



MARKET STRUCTURE OF PADDY RICE IN KANO STATE, NIGERIA

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ABSTRACT

The Study analyzed the structure of paddy rice marketing in Kano state Nigeria. A sample of 120 paddy rice marketers comprising retailers, wholesalers and wholesaler-retailers was purposively drawn from four markets within three local government areas of Kano state where paddy rice was predominantly marketed. Structured questionnaires were administered to the paddy rice marketers. Data was analyzed using descriptive statistics and Gini coefficient. Paddy rice marketing was a male dominated business in the study area with majority of the marketers being literate and within the ages of 20-50 years. There was very high inequality among the marketers as the Gini coefficient was 0.8767, 0.8503 and 0.8691 for the retailers, wholesalers and wholesaler-retailers. Insufficient funds for paddy rice marketing was ranked first as the major constraints by both the retailers and wholesalers, while seasonal supply was the first major constraints for the wholesalers. It was recommended among others, that the paddy marketers should access formal loans through their cooperative associations to mitigate the problems of insufficient funds they were confronted with.

Keywords: Paddy Rice, Gini coefficient, Marketers, Cooperative

INTRODUCTION

Agriculture occupies a strategic position in the Nigerian economy; providing primary means of employment generation, food sustenance and raw materials to agro-allied industries, and foreign exchange earnings for the country amongst others (Abu, Odoemenem and Ocholi, 2001; Ejoha, 2020). However, the contribution of agriculture to Gross Domestic Product declined rapidly from over 60% in the early 1970s to about 25.13% in 2018 due to over dependency of the government on oil revenue (Aigbokhan, 2001; National Bureau of Statistics, 2019).

Rice (*Oryza sativa L*) is considered as the third most important staple food in Nigeria in ranking order, maize first followed by wheat and accounting for roughly 60% of total energy consumption (FAO, 2015). The United States Agency for International Development, classified the crop as the most important food depended upon by over 50% of the world population for about 80% of their food needs (USAID, 2004; Dayyabu *et al.*, 2021). Rice is known to have been grown along the Niger for over 3000 years (Imolehin and Wada, 2000; Yuan *et al.*, 2024). Rice provides ample opportunity for an increase in income, poverty eradication, alleviation and improvement of livelihood among rice producers if value chain and market participation are increased why because local and regional consumption of rice products is anticipated to expand with a rate of increase in population.

In Nigeria, rice grown on 1.77 million hectares, ranks sixth after sorghum (4.0 million hectares), millet (3.5 million hectares), cowpea (2.0 million hectares), cassava (2.0 million hectares) and yam (2.0 million hectares) (Imolehin and Wada, 2000). Nigeria's aggregate rice production rose from 105, 000 tons in 1980 to 2,500, 000 tons in 1990 and further increased to 3,841, 000 tons in 2000 (CBN, 2000). Also, Chaudhary and Nanda (1986) reported that the area under rice production in Nigeria in 1986 was 500,027 hectares and between 1986 and 1997, the area under rice cultivation has increased from 500,027 to 1.7 million hectares (Imolehin and Wada, 2000). Despite these substantial increases in hectares and output, the



quantity of rice produced locally is grossly inadequate in meeting the domestic consumption requirements, resulting in tremendous increase in rice importation (CBN, 2000).

