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## **Factors Affecting Income Generation From Cashew Nut Marketing among Marketers in Ogbomosho Agricultural Zone, Oyo State, Nigeria**

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### **Abstract**

The study seeks to investigate factors influencing income generation among cashew nut marketers in Ogbomosho Agricultural Zone, Oyo State. Ninety cashew nut marketers were chosen for the study using a multistage sample procedure, and the data were obtained from the marketers with the aid of a well-structured questionnaire. The data collected were analyzed using descriptive and inferential statistics. From the result, majority of the respondents (88.9%) are male, and 36.7% are middle-aged and active. Additionally, the results indicated that the majority of respondents (91.1%) were married with household size of up to five members. It was observed that most (37.8%) of the respondent had up to Tertiary education with 97.8% of the respondents taking cashew nut marketing as their primary occupation. Age, marketing experience, transportation and purchase costs were significant factors affecting income generation among cashew nut marketers. The results showed that cashew nut marketers were faced with a number of challenges including low demand, lack of market information, coordination problems, seasonality in supply and demand, and transportation problems.

**Keywords:** Cashew nut, Marketers, Income generation

### **Introduction**

Due to its contribution to national GDP, Nigeria's agriculture industry has played a significant role in the country's economy (Oladejo, 2015). The sector contributes to the economy by creating jobs, generating income and providing raw materials for industrial development (Farayola, et al., 2013). In Nigeria, Cashew is one of the cash crops that has economic benefits, and are being cultivated in the sector in the country. Cashew is a popular

cash crop in Nigeria, particularly Oyo State. Cashew (*Anacardium occidentale L*) is a multipurpose tree crop that offers a number of industrial, economic, and medicinal benefits. (Oluyole et al., 2015; Offor et al 2017). The tree is cultivated for its wood, fruit, and nuts. According to Adeigbe et al. (2015), cashews are also used to make apple juice, jam, kernel oil, cashew nut shell liquid, and roasted kernel snacks. Cashew nut from cashew has emerged as a significant source of employment, revenue, and raw materials for the nation's producers and traders in recent years (Nayar, 1995).

Furthermore, cashew nuts have numerous health benefits because they are high in vitamins, minerals, and good fats (Jitngarmkusol *et al.*, 2019), The Food and Agriculture Organisation of the United Nations (FAO) reports that the world produced 3.8 million tonnes of cashew nuts in 2020, with Ivory Coast, Vietnam, and India producing the most. Nigeria is one of the biggest cashew nut producers in the world.

Despite the numerous benefits from cashew nut marketing, farmers who are the initial marketer of cashew nut have not been able to fully gain a wider market margin from the sales made due to the intermediaries involved there by affecting their income. Numerous studies on cashew nuts have been conducted, focusing mainly on production, economic analysis and profitability. With little effort on factors determining income generation among cashew nut marketers. Ojedokun, Ganiyu and Adetunji (2024) worked on analysis of cashew nut marketing in Oyo State, Nigeria; Adeniran et al., (2023) explored the economic analysis of poverty among cashew nut marketers in Ogbomoso while Ojedokun et al (2020) concentrated on the profitability of cashew nut marketing in Oyo State Nigeria. It is therefore imperative to conduct research on factors affecting income generation among cashew nut marketers in the study area. The specific objective were to:

- i. describe the socio-economic characteristics of cashew nut marketers in the study area
- ii. investigate the factors affecting income generation among cashew nut marketers in the study area
- iii. identify the constraints to cashew nut marketing in the study area.

## **Literature Review**

According to an International Trade Centre (ITC) report, Nigeria produced 220,000 metric tonnes of cashew nuts in 2020, ranking it fourth after Vietnam, India, and Ivory Coast (Adekunle *et al.*, 2020). Nigeria is among the world's top ten cashew producers, which helps to boost income for farmers in the major producing states. Cashew is a source of income for many people, mostly from low-income groups, who work as harvesters, local merchants (sometimes called local buying agents), transporters, processors, exporters (Olagunju, 2015). Production and export of cashew nuts generates revenue that supports Nigeria's GDP and overall growth. In fact, from 2015 to 2017, Nigeria generated over \$813 million from cashew nut exports, with \$404 million in 2017 alone (Ogah et al., 2020; Funnanya, 2018).

