



ANALYSIS OF PALM-OIL MARKETING IN IGBO-EZE NORTH, ENUGU STATE, NIGERIA.

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Abstract

The study examined the analysis of palm-oil marketing in Igbo-Eze, Enugu State, Nigeria. A total of 117 respondents were interviewed using structured questionnaire. Descriptive statistics, gross margin analysis were used to analyze the data collected. The study revealed that majority (65.0%) of palm oil marketers were females, majority (42.8%) were within the age class of 41-50 years, and Majority (67.5%) of palm oil marketers are married. About 19% of the respondents had no formal education, 22.2 had primary education, 41% had secondary education and 17.9 had tertiary education. 53% of the respondents had a household size of 1-5 persons, 40.2% had within 6-10 persons while 7% had above 10 persons. Majority of the respondents do not belong to cooperative while 32.5% of the respondents belong to cooperative. 52.1% of the respondents had years of experience of palm oil marketing below 10 years, 37.6% had within 10-19 years of experience, 8.5% had within 20-29 years of experience and 1.8% had above 30 years of experience. 48.7% of the respondents got their capital from personal savings, 32.5% were from their family members, 14.5% were from friends, 1.7% was from the cooperatives and 2.6% were from bank loan. The study revealed that the marketing margin and efficiency of palm oil marketers were found to be 7.84% and 2.88% respectively in the study area. Among the challenges faced expressed lack of capital as the main constraint faced in marketing of palm oil, 51.53% of the respondents had problem of inadequate money for their marketing business. Price fluctuation was expressed as a constraint by the 56.4% of the respondents and was ranked second. Based on the findings of this study and to forestall the problems associated with Palm Oil Marketing in Igbo-Eze North Local Government Area of Enugu State, Nigeria. The study therefore recommends that palm oil marketers should form cooperatives for easy access to loan so as to source for credit collectively from formal financial institutions as these will address the problem of inadequate capital in the study area, storage facilities should be made adequately available for efficient storage and policy makers should make policies in terms of price regulation in the market to prevent inflation in the price of palm oil and also prevents the marketers exploitation of middlemen.

Introduction

Palm oil has been a significant ingredient in the diet of many Nigerians. Palm oil is the world's major source of edible oil, accounting for 38.5 million tonnes or 25% of the global edible oil and fat production (MPOC. 2007). Palm oil is a product extracted from the fleshy mesocarp of the palm fruit (*Elaeis guineensis*). The global demand for palm oil is growing thus, the crop cultivation serves as a means of livelihood for many rural families, and indeed it is in the farming culture of millions of people in the country. Hence, oil palm is often referred





to as a crop of multiple values, which underlines its economic importance (Akangbe, et al. 2011). The demand for domestic and industrial application of palm oil has continuously to increase (Omereji, 2005). It is estimated that for every Nigerian household of five, about two liters of palm oil are consumed weekly for cooking (Ekinne, et al, 2008). Oil palm as an economic and important tree is normally believed to be of West African origin. The African oil palm (Elaeis guinensis) is a native to West and Southwest Africa, occurring between Angola and Gambia (Mathew, 2009). It is recognized to produce more oil per hectare than any other oil crop. In most West African countries, including Nigeria, the palm trees grow naturally in the rain forest zones where annual rainfall is between 125-660cm and annual temperature ranges from 20-34°C. Many plantations of oil palm produce are obtained from growing wild (Mathew, 2009). Palm oil is world's second major vegetable oil, after soybean with world annual production of fresh fruit bunches approaching 100 million metric tons per year (Ada-Okungbowa et al, (2013). This is in line with Ibekwe (2008), who stated that palm oil is currently the second largest traded edible oil and accounts, for about one quarter of the world's fats and oil supply. Ibekwe (2008) also noted that palm oil is not only used domestically (as edible oil) but is applied to a wide variety of uses including the manufacture of candles, soaps, margarine and several others. This accounts for the high demand on the product and the consequent need to increase production.