Furthermore, it was noted that rice has become a staple food of choice in both urban and rural areas accounting for more than 20% of all meals consumed per week by a typical household (Dayyabu *et al.*, 2021). Nigeria's growing demand for rice is forecasted to reach 36 million metric tons by 2050, thus it is significant to ascertain its marketing and the opportunity it can offer Nigeria in terms of employment and income generation Federal Ministry of Agriculture and Rural Development (FMARD, 2011). Despite efforts by both federal and State Governments to provide domestic rice for consumption as well as reducing importation of rice, such may not be fully realizable without proper processing and marketing channels activities. Though Nigeria is the largest producer of rice in the continent, because of her population, she is also the largest consumer of rice in Africa. The successive government regimes had the desire to reverse this trend which has led to the implementation of various policies concerning rice production and importation in the Country which involves the imposition of tariffs on rice importation and provision of various subsidies to encourage local producers as found in Olorunsanya and Ugbong (2014). Amidst these laudable government policies and different sets of agricultural programmes, the demand-supply gap for rice and rice products in Nigeria is on the increase, and it widens progressively (Anthony *et al.*, 2021). This emerging trend termed 'rice revolution' can only be beneficial and sustainable in an atmosphere of efficient marketing system as pointed out by Nwele (2016). However, Idachaba (1985) argued that Nigeria's central problem in agriculture is not production but marketing and distribution. It is within the marketing system that prices, allocation of resources, income distribution and capital formation are determined.

A Market is any setting that allows buyers and sellers to exchange any type of goods and services (Heyne *et al.*, 2014). Markets provide a link between the local and global economy and help in facilitating economic efficiency through promoting the exchange of goods and services (FAO, 2009). Rice marketing encompasses all the activities in moving rice from the point of production to where it is needed by final consumers (Bassey *et al.*, 2013). Rice marketing encompasses all the activities involved in moving rice from the point of production to where it is needed by the final consumer (Bassey *et al.*, 2013), in the desired form and at the appropriate time (Abah *et al.*, 2015). Rice marketing covers the performance of all business activities in the flow of paddy and milled rice from the point of production to the consumer in the right place and form (Mou, 2014).

In performing the role of marketing, products pass through various market participants or intermediaries called market channels. These market intermediaries are the wholesalers and retailers and both play an important role in the marketing system (Olukosi and Isitor, 1990). The effect of number and size distribution of buyers and sellers on market power examined by Olukosi and Isitor (1990) demonstrated that the greater the number of buyers and sellers, the more the competition, and less market power (control) each buyer or seller has. There is therefore, less interference with market mechanism of supply and demand. This will lead to a market structure that is perfectly competitive in nature. Likewise, the less the number of buyers and sellers, the less the competition and the more the market power (control) each buyer or seller has, and there is more interference with market mechanism of demand and supply. This will lead to a market structure that is monopolistic in nature. Effective marketing entails the understanding of the market structure and performance as well as the institutions involved in the efficient operation of market system (Nyoro *et al.*, 1999). The effects of market structure and performance can go a long way in affecting the supply response of an agricultural product, especially in rice processing and marketing.



Even though, there is growing demand for rice in Nigeria, corresponding increase in supply is lacking thereby leading to persistent demand - supply gap (Abah *et al.*, 2015). Market performance is a reflection of the impact of structure and conduct on product prices, costs, volume and quality of output. The study therefore was carried out to determine the structure of rice marketing in Kano state of Nigeria. The main objective was to analyze the structure of paddy rice marketing in Kano state. The specific objectives were to; determine the socio-economic characteristics of paddy rice marketers in Kano state; determine the market structure for paddy rice in the area, and identify the constraints to rice marketing in the study area.

MATERIALS AND METHODOS

The Study Area

Kano state is one of 36 states that constitute the Federal Republic of Nigeria. It is situated in the North-western part of the country between latitude 10.33 and 12.37N and longitudes 9.34 and 8.42E. It has a land area of about 20,400sqkm with 44 local government areas. Katsina state lies to the North-west, Jigawa state to the east, Kaduna is to the South-west of the state. The annual rainfall varies from 600mm-1200mm in the Guinea savanna to 300-600mm in the Sudan savannah which starts from May and ends around September. The length of the growing season ranges from 90 to 180 days in the Sudan savannah zone and 180 to 200 days in the Guinea savannah zone. This allows crops like sorghum, maize, groundnut, cowpea, millet, cassava, sweet potato to flourish well under rain fed agriculture (KNSG, 1997).

