

Research Article

Marketing of Paddy Rice in Ushongo Local Government Area of Benue State, Nigeria

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Abstract

This study assessed marketing of paddy rice in Ushongo Local Government Area of Benue State, Nigeria. Multi-stage sampling technique was used to collect primary data from 100 Paddy rice marketers using structured questionnaire. Data were analyzed using mean, frequency, marketing margin, efficiency models, Gini coefficient, Lorenz curve and t-test Result of the study revealed that marketing margin varied between -5.5 and 100 with an average of 31.5%. The marketing efficiency was between 1.3 and 110.7 with a mean of 34.3. The result for market structure reveals a Gini coefficient of 0.495 for retailers, 0.567 for wholesalers and 0.515 for processors. Marketing of paddy rice in the study area was constrained by three factors namely: physical factors, financial factors and market related factors. Marketing of paddy in the study area depicts inefficient market and imperfect competition. Based on the findings, the following recommendations were made; there should be provision of basic infrastructures like good roads, functional storage facilities, credit institutions to improve on the marketing efficiency of paddy rice marketing.

Keywords

Paddy Rice, Marketing, Structure, Benue State, Marketing Margin, Efficiency

1. Introduction

Agriculture is critical for both economic development and poverty reduction [1]. Agriculture provides inputs, food, employment opportunities, raw material for other industries, provides foreign earnings from exportation of surpluses and value addition in various production process [2]. In Nigeria, agriculture remains the mainstay of the economy employing about 65% to 70% of the Labour force [3]. Agriculture is the most neglected sector when compared with other sectors in Nigeria, in spite of its importance. The low productivity of agriculture in Nigeria is as a result of this neglect. Farmers are constrained by many problems including those of poor access

to modern inputs and credit, poor infrastructure, inadequate access to markets, land and environmental degradation, inadequate research and extension services [4]. In an attempt to tackle these challenges, highly yielding as well as nutritious crops, crop varieties and livestock have been introduced and one of them is rice.

Rice, (*Oryza sativa* or *Oryza glaberrima*) is one of the world's most important cereals, Rice has become a staple food for over 50% every household; both the rich and the poor consumes [5]. Rice is indispensable in the strategy for food security because it provides 27% of the energy and 20% of

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protein needs in developing countries, including African countries [6] (Tollens, 2007). Rice is among the three leading food crops of the world, with maize and wheat being the other two. All three directly provide no less than 42% of the world's required caloric intake. In 2009, human consumption was responsible for 78% of the total usage of produced rice.

Nigeria's fertile land and rich agro-climatic conditions could easily produce rice to feed the entire country and generate surplus. However, Nigeria has continued to depend on importation from countries like China and Thailand to meet the increasing demand for rice by household. A combination of various factors seems to have triggered the structural increase in rice consumption over the years with consumption broadening across all socioeconomic classes, including the poor. Out of the thirty-six States in Nigeria, only eight States can produce rice in a large scale. These States include: Anambra, Nasarawa, Ebonyi, Kaduna, Niger, Kano, Kaduna and Benue [7]. Over 90 percent of domestic rice production comes from resource poor and weakly organized smallholders. These smallholders apply a low-input strategy to agriculture, with minimum input requirements and low output [8]. The livelihood of these smallholder farmers has been constrained by a host of challenges such as low productivity, paucity of opportunities for value addition, limited access to productive assets and inputs, inadequate support services (extension and research), inadequate market and rural infrastructure, post-harvest losses and a constrained enabling environment. More so, a huge proportion of domestic rice in Nigeria is not tailored to meet international market needs. This has also limited the market share of the domestic rice producer.