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**Research Method**

The study was conducted in Ogbomoso agricultural zone of Oyo State, Nigeria, which comprises of five (5) local government areas. To select cashew nut marketers for the study a multistage sampling technique was used. In the first stage, three (3) local government areas were randomly selected and in the second stage, three (3) villages were randomly selected from each of the local government areas. Finally, ten (10) cashew nut marketers were randomly selected from each of the villages in the selected local government area. In all a total of ninety (90) cashew nut marketers were selected a representative sample for the study. Both descriptive statistics and inferential statistics (multiple regression model) were used to analyse the data obtained. The socioeconomic characteristics of cashew nut markets were profile and the constraints to cashew nut marketing were identified using descriptive statistics while the factors influencing income generation among cashew nut marketers were determined using multiple regression

The regression equation is given by:

$$Y = (X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8+e)$$

$$Y = (b_0+ b_1X_1+ b_2X_2 + b_3X_3.....+b_nX_n)$$

Where:

Y = Income generated by Marketers from cashew nut marketing (Naira)

X<sub>1</sub> = Age of respondent (years)

X<sub>2</sub> = Household size of the respondent (number)

X<sub>3</sub> = Years spent in school (years)

X<sub>4</sub> = Marketing experience of the respondent (years)

X<sub>5</sub> = Transportation cost (₦)

X<sub>6</sub> = Quantity sold (kg)

X<sub>7</sub> = Purchase price (₦)

X<sub>8</sub> = Selling price (₦)

e = error term

**Result and Discussion**

**Socioeconomic characteristics of Cashew Nut Marketers**

The socioeconomic characteristics of cashew nut marketers in the study area are shown in Table 1. The findings showed that 11.1% of respondents were female and 88.9% of respondents were male. This finding suggests that cashew nut marketing is primarily done by men. This is consistent with the findings of (Salau, Popoola and Nofiu, 2017; Akhigbe-

Ahonkhai et al., 2024) who showed that men were more involved in cashew nut marketing than women were. This also supports the findings of Ibe et al. (2022), who found that men are more likely to get involved in the marketing of Cashew nut than women. The results, however, contradict those of Ogah et al. (2020), who found that women are more likely to be involved in cashew nut marketing. The result showed that a significant percentage (36.7%) of the marketers were in their prime age bracket of 41-50 years with average of 42 years. A larger percentage (91.1%) of the marketers were married suggesting that married people are more likely to get involved in the marketing of cashew nuts. This could be explained by the fact that married marketers have obligations to attend to.

The results also showed that majority of marketers (90%) had varying degrees of formal education, including primary, secondary, and tertiary education. This suggests that the majority of those surveyed had a high degree of education. This is consistent with the results of (Farayola et al., 2013), who discovered that the majority of the respondents were literate and had varying educational backgrounds. Regarding the household size of cashew marketers, the Table indicated that (46.7%) of the respondent have less than or equal to 5 persons as their household members, with (37.8%) of the respondent having between 6-10 persons. The results align with those of Adeniran et al. (2024), who discovered that cashew nut sellers had households with fewer than or equal to five people. The mean household size was 5 persons. This suggests that cashew nut growers still have a sizable household, which could ensure workforce availability and lower the cost of hiring workers.

The majority (61.1%) of the respondents had between 11 and 20 years of experience in cashew nut marketing, with an average of 11 years, according to Table 1. This suggests that larger percentage of marketers have extensive cashew nut marketing experience. This is consistent with research by Farayola et al. (2013), which discovered that cashew nut merchants have been in the business for 11–20 years. This might affect how productive they are. According to the results, majority of the respondents (97.8%) are primarily into cashew marketing, whereas 2.2% are into farming. This is consistent with research by Ojedokun et al. (2020), which discovered that those interviewed ventured into cashew nut marketing as their secondary occupation, while others were primarily cashew marketers. The results also showed that the majority of respondents (45.6%) earned up to five million naira a year from the sale of cashew nuts.