In economics, production is never regarded as complete until the product gets to the final consumer, thus the importance of marketing. Marketing is part and parcel of a production process. It constitutes a bridge between production and consumption (Olukosi, 2005). Marketing describes the service involved in getting goods and services from the point of production to the point of consumption. Koties (2007) states that marketing is a societal process by which an individual or groups obtain what they need and want through offering and freely exchanging products and service of value with others. A good palm oil marketing system is essential for mobilizing market profits which tend to induce a perfectly competitive market and adjust price for consumers as well as good profits for various marketing intermediaries and farmers. FAO (2009) also found that palm oil processing and marketing was one of the most lucrative activities for women in southeastern Nigeria but the labour required in palm oil processing was great. This shows that the palm oil contributes significantly to the rural development and the revenue earning of the Nigeria economy. Therefore, palm oil marketing system if efficient and well developed will facilitate trading between buyers and sellers without any delays or difficulties and bring about effective distribution and consumption for the well-being of the people in Igbo-Eze North local Government Area, of Enugu state.

Nigeria which was the world's leading producer of palm oil in 1950s and early 1960s is now the third world's largest producer of palm oil, producing only 3.6% of the world's total palm oil in 2002 (Poku, 2002). The cause of this decrease is traceable to the civil war of 1967 to 1970 as well as the general neglect of Agriculture upon the discovery of petroleum. Efforts made towards raising production again have not been as successful as expected. Ali, (2008) reported that in Nigeria, 80% of production comes from dispersed small holders who harvest





semi-wild plants and use manual processing technique. The estimate for oil palm plantation in Nigeria ranges from 169,000 to 360,000 hectares of plantations (Carrere, 2010). In addition to the agro climatic and structural factors (size and scale of production and processing sectors), there are other constraints like little use of modern inputs and extension service, low provisions of market information, standards and quality control (Olagunju, 2008). At the same time the rapid devaluation of the naira combined with high transportation cost from parts to internal market put imported oil in a competitively disadvantaged position (Olagunju, 2008). Thus, Nigeria's first goal is to meet the domestic demand and then if possible, seek to become competitive in export markets. Nigeria palm oil production is potentially competitive in the domestic market; oil palm would enhance the overall economic development through the income and employment effects in the rural and urban economies (Olagunju, 2008), (Omueti, 2003) stated that Nigeria has huge potential to increase her production of palm oil and kernel primarily through application of improved processing techniques. Nwawwe, (2005) also noted, that improved technologies that meet both growth and sustainability goals can be effectively used by oil palm processors, however, most technologies are design for developed rather than developing countries (Omueti, 2003), also reported that until the private sector of the economy involves in mass production of palm oil, Nigeria would continue to remain a net importer of the zero produce despite the existence of Nigerian Institute for Oil Palm Research (NIFOR) founded in 1939 by the colonial masters to carryout research on palm oil. Palm oil production is still faced with a lot of problems including inadequate finance, shortage of labour, scarcity of water and firewood and lack of effective processing techniques in palm oil production (Omueti, 2003).

The information on the marking margin and marketing efficiency of palm oil marketing and the socio-economic characteristics of palm oil marketers in Igbo-Eze north local government area of Enugu State is limited. This research is carried out in order to enhance a better marketing of palm oil by those marketers in the study and also to encourage the marketers to embrace the modern method of palm oil marketing in order to increase efficiency and generate higher income.

Objective of the study

- i. describe the socio-economic characteristics of the respondents
- ii. describe the marketing channel in palm oil marketing
- iii. determine the marketing margin and efficiency in palm oil marketing.
- iv. determine the constraints to palm oil marketing in the study area.

Methodology

The study was carried out in Igbo-Eze north local government area, The Igbo-Eze north L.G.A is one of the seventeen local government areas in Enugu state, Nigeria. According to Enugu State Ministry of Chieftaincy Matters (ESMOCM, 2012) the Igbo-Eze north local government area is made up of 29 communities with its headquarters at Ogrute/Enugu Ezike. The local government is situated in the plain of the north part of Enugu state, Nigeria, and also lies in the northwest of Nsukka in Enugu state, Nigeria. Igbo-Eze North Local Government