In 2016, National rice demand was estimated at 6.3 million metric tons while domestic supply was put at 2.3 million metric tons. The deficit of 4 million metric tons was expected to be filled by import. Importation of rice is detrimental to Nigeria's economy because it portends a serious danger in terms of foreign exchange (Forex) earnings and its depletion of the nation's foreign reserves. In order to bridge the gap between supply and the ever-growing demand; the Federal government of Nigeria, at one time or the other, has initiated policies and incentives for farmers to increase rice production locally. One of such policies is the 2006 presidential initiative on accelerated rice production, which was targeted at, reducing the import and developing of local rice industry and put a 50 percent duty on parboiled rice. In addition, a levy of ten percent was imposed on rice imports to create a dedicated fund for the development of the local rice industry, including processing and marketing. Again, in a bid to achieve rice self-sufficiency in Nigeria, a rice transformation action plan was set up in 2011 under the umbrella of the Agricultural Transformation Agenda (ATA). [9] observed that, with rice now being the structural component of the Nigerian diet, and rice imports making up an important share of Nigeria's agricultural imports, there is considerable political interest in increasing the consumption of local rice. This has made rice a highly political commodity.

Rice marketing is the performance of all business activities in the flow of paddy and milled rice, from the point of initial rice production until they are in the hands of the ultimate consumers at the right time, in the right place and as convenient as possible, at a profit margin so as to keep the trader in his business operation [10]. Marketing make rice available to both rural and urban dwellers through marketing channel, transportation is also important in marketing of rice, without transportation rice cannot be evenly distributed throughout the nation. Marketing of agricultural commodity is an important aspect of agricultural value chain that requires the attention of policy makers and market actors such as producers, middlemen and consumers. Agricultural marketing helps the farmers in the distribution of food and raw materials from the points of production to the points when the produce gets to the final consumers.

Agricultural marketing serves as means of livelihood to millions of market actors and policymakers. Agricultural marketing as an important means for development especially for the developing countries [11]. Agricultural marketing is the main driving force for economic development, stimulating production and distribution of agricultural produce. It plays a remarkable role in ensuring better income and welfare for farmers through diverse channels [12]. Agricultural marketing has stimulated production and industrial development. Efficient marketing ensures sustainability of the system through enhanced revenue generation to producers and marketers [13].

Nigerian agriculture has failed to supply sufficient food in quantity and quality to feed the constantly growing population [14]. This failure can be attributed to the problem of agricultural marketing and food distribution. Marketing of agricultural inputs has been weak and undeveloped. Nigerian agricultural marketing is not performing optimally and has been of great concern to many policymakers and has rendered agricultural sector to be non-productive. High cost of transaction and weak performance result from high transportation cost, poor storage facilities, and poor market infrastructure [15].

The trend in rice supply and demand in Nigeria range between 6.5% and 7.5% per annum respectively [16]. This indicates that there has been increase over the years with corresponding increase in population growth. Thus, increasing production alone without a convenient marketing system may not stimulate farmers to maintain a stable level of production at local and national level in general. Strengthening the rice market is a prerequisite that is important in sustaining rice production in Nigeria [17].

Rice production in Nigeria has been unable to keep up with increases in demand over the years. Marketing ought to provide all that is required (access to irrigated land, appropriate farm inputs and market information including agricultural best practices and pricing need etc) to transform the Nigerian rice market. The inability of Nigeria to achieve self-sufficiency in rice production is therefore, due to inefficiency of rice marketing in the nation. The demand for rice is

rising speedily at an estimated rate of 10% per annum [18] due to population growth and urbanization [19]. Even though, there is growing demand for rice in Nigeria, corresponding increase in supply is lacking thereby leading to persistent demand - supply gap. Market performance is a reflection of the impact of structure and conduct on product prices, costs, volume and quality of output [20]. Efficient management and marketing system promote economic development by encouraging specialization and leading to output enhancement [21].

Several authors have worked on various aspects of rice marketing at various levels which includes the study by [22] who assessed the Profitability of Paddy Production in Edu Local Government Area of Kwara State, Nigeria; [17] analyzed Market Structure and Concentration in Nigeria (A Case of Kano State Rice Market); [23] examined The effect of Socio-economic Characteristics of Rice Marketing Actors in Benue State, and [21] carried out a study on the Structural Analysis of Paddy Rice Markets in Southern Part of Taraba State, Nigeria. Results of all the studies carried out on marketing of rice and paddy rice were location specific, hence the need to conduct a study on the marketing of paddy rice in Ushongo Local Government Area of Benue State, Nigeria.

