

PROFITABILITY ANALYSIS OF PADDY RICE MARKETING IN JIGAWA STATE, NIGERIA.

*A.Yahaya, *Dandawo. H, **A. M. Yaro, *M. U. Habibu

*Department of Agricultural Extension and Management, Binyaminu Usman polytechnic, P.M.B 013
Hadejia, Jigawa State.

**Department of Agricultural Economic and Extension, Kano University of Science and Technology,
Wudil, Kano State.

(ayroni02@gmail.com) 08067875127

ABSTRACT:

The study investigated the challenges of marketing rice in Jigawa State with interest in establishing the profitability of the product and socio-economic characteristics of its marketers. . Four major markets located at Hadejia, Guri, Auyo and Taura local government area of Jigawa state, Nigeria were purposefully selected based on the concentration of the marketers in them. A hundred and forty-six (146) marketers were randomly selected proportionately based on the size of the markets. Structured questionnaire was used to elicit information from the marketers and the data collected was analyzed using descriptive statistics and marketing margin technique. The results shows that the market was dominated by males (90.4%) The data also shows the respondents 65-74 years constituted the lowest percentage of (6.8%). The household sizes of the marketers studied ranged between 1 and 9 persons and 78.8% of the paddy rice marketers are married, the results also indicated that majority 51.4% of the paddy rice marketers had Qur'anic education in the study area, 41.0% of the paddy rice marketers had marketing experience ranging from 10 – 19 years. Cost benefit analysis shows that marketing of Jigawa rice is profitable as ₦20498.4 only was the net profit at the end of the trading period. The major challenges facing the respondents include inadequate credit facilities with (41.1%), poor road network (26.0%) and lack of storage facilities with (20.5%). The study concludes by recommending the formation of accessibility of good road, provision of adequate credit facilities and provision of storage facilities.

Keywords: Profitability, Marketing analysis; Paddy rice; Jigawa rice markets

INTRODUCTION: Rice is a staple food consumed in many Nigerian homes often in different forms (fermented, boiled or ground). It is the most commonly consumed cereal grain in different parts of the world especially Asia which accounts for 90% of rice produced and consumed annually. Food and agriculture organization (FAO, 2016) reports that rice is a crop of global importance as it is widely consumed by a number of households, adding that rice is primarily known as high energy, high calorie food (345 calories per 100g) with high biological value of proteins, phosphorus, iron, some amount of calcium, and vitamin B in small quantities. Rice is also low in fats, salt, and cholesterol, and contains minerals such as iron (Fe), zinc (Zn), Manganese (Mn), and copper (Cu) in trace amounts, essential amino acids like histidine, methionine, tryptophan, and cysteine (Ahuja, 2008). As of 2017, Nigeria was the second largest producer of rice in West Africa PriceWaterHouse Cooper (Pwc, 2017), producing 3.7million tones of paddy rice annually behind Egypt. This accounted for a short fall as 6.4 million tons of rice were consumed per annum, which explained why Nigeria was the third largest importer of rice in the world. In the March 2019 publication by the Africa rice center explained that due to policy changes by the Egyptian government in favour of managing water resources, Nigeria overtook Egypt to become the largest producer of rice after production increased to about 4million tones of paddy rice per annum. This affirms that Nigeria has the potential to be self-sufficient in rice production, both for food, industrial raw materials, and exports (Ajala, 2015). Unfortunately, despite the country's potentials and suitable agro-ecologies (upland, rain-fed lowland, irrigated lowland, deep water and mangrove swamp) that favour the achievement of self-sufficiency in rice production (Oikeh and Ugalahi, 2016).

Statement of the Problems: Rice consumption is spread throughout the year and there is content demand for rice all-round the year. However, production of rice fluctuates from year to year. The low production results in the over flooding which create discomfort among producers. Increase in production has no meaning unless there is a good marketing system. The production and productivity of cereals in general and Rice in Nigeria is very low compared to the potentials the country has before. Their production is facing various problems which contribute to this low level of production and productivity. Among various constraints were high over flooding, resulting to the lower rice production and inadequate supply of rice in the market, transportation and storage. All these make the price of rice to vary.

