selected
- ▶ Data were collected in each markets on a fortnightly basis for fifteen months.
- ▶ Data were analysed using descriptive statistics of frequency distribution, and Lorenz curve with the accompany Ginni coefficient

RESULTS AND DISCUSSION

- The wholesaling and retailing in the area of study revealed an oligopolistic competition.
 - The products sold were not completely homogenous (size differs) and there is an evidence of price discrimination.
 - The markets are characterized by existence of barriers to entry for potential entrepreneurs due to
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MATERIALS AND METHODS

THE LORENZE CURVE

It was obtained by plotting the cumulative percentage of each category of distributor of the catfish arranged in order, from the smallest number to the largest, against the cumulative percentage of their sales/earning.

A line of equal distribution (LED) is a straight line from the origin, which is 45° to the origin.

Lorenze curve contd

- ▶ The extent to which the plot obtained by the Lorenz curve swings away from the LET (Line of equal distribution) is a measure of the inequality in the distribution of the variables of interest (Harper 1977).
- ▶ The degree of inequality in sales is estimated by reading the curve at a point where it lies farthest from the line LED.

MATERIALS AND METHOD CONTD

Ginni Coefficient: $1 - \sum XY$

Where

X = % of distributors

Y = Cumulative % of total sales of distributors

RESULTS AND DISCUSSION CONTD

The presence strong fish seller
associations in each market

Lack of access to start up and working
capitals from banks (Tables I)

DISTRIBUTION OF FISH SELLERS ACCORDING TO SOURCE OF START UP CAPITAL

	Wholesalers		Retailers		Both sellers	
Start up capital	Freq	%	Freq	%	Freq	%
Personal saving	38	59.4	88	64.2	126	62.7
Friend and relatives	3	4.7	-	-	3	1.5
Co – operatives	7	10.9	-	-	7	3.5
Esusu	12	18.8	49	35.8	61	30.3
Total	64	100	137	100	201	101

GINNI COEFFICIENT

The estimated Ginni coefficient for wholesalers is 0.66 (Table 2) while that of retailers is 0.60 (Table 3). Similarly, Ugwumbai, et al (2010) found the same result for the marketing of live Catfish.

RESULTS AND DISSCUSION

- ▶ Some degree of concentration was observed in the wholesale than the retail market subsector of *Clarias gariepinus*. Similar report was given by Godara et al. (2004) in the marketing pattern of fisheries in Haryana.
- The Lorenze curves reveals a wide swing away from the Line of Equal Distribution (LED), indicating high concentration of imperfection in both markets (Fig I).

Table 1: Distribution of Wholesalers by weekly sales in Southwest, Nigeria

Sales Interval	Number of Wholesaler	% of Wholesaler (X)	Cumm of Wholesaler	Total Value of Sales (N)	Total % Value of Sales	Cumm % of Total Sales (Y)	Σxy
<20, 000	19	29.69	29.69	285,000	8.68	8.68	0.0256
20,000<40,000	11	17.19	46.89	352,500	10.73	19.41	0.0334
40,000<60,000	12	18.75	65.63	360,000	10.97	30.38	0.0570
60,000<80,000	7	10.94	46.88	434,000	13.22	43.60	0.0477
80,000<100,000	7	10.94	87.50	595,000	18.13	61.73	0.0675
100,000<120,000	5	7.81	95.31	595,800	18.15	79.89	0.0624
>120,000	3	4.69	100	660,000	20.11	100	0.0469
Total	64			3,281,800			0.3406

