

## ANALYSIS OF CASHEW NUT MARKETING IN OYO STATE, NIGERIA

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### ABSTRACT

Cashew nut (*Anacardium occidentale L*) is one of the most essential and major cash crops produced in Nigeria. This research, therefore, explored the analysis of cashew nuts marketing in Surulere Local Government Area of Oyo State, Nigeria. Primary data were sourced from cashew nut marketers through the use of well-designed questionnaires. Eighty respondents were randomly selected from four main markets in the study area. Descriptive statistics, budgetary analysis, and (OLS) multiple regression models were used to achieve the objectives. Therefore the study identified the marketing channels, analyzed the cost and returns of the enterprise, determined the socio-economic factors affecting the quantity of cashew nuts marketed, and ascertained the constraints associated with cashew nuts marketing in the study area. From the results, the market was dominated by males (67.5%), most of the respondents (58.75%) were between 21 and 40 years old, and the majority were married (73.75%). An average number of marketers (50%) had secondary school education, while 31.7% and 18.7% had primary and higher education, respectively. Most of the marketers (63.3%) bought directly from farmers, while 25.0% purchased from wholesalers. Total revenue, gross profit, and net profit were respectively ₦3,562,781, ₦356,781.00, and ₦322,457, showing that the business is profitable. Respondents' socioeconomic characteristics that significantly affected the quantity of cashew nuts marketed were married ( $p < 0.1$ ), cost of labor ( $p < 0.01$ ), and cost of transportation ( $p < 0.01$ ). Major constraints were seasonality of produce, high cost of transportation, bad weather (rain), and inadequate capital. It was recommended that the government should provide good road networks to ease the transportation problem. Marketers should form cooperative societies to facilitate easy access to credits and other relevant resources.

**Keywords:** Profitability, seasonality, channels, marketing margin, cashew nut

## INTRODUCTION

### Background of the study

Cashew nut (*Anacardium occidentale* L) is one of the most essential and major cash crops produced in Nigeria. Nigeria is the 6th largest cashew producer in the world, and the 3rd largest producer of the tree crop in Africa (Nigerian Export Promotion Council, 2021). According to the council, smallholders and commercial farmers in 22 states of the federation engage in this enterprise, with about 81% of the produce exported in shell to Vietnam and 19% to India. Cashew nut has diverse uses and its importance cannot be over-emphasized. The nut is the most economical aspect of the cashew plant, serving as food and for industrial uses. It contains nuts' shell liquid, which is very mordant, and used as raw material for phenol and friction power for vehicle manufacturers (FAO, 2007). The nut is a good source of vitamins C and B, protein, and unsaturated fats; it also lowers high blood pressure (Alina, 2020).

Adesanya *et al.* (2021) assert that demand for cashew nuts is on the increase concerning other tree nuts because of the rise in usage and consumption of the nuts' products and by-products. Revenue generation from the production and export of cashew nuts contributes to Nigeria's Gross National Product and national development, in fact, Nigeria earned more than \$813 million from the exportation of cashew nuts from 2015 to 2017 and \$404 million in 2017 alone (Ogah *et al.*, 2020).

To avert any produce glut, economic losses, and disincentives in production, efficient marketing systems are very important both locally and internationally, as an increase in production requires more outlets to consumers via marketing. In light of the rising production of cashew nuts the world over, it is pertinent to also increase the utilization of the crop (Kluczkovski and Martins, 2016). Nse-Nelson *et al.* (2017) argued that marketing is a vital aspect of agriculture because production is not complete until the product gets to the final consumer.

### Problem Statement

Despite the numerous nutritional values of cashew nut, this cash crop still suffers a lack of awareness in Oyo State of Nigeria, and in Surulere LGA in particular. Cashew nut marketing is essentially affected by price unreliability Salau *et al.*; (2017); Adebayo *et al.*; (2020).

Other constraints faced by cashew nuts include inadequate transportation facilities, poor market information or awareness, and inadequate processing and storage facilities are identified to make agricultural produce marketing inefficient (Uwagboe *et al.*, 2010; Agada and Sule, 2020).

