SOCIO-ECONOMIC ANALYSIS OF SESAME MARKETING IN HADEJIA L.G.A. OF JIGAWA STATE, NIGERIA

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ABSTRACT

The study examined the socio-economic analysis of sesame marketing in Hadejia Local Government Area of Jigawa State, Nigeria. Hadejia market was purposively selected; questionnaires were administered to collect information from Eighty (80) sesame marketers. Data were analyzed using descriptive statistics, marketing margin, net margin and return on investment. The study revealed that, majority of the sesame marketers have a mean age of 41 years and a standard deviation of 6.2; mean household size of 6 and the mean years of experience in sesame marketing were 20 years. The result further shows that the respondents were all male, 72.5% were married, 38.75% were wholesalers, 40% purchased sesame from the farm gate and 75% are into commodity association. Majority (57.5%) of the sesame marketers sourced trading capital from personal savings. while none of the trader sourced capital from commercial banks Furthermore the result showed that, 52.50% of the traders sourced market information from co-marketers. The marketing margin was found to be ₦43, 750 while the net margin was ₦36,500 per ton of sesame traded. Similarly, the return on investment was found to be 0.11 which also showed a profitable enterprise. It could therefore be concluded that, marketing of sesame was profitable, though challenged with inadequate trading capital, poor prices, drought and adulteration with sand. Therefore, it is recommended that capital be provided (loan) with standard or guarantee price and product purity be regulated for better sesame marketing.

Keywords: Socio-economic, Sesame, Marketing and Hadejia

INTRODUCTION

Agricultural marketing is initiated right from farm inputs supplies up to the time when a product reaches the ultimate consumer. It is a process, which starts with the farmer's decision to produce farm commodities involving all aspect of marketing structure or system, both financial and institutional, with economic consideration including products assembly, preparation for the market, distribution, and use by the final consumer (Olukosi *et al*, 2007).

Market for agricultural products have been giving producers, marketers and consumers erratic signals characterized by extreme uncertainties and instability of prices, with sharp rise in prices observed when supply is lean and fall in prices when supply is plentiful. This price instability presumably stemmed from the effect of weather, upstream and downstream pest and diseases, and manipulation of supply by the middlemen, while the uncertainty comes from lack of adequate information on price

and marketing pattern of the commodity (Katanga and Nasiru, 2015).

Marketing of sesame in Jigawa State is bedeviled with many layers of middle men, high occurrence of physical losses, high marketing cost coupled with market information being insufficient and adulterated products. Similarly, grades, standardization and quality control are inadequate, as such buyers are left to accept what is available and presented to them than making choice (Muhammad, 2007).

Sesame (*Sesanum indicum* L) also known as Beniseed, are usually high in oil content, around 50% of the seed wieght compared to 20% seed oil in soyabeans (Sokomi, 2011). In Nigeria, sesame production started in the guinea savannah region of the country, especially in Benue State. Major producing State in the country are both areas of Guinea and Sudan savannah among which are Nassarawa, Jigawa and Benue states (Makama, 2011). Sesame has become one of the most important cash crops in Nigeria, especially in the Northern part of the country. Being a cash crop, it serves as an export crop earning an appreciable amount of foreign exchange for the country.

In Jigawa State, sesame is mainly grown as cash crop. This means that the enterprise is regarded solely as an economic unit organized for the pursuit of economic returns. Sesame is usually grown under rain-fed conditions where precipitation is irregular. It is regularly subjected to mild to severe water deficit stress. The crop is sensitive to drought, especially at the vegetative stage (Boureima *et al*., 2011).

Lack of good and organized marketing system for sesame and of credit facilities to the marketers which are mostly small scale, greatly contribute to the low engagement in sesame marketing. Moreover, the importance of sesame as an oil seed crop in the international market cannot be over-emphasized, as it is among five other crops selected to be exported to the North America through USAID (USAID, 2009).

Therefore, the main problems of sesame production and exports are summarized in variability of production and exports probably due to dependence on amount and distribution of rainfall, shattering nature of sesame, poor technology (manual harvesting), changes in domestic and external prices, high marketing cost, poor infrastructure, an oligopolistic market structure and market distortion. All these led to annual fluctuations in exports, unreliability of supply to export markets and hence a negative impact on competitiveness.

Most of the researches carried out on sesame in the study area, centered around increasing production and productivity with less emphasis on the improvement in its marketing and marketing challenges affecting the efficient marketing activities of the crop.

In view of this, the study therefore focuses on improving marketing of sesame in the study area by evaluating the socio-economic characteristics of sesame marketers, the profitability and constraints associated with the sesame marketing.