Based on the projection of the National Population Commission, the population of the state by 2025 would have grown to about 19, 783,201 at an annual growth rate of 3.2% per annum from the 2006 census. Although the state is known as the centre of commerce, it is predominantly agrarian in nature outside the metropolis. The socio-cultural situation of the state is heterogeneous with Hausa/Fulani found in all parts of the state. Yoruba, Igbo, Ebira largely found in the metropolis, with some traces of Kanuri and Babur (Census, 2006).

Sampling Techniques

The sample for this study was drawn from rice marketers within Kano state. Four (4) markets within three (3) local government areas of Kano were purposively selected. The three local governments were purposively selected based on the predominance of rice production and marketing in the areas. They were: Bunkure market under Bunkure L.G.A, Dawanau Market under Ungogo L.G.A, Kura and Karfi markets both in Kura L.G.A of Kano state. From each of the selected markets, thirty (30) rice marketers were randomly selected. A total number of 120 respondents were enlisted for this study.

Method of Data Collection

The study employed the use primary data. Structured questionnaires were administered to one hundred and twenty rice marketers. The data collected concentrated on socio-economic characteristics information, market structure parameters as well as factors that inhibit rice marketing in the area.

Analytical Technique

Descriptive statistics such as mean, frequency distribution, percentages, etc was used to examine the socio-economic characteristics of the rice marketers as well as the major marketing problems associated with rice. Descriptive statistics are concerned with scientific methods for summarizing, presenting and analyzing data as well as drawing valid conclusion and making reasonable decision on the basis of such analysis (Adamu and Tinuke, 1997)

Percentages: Is the ratio that equates the second number of a ratio to 100 Percentage = $A/B \times 100$

Where:

A = Individual observation

B = Total observation

Arithmetic mean: This is defined as the set of scores divided by the number of scores.

This can be mathematically written as;

$$\text{Mean} = \sum (X_1 + X_2 + X_3)/N \quad \dots (1)$$

Where:

$\sum$ = Summation sign

X_1, X_2, X_3 = individual observations

N = Total number of observations (sample size)

The Gini coefficient was employed to analyze the market structure for paddy rice marketing. Gini coefficient or Gini index is a statistical measure of distribution developed by the Italian statistician Corrado Gini in 1912. The Gini coefficient ranges from 0 to 1, where 0 implies perfect equality in the distribution (perfect market) while 1 implies perfect inequality (imperfect market). Gini coefficient is expressed as follows:

$$GC = 1 - \sum_{i=0}^{k-1} (Y_{i+1} + Y_i)(X_{i+1} - X_i) \quad \dots(2)$$

$$G.C = 1 - \sum XY \quad \dots(3)$$

Where,

G.C. = Gini Coefficient (Units),

X = Proportions/percentage of rice Marketers (Units) per period of study,

Y = Cumulative proportion/percentage of rice marketers' Sales (Naira),

Σ = Summation Sign.

The Gini Coefficient formula proposed above is in line with Okereke and Anthonio (1988), Iheanacho (2005); Girei *et al.* (2013), Afolabi (2009) and Ojo *et al.* (2015).

RESULTS AND DISCUSSION

Socio-economic Characteristics of the Respondents

Table 1 shows that the wholesalers have an average age of 33years, with a standard deviation of 5 years, a minimum age of 20years and a maximum of 45years. The retailers on the average are 32 years with a standard deviation of 6 years, a minimum age of 25years and an age ceiling of 51years. The respondents who partake in both wholesale and retail are 38 years old on the average with and age range of 25 to 48years years and a standard deviation of 6 years. Similarly, Ejoha (2020) in an economics of paddy rice marketing in Nasarawa state Nigeria found that 79.17% of the marketers are between the ages of 30-50 years and were in their active ages.