The findings on most work done so far on cashew nuts, focused mainly on production. Anugwa *et al.*; (2013) carried out work on gender roles and challenges of small-scale processed cashew nut marketing in Enugu, Nigeria; Salau *et al.*; (2017) explored the economic analysis of cashew nut marketing in Kwara State, Nigeria while Ojedokun *et al.*; (2020) worked on the profitability of cashew nut marketing in Oyo State, Nigeria. From the foregoing, it is imperative to carry out research on cashew nut marketing in the study area to fill this existing knowledge gap. It is in line with this that this study estimated the analysis of cashew nuts marketing and determined the factors influencing the profitability of cashew nuts marketing.

As a result, this research tends to proffer solutions to the following:

The main objective is the economic analysis of cashew nut marketing in Surulere, LGA of Oyo State.

Specifically to:

- describe the socio-economic characteristics of the respondents
- analyze the cost and returns of the cashew nut in the study area.
- determine the factors that affect the quantity of cashew nut marketing in the study area.
- ascertain the constraints associated with cashew nut marketing in the study area.

## MATERIALS AND METHODS

### Study area

This study was carried out in Surulere Local Government Area (LGA) of Oyo State. The local government headquarters is Iresa-Adu. It was created on 11<sup>th</sup> May 1989 when the former Ogbomosho local government was broken into three autonomous local government areas namely, Ogbomoso, Surulere, and Ogo - Oluwa. It occupies an area of about 975 km<sup>2</sup> and by the 2006 population census, Surulere Local Government is inhabited by 142,070 people, a figure which, today has moved closer to 200,000. It is located in the southwestern part of Nigeria. It also shares boundaries with Ifelodun LGA, Orolu LGA) in Kwara State, Oriire Local Government, and Ogbomoso North and South LGA. The LGA comprises the following wards, Bayooje, Gambari, Iwofin, Iresa-Apa, Arolu, Iresa-adi, Iregba, Oko, Mayin, and Ilajue. Farming and trading are the major primary and secondary occupations of the people in the area. Other income-generating activities include fishing, teaching, carpentry, craft work, weaving, and agricultural processing. The population of the study is made up of cashew nut marketers in Surulere Local Government of Oyo state.

### *Sampling procedure and sample size*

A simple random selection of twenty cashew nut marketers was generated from four main markets in the Surulere Local Government Area using the list of registered marketers. This made up the eighty (80) cashew nut marketers used for the study.

### *Method of data analysis*

Various analytical tools and procedures were employed for this study. Descriptive statistics such as percentages, frequencies, and means were employed to explain the socioeconomic characteristics of the respondents; budgetary analysis was used to determine the profitability of cashew nut marketers while multiple regression was used to determine the factors that influenced the profitability of cashew nut marketing.

### **Budgetary analysis**

The model for the budgetary analysis involved the gross margin concept as shown:

$$GM = TR - TVC \dots \dots \dots (1)$$

Where:

TR = Total revenue from sales of cashew nut marketers (₦)

TVC = Total variable cost for cashew nut marketers (₦)

GM = Gross Margin (₦) per marketer

The net farm income was derived as follows:

$$\pi = GM - TFC \dots \dots \dots (2)$$

Where:

$\pi$  = Profitability index (₦) per marketer

GM = Gross margin (₦) per marketer  
 TFC = Total Fixed Cost  
 P = Price  
 Q = Quantity of cashew nutssold

**Regression model**

To identify the factors influencing the profitability of cashew nut marketing, a multiple regression was used. The dependent variable was the computed profitability index for each marketer. Some explanatory variables were identified and included in the model.

The implicit form of the model is expressed as:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, \mu) \dots\dots\dots (3)$$

Where:

- Y = Profitability for cashew nut Marketers (Naira);
- X<sub>1</sub> = Age of cashew marketer (years);
- X<sub>2</sub> = Household size (number);
- X<sub>3</sub> = Years of Education (year);
- X<sub>4</sub> =Marketing association (Yes =1; No = 0)
- X<sub>5</sub>= Marketing experience (years);
- X<sub>6</sub> =Cost of labour (₦);
- X<sub>7</sub> = Cost of transportation (₦);
- X<sub>8</sub> = Cost of handling (₦);
- X<sub>9</sub> = Total fixed cost (₦);
- X<sub>10</sub> = Cost of transportation (₦)
- μ = error term