METHODOLOGY

Study Area

The study area is Hadejia in Hadejia Local Government Area of Jigawa State. It is located on 12.4506^{o} N and 10.0404^{o} E in the Sudan Savannah, the area has well marked

rainy and dry seasons (J-SDSD, 2005). The climatic condition of the area is characterized by four main seasons: a dry and cool season (*Kaka*) during (mid-November to February), cool and dry weather plus occasional dusty haze; the dry and hot season (*Bazara*) in (March mid-May), when temperature climbs up to 40^{o}C is a transition period between harmattan and wet season; the wet and warm season (*Damina*) in (Mid May-September); and a dry season and warm season (*Rani*) in (October-mid November).

The rainy season is between June and September, while the dry season falls between October to May. The annual average rainfall ranges from 500mm to 700mm; the climate is tropical with mean annual rainfall ranging from 260mm in the north to about 1082mm in the south. The climatic condition favours the production of sesame, hence its marketing activities. Farming is the main occupation during rainy season when arable crops such as sorghum, millet, cowpea, rice, groundnut, maize and of course sesame is grown in the area.

Sampling Procedure and Data Collection

Hadejia market was purposively selected because of the intensity of sesame marketing. Eighty (80) sesame marketers were randomly selected. Primary data was collected and used in the study. The data was obtained with the aid of structured questionnaire.

Data Analysis

Descriptive statistics and marketing margin were used to analyze the data. Descriptive statistics was used to describe the socioeconomic characteristics of the respondents and constraints associated with sesame marketing. Net marketing margin was used to evaluate the difference in prices of a commodity as it moves from producer to the ultimate consumer when all cost associated with the marketing is considered (Katanga, 2016). The model used is specified as follows:

Marketing margin

Marketing margin was used to determine sesame marketing. Marketing margin refers to the difference in prices paid for a commodity at different stages of the marketing system. It therefore represents difference in price of a given commodity at different stages of time, form, place and possession as it moves from the primary producer to the ultimate consumer (Olukosi *et al.*, 2005). At each intermediary level, it is the difference between price received on resale and the purchase price.

Model specification

Marketing margin

MM = TR- TMC ---------- (1)

MM = Marketing margin (₦/ton).

TR = Total revenue (₦/ton)) for selling sesame.

TMC = Total marketing cost (₦/ton)

$TMC = C_1 + C_2 + C_3 + C_4 + C_5 + C_6$ ..... (2)

where,

C_1 = Purchase price (₦/ton) of sesame.

C_2 = Cost of transportation (₦/ton) of sesame

C_3 = Cost of handling (knitting, loading and off-loading) (₦/ton) of sesame

C_4 = Cost of sacks (₦/ton)

C_5 = Commission charges (₦/ton) of sesame

C_6 = Tax (₦/ton) paid for marketing sesame.

An enterprise is considered profitable if the marketing margin is positive. This implies that the GR is greater than TVC. If the GM is negative, the enterprise in not economically

profitable. The higher the marketing margin, the higher the level of profitability accrues to the trader and vice versa.

RESULTS AND DISCUSSION

Socio-economic Characteristics of Sesame Marketers

Socioeconomic characteristics of the sesame marketers are presented in Table 1. The result shows that sesame marketing in the study area was dominated by marketers in the age category of 41 – 50 years with a mean age of 41 years. The age of sesame traders is an important socio-economic factor which affects the quantity of sesame traded. According to Muhammed (2012), in traditional societies of Nigeria, responsibilities are assigned according to age.

The result in this study implies that the traders were still within the active age and could put their best in undertaking the activities of sesame trading. Youths below the age of 25 years were found helping their parent and masters in the trading of the commodity as such were receiving training pending when they would be independent. About 4% of the marketers fell within the age class of 60 years and above. This implies that, marketing of sesame in the study areas was mostly carried out by middle-aged people; this category of traders are believed to be matured and sound in market decision making.

The average household size of sesame traders was 6 persons, with minimum of 2 persons but a household of up to 19 persons were obtained. This has relationship with family labor typified of the agrarian settings. Mean years of experience in sesame trading was 8.6 with a maximum of 22 years. This implied that, the sesame marketers have relatively high years of experience; as such they are expected to adjust to changing economic conditions and adopt new ideas to warrant efficient marketing.

The study further revealed that, all the sesame marketers (100%) were male; these findings agree with the study of Makama (2011) on economics of sesame production and marketing in Jigawa State. This study reported that 100% of sesame marketers were male which implies that, there is no female engaged in to the marketing of sesame in the study area. It could also be due to religious and cultural beliefs. Similarly, Musa (2003) reported a low percentage of females' engagement in agricultural activities in several states of Nigeria. Majority (72.5%) of the sesame marketers were married while 22.5% were single. This implies that the marketers have family responsibilities bestowed on them in terms of financial and social commitments. The results further indicated that, majority of the traders (60%) belong to commodity association while 40% are not members of the sesame marketers' association.