Area (L.G.A.) lies between latitude 6.590°N and 6.9830°N, and longitude 7¹270E and 7¹450°E. The headquarter of Igbo- Eze North which is Enugu-Ezike is a large town occupying all the whole land of Igbo-Eze north local government area Enugu state, Nigeria. It shares borders with in the north with Benue state, in south with Ovoko (Igbo-Eze south local Government Area of Enugu State), Amala and obollo (Udenu local Government Area of Enugu State) and Kogi state in the west and partially in the north. The Local Government has an area of 293 km² and the population of the area is 259,431 comprising 138,006 males and 121,425 females, according to the 2006 census (NPC, 2006), with projected population of 283,004 by annual growth rate of 3.5%. The total land area has been estimated at approximately 293km² which the vegetation of the area is of savannah grassland type with two distinct seasons namely; rainy and dry seasons. However, there is usually a period within the dry season characterized by dusty and extremely dry air. The raining season is characterized with heavy rainfall of about 2,400 millimeters per year is experienced in the area between the months of April through September. Due to the adequate seasonal rainfall, Igbo-Eze North has much arable land that produces Cassava, Water-yams, Maize, Leafy vegetables, and rearing of animal as the major economic activities of the local people. The major cash crop produced in the area is oil palm and it is produced in large quantity throughout the local government area. About 80% of the population is involved in different stages of farming, the bulk of them being smallholder's crops farmers. There are also marketers, processors of Agricultural products (mainly cassava and oil palm) as well as civil servants and artisans living in the area.

Data collection

A purposive sample was used to select two markets due to their active involvement in palm oil marketing and random sampling technique was employed in selecting the marketers for this study. The first stage was the purposive sample was used in selection of two markets from the local government area. These markets are Enugu-Ezike market (Eke-Ozee) and Amufia market (Eke-Amufia). This is the basis of the most prominent in palm oil production, marketing, and consumption in the study area. Secondly, Snowball sampling technique was applied in administering the questionnaire to the respondents in each market. Therefore, 117 respondents out of the entire palm oil marketers were used as a yardstick for statistical information. Primary data were used for this study. Data were collected through the use of structured questionnaire which were administered to the respondents with the help of enumerator. Information collected from the respondents include: socio-economic characteristic of the respondents, marketing channels and margin of palm oil marketing, marketing efficiency of palm oil marketing, profitability of palm oil marketing and about the constraint of palm oil marketing in Igbo-Eze North Local Government Area.

Analytical techniques

Descriptive statistic such as mean, frequency distribution table, percentage and range was used to achieve objective i and iv, while a flow chart was use to illustrate the marketing channel of objective ii, and marketing margin and efficiency was used to achieved objective iii of the study.





Marketing margin: This is express as follow

Marketing margin = Selling price – supplying price X 100
Selling price

Marketing efficiency: This is express as follow

Efficiency is the maximization of output to inputs in marketing. It is expressed as

Result and Discussion

Socio-Economic Characteristics of Respondents

The result in table 1 shows that the majority (42.8%) of the respondents are within the age group of 41-50, 24.8% were 31-40, 15.3% were 51-60, 14.5% were 21-30 and 2.6% of the respondents were within the age class of above 60. The implication is that the age group 41-50, falls into the active and productive group of the population of any society. This indicated that at this age, the respondents are energetic enough to carry out most of the palm oil marketing activities. This finding agreed with the work of Ibitoye (2014) who observed that 42.4% of the palm oil marketers' fall between the age ranges of 41-50 years. The result shows that majority (65.0%) of the palm oil marketers were females, while 35.0% were males. This is in line with finding of Nnajiet al. (2019) which in their results shows that 39.17% of the palm oil marketers were male while the majorities (60.83%) were females. The result from table 1 shows that majority (67.5%) of palm oil marketers are married while (32.5%) were not or otherwise. This implies that the marketers probably used family labour to carry out their marketing activities and also gain support from their children/household members in carrying out palm oil marketing activities. This may reduce the cost of performing the various marketing functions in the study area and hence increase their income. This is in contrary with the finding of Ojo et al. (2014) which revealed that less than half (40%) of the marketers were married. The results also shows that majority (53%) of the respondents had a household size of 1-5 persons, 40.2% had between 6-10 persons while 7% had above 10 persons. This in indicated that the majority of the respondents have relatively small household size. The implication is that more hired labor will be required toward palm oil marketing thereby increasing the marketing cost for hired labor. This study is in line with the finding of Ada-Okungbowa et al. (2013) in their study which discovered that about 53% of the palm oil marketers had an average of three (3) persons in their household. The results from the findings shows 18.8% of the respondents had no formal education, 22.2 had primary education, 41% had secondary education and 17.9 had tertiary education. This shows that majority of the respondents were educated which will help them to carry out various activities in the marketing system smoothly. This is in line with the finding of Ada-Okungbowaet al. (2013) which revealed that 86% of the respondents were educated and the study also indicated that most of the respondents have attained at least a secondary education. The result revealed that