Objectives of the Study: The broad objective of the study is to determine the marketing of paddy rice in Jigawa State, Nigeria. However, the specific objectives are to;

- i. Describe the socio-economic characteristics of paddy rice marketers in Jigawa state,
- ii. estimate the marketing margin and marketing efficiency of paddy rice in Jigawa State
- iii. identify and describe the constraints associated with paddy rice marketing in Jigawa State.

METHODOLOGY

The study Area: Jigawa State is one of the 36 states of Nigeria, located in the northern region of the country with a national boarder with the Republic of the Niger. Jigawa state consists of twenty-seven (27) local government Areas. Jigawa State is situated in the northwestern part of the country between latitudes 11.00°N to 13.00°N and longitudes 8.00°E to 10.15°E. (Online, 2021). Rainfall varies from year to year but ranges from 635.0 – 889.0 mm (JSFDP 2008). The state has an estimated population of 7,499,100 people by the (NPC, 2022). It is mostly populated by Hausa/Fulani, who can be found in all parts of the state.

Sampling Techniques and Sample Size: Multistage sampling procedure was used for the selection of paddy rice marketers in the study area. Jigawa state has 27 local government Areas.

The first stage was involve the purposive selection of four (4) local government Areas namely: Hadejia, Guri, Auyo and Taura based on the concentration of the marketers in the areas. The second stage involved the selection of one market site from each of the selected Local Government Area based on high concentration of paddy rice marketers in the study area.

The third stage involved the random selection of 146 paddy rice marketers (from a population of 486 respondents) from which data were collected using questionnaire

Tools of data analysis that were used for this study include;

Descriptive Statistics: Descriptive statistics was used in analyzing the socio-economic characteristic and marketing constraints of respondents using percentages, frequency distribution, mean and other variable measures. This was used to achieved the objective i and objective iii.

Marketing Margin: - The marketing margin is the difference between costs of purchasing paddy rice (C_i) per day and sales of paddy rice per day (R_i) it given as:

$Mm = \text{Selling price} - \text{Purchasing price} \dots\dots\dots(v)$

Where **Marketing Efficiency:** - These was used to analyze how efficient the marketing system is in the paddy rice industry. Mathematically, the marketing efficiency is stated as;

$M.E = \frac{\text{Value Added by Marketing}}{\text{Cost of Marketing Services}} \times 100 \dots\dots\dots(vi)$

Cost of Marketing Services

The marketing efficiency estimates the financial marketing feasibility of executing any additional marketing services and a positive signed estimate would justify application of such service and negative estimate will indicate otherwise (Abdou, 2004).

RESULTS AND DISCUSSION

Socio-economic Characteristics of Paddy Rice Marketers

Age of the paddy rice marketers: The results presented in Table 1 shows the distribution of the respondents by age. 30.1% of the paddy rice marketers were within 45-54 years of age, 26.7% were between 35-44 years, 19.9% were between 25-34 years, 16.4% were between 55-64 years and 6.8% were between 65-74 years. This means that the majority of the paddy rice marketers were between 45-54 years.

Sex of paddy rice marketers: The results in table 1 revealed that majority 90.4% of the paddy rice marketers were males, while female constituted 9.6% of the paddy rice marketers. The results implies that, men were dominant in the marketing of paddy rice. This is in with finding of (Mulie, 2014). Who reported that men are more in to marketing of agricultural products than women in the northern part of the country.

Household size of paddy rice marketers: The results of the household size in this study is presented in Table 1. The results revealed that 61.6% of the paddy rice marketers in the study area had household size of between 1 and 9 persons, while 26.7% were within the range of 10 – 19 persons, 8.9% were within the range of 20 – 29 persons and 2.7% were within 30 -39 persons respectively. It is therefore, logical to state that the average household size marketers of paddy rice in the study area was 9 persons. This result is in line with finding of (Tondo, 2015).