**Table 1: Socioeconomic characteristics of cashew nut marketers**

<b>Socioeconomic characteristics</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Mean</b>
<b>Sex</b>			
Male	80	88.9	
Female	10	11.1	
<b>Age</b>			
< = 20	1	1.1	
21 – 30	6	6.7	
31 – 40	32	35.6	42 years
41 – 50	33	36.7	
51 – 60	17	18.9	
61 and above	1	1.1	

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<b>Marital Status</b>			
Single	4	4.4	
Married	82	91.1	
Divorced	1	1.1	
Widowed	3	3.3	
<b>Years of formal education</b>			
Did not attend any school	2	2.2	
Attended adult school	7	7.8	
Primary school	17	18.9	
Secondary school	30	33.3	
Tertiary	34	37.8	
<b>Household size</b>			
< = 5	42	46.7	5 members
6 – 10	34	37.8	
11 – 15	14	15.6	
<b>Years of experience</b>			
< = 10	35	38.9	11 years
11 – 20	55	61.1	
<b>Primary Occupation</b>			
Cashew nut marketing	88	97.8	
Farming	2	2.2	
<b>Income obtained from cashew nut marketing</b>			
< = 5,000,000	41	45.6	
5,000,001 – 15,000,000	38	42.2	
15,000,001 – 25,000,000	10	11.1	
<=25,000,001	1	1.1	
<b>Total</b>	<b>90</b>	<b>100</b>	

**Source: Field Survey, 2024**

**Factors affecting income generation from cashew nut marketing**

Table 2 shows the factors affecting income generation from cashew nut marketing among marketers in the study area. The result of the regression analysis reveals the factors affecting income generation among cashew nut marketers. The adjusted  $R^2$  was 0.80, which indicates that the independent variables accounted for around 80% of the variation in income, with the error term accounting for the remaining 20%. The model fits the data well, as evidenced by the F-ratio value of 47.86, which was highly significant at the 1% probability level. Out of the eight variables, four were found to be significant in determining the factors influencing cashew nut marketers' ability to generate income. The significant variables affecting income generation among cashew nut marketers were, age, years of marketing experience, transportation cost and purchase price

The coefficient of age was found to be positive and statistically significant at 5%. This suggests that cashew nut marketers' income rises as they get older. This is most likely due to older marketers' strong feeling of maturity. This is in line with the results of Nmergini et al. (2023), which shows that as people age, the cashew nut industry becomes more profitable. Additionally, at 1%, cashew nut purchasing cost was positive and statistically significant. This

indicates that cashew nut marketer’s income rises, as their purchasing cost increases, indicating a direct effect of on the income of the marketer. This is in line with what (Salau, Popoola and Nafiu, 2017) discovered that respondents, who invested more to purchase healthy nuts, would get more revenue thereby increasing their net returns.

However, at 5%, the coefficient of years of marketing experience was negative and statistically significant. Thus indicating that when cashew nut marketers gain more years of experience in cashew nut marketing, their income declines. Additionally, the coefficient of transportation cost was negative and statistically significant at 5%. According to this, cashew nut marketers' revenue declines as transportation costs rise. This is in line with the findings of (Ojedokun, Ogunleye and Adelowo, 2020) who found that the profitability of cashew nut marketing decreases as transportation cost increases. This is possible because transportation has been seen as a major constraint in marketing of cashew nut

**Table 2: Multiple regression estimates of factors affecting income generation among cashew nut marketers**

<b>Variables</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>T</b>	<b>p&gt;[t]</b>
Age	0.0096250	0.0054160	1.76	0.079**
Household size	-0.0099430	0.0115990	-0.86	0.394
Educational level	0.0046880	0.0063560	0.74	0.463
Marketing experience	0.0149650	0.0084235	-1.78	0.079**
Transportation cost	-0.000000048	0.0000019	-2.55	0.013**
Quantity sold	-0.0000069	0.0000075	-0.92	0.359
Purchase price	0.000000043	0.000000013	3.29	0.001***
Selling price	-0.0000000029	0.000000077	-0.39	0.701
Constant	14.3115	0.2099004	68.18	0.000***
R-square	0.8254			
<b>R-Adjusted</b>	<b>0.8081</b>			
<b>F-ratio</b>	<b>47.86</b>			