majority (67.5%) of the respondents does not belong to cooperative while 32.5% of the respondents belong to cooperative. This indicated that majority of the respondents have no interest on cooperative. The implication is that majority will have limited access to capital for their business and access to information regarding to palm oil marketing. The result shows that majority (80.3%) of the respondents received no credit from the cooperatives while 19.7 of the members received credit from the cooperative. This shows that majority source their credit for the palm oil marketing through others means such as personal savings, family members etc. The implication is that majority of the palm oil marketers will be running their business under small scale enterprises and also there will be large no retailers' dues to problem of insufficient capital for the business.

The result shows that 29.1% of the respondents engage on palm oil marketing during the dry season while 70.9% of the respondents engage on palm oil marketing during the rainy season. This implies that there are large volume marketers during the rainy season due to the low price of the goods. The implication is that the marketers will tend to store the goods during rainy season and sale during dry season causing the price to go up and making the goods to be inaccessible to many marketers. The result indicated that 52.1% of the respondents had below 10 years of experience in palm oil marketing, 37.6% had between 10-19 years of experience, 8.5% had within 20-29 years of experience and 1.8% had above 30 years of experience. This shows that palm oil marketing is one by in individuals with relatively low marketing experience. The implication is that the more the years of experience a marketer have the higher the level of its profitability and the lower the marketing experience the lower the profit level of the marketers and palm oil marketers need information about the business cycle, where and when to buy the product, when to store the product and an appropriate time to sell so if the palm oil marketers has little years of experience that will affect his/her level of obtaining information about the business in general. This contrary with the finding of Ali et al. (2008) who's in their studies observed that marketing experience is important in determining the profit levels of marketers, the more the experience, the more the marketers understand the marketing system, condition, trends, and prices. This is in contrary with the finding of Ibitoye (2014) which shows that (48.8%) of the palm oil marketers had a marketing experience between 11-20 years with a mean of 15 years. The result shows that 71.1% of the respondents had their average starting capital for palm oil marketing within the range of 1,000-100,000 naira, 14.8% had within the range of 100001-200000 naira, 5.2% had within the range of 200001-300000 naira, 4.4% had within the range of 300001-400000 naira, 2.7% had within 400001-500000 naira, 1.8% fall within the range of above 500000 naira. These distributions indicated that majority of the palm oil marketers are small scale marketers as confirmed by the overall average naira. The implication is that as they engage with little capital their return will also be little. The result indicated that 48.7% of the respondents got their capital from personal savings, 32.5% were from their family members, 14.5% were from friends, 1.7% was from the cooperatives and 2.6% were from bank loan. This indicated that formal credit facilities were not made available to the marketers and most resorted to selffinance or informal source of credit. The implication is that the marketers may not get sufficient capital to operate a large scale thereby limiting their returns.





