



## ANALYSIS OF PROFITABILITY AND OPERATIONAL PERFORMANCE OF GROUNDNUT MARKETING IN ADAMAWA STATE, NIGERIA

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### ABSTRACT

The study was conducted to analysis the Profitability and Operational Performance of Groundnut Marketing in Adamawa State, Nigeria. Multi stage sampling technique was used in selecting 201 groundnut marketers. Descriptive statistics, cost and return analysis, profitability and efficiency ratios were employed as tools for data analysis. Result from cost and return revealed an average total cost and total revenue of ₦114,200 and ₦120,000 respectively with an average profit of ₦5,800 per 100kg bag. The value of profitability ratio was (0.051) and efficiency ratio showed a value of (1.051). High transportation cost ranked highest (62.67%) among the problems affecting the smooth running of the market and exploitations by firms was ranked as second problem of groundnut marketing. The study concluded that groundnut marketers are efficient in their marketing operations realizing significant profit. The study recommends that Governments should spend ample money to build and maintain roads that link rural markets to assembling markets, focusing on areas with the highest need. This would improve marketing margin and hence increase in market performance. Also, groundnut marketers should form cooperative societies to enable them access credit from micro finance and bank of agriculture to buy cooperative van for transportation at affordable cost and expand their scale of market.

**Keywords:** Profitability, Operational, Performance, Groundnut, Marketing

### INTRODUCTION

Groundnut (*Arachis hypogea* L) is both a cash and food crop which plays a crucial role in the Nigerian economy. It is a leguminous oilseed crop which contains 20-50% protein, 40-50% fat and 10-20% carbohydrate. It is cultivated in the semi-arid and subtropical regions of about 114 countries of the world on nearly 31.2million hectares, with a total output of 60.5 million metric tons at an average productivity of 1.4 metric tons per hectare for the Semi-Arid Tropics (Haruna and Mohammad, 2018). The groundnut sub-sector provides opportunity for the agro-industrial development of the country (Audu *et al.*, 2017). The crop is easy to grow, it withstands drought to some extent and so a choice crop for dry farming. It resists soil erosion, being a legume crop it can fix atmospheric nitrogen. Thus, maintains soil fertility. In Nigeria, groundnut is produced in almost all the northern States. The leading producing States include Niger, Kano, Sokoto, Katsina, Kaduna, Adamawa, Yobe, Plateau, Borno, Taraba, Gombe and Nasarawa (Jaji *et al.*, 2023). Its production, processing and marketing provide employment, income and much needed currency with which the country finance part of its capital development. All parts of this crop can be commercially used. The plant stalks are feed to livestock in the form of green dried and silage, groundnut shell, haulms and hay are good fodder, groundnut cake is a good feed for livestock and it is also used as manure (Baba *et al.*, 2022).

Groundnut is consumed in many ways and various forms: Primarily used as a vegetable cooking oil. Kernels are used directly as food or snacks for human consumption. A large number of food products are prepared from groundnut: Boiled nuts, roasted nuts, salted nuts, groundnut milk, groundnut bars, groundnut butter, groundnut cheese, bakery products and so on. The crop is particularly valued for its protein content (26%). Groundnut is commonly called the poor man's nut because it is relatively cheap to produce and also easy to access by the low-income earners. It serves



as a source of livelihood for those that engage in its value chain addition. The crop is grown everywhere in the country, with African accounting for a quarter of the world production, it is a crop that has a very high demand because of its usefulness to all social class. Entrepreneurial activities are important as income earning and self-reliant activity especially for the unemployed and underemployed who play key roles in reducing household poverty. One major entrepreneurial area in Adamawa State that people are involved in is agricultural marketing. Marketing of agricultural products is necessary if a subsistence economy is to rise above that level. Any plan of economic development that aims at eliminating poverty and waste, must get involved and pay special attention to development of an efficient marketing system for agricultural products. An efficient groundnut marketing system is essential for economic development and also maximization of returns to groundnut producers. When returns are maximized, the farmers' welfare and indeed, their livelihood would generally improve. Equally, in efficient marketing system, consumers pay moderate prices for the commodities they purchase. Alfred *et al.* (2019) observed that groundnut marketing in Adamawa State is profitable with a net profit of N 600 per 100 kg bag. In spite of the enormous importance of this cash crop, availability of ample land and human resources in Adamawa State, there seems to be inadequate supply of groundnut product to meet both local and international market demand. Also, consumers are finding it difficult to purchase the needed quantity of groundnut for daily use due to hike in price. Recent increase in groundnut prices made a lot of people switch to another alternative which if continued would negatively affect groundnut marketing and its production in general. Therefore, there is need to conduct a study that analyzes groundnut marketing in Adamawa State, Nigeria. The main objective of the study is to examine the Profitability and Operational performance of Groundnut Marketing in Adamawa State, Nigeria. The specific objectives are to;