The different functional forms tried are stated explicitly as:

**Linear function:**

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \mu\dots\dots\dots (4)$$

**Double-log (Cobb-Douglas) function:**

$$\text{Ln}Y = \beta_0 + \beta_1\text{Ln}X_1 + \beta_2\text{Ln}X_2 + \beta_3\text{Ln}X_3 + \beta_4\text{Ln}X_4 + \beta_5\text{Ln} X_5 + \beta_6\text{Ln}X_6 + \mu\dots\dots\dots (5)$$

**Semi-log function**

$$Y = \beta_0 + \beta_1\text{Ln}X_1 + \beta_2\text{Ln}X_2 + \beta_3\text{Ln}X_3 + \beta_4\text{Ln}X_4 + \beta_5\text{Ln} X_5 + \beta_6\text{Ln}X_6 + \mu\dots\dots\dots (6)$$

**Exponential function:**

$$\text{Ln}Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \mu\dots\dots\dots (7)$$

**RESULTS AND DISCUSSIONS**

**Socioeconomic Characteristics of Cashew Nut Marketers**

The cashew nut marketing industry is predominantly male, with 67.50% of marketers being male and 32.50% female. This is due to the traditionally male-dominated nature of the industry and access to resources such as land, capital, and education. This result is similar to the findings of Salau et al. (2017), who reported that males were more involved in cashew nut marketing than their female counterparts. The majority of cashew nut marketers are aged between 41-50 years, with 58.75% being above 50 years old. The mean age of cashew nut marketers is approximately 48 years, suggesting that they are middle-aged and older individuals. This result is similar to the findings of Farayola et al. (2013), who reported the

mean age of the cashew nut marketers to be 41 years, positing that most of the respondents are mature and of active productive age. Marital status plays a significant role in the industry, with 73.75% of marketers being married. A significant proportion are divorced, widowed, separated, or single. Salau et al. (2017) reported similar findings: the majority of the cashew nut marketers were married, indicating a higher chance of involving family labor in cashew nut marketing. The majority of cashew nut marketers come from medium-sized households, with a mean household size of 5. This indicates that marketers generally come from medium-sized households. This result conforms with the findings of Offor et al. (2019), who reported that marketers had a mean household size of 5 people, indicating that the marketers had a relatively small household size.

The educational background of the marketers is an important factor in the industry, with 33.75% having tertiary education, 25.5% having primary education, and 17.50% having secondary education. A higher proportion of marketers have spent up to 6 years in school, indicating a lower level of formal education. A smaller proportion have spent between 7 and 12 years in school, suggesting they have completed secondary education. This result is consistent with the findings of Salau et al. (2017), who found that educated individuals were involved in cashew nut marketing in the study area. Religion does not pose a barrier to cashew nut marketing, with 47.50% being Christians, 42.50% being Muslim faithful, and 10% being traditional worshippers. Marketing experience ranges from 6 to 10 years, with 46.25% having 5 years or less, indicating a high number of newer entrants in the sector. Self-employment is the most common secondary occupation, with 41.25% engaging in independent business or entrepreneurial activities. 30.00% identify as artisans, implying expertise in various crafts. A smaller proportion are involved in farming, indicating they participate in agricultural activities alongside their marketing endeavors. The study reveals that a majority of cashew nut marketers have a considerable level of marketing experience, with 53.75% having 6–10 years of experience. However, 46.25% have 5 years or less, indicating a significant presence of newer entrants in the industry. The average marketing experience is 5.56 years, which contradicts Salau et al. (2017) average of 15.8 years.

The majority of cashew nut marketers, 41.25%, are self-employed, with 30.00% identifying as artisans. A smaller percentage, 26.25%, are involved in farming, while only 2.50% identify as clergy or clerics. The majority, 63.75%, are members of an association, valuing the benefits of membership such as networking and access to resources. However, a smaller proportion, 36.25%, operate independently or do not join any formal associations. This highlights the diversity of approaches within the cashew nut marketing community. Similar findings were reported by Farayola et al. (2013), with the majority of marketers belonging to an association.