Objectives of the Study

The broad objective of the study is to assess the marketing of paddy rice in Ushongo Local Government Area of Benue State, Nigeria. The specific objectives of the study are to:

- 1) estimate the costs and returns of paddy rice marketing in the study area;
- 2) determine the marketing margin and efficiency of paddy rice marketing in the study area;
- 3) determine the market structure and conduct of paddy rice marketing in the study area and;
- 4) identify the problems militating against paddy rice marketing in the study area.

Base on the specific objectives of the study, the following null hypotheses will be stated and tested:

H₀₁: There is no significant difference in the cost and return of paddy rice marketers in the study area.

H₀₂: Marketing cost and socioeconomic characteristics of paddy rice marketers has no significant influence on marketing efficiency of paddy rice marketing in the study area.

2. Methodology

2.1. The Study Area

The study area is Ushongo Local Government Area of Benue State. Ushongo LGA is located between latitudes 7°00' and 7°10' North of the Equator, and longitude 8°4' and 9°30' East of the Greenwich Meridian [24]. It is bordered by Gboko Local Government Area and Buruku Local Government Area in the North, Kwande Local Government, Vandeikya Local Government Area in the South, Katsina-Ala Local Government Area in the East, Konshisha Local Government Area in the Southwest, and Gboko Local Government Area in the

Southwest.

Ushongo LGA has a projected population of at the 2006 Census was 479, 837.5, consisting of 240,155 males and 239,682.5 females (Projection from [25]). Areas of low population densities are more than those of low population densities. The densely populated areas are mostly the nucleated villages along the Ihugh-Gboko and Adikpo-Katsina Ala expressways. Major settlements are Lessel, the LGA headquarters, Ge-Mbayem and Ushongo. The Mbagba, Mbagwa, Mbaikyaa, Ikov and Utange people of Tiv origin are the indigenes of Ushongo LGA. They are politically structured into eleven council wards namely Atirkyese, Ikov, Lessel Township, Mbaawe, Mbaaka, Mbagba, Mbaagir, Mbakuha, Mbagwaza, Mbayegh and Utange.

Natural vegetation in Ushongo LGA is mainly dry woodland savanna, highly favoured by the gravelly soils. The climate of the LGA, like other parts of Benue State, is tropical, with dry seasons running from November to March, which gives way to wet season from April to October and temperatures fluctuate between 28 °C and 32 °C [24]. The majority of the people are farmers, whose major crops are rice, yam, soy beans, cassava, sorghum and fruits. Although there are large deposits of granites and other solid minerals in Ushongo LGA, they are minimally being exploited. A lot of traditional weaving of clothes is done by weavers at Ushongo village. Some of the villagers are traders and civil servants.

The population for this study comprises all paddy rice marketers in the study area. Purposive, stratified and random sampling techniques was used for this study. Foremost, following the stratification of the LGA into eleven (11) council wards namely; Atirkyese, Ikov, Lessel Township, Mbaawe, Mbaaka, Mbagba, Mbaagir, Mbakuha, Mbagwaza, Mbayegh and Utange, six (6) council wards including Mbaanyam, Mbakuba, Mbaaka, Lessel Township, Atiikyese and Mbagba council wards was purposively selected based on their predominance in paddy rice production and marketing activities. The next stage involved the purposive selection of markets from each of the selected council wards based on the availability of rice; Waapera, Ikyobo, Lobi, Lessel, Adikpo and Atekombo. A sampling frame will be developed for each of the market places using a proportion of 10% (0.1) across board making a total of 100 respondents. Primary data were collected using structured questionnaire. This study employed both descriptive and inferential statistics. These include mean, frequency, marketing margin, efficiency models, Gini coefficient, Lorenz curve and t-test for the analysis of data.