- i. determine the profitability of groundnut marketing and
- ii. identify and describe the major problems militating against marketing performance of groundnut marketing

## **METHODOLOGY**

### **The Study Area**

The study was conducted in Adamawa state, Nigeria (latitude 7° and 11°N and longitude 11° and 14° E of the Greenwich meridian). It shares boundary with Taraba State in the South and West, Gombe State in the North-West and Borno State to the North. It also has international boundary with the Cameroon Republic along its eastern border. The State has a land area of 38,741 KM<sup>2</sup> with an estimated population of 3,860,023 people (projected from NPC, 2006). The study area is made up of 21 local Governments area with four Agricultural Development Project (ADP) zones. According Adebayo *et al.* (2020) the State's monthly sunshine distribution pattern allows that the period between January to April has a mean sunshine hour of 220 and increases to 225 for the periods between October and December. The temperature and evaporation reach their maximum in April when relative humidity is at its minimum. The State is characterized by mean annual rainfall of less than 1000 in the central and northern parts, while the north-eastern strip and southern part records more than 1000 mm annually. the major crops grown in the area include groundnut, rice, sorghum, millet maize, sugar cane (Sajo and Kadams, 1999).

### **Sampling Technique and Sample Size**

Multi stage sampling technique were used to select the respondents. The first stage involved purposive selection of 3 markets (Hong, Gombi and Ganye Assembling markets) in the State because of the prevailing number of groundnut marketers while the second stage involved the use of simple random sampling in selecting a total of 201 respondents which include, retailers and wholesalers from the selected markets proportionate to the size of each market. Data were collected with the aid of questionnaire designed to collect relevant information on groundnut marketing,

### **Analytical Techniques**

Data were analyzed using descriptive statistics, cost and return analysis, profitability ratio and efficiency ratio. Statistical tools such as frequency distribution and percentages were used to identify



and describe problems associated with groundnut marketing. Cost and return analysis was used to estimate profit, while profitability and efficiency ratios were employed to determine the performance of groundnut marketing.

#### **Cost and Return Analysis:**

This was used to determine the profit margin of the marketing and is specified as follows:

$$\pi = TR - TC$$

Where:  $\pi$  = Profit

TR = Total Revenue

TC = total Cost

#### **Measure of Market Performance by Efficiency:**

As a measure of market performance, efficiency ratio, profitability ratio and operational efficiency as used by Faloyan *et al.*, (2007) was applied. It is expressed as:

i. Efficiency ratio (ER) =  $\frac{TR}{TC}$

ii. Profitability ratio (PR) =  $\frac{\pi}{TC}$

However, if  $ER > 1$  and  $PR > 1$  then the industry evaluated is operationally efficient and vice-versa

## **RESULTS AND DISCUSSION**

### **Cost and Return Analysis**

The result of cost and return analysis in table 1 as a measure of profitability among the marketers revealed that an average total cost and total revenue of N114,200 and N 120,000 respectively were realized with an average profit of N 5,800 per 100kg bag. However, the size and the positive values of profit obtained confirmed to the fact that groundnut marketers were able to cover their operating expenses with a significant level of profit. This agreed with the study of Alfred *et al.* (2019) who examined the profitability analysis of groundnut marketing in Yola North Local Government Area of Adamawa State, Nigeria and found out that the venture is profitable. The result also connotes groundnut marketing is an enterprise that serve as a source of income earning and provides self-reliant activity especially for the unemployed and underemployed who can play key roles in reducing household poverty

### **Profitability Ratio**

The computed profitability ratio as presented in Table 1 is 0.051. This means that for every N100 invested by the marketers an average of N1.50 was realized as profit. Hence, groundnut marketing is profitable which is in conformity with the earlier finding under cost and return analysis. The estimated profit is low as only 5.08% of the amount invested was realized as profit. The low profit margin could be attributed to high cost of transportation and the oligopsony form of the assembling markets where the marketers operate. The few firms (buyers) in the markets set exploitative prices that do not favor the sellers (marketers). This finding is similar to Abdullahi *et al.* (2017) who reported that major impediments to profit and market efficiency were inadequate capital, high cost of shelled groundnut and transportation costs.