Mean Value of Weekly Sale = ~~N~~ 51, 578.13 =\$326

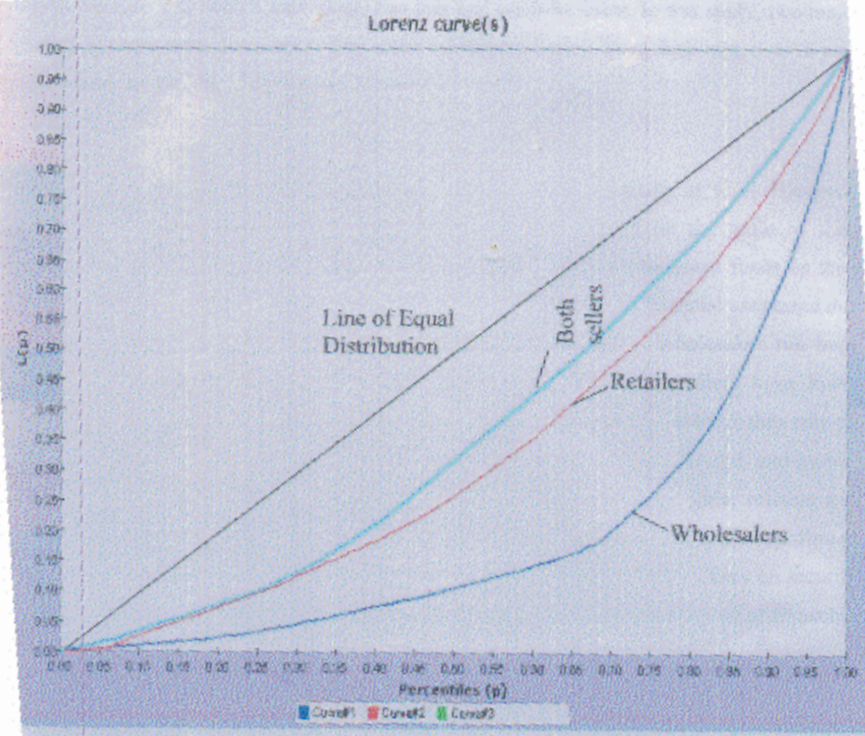
Ginni Coefficient
 $= 1 - 0.3406$
 $= 0.66$

Table 2: Distribution of Retailers by weekly sales in Southwest, Nigeria

Sales Interval	Number of Wholesaler	% of Wholesaler (X)	Cumm of Wholesaler	Total Value of Sales (N)	Total % Value of Sales	Cumm % of Total Sales (Y)	Exy
<5, 000	31	22.63	22.63	139,500	8.12	8.12	0.0184
5,000<10,000	27	19.71	42.34	176,800	10.29	18.41	0.0363
10,000<15,000	25	18.25	60.58	251,250	14.63	33.04	0.0603
15,000<20,000	21	15.33	75.91	319,200	18.58	51.62	0.0791
20,000<25,000	20	14.60	90.51	402,000	23.40	75.03	0.1095
25,000	13	9.49	100	429,000	24.95	100	0.0949
Total	137			1,717,750			0.3985

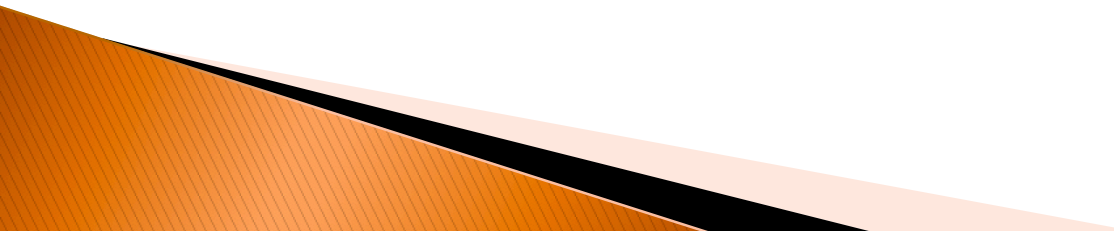
Mean Value of Weekly Sale = ~~N~~ 12,538,32 = \$79

Ginni Coeficient
 = 1-0.3985
 = 0.60

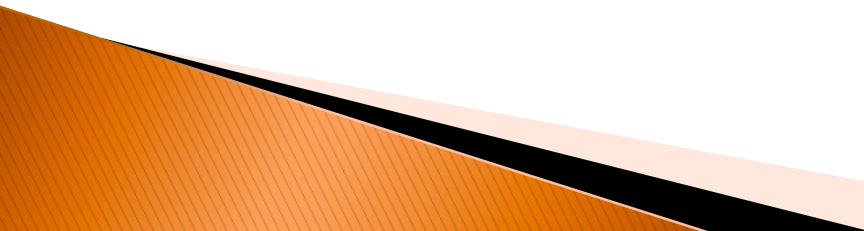


4: Lorenz Curves of Farm - raised *Clarias gariepinus* Wholesalers and Retailers

CONCLUSION

- Higher seller concentration in a market is associated with poor market performance.
 - This implies more opportunities for middlemen to exploit either the consumers by charging them higher prices or the producers by paying them lower prices
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RECOMENDATION

- There is need to remove any impediments to barrier to entry to reduce the degree of market concentration.
 - Increasing access to credit facilities,
 - providing sufficient market shops and
 - storage facilities at both levels.
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THE END

I would like to thank **the AquaFish Collaborative Research Support Program (CRSP)** for sponsoring me.

I would like to thank **my husband** for accompany me.

I would like to **thank you all** for your attention.