The results in Table 1 shows that, about 53.75% of the respondents combined farming with marketing of sesame, while 36.25% with civil service and 10% with other business such as mechanics, carpentry, etc. This implied that most of the respondents are basically farmers but engaged in sesame marketing as secondary occupation.

Table 1: Socio-economic Characteristics of Sesame Marketers

Variable	Frequency	Percentage	Min	Max	Mean	Std. Dev
Age			22	63	41	6.2
21-30	17	21.25				
31-40	24	30.00				
41-50	25	31.25				
51-60	10	12.00				
Above 60	4	5.0				
Gender						
Male	80	100				
Marital status						
Single	22	27.50				
Married	58	72.50				
Household size			2	19	6	3.4
1-4	17	21.25				
5-9	42	52.50				
10-14	15	18.75				
15-19	6	7.50				
Yrs of education			1	4	2	0.9
Qur'anic	18	22.50				
Primary	20	25.00				
Secondary	26	32.50				
Tertiary	16	20.00				
Yrs of experience			3	22	8.6	3.5
1-5	12	15.00				
6-10	17	21.25				
11-15	14	17.50				
16-20	10	12.50				
Above 20	27	33.75				
Membership of Association						
Member	60	25.00				
Non member	20	75.00				
Secondary occupation						
Farming	43	53.75				
Civil service	29	36.25				
Other business	8	10.00				

Table 2: Sesame Marketing Activities

Variable	Frequency	Percentage
Source of capital		
Personal savings	46	57.75
Friends and relatives	14	14.75
Money lenders	12	15.00
Cooperatives	8	10.00
Commercial banks	0	0.00
Marketing Function		
Retailers	15	18.75
Wholesalers	31	38.75
Commission agents	9	11.25
Rural Assemblers	12	15.00
Retail and wholesale	13	16.25
Purchase point		
Farm gates	32	40.00
Rural market	26	32.50
Urban markets	22	27.50
Resale point		
Retail	9	11.25
Wholesale	13	16.25
Consumers	21	26.25
Industries	37	46.25
Market information		
From co-marketers	42	52.50
From market officials	15	18.75
From media houses	5	6.25
Others	8	10.00
Value Addition		
Storage		
Warehousing	37	46.25
Home storage	43	53.76
Transportation		
On foot	5	6.25
Wheel barrow	14	17/5
motorcycle	15	18.75
Motor vehicle	42	52.5
Others	4	5

Table 2 reveals that, 57.5% of the respondents have personal saving as their source of capital. This was close to the findings of Sakomi (2011) who reported that 70% of sesame marketers acquired capital through personal savings. About 17.5% of them sources the capital through cooperatives, 15% sources the capital through friends and relatives, while 10% through money lenders. None of the

marketers reported Bank as source of loans. This may be the reason why the traders were challenged with trading capital as no formal financial institution are involved in the capitalization of the business.

Results from Table 2 further reveals that 38.75% of the respondents in the study area are wholesalers, 18.75% are retailers, 16.25% are both retailers and wholesalers, 15% are rural assemblers, while 11.25% are commission agents. This shows that majority of respondents are wholesalers which implies that the market is dominated by wholesalers.

Place of purchase of sesame are also presented in Table 2 and it shows that, about 40% of the respondents purchased sesame from farm gate, 32.5% purchase the sesame from rural markets, and about 27.5% of the marketers purchased the sesame from urban markets. This implies that bulk of the sesame in the study is traded at farm gate level and this corroborated the findings of Tiamiyu *et al.* (2013) that, majority of the sesame are grown from small holder farmers who form the greater part of the sesame production enterprises.

About 46.25% sesame marketers re-sell the commodity (Table 2) to industries, 26.25% re-sell the sesame to consumers, while 16.25% and 11.25% of the respondents re-sell the sesame to wholesalers and retailers, respectively. This implies that majority of the respondents sold the sesame to industries and other consumers in the study area. This explains why the sesame prices and marketing activities are higher and busy during harvest when most companies are in demand of the commodity.

Market information is very important in the marketing of agricultural goods, Table 2, reveals that, 65% of sesame marketers sourced information from co-marketers, 25% received the information through market officials while 10% sourced information from other means like radio and social media. Therefore, most of the respondents obtain information about sesame from co-marketers through the use of mobile phones.

Additionally, results from the study reveal that most of the respondents (53.75%) stored sesame at home, though, sesame traders prefer buying and selling to avoid the extra cost of storage. About 46.25% of respondents stored sesame in market stores for protection against damage. The store is either owned or rented by the traders. Moreover, the survey further revealed that, majority of the respondents transported the sesame to the markets and stores through the use of hired vehicles. Table 2 shows that 52.5% of the respondents transported sesame on motor vehicles, 18.75% used motorcycles, 17.5% used wheel barrow, 5% transported the sesame on foot, while 5% uses other means of transport such as animals (oxen cart). Hence the study confirmed the inadequate transportation facilities as a challenge to efficient sesame marketing in the study area.