Table 1 Socio-Economic Characteristics of Respondents

Varriable	Percentage	Mean
Age	8	
21-30	14.5	
31-40	24.8	
41-50	42.8	45
51-60	15.3	
>60	2.6	
Sex		
Female	65.0	
Male	35.o	
Marital status		
Married	67.5	
Otherwise	32.5	
Household size		
1-5	53	
6-10	40.2	7
>10	7.0	
Level of education		
No formal education	18.8	
Primary education	22.2	
Secondary education	41.0	
Tertiary education	17.9	
Membership of cooperative		
Non-members	67.5	
Members	32.5	
Access to credit		
Non received	80.3	
Received	19.7	
Period of engagement		
Dry season	29.1	
Rainy season	70.9	
Years of experince		
Below 10	52.1	14
10-19	37.6	
20-29	8.5	
Above 30 years	1.8	
Average Starting Capital (N)		
1000-100,000	71.1	49,900
100,001-200,000	14.8	,
200,001-300,000	5.2	
300,001-400,000	4.4	
400,001-500,000	2.7	
>500,000	1.8	
Source of capital		
Personal saving	48.7	
0		



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Family	32.5
Friends	14.5
Cooperative	1.7
Bank loan	2.6

Marketing channel of palm oil in the study area

The processors after processing the palm oil take it to the market where rural assemblers buy from the producers and subsequently sale to wholesaler and sometimes to retailer though at the same time wholesaler do buy from the producers. So this therefore indicates that the marketing type is decentralized marketing channel. Ada-Okwgbo *et al* (2013) in his study of palm oil marketing channel identify only four actors in the marketing chain – producers, wholesalers, retailers and consumers. So the higher the actors in the marketing channel, the more the final cost of the products and subsequently the more the consumer will have to pay to purchase that product.

Marketing channel of palm oil is the route of the palm oil as it moves from the point of production to the point of consumption. It provides convenient means of studying the organization of marketing system, so marketing channel is important in evaluating marketing system due to the reasons that it help in showing how the various participants in the marketing system are organized to accomplish the movement of palm oil from the producers to the final consumers. The function and services involved in the marketing of agricultural products in general and palm oil in particular is undertaken by chain of intermediaries who are interdependent in their supplies from the producers to consumer (Kotler, 2003). The organization structure shows the flow of commodity from the producers to the consumers in terms of physical functions or market channel or both which are useful in indicating the relative importance of specified source of supply, kind of outlets and the consequence of marketing channel.



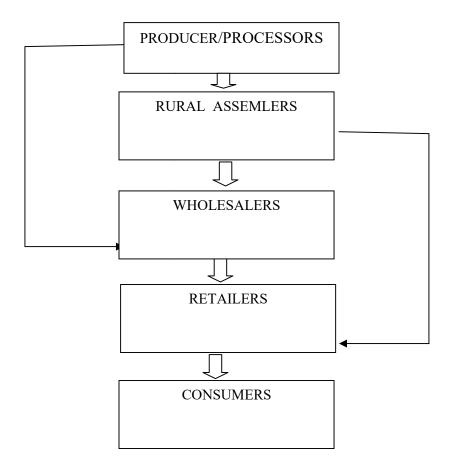


Fig. 1: Flow chart of palm oil marketing channel identified in the study area.

Marketing margin of palm oil marketers in the study area

Marketing margin of a product or services is the difference between retail or selling price of the product and the actual cost it took to produce that product (Elise, 2014). Results from table 4.2, revealed that, the selling price of a 25litres jerry can of palm oil was ₹13330.34, the cost of supplying a 25litres can of palm oil was ₹12,285.04, the marketing margin (MM) was found to be 7.84%. The low marketing margin implies that consumers were void of exploitation by the marketers and as such operated efficiently. Ojo *et al* (2014) reported a marketing margin of 12% for palm oil marketing in Kogi State.

Marketing efficiency of palm oil marketers in the study area

This is the most frequently used to measure marketing performance. Marketing efficiency = value added by marketing/cost of marketing services x 100. From Table 2, the marketing efficiency for palm oil marketing in Igbo-Eze North Local Government Area of Enugu State, Nigeria was 2.88%. This implies a low marketing efficiency. This means that the palm oil marketing in the study area is of good performance and the cost of value added by the





marketers to the products is less. Even though the activity is profitable. The higher the marketing efficiency the inefficient the market and the lower the marketing efficiency the more efficient the market is. The efficiency value of 2.88% is very low compared to that of Ibitoye (2014) who recorded an efficiency of 18.93% for palm oil marketers in Dekina Local Government Area of Kogi State. The possible reason for the low value could be due to low capital invested by the marketers.

Table: 2 Analysis of marketing margin and marketing efficiency of palm oil marketing.