Table 1 indicated a household size of 5 persons on the average for both wholesalers and retailers. The standard deviation for the wholesalers however is 4 and a range of 1-14 persons per household, while retailers have a standard deviation of about 5, a minimum of 1 and a maximum of 30 persons. The table further revealed a household size of 8, minimum of 1 and maximum of 18 persons with a standard deviation of 4 for those wholesalers who were also into retailing of paddy rice. These results are similar to that of Ojo *et al.* (2015), who in their work on marketing efficiency of rice marketing in Kwara state found that the mean household size was 5 persons.

Table 1 revealed a marketing experience of 5 years, minimum of 1 and maximum of 20years, standard deviation of 5years for wholesalers. The retailers had a marketing experience

of 8 years, a minimum of 2 years and a maximum of 25 years with a standard deviation of 5 years. For the wholesalers-retailers, the marketing experience was 14 years with a minimum of 5 years and a maximum of 30 years and a standard deviation of 4 years. This indicated that the marketers are relatively experienced. However, a joint mean experience of 9 years falls short of findings such as that of Segun and Adegoke (2014) who reported a 78% of rice marketers with a marketing experience of 11-26 years.

Table 1 also revealed that the wholesalers have an average of 3 people who worked for them while the retailers have an average of 4 workers. The wholesaler-retailers have an average of 6 workers. The mean household of five persons suggests that family labour can substitute for hired labour where the latter is relatively scarce and the family members are willing to participate in the marketing of paddy.

Table 1: Age Household size, Marketing experience and Number of workers of the Respondents

Marketer Type	Variables	Frequency	Mean	Std. Dev.	Min.	Max.
Wholesaler	Age (Years)	34	33.03	5.32	20	45
	Household size	34	4.94	3.50	1	14
	Marketing experience	34	5.03	4.67	1	20
	Number of workers	34	2.88	1.94		
Retailer	Age (Years)	59	32.53	5.58	25	51
	Household size	59	5.42	4.74	1	30
	Marketing experience	59	8.20	5.19	2	25
	Number of workers	59	3.93	2.16		
Wholesaler-Retailer	Age (Years)	27	37.93	6.01	25	48
	Household size	27	8.22	4.21	1	18
	Marketing experience	27	13.74	6.60	5	30
	Number of workers	27	6.41	2.59		

Source: Field Survey (2025)

Respondents Sex, Marital status, Educational level and Primary occupation

The distribution of respondents according to sex, marital status, educational level and primary occupation is presented in Table 2. It revealed an exclusively male dominated business for wholesalers, retailers and wholesaler-retailer categories. Ebukiba and Ogbale (2020) in their research on profitability of paddy rice marketing in the FCT discovered that 97% were males indicating a predominantly male venture.

Table 2 showed that 79.41% of wholesalers were married and only 20.59% are single. For the retailers, 79.66% are married and 20.34% were single. Furthermore, 88.89% of wholesalers-retailers were married with only 11.11% of them being single. This is similar to the findings of Anthony and Anyalor (2019) who in a marketing analysis of locally produced rice in Ebonyi state discovered that majority of the marketers were married.

Table 2: Respondents sex, marital status, educational level and primary occupation

	Wholesaler(n=34)		Retailer(n=59)		Wholesaler-Retailer (n=27)	
	Frequency	%	Frequency	%	Frequency	%
Sex						
Male	34	100	59	100	27	100
Female	0	0	0	0	0	0
Marital status						
Single	7	20.59	12	20.34	3	11.11
Married	27	79.41	47	79.66	24	88.89
Education level						
Primary	2	5.88	21	35.59	8	29.63
Secondary	21	61.77	27	45.76	10	37.04
Tertiary	9	26.47	3	5.09	0	0.00
Non-Formal	2	5.88	8	13.56	9	33.33

Source: Field Survey (2025)

On the educational level attained by the paddy rice marketers, 61.77% attained secondary school level for wholesalers, with 26%, 5.88% and 5.88% representing the percentage for Tertiary education attainment, Primary and non-formal education. The percentage of retailers who attained secondary education was 45.76%, while 35.59%, 13.56% and 5.09% represent primary, non-formal and tertiary education respectively.