**Table 1:** Socio-economic characteristics of the respondents

Variable	Frequency	Percentage	
<b>Sex</b>			
Male	54	67.50	
Female	26	32.50	
<b>Age Group</b>			
≤ 30 years	2	2.50	
31 – 40 years	1	1.25	
41 – 50 years	47	58.75	
> 50 years	30	37.50	<b>Mean = 47.96 ± 6.37</b>
<b>Marital Status</b>			
Married	59	73.75	
Widowed	8	10.00	
Separated	2	2.50	
Divorced	9	11.25	
Single	2	2.50	
<b>Household Size</b>			
≤ 3	11	13.75	
4 – 6	57	71.25	
> 6	12	15.00	<b>Mean = 4.98 ± 1.48</b>
<b>Educational Status</b>			
No formal education	19	23.75	
Primary education	20	25.00	
Secondary education	14	17.50	
Tertiary education	27	33.75	
<b>Years Spent in School</b>			
≤ 6 years	39	48.75	
7 – 12 years	14	17.50	
13 – 16 years	20	25.00	
> 16 years	7	8.75	<b>Mean = 9.18; Std. Dev = 6.29</b>
<b>Religion</b>			
Islam	34	42.50	
Christianity	38	47.50	
Traditional	8	10.00	
<b>Marketing Experience</b>			
≤ 5 years	37	46.25	
6 – 10 years	43	53.75	<b>Mean = 5.56; Std. Dev = 2.07</b>
<b>Secondary Occupation</b>			
Farming	21	26.25	
Self employed	33	41.25	
Artisan	24	30.00	
Clergy/Cleric	2	2.50	
<b>Membership in Association</b>			
Members	51	63.75	
Non-members	29	36.25	
<b>Total</b>	<b>80</b>	<b>100.00</b>	

Source: **Field Survey, 2023**



### **Cashew Nut Marketing Activities**

Table 2 shows the distribution of cashew nut sellers by source of labor. It reveals that most (55.00%) rely on family or personal labor, indicating that many involve their family members or themselves directly in the process, potentially benefiting from the flexibility, trust, and shared commitment that family-based labor offers. Additionally, a significant proportion (37.50%) hire or pay individuals to assist them with their marketing tasks. This suggests that hiring additional labor is a common practice, potentially to meet increased demand, improve efficiency, or access specialized skills. Furthermore, a smaller percentage (7.50%) utilizes both family/personal labor and hired/paid labor, indicating a hybrid approach where they leverage both their personal networks and external workforce. This finding emphasizes the diverse strategies employed by cashew nut sellers to manage their labor needs, taking advantage of different labor sources based on their specific requirements and circumstances.

The majority of cashew nut marketers (45.00%) rely on cooperative loans as their source of capital, suggesting they have access to cooperative societies or organizations that provide financial assistance specifically for business purposes. Cooperative loans offer an avenue for cashew nut marketers to obtain necessary funds to invest in their operations and expand their businesses. Personal savings account for 30.00% of the source of capital, indicating that many marketers have accumulated their own savings over time and use these funds to finance their cashew nut-related activities. Personal savings offer autonomy and flexibility in managing and allocating funds for business needs.

A smaller proportion of cashew nut marketers (10.00%) rely on financial support from friends and relatives, indicating the importance of interpersonal relationships and support within the cashew nut marketing community. About 8.75% of cashew nut marketers utilize thrift as their source of capital, which refers to savings groups or clubs where individuals contribute funds regularly and take turns accessing the pooled savings. Microfinance banks contribute 6.25% of the source of capital for cashew nut marketers, providing them with access to tailored financial products and services. This is in contrast with the findings of Salau et al. (2017), which reported that personal savings were the most common source of funds for cashew nut marketers.

The result reveals the primary channels through which cashew nut marketers acquire their products for further sale or processing. Direct sourcing from farmers is the most common, with 55.00% of marketers obtaining their products directly. This suggests that many marketers engage in direct sourcing from cashew nut farmers, establishing direct relationships and transactions with the primary producers. Direct sourcing may provide benefits such as lower costs, better quality control, and direct negotiation. Purchasing from local markets or trading centers accounts for 30.00% of the source of cashew nut purchases, indicating that many marketers access a wider range of suppliers through these channels. A smaller proportion of marketers (15.00%) source their products from both farmers and the marketplace, adopting a mixed approach to diversify their sources and ensure a steady supply. This result is in line with Salau et al.'s finding that farm was the most common source of cashew nut purchase.