2.2. Model Specification

2.2.1. Marketing Margin Analysis

Marketing margin is the difference between the price paid by consumer and that received by the producers. It is expressed as follows:

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

2.2.2. Marketing Efficiency

Marketing efficiency (ME) of paddy rice will be estimated using marketing efficiency ratio as applied by [26, 27]. It is expressed mathematically as follows:

$$\text{ME} = \frac{\text{value added by marketing (net returns)}}{\text{total cost of marketing}} \quad (2)$$

2.2.3. Gini-Index (Coefficient)

Gini index (coefficient) will be used to examine the market structure for paddy rice in the study area.

Mathematically, it is represented by equation.

$$\text{G.C} = 1 - \sum XY \quad (3)$$

Where:

G.C = Gini index (coefficient)

X = Proportion of sellers

Y = Cumulative proportion of total sales

3. Results and Discussion

Marketing Margin of Paddy Rice in Ushongo Local Government Area of Benue State

Table 1 shows that the marketing margin (in percentage) of paddy rice in the study area varies between -1.26 and 110.70. The result of this study also shows that 13.0% of the marketers had marketing margin between -5 and zero (0). This group incurred losses or break even in the business. About 35.0% had marketing margin between 1% and 30%; this group made a substantial profit in paddy marketing. Furthermore, 40.0% had marketing margin of above 30% and 60%; this group made moderate profit while 11.0% had marketing margin of between 60% and 80%. Only 1.0% of the marketers had marketing margin of above 80%. However, the mean marketing margin for paddy rice in the study was 31.5%. This implied that about 32 percent profit would be realized from every purchase made. The result reveals a high marketing margin which is a reflection of the exploitative nature of the paddy marketers in the study area. Also, as a rule of thumb, [28] had reported that efficient markets in developing countries must have a retail margin of less than 10 percent of the consumers' price for non-perishable goods like soyabean as used by [29]. Thus, marketing margin of 31.5% found in this study therefore suggested inefficiency in paddy marketing. The result of this study varies slightly with the findings of [30] who studied marketing system in major

towns of Ibarapa zone of Oyo State and obtained a marketing margin of 24.24%.

Table 1. Result of Marketing Margin of Paddy.

Marketing Margin (%)	Frequency	Percentage
-5 - 0	13	13.0
1 - 30	35	35.0
30.1 - 60	40	40.0
60.1 - 80	11	11.0
80.1 - 100	1	1.0
Maximum		100.0
Minimum		-5.0
Mean		31.5

Source: Field Survey, 2021.

Marketing Efficiency of Paddy

Table 2 shows the marketing margin of paddy rice marketers in the study area. The study reveals that 5.0% of the of the marketers operated at negative efficiency. This could be as a result of unequal distribution of sales; a situation where few marketers exert influence on the quantity and price. This makes the marginal traders operate at a very low scale that can lead to negative returns [29]. This represents the group that incurred cost in the marketing process since the cost of marketing outweighs the value added to the product. Majority (59.0%) had marketing efficiency between 0.1 to 40 and 31.0% of the respondents had marketing efficiency of above 40 and 80. The groups can be said to be efficient in the marketing since the value they added to the product was far more than the costs incurred in the process. Moreso, the result also shows that 4.0% of paddy rice marketers in the study area had marketing efficiency of above 80 and 100 while only 1.0% of the marketers had marketing efficiency of over 100 and 110.7. This group of marketers had high level of efficiency in managing resources. Also, the result also reveals that the marketing efficiency for paddy rice marketing in the study area varies from -1.26 to 110.70 with an average of 34.27%. Marketing efficiency ranges from zero (0) to infinity. According to [31], when marketing efficiency is less than 100% indicates inefficient market while marketing efficiency is greater than 100%, there is excessive profit.

Table 2. Marketing Efficiency of Paddy Rice Marketers.

Marketing Efficiency	Frequency	Percentage
<0.0	5	5.0
0.1 - 40.0	59	59.0
40.1 - 80.0	31	31.0
80.1 - 100.0	4	4.0
100.1 - 110.7	1	1.0
Maximum		-1.3
Minimum		110.7
Mean		34.3

Source: Field Survey, 2021.