For those who double as wholesalers and retailers, 37.04% had secondary education, 33.33 and 29.63 had non-formal and primary education respectively. None of the wholesaler-retailers had any tertiary education. The results for all the categories showed that majority of paddy marketers had undergone one formal education or the other (primary or secondary education). It means they are relatively educated to handle consumers demands especially in terms of communication. This is in conformity with the findings of Zalkuwi (2019) who in an economics analysis of rice marketing in Mubi Nigeria found that majority (74%) had primary or secondary education.

Purchasing point, Source of Initial capital, Labor type, Credit access and membership of cooperative association

Table 3 shows the distribution of respondents according to purchasing point for paddy, source of initial capital, labor type, credit access and membership of cooperative association. From the table, it can be seen that majority (67.65%) of the wholesalers bought their paddy from rural assemblers and 32.35% purchased from farm gate. The retailers on the other hand relied heavily (88.14) on rural assemblers for their supplies with only 11.86% buying at farm gate. For the wholesaler-retailers, 62.96% purchased from farm gate and 37.04% from rural assemblers. None reported purchasing from urban markets.

On the source of capital, most of the wholesalers (55.88%) obtained their initial capital from family and friends, 41.18% from personal savings and 2.94% from loans. The retailers reportedly started paddy marketing from personal savings (94.92%), 3.39% obtained initial capital from family and friends and only 1.69% were from loans. Furthermore, 88.89 of the wholesaler-retailers had their initial source of capital from their savings and 11.11% from family and friends. Abah *et al.*, in a study of structure and conduct of paddy marketing in Benue state reported that 76.65% depend on personal or family funding for their initial capital. Table 3 further revealed that all the three categories of marketers had no access (100%) to formal credit. This might not be unrelated to why inadequate fund was the major constraints for the paddy marketers in the study area as they could not access formal credits to improve their marketing activities.

Table 3: Purchasing Point for paddy, Source of initial capital, Labor type, Credit access and membership of cooperative association

	Wholesaler (n=34)		Retailer (n=59)		Wholesaler-Retailer (n=27)	
	Frequency	%	Frequency	%	Frequency	%
Purchasing Point						
Farm gate	11	32.35	7	11.86	17	62.96
Rural assemblers	23	67.65	52	88.14	10	37.04
Source of Capital						
Savings	14	41.18	56	94.92	24	88.89
Fam & Fr	19	55.88	2	3.39	3	11.11
Loans	1	2.94	1	1.69	0	0.00
Credit access						
No	34	100	59	100	27	100
Membership						
Member	16	47.06	40	67.80	21	77.78
Non-member	18	52.94	19	32.20	6	22.22

Source: Field Survey (2025)

The Table also showed that most of the wholesalers (52.94%) are not members of any cooperative association with 47.06% being members. About 67.8% of the retailers were members of cooperative societies with 32.2% being non-members. Similarly, 77.78% of the wholesaler-retailers were members and only 22.22% of them were not members of cooperative associations. Membership of cooperative enhances access to credit facilities and extension services according to Abah *et al.* (2020).

Market Structure

Table 4 showed that there was no restriction to entry and exit in any of the markets used for the study. Abbah *et al.* (2015) in a study on analysis of market structure and conduct of paddy rice marketing in Benue state found out that there were no restrictions to entry and exit. According to Tung and Wang (2010), the level of ease of market entrance is connected to the level of concentration. This means the result is an indication that the market for paddy rice in the study area might not be concentrated and there could be no joint profit maximization among marketers.

Table 4 showed that all the wholesalers (100%) obtained instant payment for their paddy sales. About 67.8% of the retailers however preferred instant payment with 32.2% opting for deferred payment. The reverse is the case with wholesaler-retailers with 74.07% selling on deferred payment and only 25.93% obtaining instant payment for their paddy. The marketers sell few varieties of paddy, with wholesalers selling majorly the variety *Jamila* (64.71%), followed by *Sipi* (35.29%). Most (52.54%) of the retailers sell *Sipi* and only 1.7% sell *Kwandala*. Similarly, most (59.26) of the wholesaler-retailers sell *Sipi* and 40.74% of them sell *Jamila*.