**Table 2: Cashew Nut Marketing Activities**

Variable	Frequency	Percentage
<b>Source of Labour</b>		
Family/personal	44	55.00
Hired/paid	30	37.50
Both	6	7.50
<b>Source of Capital</b>		
Personal savings	24	30.00
Cooperative loan	36	45.00
Friends/relatives	8	10.00
Microfinance Bank	5	6.25
Thrift	7	8.75
<b>Source of purchase</b>		
Farm	44	55.00
Market place	24	30.00
Both	12	15.00
<b>Mode of Storage</b>		
Rented shop	50	62.50
Residential house	30	37.50
Total	<b>80</b>	<b>100.00</b>
<b>Customer</b>		
Wholesalers	20	25.00
Processors	5	6.25
Exporters	55	68.75
Total	<b>80</b>	<b>100.00</b>

**Source: Field Survey, 2023**

### **Profitability of Cashew nut Marketing**

Table 3 presents the costs and returns of cashew nut marketing in the study area. The total variable cost incurred for cashew nut marketing in the study area amounts to ₦3,205,852. This includes costs that vary with the level of production or sales, such as labor, transportation, packaging, and other operational expenses. The total fixed cost is relatively lower at ₦33,120.06. These costs remain constant regardless of the level of production or sales and typically include expenses like rent, insurance, utilities, and administrative costs. The total cost combines both variable and fixed costs, totaling ₦3,240,324. This represents the overall expenses incurred in the cashew nut marketing process, encompassing both the variable costs and the fixed costs.

The total revenue generated from cashew nut marketing in the study area amounts to ₦3,562,781. This reflects the total income or sales generated from selling cashew nuts. The gross margin is calculated as the difference between total revenue and total variable cost, which in this case amounts to ₦356,929. This metric represents the remaining revenue after deducting the variable costs associated with cashew nut marketing. The profit or net revenue is determined by subtracting the total cost from the total revenue, resulting in ₦322,457.70. This figure represents the net profit or income generated from cashew nut marketing after considering both variable and fixed costs. The benefit-cost ratio is calculated as 1.09. This ratio indicates that for every unit of cost incurred (₦1), there is a total return of ₦1.09 in revenue. A benefit-cost ratio greater than 1 suggests that the cashew nut marketing activities



in the study area are profitable. This result conforms with the findings of Salau *et al.*, (2017); Offor *et al.*, (2019) who reported that cashew nut marketing was a profitable business.

**Table 3: Cost and returns of cashew nut marketing in the study area**

Items	Amount (₦)
Total Variable Cost (TVC)	3,205,852
Total Fixed Cost (TFC)	33,120.06
Total Cost (TC)	3,240,324
Total Revenue (TR)	3,562,781
Gross Margin (TR – TVC)	356,929
Profit/Net Revenue (TR – TC)	322,457.70
Benefit Cost Ratio (TR / TC)	1.09

**Source: Field Survey, 2023**

### Factors Affecting Marketing Margin of Cashew Nut Marketers in the Study Area

Table 4 presents the OLS regression analysis, which examined the factors affecting the profitability of cashew nut marketing in the study area. The dependent variable was the gross margin. Several independent variables were considered: age, household size, years in school, market experience, marketing association, cost of labor, cost of transportation, cost of handling, and total fixed cost. The coefficients and standard errors for each variable are presented along with their corresponding t-values. The R-squared value, which is 0.5015 in this analysis, represents the proportion of variance in net revenue that can be explained by the independent variables included in the regression model. In this case, the R-squared value suggests that the selected variables explain approximately 50.15% of the variation in gross margin.

Marital status had a statistically significant positive impact on gross margin at the 10% significance level. This indicates that being married has a positive and statistically significant effect on the gross margin of cashew nut marketing. The implication here is that married cashew-nut marketers may have certain advantages or characteristics that contribute to higher profitability. For example, being married may provide access to additional resources, support from family members, and better financial planning and stability, which can positively impact the profitability of their businesses.