Market Structure for Paddy Marketing

The degree of competition among the categorised paddy rice marketers was estimated using the Gini-Coefficient (G^0) and the result is presented of Table 3. Gini-coefficient ranges from 0 to 1 with a value greater than 0.35 indicating inequality in distribution of sales as well as income earned according to Dillon and Hardaker (1993), where 0 implies perfect competition among marketers and the closer the Gini-coefficient to 1, the greater the degree of imperfect competition in the market. Higher value of Gini coefficient (GC) means higher level of concentration, inequitable distribution of sales and income and consequently, high inefficiency in the market structure [32]. According to [33], Gini-coefficient of 1 implies high level of inefficient market structure. The result of this shows a Gini-coefficient of 0.505 for retailers of paddy in the study area. This result implies a high degree of imperfect competition among the retailers. This also means that the retailers are

showing tendency of non-competitive market structure. This result conflicts with the result of [34] who found a Gini-coefficient of 0.3163 for retailers and wholesalers of yam in Ondo State. The study also reveals a Gini-coefficient of 0.433 for wholesalers of paddy in the study area which is slightly less than that of the retailers. This result however implies characteristics of imperfect market structure. This result is similar to the finding of [35] who report a Gini-coefficient of 0.59 among marketers of rice in Kebbi State. Furthermore, the result of this study reveals a Gini-coefficient of 0.485 for the processors of paddy rice in the study. This implies that the market structure for the processors possesses the characteristics of an imperfect market situation. This result agrees with [36] that found a Gini-coefficient of 0.4639 for rice marketers in Zone C of Benue State.

Table 3. Market Structure for Paddy Marketing.

Market Participants	Qty Sold/ Month	Freq	Proportion (X)	Cum Freq	Total sales	Proportn of Average Sales	Cum. Prop of (Y)	XY
Retailer	100-500	6	0.60	0.60	1900	0.2923	0.2923	0.175
	501-1000	2	0.20	0.80	2000	0.3077	0.6	0.12
	1001-1500	2	0.20	1.00	2600	0.4	1.0	0.2
Total		10	1.00		6500			0.495
$G^0 = 1 - \sum XY$	$= 1 - 0.495 =$	0.505						
Wholesaler	100-500	8	0.50	0.50	3200	0.3077	0.3077	0.154
	501-1000	6	0.375	0.875	4800	0.468	0.7697	0.289
	1001-1500	2	0.125	1.00	2400	0.2308	1.0	0.125
Total		16	1.00		10400			0.567
$G^0 = 1 - \sum XY$	$= 1 - 0.567 =$	0.433						

Market Participants	Qty Sold/ Month	Freq	Proportion (X)	Cum Freq	Total sales	Proportion of Average Sales	Cum. Prop of (Y)	XY
Processor	100-500	37	0.50	0.50	12100	0.258	0.258	0.129
	501-1000	28	0.378	0.878	23000	0.490	0.748	0.283
	1001-1500	8	0.108	0.986	9800	0.209	0.957	0.103
	1501-2000	1	0.014	1.00	2000	0.043	1.0	0.014
Total		74	1.00		469000			0.515
$G^0=1-\Sigma XY$	$=1-0.515=$	0.485						

Source: Field survey, 2021.

Constraints to Paddy Marketing

Results of the factor analysis presented on table 4 shows that there were three categories of constraints to paddy rice marketing in Ushongo Local Government Area of Benue State, namely; factor 1 (physical factors), factor 2 (financial factors) and factor 3 (market related factors). Variables with factor loading of 0.400 and above were used while those that loaded below 0.400 were suppressed. The constraints that loaded under factor 1 include price instability (0.509), high cost of transportation (0.607), storage problem (0.460), bulkiness of the commodity (0.444) and inadequate market information (0.491). This result is in line with [37] who found that high cost of transportation constituted a serious constraint faced by marketers in Bauchi. The result is also in consonance

with [38] who found lack of market information as critical constraint to tomatoes marketing in Kenya. Inadequate capital (0.529), lack of access to credit (0.692) and excess tax (0.630) were the constraints that loaded under factor 2. This result conforms to the finding of [39] that lack of access to credit is a constraint found among soybeans women marketers. [38] also found that inability to raise capital is a critical constraint to tomatoes marketing in Kenya. The constraints that loaded under factor 3 include distance to the market (0.757), seasonality of paddy rice supply (-0.573) and low patronage (0.606). This result agrees with [37] findings that fluctuation in output is a constraint faced by soybeans marketers in Bauchi State.

