MARKETING SYSTEM OF NON-TIMBER FOREST PRODUCTS:-THE CASE OF PALMYRA PALM IN NORTH-EASTERN NIGERIA

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ABSTRACT

This study investigated the marketing system of Palmyra Palm products in North-eastern Nigeria to; identify its marketable products, channels of distribution and roles of market participants, and also assess its marketing facilities in North-eastern Nigeria. Data were generated through market surveys and interviews on 203 respondents selected randomly from Adamawa, Bauchi and Yobe markets. The generated data were analysed using descriptive statistics where appropriate. Marketing system focusing market organization was analyzed qualitatively by observing the marketing channels, roles of market participants and marketing facilities. The results revealed that exchange and ownership of title to products occurred at the local markets (54.0%), farmers' homes (37.7%), and farmers' farms (6.2%), and inter-states' markets (2.1%). The marketing channel of Palmyra palm was highly decentralised and thus the marketing system was expected to be operationally efficient. However, because of poor road network, high transportation cost and poor marketing facilities, the marketing system was adjudged operationally inefficient. Market participants introduced flaws in the marketing system; farm-gate middlemen dominated marketing operations, commissioned buying agents over-depended on wholesalers for capital, and there was collusion in price determination. Marketing facilities namely market places, storage, processing, transportation and packaging were crude and inadequate, while credit facilities were virtually absent. To address these inadequacies, the study recommended provision of improved marketing facilities and communication gadgets, formation of consumer co-operative organizations to check the excesses of the middlemen in the market and more research into the marketing of Non-timber forest resources.

Key Words: ***Palmyra Palm, market participants, marketing channel, marketing facilities***

INTRODUCTION

In a dynamic society where needs, wants and demands of the people are diverse and constantly changing, marketing becomes indispensable. This is because it is only through marketing that production and consumption, which are far apart, are linked together. An efficient marketing system ensures equity and efficient allocation of scarce resources to meet the needs of the people in the form, place and time they are required (Armstrong and Kotler, 2000; Mafimisebi, 2002; Popoola and Oluwalana, 2001). In Nigeria, wide varieties of Non-timber Forest Products (NTFPs) are concentrated in the rural economies; however, their values at this level are abysmally low. Thus Margaret and Schumann (1993) reported that the prices of NTFPs received by the local level producers or processors are extremely small. They attributed this to in-organized market information system to help individual producers organize production and distribution, determine appropriate prices, select markets and follow supply and demand or promote merchandise. It is however unequivocal that the continued importance of the NTFPs as a source of income and employment for the people at the grassroots is expanding production at this level. It has led

many people to initiate or increase production and also harvest NTFPs for various markets. Thus information about these activities is very vital for NTFPs market development.

Marketing information system (MIS), according to Taylor *et al* (1996), is an organised procedure for gathering and analysing information. It involves collecting, analysing and distributing marketing information for informed decision making and increased bargaining power. In another development, providing information on indigenous marketing systems of NTFPs and the various benefits of the marketing process at the grassroots are fundamental to the development of the resources and sustainable livelihood. The information will provide the basis for the development of political and economic strategies that will aid the sustainable management of these resources (FAO, 2008). These information are however inadequate, and in some instances lacking for many NTFPs species.

Palmyra palm, a NTFP, is widely distributed in Northeastern Nigeria and its importance economically, socio-culturally, environmentally and health-wise is not in doubts. Marketing activities in its products are also common in the country-side of the region, however, only few of such activities are documented. This study therefore hopes to lend its quota in this direction.

Statement of Problem

Poor marketing facilities, indigent transportation network and services, seasonality of products, and crude storage and processing have been identified as common problems of marketing NTFPs (Kent and Bianco, 1994; Lintu, 1995 and Popoola and Oluwalana, 2001). Others include demand and supply constraints, consumer preferences and inefficient pricing systems. Obviously, the presence of these poor marketing indicators can hamper the performance of the NTFPs in boosting welfare development and poverty reduction as often expected and desired. Palmyra palm, which is one of the useful NTFPs species in Northeastern Nigeria, is probably suffering from these inadequacies. Consequently, adequate knowledge and information regarding its capacity to impressively contribute to the development of the economic status of the people within its habitat is vital. This will foster the people's efforts at conserving and making it more productive. However, records have shown that, very little research has been carried out in the country on Palmyra palm, and particularly its marketing. Popoola and Oluwalana (2001) identified the geographical spread of the species in the country, while Richard (2005) in a socio-economic survey of NTFPs in Adamawa State briefly mentioned some of its economic and financial benefits. But, information from literature and research about the enormity of marketing in fostering the development of the physical and human resources as well as welfare, is unequivocal. Thus, this study on the marketing system of Palmyra palm in Northeastern Nigeria becomes pertinent. The fundamental question is: How efficient is the marketing system of Palmyra palm in Northeastern Nigeria? Specific questions include: What are the marketable products of this species in Northeastern Nigeria? How are these products distributed? What is the state of marketing facilities and what roles do market participants play in marketing the species in the region? The search for answers to these questions constitutes the reasons for this study.

Objectives of the Study

The study evaluates the marketing organization of Palmyra palm in Northeastern Nigeria with specific objectives to identifying the marketable products of the species; identifying its marketing channels and examining the state of marketing facilities in the region.