### **Operational Performance of Groundnut Marketing**

Market operational performance refers to the efficiency of marketers in utilizing scarce resources to meet consumers demand for goods and services, that is how well a market has contributed to the optimization of economic welfare. The estimated efficiency ratio for the groundnut marketing is 1.051. The efficiency ratio is greater than unity indicating that the groundnut marketers are efficient in performing their marketing operations. The efficiency in market operations among the marketers could be attributed to their ability to employ technically cost-cutting strategies in the distribution of products over time. This indicates prospect for sustainable growth of groundnut marketing business in Adamawa State.



**Table1:** Estimation of Profitability and Efficiency Ratios of Groundnut Marketing (100Kg bag)

Parameter	Value (₦)
Total cost (TC)	114,200
Total Revenue (TR)	120,00
Profit ( $\pi$ )	5,800
% Profit ( $\pi$ )	5.08
Profitability ratio ( $\frac{\pi}{TC}$ )	0.051
Efficiency ratio ( $\frac{TR}{TC}$ )	1.051

Source: Field Survey: 2024

### Problems Militating against Groundnut Marketing in Adamawa State

The major problems militating against groundnut marketing according to the surveyed marketers include: high transportation cost, exploitation by firms, inadequate capital and others. As indicated in Table 2, high transportation cost ranked first with (62.67%) indicated it as a problem against their performance in groundnut marketing, this is followed by exploitations by firms (about 35.32%). Inadequate capital is the third ranking problem as indicated by (31.84%) of the marketers. Others include inadequate market information (30.85%), poor road networks (29.85%), high tax/levy (28.86%), Seasonal supply (20.40%), Inadequate credit facilities (16.42%), Poor standardization (14.43%), Price instability (10.45% and Product adulteration (2.99%). This finding is similar with that of Usman *et al.* (2022) who examine Analysis of Groundnut Value Chain in Hong Local Government Area of Adamawa State North Eastern Nigeria and found out that Inadequate capital, high cost of transportation and inadequate storage as the major factors that affect groundnut marketing. These problems collectively will make it difficult for the marketers to sustain and expand their scale of market operations. Thus, affecting the profitability and growth of groundnut marketing in Adamawa State.

**Table 2:** Categories of Problems as Identified by Groundnut Marketers

Problems	(Number of (marketers)*	Percentage	Rank
High transportation cost	126	62.67	1 <sup>st</sup>
Exploitation by firms	71	35.32	2 <sup>nd</sup>
Inadequate capital	64	31.84	3 <sup>rd</sup>
Inadequate market information	62	30.85	4 <sup>th</sup>
Poor road network	60	29.85	5 <sup>th</sup>
High tax/levy	58	28.86	6 <sup>th</sup>
Seasonal supply	41	20.40	7 <sup>th</sup>
Inadequate credit facilities	33	16.42	8 <sup>th</sup>
Poor standardization	29	14.43	9 <sup>th</sup>
Price instability	21	10.45	10 <sup>th</sup>
Product adulteration	06	2.99	11 <sup>th</sup>

Source: Field Survey, 2024

- Multiple responses

### CONCLUSION AND RECOMMENDATIONS

The study concludes that groundnut marketers are efficient in their marketing operations and realizing significant amount of profit. In spite of the venture being profitable, groundnut markers were faced with challenges principally high transportation cost and exploitations buy few firms operating in the assembling markets. The study recommended that Governments should spend ample money to build and maintain roads that link rural markets to assembling markets, focusing on areas with the highest need. This would improve market margin of marketers and hence their living standard. Groundnut marketers should also form cooperative societies to enable them access credit from micro



finance and bank of agriculture to buy cooperative van for transportation at affordable cost and expand their scale of market.

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