Table 3: Cost, Return and Net Marketing margin (₦/ton) of a Ton of Sesame Marketed

Items	Average Cost/ton	% of Total marketing Cost
A. Purchase price (₦/ton)	**393, 750**	**98.20**
B. Marketing cost (₦/ton)		**1.80**
i. Storage (₦/ton)	875	12.07
ii. Transportation (₦/ton)	1, 875	25.86
iii. Loading (₦/ton)	625	8.62
iv. Offloading (₦/ton)	625	8.62
v. Middlemen charges (₦/ton)	500	6.89
vi. Packaging cost (₦/ton)	2, 125	29.31
vii. Tax (₦/ton)	625	8.62
Total marketing cost (₦/ton)	**7, 250**	**100**
C. Supply price = (A+B) (₦/ton)	**401, 000**	
D. Resale price (₦/ton)	**437, 500**	
E. Net Marketing margin (MM) = (D-C) (₦/ton)	**36,500**	
ROI	**0.11**	

The profitability analysis of sesame marketed was determined using marketing margin analysis. It was calculated from the difference between gross income/revenue and total marketing cost. The total marketing cost items include sesame seed, handling charges, commission charges, transport charges, levy and tax while the gross return was calculated from the average quantity traded and the average price of the commodity. Both costs and revenues were calculated on per ton basis.

The results in Table 3 show an average purchase price of ₦293,750 per ton of sesame. Total marketing cost of sesame was ₦7,250/ton. Total sales value of sesame was ₦401,000 per ton; therefore, marketing margin was ₦43,750 per ton. Since the total selling price was greater than the total marketing cost, then value of marketing margin was positive and thus implied that, the sesame trading was considered profitable. The result agrees with Tiamiyu *et al.* (2013) and Katanga, (2016) who reported a positive value of ₦26,242/ton and ₦71,800 as market margin for sesame trading, respectively, and posited that sesame trading was profitable in Nigeria. The return per Naira invested in sesame trading was 0.11 meaning that, for every Naira invested in sesame trading 11 Kobo was returned as profit. Hence this was found to be cost effective.

The value of RNI (0.11) was slightly lower than the value 0.25 and 0.17 reported by Katanga (2016) and Tiamiyu *et al.*, (2013) for sesame trading in Kano and Jigawa Axis and Nigeria respectively. This may be due to difference in time of the conduct of the researches and the situation of the economy.

Table 4: Constrains to Sesame Marketing.

Problems	Frequency	Percentage	Ranking
Lack of standard price	25	31.25	1st
Transportation problems	20	25	2nd
Adulterated sesame	16	20	3rd
Insufficient trading capital	8	10	4th
Drought	6	7.5	5th
Others	5	6.25	6th
Total	**80**	**100**	

The results in Table 4 revealed that, 31.25% of the sesame traders were constrained by lack of standard price (Price uncertainty) hence ranked first in the list of constrains to sesame marketing. The reason for this may not differ from the fact that, the sesame market was not developed to guarantee the prices of actors along the market. Transportation was ranked second (25%) among the constraints faced by the traders. This is true when one looks at the functions of the traders in terms of geographical coverage in linking areas of production and consumptions as put forward by Olukosi *et al.* (2007). The challenge may be due to bad roads, fuel hike and the cost of vehicle maintenance put forward by the transport agents.

About 20% of the sesame traders suffered from the challenges of adulterated sesame seed with sand and seed of other crops, and or leaves and stalk remains of the plant. This may be due to negative attitudes of some farmers and rural collectors especially where the commodities are sold by weight. In the same vein, 10% of the sesame traders were faced with the problems of inadequate trading capital, this is obvious when the sources of trading capital were considered, as no formal financial institution are found to loan out capital for sesame trade. Others (6.25%) of the traders were constrained by other problems like buying sesame cured with herbicide to induced quick dryness. This problem was viewed in two-fold; firstly, it was done to avoid theft when dried away from home and secondly to benefit from a high price regime. Such problems were also reported by Sokomi (2011) and Achike and Anzaku (2012).

CONCLUSION

From the findings of the study, it can be concluded that, sesame marketing was profitable and worthy of investment in the study area. Nonetheless, there are many challenges associated with its marketing. Proffering solutions to these problems will help increase the marketing system of sesame. This may involve an active public-private partnership through provision of credit facilities, price regulation, storage facilities, improving the transport system as well as provision of market information.

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