Table 4 also shows the distribution of the paddy marketers based on their major buyers category. For the wholesalers, 88.24% of their customers are corporate organizations, while 11.76% are private individuals. All (100%) the retailers sell their paddy to individuals, 92.59% of wholesaler-retailers sell to individuals and only 7.41% have corporate organizations as their major customers. None of the three categories of marketers sell directly to government.

Table 4: Entry condition, Exit restrictions, Sources of information and Method of sales, Product differentiation, Major customers and Price determination

Variable	Wholesaler (n=34)		Retailer (n=59)		Wholesaler-Retailer (n=27)	
	Frequency	%	Frequency	%	Frequency	%
Entry						
Not restricted	34	100	59	100	27	100
Exit						
Not restricted	34	100	59	100	27	100
Method of sales						
Instant payment	34	100	40	67.80	7	25.93
Deferred payment	0	0.00	19	32.20	20	74.07
Product differentiation						
Jamila	22	64.71	27	45.76	11	40.74
Jeep	0	0.00	0	0.00	0	0.00
Sipi	12	35.29	31	52.54	16	59.26
Kwandala	0	0.00	1	1.70	0	0.00
Buyers						
Individuals	4	11.76	59	100	25	92.59
Organizations	30	88.24	0	0.00	2	7.41
Government	0	0.00	0	0.00	0	0.00
Price Determination						
Fixed market price	5	14.71	4	6.78	3	11.11
Negotiation	4	11.76	54	91.52	21	77.78
Market officials	24	70.59	1	1.70	3	11.11
Price comparison	1	2.94	0	0.00	0	0.00

Source: Field Survey (2025)

The result on price determination revealed that 70.59% of the wholesalers are of the opinion that price was determined by market officials, 11.76% through negotiation or bargaining, 14.71% via a fixed market pricing and 2.94% through price comparison among competitors. However, 91.52% of the retailers negotiated prices for their paddy, 6.78% through a fixed market price and 1.7% attribute prices to market officials. Also, 77.78% of wholesaler-retailers negotiated price for paddy, 11.11% of them each attribute prices to market officials and a fixed market pricing system. This is in contrast to the findings of Abah *et al.* (2015) that majority of paddy rice marketers sell their produce based on price provided by middlemen who are conversant with the current market price.

Gini Coefficient and Lorenz Curve

The respective Gini coefficients for the retailers, wholesalers and wholesaler-retailers were 0.8767, 0.8503 and 0.8691 with that of retailers being the highest of the three categories of marketers as presented in Figure 2-4. All the Gini indices showed a highly concentrated market system characterized by gross inequality among the sellers of paddy rice. High level of competition allows effective operation of the market forces of demand and supply in the market in which case the price and quantity bought and sold in the market are at favorable condition for buyers and sellers. It is this favorable condition that opens more opportunity for new marketers to venture into paddy rice business. Where the converse holds in a market, the potential for perfect competition is diminished and the result is a situation tilted towards monopoly.

The decision rule according to Dillon and Hardaker (1993) is to regard Gini index greater than 0.35 as high, signifying inequitable distribution of income and inefficiency in the market structure. This implies that few individuals in each category control the marketing of paddy rice in the study area. This finding is similar to that of Ani *et al.* (2017) who also reported a very high Gini value of 0.85 and 0.81 for wholesalers and retailers respectively. Similarly, Afolabi (2007) had a Gini coefficient of 0.88 for egg marketers in south western Nigeria. Inequality in earning is a partial reflection of differences in the risk of investment (Iheanacho, 2005). People differ in their ability to undertake risks and this has a direct bearing on their earning capacities (Giroh *et al.*, 2010). Those with a higher propensity to take risk tend to choose more risky ventures and consequently, could have larger earnings and make more profits.