Marketing variables	Values (₦)	Percentage
A. Marketing Margin i. Selling price (sp_1) ii. Supplying price (SP_2) iii. price difference = $sp_1 - sp_2$	13330.34 12,285.o4 = 0.0784	
Therefore marketing margin =	0.0784 x 100	= 7.84%
B Marketing efficiency		
a Value added by marketing (marketing margin)		
Cost of marketing services i. cost of transportation		
ii. cost of loading	86.50	
iii. cost of offloading	21.85	
iv cost of storage	12.33	
v cost of marketing levy b Total cost of marketing	76.07	
services $(i+ ii + iii + iv + v) =$ therefore marketing efficiency	80.26	
(a\b) x 100=	276.01	2.88%

Constraints affecting palm oil marketing and distribution in the study area.

The Table shows that the majority (82.9%) of the respondents expressed inadequate capital as the main constraint faced in marketing of palm oil and was ranked first. This may be due to lack of being member of cooperative which help them to easily have access to credit and





inadequate assistance from the government in the study area. This is in line with the finding of Ada-Okungbowa et al. (2013) and Ibitoye (2014) who found in their studies that inadequate capital is a major constraint that palm oil marketers face in their marketing activities. Price fluctuation was expressed as a constraint by the 56.4% of the respondents and was ranked second. This was also reported as major constraints by Ibitoye (2014). This may be due to the competitive nature of palm oil in the study area. Inadequate storage facilities as a constraint were expressed by the 50.4% of the respondents. This may be due to unaffordability of these facilities by the respondents. This is not in line with the finding of Ojo et al (2014) in their result shows that 9.66% of the respondents faced inadequate storage facilities. High cost of transportation was expressed by the 49.6% of the respondents. This may be due to heavy nature of the commodity and poor road network. This in contrary with the finding of Ojo et al. (2014) in their researched on (Structure and Performance of Palm Oil Marketing in Kogi State, Nigeria) who in their study revealed that 11.69% of the respondents complained of high cost of transportation. Bad road was complained by the 47.9% of the respondents. Poor market information was expressed by the 29.9% of the respondents. 25.6% of the respondents expressed seasonality as a constraint affecting the palm oil marketing in the study area. The constraints reported could adversely affect palm oil marketing thereby reducing efficiency and profitability. These constraints have been shown to be characterized of small scale holding and consistent with the findings of Aduku and Dafwang in Ibitove (2014).

Table 4: Constraints encountered by the respondent

Problem	Frequency (117)	Percentage	Rank
Inadequate capital	97	82.9	1 st
Price fluctuation	30	56.4	2nd
Inadequate storage facilities	58	50.4	3rd
High transportation cost	56	49.6	4th
Bad road	66	47.9	5th
Poor market information	35	29.9	6th
Seasonality	30	25.6	7th
High cost of marketing levy	24	20.5	$8^{ ext{th}}$
Creditor	19	16.2	9 th

* Multiple responses

Conclusion and Recommendations

The study analyzed the marketing margin and marketing efficiency of palm-oil marketing in Igbo-Eze, Enugu State, Nigeria. The study observed that females are more involved in palm oil marketing in the study area and most of the respondents are still at their productive age. The study also observed that respondents had below 10 years of marketing experience which





means that they know what they are doing. Though the marketers encountered some major constraint like inadequate capital and creditor as the least constraints in the study area. Finally, the study showed that palm oil marketing in Igbo-Eze North local government area was highly integrated, good performance, profitable and viable, thus it is worth sustainingas it revealed that the marketing margin and efficiency of palm oil marketers was 7.84% and 2.88% respectively in the study area. Based on the findings of this study and to forestall the problems associated with Palm Oil Marketing in Igbo-Eze North Local Government Area of Enugu State, Nigeria. The following recommendations are proffered; to address the problem of inadequate capital, the palm oil marketers should form cooperatives for easy access to loan so as to source for credit collectively from formal financial institutions or save money through thrift in order to boost their financial base for improved performance of palm oil marketing in the study area, storage facilities should be made adequately available such as warehouses should be constructed for efficient storage.

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