Table 4. Constraints to Paddy Marketing.

S/N	Constraints	Factor 1	Factor 2	Factor 3	Communalities
I	Price instability	0.509*	0.209	0.163	0.329
Ii	Inadequate capital	0.255	0.529*	0.000	0.344
Iii	High cost of transportation	0.607*	-0.202	0.118	0.423
Iv	Lack of access to credit	-0.151	0.692*	0.108	0.513
V	Storage problem	0.460*	0.358	-0.218	0.388
Vi	Distance to market	0.312	0.008	0.757*	0.671
Vii	Seasonality of paddy rice supply	0.064	0.171	-0.573*	0.570
Viii	Low patronage	0.079	0.265	0.606*	0.444
Ix	Bulkiness of the commodity	0.444*	0.012	-0.004	0.198
X	Excess tax	-0.148	0.630*	0.071	0.423
Xi	Inadequate market information	0.491*	-0.211	0.061	0.289

Source: Field survey, 2021

4. Conclusion and Recommendation

Mean marketing margin of 31.5% (greater than 10%) found in this study therefore suggested inefficiency in paddy marketing. Average marketing efficiency of 34.27%. indicates inefficient market. Moreover, the market structure for paddy rice marketing among retailers, wholesalers and processors in the study area tend towards an imperfect competition as indicated by Gini coefficients for three categories of marketers in the study area. Marketing of paddy rice in the study area is constrained by three factors which include physical, financial and market related factors.

Based on the findings of the study, the following recommendation were made:

There is need for relevant authorities/agencies to create credit institution that will improve access to loans by marketers; make available functional storage facility to reduce spoilage of the commodity. There is also the need to construct feeder roads linking rice farming communities to the various markets in order to reduce cost of transportation.

Author Contributions

Dorothy Patience Ani: Conceptualization, Formal Analysis, Funding acquisition, Methodology, Software, Supervision, Validation, Writing – review & editing

Regina Mbanengen Himbir: Data curation, Project administration, Visualization, Writing – original draft