Marital status of paddy rice marketers: The distribution of marketers based on marital status as indicated in the table 1 shows that 78.8% of the paddy rice marketers are married, 17.8% are single, 2.0% are divorced and 1.4% are widowed. Research revealed that marital status to some extent influences the population of marketers for marketing purposes because the marriage institutions possess some restrictions as regard to which marketer is responsible and trustworthy (Victor, 2004).

Educational background of paddy rice marketers: According to the results shows in table 2, it can be deduced that 51.4% of the marketers had acquired Qur'anic education, while primary, secondary, tertiary and adult education had 9.6%, 21.2%, 16.4% and 1.4% respectively. This results indicated that majority 51.4% of the paddy rice marketers had Qur'anic education in the study area and 48.6% had formal education. The result for paddy rice marketers is contrary with finding of (Ejoha, 2019). On the study of economics of paddy rice marketing in Nassarawa State, Nigeria.

Years of experience: Table 2 shows that 41.0% of the paddy rice marketers had marketing experience ranging from 10 – 19 years while 37.7%, 15.8%, 4.8%, 0.7% were within 1 – 9 years, 20 – 29 years, 30 – 39 years and 40 – 49 years respectively. The result shows in table 2, suggests that majority of the paddy rice marketers in the study area were somehow old in to the business.

Marketing margin of paddy rice marketers: The profit margin analysis of paddy rice marketing is presented in Table 3. The average purchasing price was ₦201178.40, average cost of transportation was ₦590.9, average cost of onloading was ₦97.3, average cost of offloading was ₦96.2, average tax cost was ₦116.3 and finally the average commission fee for each 100kg bag paddy rice was ₦926.0. The average total cost incurred in paddy rice marketing was obtained from the addition of the average variable costs which was found to be ₦203005.1 and the gross revenue was found to be ₦223503.50. The margin and net profit margin was found to be ₦22325.10 and ₦20498.4 respectively. This implies that paddy rice marketing in the study area was profitable since it is believed that if a business can recover its variables cost, then it is capable of continuing in the short run.

Constraints Militating Against Paddy Rice Marketing: The major challenges facing the respondents in their marketing activities shows in table 4, were inadequate credit facilities (41.1%), poor road network (26.0%), poor storage facilities (20.5%), price fluctuation (7.5%) and water flooding, which leads to low quantity of rice produced and leads to high cost of transportation. The possible solutions to these constraints are provision of agricultural credit to enable rice marketing personnel and rice farmers expand, provision of good roads to reduce cost of transportation and provision of adequate storage facilities. This means that the challenges involved in marketing of rice are inadequate marketing of rice facilities. This is in line with the study of (Ajala, 2015).

CONCLUSION AND RECOMMENDATIONS

Conclusion: The study concluded that rice marketing in the study area was profitable, marketers were in their active age, and majority were married having non formal education. However, inadequate credit facilities, poor road network, lack of storage facilities were the major problems militating against rice marketing in the study area. Also cost of transportation, educational level, offloading and tax were the determinants of rice marketing in the study area.

Recommendation: The following recommendations were made on these research findings.

There is need to provide adequate credit facilities in the form of soft loans to paddy rice marketers. This would enable both small and large scale marketers increase their sales of volume and hence, enjoy economy of scale. These should be done by commercial banks, such as microfinance bank, money lenders and other stakeholders. Government should provide good road as a mode of transportation. This would lead to the reducing of transportation cost which could translate in reducing marketing cost. There is need for the provision of storage facilities such as market store, improve bags by the government and other stakeholders. Government and paddy rice marketers association should take measures that will standardize the price of paddy rice due to price fluctuation. This would give the customers opportunity to set up their budget efficiently. Government should construct a dam and irrigation channel to end off over flooding. This would lead to the increase of paddy rice production which could translate the increase in paddy rice marketing.