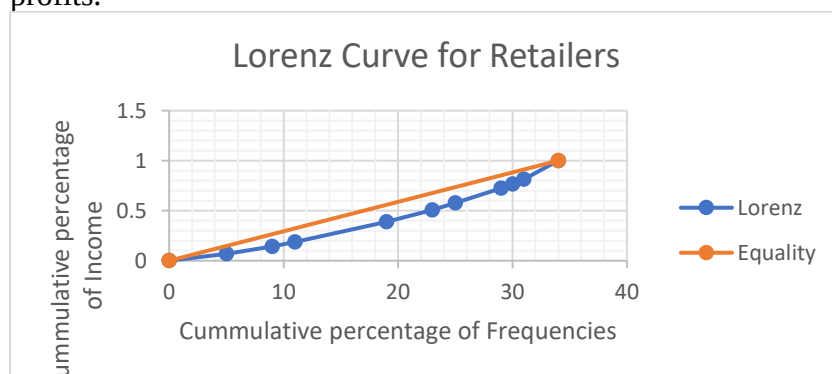


Figure 2: Lorenz curve for the Retailers

$$GC = 1 - \sum XY$$

$$GC = 1 - \sum_{i=0}^{k-1} (Y_{i+1} + Y_i)(X_{i+1} - X_i)$$

$$= 1 - 0.1233$$

The Retailers' Gini coefficient is = 0.8767.

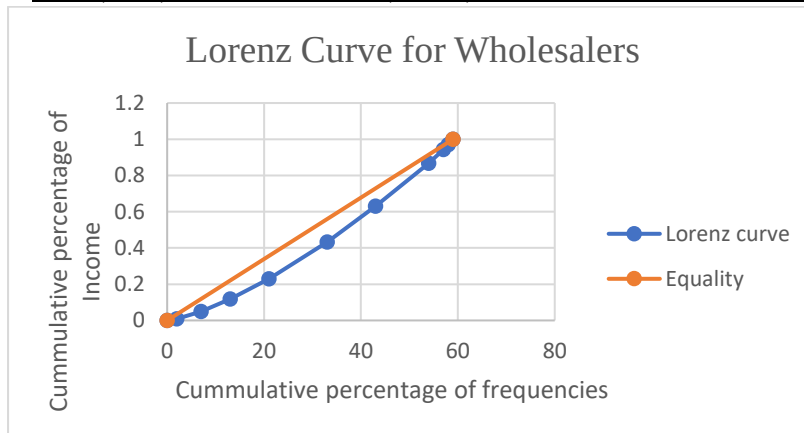


Figure 3: Lorenz Curve for the Wholesalers

$$GC = 1 - \sum XY$$

$$GC = 1 - \sum_{i=0}^{k-1} (Y_{i+1} + Y_i)(X_{i+1} - X_i)$$

$$= 1 - 0.1497$$

The Wholesalers' Gini coefficient is = 0.8503.

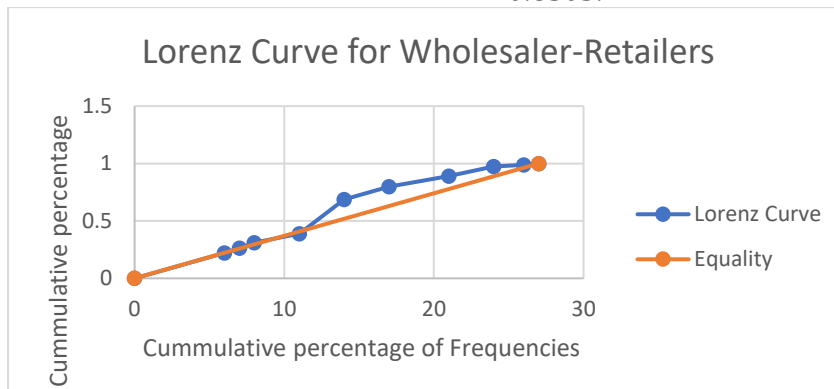


Figure 4: Lorenz Curve for the Wholesaler-Retailers

$$GC = 1 - \sum XY$$

$$GC = 1 - \sum_{i=0}^{k-1} (Y_{i+1} + Y_i)(X_{i+1} - X_i)$$

$$= 1 - 0.1309$$

The Wholesaler-Retailers' Gini coefficient is = 0.8691.