Ayuba Ali: Investigation, Methodology, Resources

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Omigie, O. C., Rahji, M. A. Y., Okoruwa, V. O. and Adeoti, A. I. (2013). Linkages amongst Government Spending, Stock Market Development and output in Nigeria. *Asian Journal of Business and Management*. 5(2): 238-251.
- [2] Izuchukwu, O. (2011). Analysis of the contribution of agricultural sector on the Nigerian economic development. *World Review of Business Research*, 1(1), 191-200.
- [3] Yakubu, M. and Akanegbu, B. (2015). Neglecting Agriculture and its consequences to the Nigerian Economy: An analytical Synthesis, *European Journal of Research in Social Sciences*. 3(3): 66-75.
- [4] Ofana, O. G., Efeiom, E. C. and Omini, E. E. (2016), "Constraints to agricultural development in Nigeria", *International Journal of Development and Economic Sustainability*, Vol. 4 No. 2, pp. 1-15.
- [5] Godwin, U. (2012). Rice farm, milling plant: Sure money spinner. Available at: <http://nationalmirroronline.net/new/rice-farm-milling-plant-sure-money-spinner/> Accessed 15th January 2013.
- [6] Tollens, E. F. (2007). Markets and Institutions for Promoting Rice for Food Security and Poverty Reduction in Sub-Sahara Africa, *African Crop Science Journal* 15(4) pp. 237 - 242 <https://doi.org/10.4314/acsj.v15i4.54462>
- [7] Bamba, I., A. Diagne, Manful, J. & Ajayi, A. (2010). Historic Opportunities for Rice Growers in Nigeria. *Grain de sel*. No. 51, July - September 2010.
- [8] IFAD (2010). International Fund for Agricultural Development Annual Report.
- [9] Frederic, L., E. Ola, E. Akande, S. O. Titilola, G. Akpokoje and O. O. Ogundele, 2003. Imported rice retailing and purchasing in Nigeria: A survey, *West Africa Rice Development Association (WARDA) 2* Abidjan, Cote d'Ivoire.
- [10] Ihene, D. A., 1996. The Marketing of Staple Food Crops in Enugu State Nigeria: A Case Study of Rice, Maize and Beans, M. Sc. Thesis, University of Nigeria, Nsukka.
- [11] Haliru, Y. U. and Ibitoye, S. J. (2014). Evaluation of Market Structure and Efficiency of Gum Arabic Marketers in North Eastern Nigeria. *Asia Journal of Management Science and Economics*. 1(1): 1-11.
- [12] Gani, B. S. and Adeoti, A. I. (2011). Analysis of market participation and rural poverty among farmers in Northern part of Taraba State, Nigeria. *Journal of Economics*, 2(1): 23-36.
- [13] Girei, A. A., Salihu, M. and Iliya, M. M. (2013). Assessment of Problems Affecting the Structure, Conduct and Performance of Cowpea Marketing in Yola North and South L. G. As. in Adamawa State, Nigeria. *British Journal of Marketing Study*. 1: 41-50.
- [14] Abu, O. (2012). Food Security in Nigeria and South Africa: Policies and Challenges, *Journal of Humanity and Ecology*, 38(1): 31-35.
- [15] Tiri, G. D. and Ojoko, E. A. (2012). Analysis of Structural Characteristics of sweet Orange Market in Kano Metropolis. *Proceedings of the 46th Annual Conference of the Agricultural society of Nigeria*. 5th-9th November, Jibrin, J. M. et al (Edited) 134-138.
- [16] Oyinbo O., Omolehin, R. A., and Zakari, A. (2013). Household Consumption Preference for Imported and Domestic Rice in Kaduna State, Nigeria: Implication for Rice Quality Improvement, *PAT* 2013; 9(1): 29-37: ISSN: 0794-5213, Publication of Nasarawa State University, Keffi.
- [17] Shafaatu B. H. (2017). Analysis of Market Structure and Concentration in Nigeria (A Case of Kano State Rice Market) *IIARD International Journal of Economics and Business Management*. 3(5): 1-11 ISSN 2489-0065 www.iiardpub.org IIARD - International Institute of Academic Research and Development.
- [18] NRDC National Rice Development Strategy (NRDS) (2009) Federal Ministry of Agriculture and Rural Development, Federal Republic of Nigeria.