Table 1: Socioeconomic Characteristics of Paddy Rice Marketers in Jigawa

Variables	Frequency	Percentage	Mean
Age group			
25 – 34	29		19.9
44.7397			
35 – 44	39		26.7
45 – 54	44		30.1
55 – 64	24		16.4
65 – 74	10		6.8
Total	146		100
Sex			
Male	132		90.4
Female	14		9.6
Total	146		100
Household size			
1 – 9	90		61.6
9.3151			
10 – 19	39		26.7
20 – 29	13		8.9
30 – 39	4		2.7
Total	146		100
Marital status			
Married	115		78.8
Single	26		17.8
Divorce	3		2.0
Widow	2		1.4
Total	146		100

Source: Field Survey 2021

Table 2: Results for Educational background and Experience of Paddy Rice marketers

Variables	Frequency	Percentage	Mean
Level Educational			
Primary education	14		9.6
Secondary education	31		21.2
Tertiary education	24		16.4
Adult education	2		1.4
Qur'anic education	75		51.4
Total	146		100
Marketing experience (years)			
1 – 9	55		37.7
12.5479			
10 – 19	60		41.0
20 – 29	23		15.8
30 – 39	7		4.8
40 – 49	1		0.7

Total	146	100
-------	-----	-----

Source: Field Survey 2021

Table 3: Results of Marketing Margin

Items	Average amount (₦)	Percentage
A. Selling Price	223503.5	
B. Purchasing Price	201178.4	
C. Cost of Marketing Services	1826.7	
Total Cost = (TVC + PP)	203005.1	100.0
D. Marketing Margin (A-B)	22325.1	
E. Net Marketing Margin (A-B-C)	20498.4	

Source: Field S

REFERENCES

- Abdou, A. I., (2004). "Modified marketing Efficiency Criteria for Consideration in Cropping Structure Planning", *A case of Newly Reclaimed Lands Farmers in Egypt*, Egypt National Research Centre.
- Ahuja, U, Ahuja, S.C, Thakrar, R. Singh, R.K., (2008). "Rice a Nutraceutical", *Asian-Agri History*, Vol.12 (2), pp. 93-108.
- Ajala, A.S, and Gana, A., (2015). "Analysis of Challenges Facing Rice Processing in Nigeria", *Journal of Food Processing*, Vol.1(5), Article ID 893673, pp. 6.
- Ejoha, A.O., (2019). "Economics of Paddy Rice Marketing in Nasarawa State, Nigeria", *An Unpub;ished M. Sc Dissertation submitted to the Department of Agricultural Economics, University of Abuja, Nigeria*.
- Food and Agriculture Organization of the United Nations, (2016). "Bridging the Rice Yield Gap in the Asia – Pacific Region", *A report submitted at an expert consultation*.
- Jigawa State Fadama Development Project, (2008) "Draft Report of Environmental Baseline Survey of the Ten (10) Participating LGAs," Published by Versatile Agro Ventures Consultant.
- Jigawa Online, (2021): (<http://www.jigawastate.gov.ng/>), 2021.
- Mulie, H., (2014). "The Determinants of Profit Efficiency of Coffee Producing and Marketing Cooperative (The case study of Sidama Coffee Farmers' Union)", *Journal of Economics and Sustainable Development*, Vol. 5 (11); pp. 108-120.
- Oikeh, S.O, Nwilene, F.E, Agunbiade, T.A, Oladimeji, O, Ajayi, O, Mande, S, Tsunematsu, H. Samejima, H., (2008). "Growing Upand Rice: A Production Handbook", *Africa Rice Center: Cotonou, Benin*, pp. 3.
- PriceWaterHouse Coopers, (2017). "Boosting Rice Production in Nigeria through Mechanization", *A report published by Pwc*.
- Tonodo, D.T, Iheanach, A.C., (2015). " The Relationship Between Socio-economic Characteristics of Rice-Marketing Actors and Value Addition in Rice in Benue State"; *International Journal of Scholarly Research*, Vol.5 (1), pp. 50-60.