Sources of market information

The various sources of market information available to the paddy rice marketers were shown in Table 5. It was revealed that 67.65% of wholesalers sourced their market information from market agents and 32.35% from co-traders. Conversely, 89.83% of the retailers relied on information from co-traders and 10.17% were from market officials. Similarly, 77.78% of the wholesaler-retailers sourced information from co-traders, 18.52% from market agents and only 3.7% were from nearby markets.

Table 5: Sources of market information

Variables	Wholesaler (n=34)		Retailer (n=59)		Wholesaler-retailer (n=27)	
	Frequency	%	Frequency	%	Frequency	%
Information source						
Nearby markets	0	0.00	0	0.00	1	3.70
Market agents	23	67.65	6	10.17	5	18.52
Co-traders	11	32.35	53	89.83	21	77.78

Source: Field Survey (2025)

Constraints to Paddy Marketing

The major constraints to paddy marketing were presented in Table 6. From the results, high transportation cost was the major constraints to 11.76% of wholesalers, 11.86% of retailers and 22.22% of wholesaler-retailers. Insufficient storage facility was indicated was not a major constraint at all to both the wholesalers and wholesaler-retailers, but it was to 1.7% of the retailers. Seasonality in supply was cited selected as a major constraint by 44.12% of wholesalers, 28.81% of retailers and 25.93% of wholesaler-retailers. Lack of a standard unit for measurement was a major constraint to 14.71% of wholesalers, 10.17% of retailers and 14.81% of wholesalers-retailers. Lastly, lack of market information was a major constraint to only 1.7% of the retailers but it was neither a constraint to the wholesalers nor the wholesaler-retailers.

Table 6: Constraints to rice marketing

Constraints	Wholesalers			Retailers			Wholesaler-Retailer		
	Freq	%	Rank	Freq	%	Rank	Freq	%	Rank
High Transportation cost	4	11.76	4 th	7	11.86	3 rd	6	22.22	3 rd
Insufficient Storage facilities	0	0.00	5 th	1	1.70	6 th	0	0.00	5 th
Seasonality in Supply	15	44.12	1 st	17	28.81	2 nd	7	25.93	2 nd
Insufficient funds	10	29.41	2 nd	27	45.76	1 st	10	37.04	1 st
Unstandardized measurement unit	5	14.71	3 rd	6	10.17	4 th	4	14.81	4 th
Lack of Market information	0	0.00	6 th	1	1.70	5 th	0	0.00	6 th
Total	34	100		59	100		27	100	

Source: Field Survey (2025)

CONCLUSION AND RECOMMENDATIONS

The marketing of paddy rice was a male only business in the area. The marketers were educated enough to make decisions and young in age to meet the rigorous requirement of marketing. There is no barrier whatsoever to entry and exit and so resources can flow in and out at will. Paddy marketing is a profitable venture. There was high inequality in the earnings of the marketers. The marketers were also very competitive and efficient in carrying out their marketing activities even though there were room for improvements among the categories. Insufficient fund for marketing was ranked as the major constraint by both retailers and wholesaler-retailers and it still ranked second only to seasonal supply of paddy for the wholesalers. The following recommendations were made based on the findings of the study

- The paddy marketers should access formal loans through their cooperative associations. This will help mitigate the problems of insufficient funds they were faced with.
- The government should buy of surplus paddy and store to be resold during offseason. This will ensure even supply of paddy rice and maintain price.

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