The cost of labor has a statistically significant positive impact on the net revenue of cashew nut marketers at the 1% significance level. The positive coefficient for the cost of labour suggests that an increase in the cost of labour is associated with an increase in the gross margin. One possible reason for this is that higher labour costs may indicate the better quality or more skilled labour, leading to improved productivity, efficiency, and ultimately higher profits. Additionally, it could suggest that cashew nut marketers willing to invest in quality labor are likely to produce and sell higher-quality products, attract more customers, and command higher prices. This result conforms to the findings of Salau *et al.* (2017).

The cost of transportation is negative and statistically significant at the 1% level. An increase in the cost of transportation leads to a decrease in the gross margin of cashew-nut marketers. This implies that when cashew-nut marketers face increased expenses related to transportation, such as fuel, vehicle maintenance, or hiring transportation services, their profitability is likely to decrease. Higher transportation costs contribute to the overall revenue generated from cashew-nut sales, resulting in lower net revenue and potentially reduced profitability for marketers. This result corroborates the findings of Offor et al. (2019).

**Table 4: OLS Regression analysis of factors affecting the profitability of cashew nut marketing in the study area**

Variable	Coefficient	Std. Error	T Value
Constant	11.3190	0.6379	17.74
Age	-0.0056	0.0116	-0.48
Sex	0.2148	0.1420	1.51
Household Size	-0.0474	0.0472	-1.00
Marital Status	0.1057	0.0593	1.78*
Years in School	0.0004	0.0107	0.04
Marketing Experience	0.0375	0.0349	1.07
Marketing Association	-0.0198	0.1406	-0.14
Cost of Labour	0.00008	0.00002	3.26***
Cost of Transportation	-0.00002	9.73e-06	-3.01***
Cost of Handling	2.10e-06	4.34e-06	0.48
Total Fixed Cost	1.93e-06	4.07e-06	0.47

$R^2 = 0.5015$

\* denotes 10% significance; \*\*\* denotes 1% significance

Source: Field Survey, 2023

### Marketing Constraints of Cashew Nut Marketing

Table 5 presents a breakdown of cashew nut marketers based on the constraints they confront in the marketing of cashew nuts. One of the most significant challenges identified is the exorbitant transportation expenses, which impact a substantial proportion of cashew nut marketers (85.00%). This suggests that the cost of relocating cashew nuts from production areas to marketplaces or buyers is significantly elevated, which could potentially shrink the profit margins and overall profitability of the marketers. Another widely reported constraint is spoilage, which affects a substantial portion of cashew nut marketers (78.75%). This indicates that a considerable quantity of cashew nuts they handle deteriorates due to insufficient storage facilities or improper handling techniques. Spoilage can directly impact profitability as it leads to losses and lessens the quantity of cashew nuts available for sale.

Price instability is also a significant constraint that a majority of cashew nut marketers (77.50%) face. This implies that the prices of cashew nuts vary significantly in the market over time. Such volatility can make it difficult for marketers to predict and plan for their revenue and profit margins, ultimately affecting their overall profitability. A considerable proportion of cashew nut marketers (73.75%) confront the high cost of inputs. This includes expenditures such as fertilizers, pesticides, packaging materials, and other resources required for cashew nut production and marketing. The elevated input costs can diminish the profit margins and render the business less profitable.

A lack of market information is another significant constraint observed among cashew nut marketers (72.50%). Limited access to market information can hinder their ability to make informed decisions about pricing, timing of sales, and identifying potential buyers or market opportunities. This constraint can lead to suboptimal marketing strategies and potentially lower profitability. Insufficient capital is a challenge faced by a majority of cashew nut marketers (71.25%). Limited access to funds can restrict their ability to invest in essential resources, expand their operations, or respond to market demands. Insufficient capital can hinder growth and profitability in the cashew nut marketing business.