- [19] Inuwa, I. M. S., Kyiogwom, U. B., Ala, A. L., Maikasuwa, M. A. and Ibrahim, N. D. (2011). Profitability Analysis of Rice Processing and Marketing in Kano State, Nigeria, *Nigerian Journal of Basic and Applied Science* (2011), 19(2): 293-298 ISSN 0794-5698, Available online at <http://www.ajol.info/index.php/njbas/index>
- [20] Hill, M. E. and McGinnis, J. (2014). The Curiosity in Marketing Thinking, *Journal of Marketing Education*, 29: (1) 52-62, <https://doi.org/10.1177/0273475306297385>
- [21] Tura, V. B., Johnathan, A., & Lawal, H. (2010). Structural Analysis of paddy rice markets in Southern part of Taraba State, Nigeria. *Journal. of agriculture and Social Sciences*, 6(4), S110-112.
- [22] Banjoko, I. K., Opeyemi, G., Ifabiyi J. O., Arotiba, K. and Adedeji, S. O. (2016). Assessment of the Profitability of Paddy Production in Edu Local Government Area of Kwara State, Nigeria, *Gashua Journal of Irrigation and Desertification Studies* (2016), Vol. 2. No. 1 ISSN: 2489 - 0030.
- [23] Tondo, D. T. and Iheanacho, A. C. (2015). Profitability in Rice Marketing along the Marketing Channel in Benue State of Nigeria, *ARC Journal of Business and Economics (ARC-JBE)* 1(1): 31 - 37 www.africaresearchcorps.com
- [24] Dada, S. S. (2006). Proterozoic Evolution of Nigeria, In: Oshi, O., Ed., *The Basement Complex of Nigeria and its Mineral Resources (A tribute to Prof. M. A. O. Rahaman)*, Akin Jinad & co., Ibadan, 29-44.
- [25] NPC (2006). National Population Commission, Abuja, Nigeria.
- [26] Olukosi, J. O, Isitor, S. U. and Ode, M. O. (2005). Introduction to Agricultural Marketing Price Principle and Application. Living Books Series G. U. Publication, Abuja, Nigeria. pp. 75-79.
- [27] Ozougwu, F. C. (2002). Analysis of Rice Marketing Margin in the Marketing Channel of Adani Rice in Uzo-Uwani Local Government Area. MSc Thesis, University of Nigeria Nsukka. 158 pp.
- [28] Riley, H. (1972). Improving Internal Marketing Systems as Part of National Development Systems. Occasional paper no. 3, Michigan State University, Latin American Studies Center, East Lansing.
- [29] Ani, D. P., Chidebelu, S. A. N. and Enete, A. A. (2016). Pricing Efficiency in Soyabean Marketing: An Evaluation of Costs and Margins in Benue and Enugu States of Nigeria. *American Journal of Agricultural Science*. 3(4): 59-71, 2016.
- [30] Ayanboye, A. O., Oluwafemi, S. O. and Rafiu, R. A. (2015). Fresh fish (*Clarias gariepinus*) Marketing Systems in Major Towns of Ibarapa zone of Oyo State, Nigeria. *International Journal of Applied and Apicultural Research*. 11(1 and 2): 162-171.
- [31] Scarborough, V., & Kydd, J. (1992). *Economic Analysis of Agricultural Markets: A Manual*. Marketing Series, 5. Natural Resources Institute.
- [32] Ani, D. P., Chidebelu, S. A. N. and Enete, A. A. (2017). Structure of soyabeans markets in Benue and Enugu States, Nigeria. *African Journal of Agricultural Research*. 12(6): 435-449, 9 February, 2017 <https://doi.org/10.5897/AJAR2015.9810>
- [33] Ojo, A. O., Ojo, M. A. and Usman, K. I. (2014). Structure and Performance of Palm Oil marketing in Kogi State, Nigeria, *Journal of Production Agriculture and Technology*, 10(2): 23 - 31.
- [34] Kassali, R., Girei, A. A. and Sanu, I. D. (2018). Analysis of Yam Marketing in Akoko North-East Local Government Area of Ondo State, Nigeria. *International Journal of Agricultural Marketing*. 5(1): 170-177.
- [35] Buhari, A. K., Maikasuwa, M. A and Gona, A. (2018). Structure, Conduct and performance of Rice marketing in Kebbi State, Nigeria. *Ambit Journal of Agricultural Research*. 3(2): 120-128.
- [36] Abah, A. D; Anjeinu, A. G and Iorhon, A. P (2015). Analysis of the Structure and Conduct of Paddy Rice Marketing in Benue State, Nigeria. *American Journal of Marketing Research*. 1(2): 70-78.
- [37] Bakoji, I., Haruna, U., Danwanka, H. A. and Jibril, S. A. (2013). Marketing Analysis of soybeans (*Glycine Max*) in Toro LGA of Bauchi State, Nigeria. *Research Journal of Agriculture and Environmental Management*. 2(11): 358-364.
- [38] Ruttoh, J. K., Bett, E. K. and Nyairo, N. (2018). Empirical Analysis of Structure, Conduct of Tomato marketing in Loitoktok Kajiado County, Kenya. *International Journal of Agricultural Extension and Rural Development*, 6(4): 628-638.
- [39] Alkali, H. M. (2017). Analysis of Market Participation by women Soybeans Producers in Hawul LGA, Borno State, Nigeria. *International Journal of Agribusiness and Economic Growth* 7(3): 67-73.