Source: Field Survey, 2024 \*\*\* Significant at 1%, \*\* Significant at 5%

**Constraints to Cashew nut Marketing**

Table 3 shows the constraints to cashew nut marketing among marketers in the study area. Seasonality of supply and demand ( $\bar{x} = 1.67$ ) was ranked the highest among the constraints to cashew nut marketing, lack of market information ( $\bar{x} = 1.64$ ) was ranked as second, lack of market coordination ( $\bar{x} = 1.43$ ) was ranked as third, low demand for cashew nut marketing ( $\bar{x} = 1.34$ ) was ranked fourth, Transportation ( $\bar{x} = 1.31$ ) was ranked fifth, poor quality of cashew nut ( $\bar{x} = 1.20$ ) was ranked sixth, Storage of cashew nut ( $\bar{x} = 1.17$ ) was ranked seventh, Instability of exchange rate ( $\bar{x} = 1.08$ ) and lack of fund ( $\bar{x} = 1.08$ ) was ranked eighth, price fluctuation ( $\bar{x} = 1.07$ ) was ranked tenth, climatic problem ( $\bar{x} = 1.01$ ) was ranked eleventh which is the last. Among the highest ranked constraint facing cashew nut marketers were seasonality of supply and demand of cashew nut, lack of market knowledge or information, Lack of market coordination and transportation. This is corroborated by the findings of Agada and Sule (2020) who found out that poor transportation system and inadequate market information were among the severe constraints facing cashew nut marketers.

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According to the result, marketing of cashew nuts in the study area is hindered by several factors.

**Table 3: Constraints to Cashew nut marketing among Marketers**

<b>Sources</b>	<b>A</b>	<b>SA</b>	<b>D</b>	<b>SD</b>	<b>Mean</b>	<b>Standard</b>	<b>Rank</b>
	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>deviation</b>	
Price fluctuation	6.7	93.3	0	0	1.07	0.251	10 <sup>th</sup>
Transportation	17.8	77.8	4.4	0	1.31	0.697	5 <sup>th</sup>
Lack of market information	17.8	63.3	8.9	10.0	1.64	0.987	2 <sup>nd</sup>
Seasonality of supply and demand	13.3	64.4	8.9	13.3	1.67	1.017	1 <sup>st</sup>
Lack of market coordination	11.1	75.6	5.6	7.8	1.43	0.862	3 <sup>rd</sup>
Instability of exchange rate	5.6	93.3	0	1.1	1.08	0.308	8 <sup>th</sup>
Low demand	11.1	80.0	5.6	3.3	1.34	0.796	4 <sup>th</sup>
Lack of fund	7.8	92.2	0	0	1.08	0.269	8 <sup>th</sup>
Climatic problem	1.1	98.9	0	0	1.01	0.105	11 <sup>th</sup>
Storage	4.4	91.1	3.3	1.1	1.17	0.604	7 <sup>th</sup>
Poor quality nuts	20.0	80.0	0	0	1.20	0.402	6 <sup>th</sup>

**Sources: Field survey, 2024**

**SA=Strongly Agree; A=Agree; SD=Strongly Disagree; D=Disagree**

**Conclusion**

The study analysed the factors affecting the income of cashew nut marketers in Ogbomoso metropolis. The study revealed that majority of the marketers were male, with a mean age of 42, the majority were between the ages of 41 and 50 years. Also majority of the marketers are educated with household size of about 6 members and have marketing experience above 11 years. The result further indicated that the revenue of cashew nut marketers in the study area was influenced by age, years of marketing experience, purchasing price, and transportation costs. Additionally, it was discovered that marketing of cashew nuts was hindered by seasonality in supply and demand, lack of market knowledge, lack of market coordination and transportation.

**Recommendation**

The study recommended that in order reduce transportation costs, create jobs, and maximise profits, the government and other capable financial organisations should set up a cashew nut processing facility close to the source.

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