The seasonality of cashew nut production poses a constraint to 68.75% of cashew nut marketers. Cashew nuts may be harvested during specific times of the year, resulting in limited availability during other periods. This seasonality can impact the continuity of supply and, consequently, the profitability of cashew nut marketers. Inadequate storage facilities are a constraint faced by a significant proportion of cashew nut marketers (65.00%). Insufficient storage options can lead to spoilage and limit the quantity of cashew nuts that can be stored for future sales. This constraint affects their ability to manage inventory and meet market demands, potentially impacting profitability.

Insufficient cashew nut supply is a challenge for 45.00% of cashew nut marketers. This suggests that they face difficulties in obtaining an adequate quantity of cashew nuts for their businesses. Limited supply can affect their ability to meet market demand and maintain a consistent supply chain, which can impact profitability. Finally, low demand for cashew nuts is a constraint observed by 40.00% of cashew nut marketers. This constraint indicates that there is less market interest or demand for cashew nuts, resulting in slower sales and lower profitability. Marketers may need to explore strategies to increase awareness and demand for cashew nuts in the market. This result is similar to the findings of Salau et al., (2017).

**Table 5: Distribution of cashew nut marketers by constraints faced in cashew nut marketing**

Constraints	Frequency	Percentage
High transportation cost	68	85.00
Spoilage	63	78.75
Price fluctuation	62	77.50
High cost of inputs	59	73.75
Lack of market information	58	72.50
Insufficient capital	57	71.25
Seasonality of cashew nut	55	68.75
Lack of storage	52	65.00
Insufficient cashew nut supply	36	45.00
Low demand for cashew nut	32	40.00

\* Multiple responses **Source: Field Survey, 2023**

### Conclusion and Recommendations

Based on the research findings, it can be concluded that the majority of cashew nut marketers were male, married, and in their late 40s, indicating the demographic profile of the industry. Education levels varied, with a significant proportion having primary or tertiary education. The marketers had moderate household sizes and a considerable number of years of marketing experience. The presence of farming as the secondary occupation for a significant portion of marketers highlights the agricultural nature of cashew nut production. Membership in a marketing association was prevalent, emphasizing the importance of collective efforts in the marketing process. Cooperative loans emerged as a popular source of capital for marketers, enabling them to fund their operations effectively. Sourcing cashew nuts directly from farmers and using rented shops for storage were common practices among marketers. The export market played a vital role, with a majority of the marketers selling their products to exporters, indicating the significance of international trade in the cashew nut industry. The profitability analysis revealed positive results, indicating that cashew nut marketing was a profitable venture. Factors such as marital status, cost of labour, and cost of transportation were found to significantly influence profitability. This suggests that married marketers and those who effectively manage labour and transportation costs are more likely to achieve higher profitability. Despite the profitability, cashew nut marketers faced various challenges. High transportation costs, spoilage of cashew nuts, and price fluctuation were identified as the primary constraints faced by the marketers. Addressing these challenges would contribute to the sustainable growth and success of the cashew nut industry in the study area.

Based on the findings, here are the following recommendations:

- Implementation of strategies to optimize labor utilization and reduce labor costs, such as adopting efficient production processes or exploring partnerships with local vocational training institutes, can significantly impact profitability. As such, it can be beneficial to reduce the reliance on manual labor and enhance the skills of laborers.
- Promoting collective transportation arrangements among cashew nut marketers through transportation cooperatives or networks can help to reduce individual

transportation costs by pooling resources and sharing logistics. Improving transportation infrastructure and logistics systems in the region can also lead to cost savings and more efficient delivery of cashew nuts to markets.

- Providing training and education to cashew nut marketers on proper post-harvest handling and storage techniques can help minimize spoilage by extending the quality and shelf life of the product.
- Support the establishment of community-based storage facilities that use appropriate technologies for managing temperature, humidity, and pests. These facilities can be shared among cashew nut marketers to collectively manage the risk of spoilage.
- Encourage long-term contracts or agreements with processors, wholesalers, and exporters to provide price stability for cashew nut marketers. This can help mitigate the impact of price fluctuations by providing a predictable income stream.
- Foster partnerships and collaborations with processors, wholesalers, and exporters to promote the processing of cashew nuts into higher-value products, such as roasted nuts, cashew butter, or cashew-based snacks. By adding value to the product, marketers can potentially gain more control over pricing and reduce their dependence on fluctuating raw cashew nut prices.

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