MATERIALS AND METHODS

This study was carried out in North-eastern Geopolitical zone of Nigeria, located between latitude 7°N, 13°20'N and longitude 8°40'E, 14°30'E. The land mass area is 272,395Km^2 and a population of 19,071,965 persons comprising 9,830,069 and 9,241,896 males and females respectively (NPC, 2007). Population density is about 70 persons /km^2 (NPC 2007). The zone comprises Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe States. Adamawa, Bauchi and Yobe were selected for the study. The selection was based on the fair representation of the study area; the relative abundance of the species in the area as well as its marketability and the socio-economic roles the species play in the life of the inhabitants. Market surveys and interviews on 203 respondents were carried out using semi-structured questionnaires to generate data between December 2006 and November 2007.

The marketing system of the Palmyra Palm was analysed by examining the exchange levels, marketing channels, roles of market participants and market facilities. Simple descriptive statistics such as mean, frequency, and percentages were utilized where appropriate in explaining results on variables.

RESULTS AND DISCUSSION

Marketable Products of Palmyra palm

The socio-economic survey of Palmyra palm in North-eastern Nigeria revealed that the species made up of many components namely; the crown leaves, fruits/seeds, inflorescences, the trunk and roots. The marketable products/produce from this palm were; fruits, edible hypocotyls, hand fans, mats, baskets, sponges, brooms, hats or caps, chairs, juice (sap) or wine and planks. These products corroborate the earlier list specified by UNDP and FAO (1968), Morton (1988), and Khieu (1998). The availability and utilization of these produce and products vary spatially both in magnitude and intensity. Based on elicited responses from respondents and personal observations of the regularity and patronage of these products in the market, it was discovered that mats, edible hypocotyls and the fruits were the most marketed.

The Marketing of Palmyra palm products was generally conducted in open-aired locations around the farming communities. The marketing system involved Farmers, farm-gate middlemen, assemblers, wholesalers, retailers and the hawkers. Transactions were carried out on farmer's farms, farmer's homes, local community markets and occasionally across markets in neighbouring states. In the course of the operations, the traders were reasonably free to move between levels of the marketing channels, as far as their financial and time factors permit them.

Exchange Levels and Palmyra palm Products marketing/ Distribution Channels

The Palmyra palm edible hypocotyls, mats and fruits were assessed to determine the exchange levels and the marketing channels in the market. These were considered because of their continued availability for exchange in the market. The result revealed that, the transfer of ownership of these products

occurred at four levels. These were Farmers' homes, farmers' farms, local community markets and markets in neighbouring states. Table 1 provides information on the proportion of both buyers and sellers that operated at these levels.

Majority of the sellers (54.1%) sold their products in the Local Markets. This was followed by sales at home (37.7%). Sales at farmers' farms and in the neighbouring local market were 6.2% and 2.0% respectively.

Conversely, 52.6% of the buyers, representing the majority, prefer buying their products at farmers' homes. Other points were purchases at local markets (22.8%) farmers' farms 14.04% and neighbouring states 10.5% respectively.

Table 1: Aggregated Transaction points for Palmyra palm in North-eastern Nigeria

Transaction Point	Sellers		Buyers	
	Frequency	%	Frequency	%
Farmers Homes	55	37.7	30	52.6
Farmers Farms	9	6.2	8	14.1
Local Markets	79	54.1	13	22.8
Neighbouring States	3	2.0	6	10.5
Total	**146**	**100.0**	**57**	**100.0**

A close examination of Table 1 revealed that, while majority of sellers preferred selling their products in the local markets buyers preferred buying them at farmers' homes. This was due to the fact that, prices of these products at the farm-gate were always lower than those at the local community market levels. The differences between prices of products at the farm-gate and those at the local markets were explained by the additional costs usually incurred from transportation and other operations for transferring these products to the markets. Since profit is always the ultimate motive of traders, all rational businessmen strive at maximizing profit. This means that buyers will prefer buying their products at the minimum cost possible so as to maximize benefits. In the like manner, sellers (suppliers) will also prefer selling at the local markets to maximize profit. The phenomena therefore conform to the law of demand and supply. Irrespective of the exchange level, transfer of title to marketed products was accomplished once they were delivered to buyers at the agreed price, quantity, quality, and time. These terms were established through mutual agreement between the seller and the buyer. The buyer takes charge for the evacuation and transportation of the commodity once title is transferred.

The flow of products generally begins with the farmer. In the case of edible hypocotyls,

once the farmer harvest, he prepares the product and put them into the 50kg jute bags or small basins, three of which were equivalent to the bag. The product was sometimes counted and sold in hundreds. The edible hypocotyls merchant may approach the farmer directly in order to purchase. Similarly, the farm-gate buying agents (assemblers) also make purchases from the farmers for un-ward transfer to the next persons on line. The assemblers literally move to the enclaves into farmers' homes and farms to secure the edible hypocotyls in small bits and package them for other buyers. The flow of the commodity moves to the processors. This group adds value to the commodities by converting them into secondary forms or products. For instance, in the case of edible hypocotyls, the processor first washes it and then cooks it by boiling for about 20 to 30 minutes before taking it to the market for sale. Sometimes they were cooked at the local markets for direct sales to the consumers. There were also buyers who arbitrage. They buy the raw hypocotyls early in the local markets and resale in the same market at higher prices or move to other market locations of their choices to sell at higher prices for a margin. These price speculators also serve as assemblers. The wholesalers/merchants and retailers buy from the speculative buyers as well. Some processors buy from the farmers as well as from the speculative buyers. Some farmers also sell directly to consumers. This pattern of flow is presented as *Palmyra palm* products marketing channel.

Generally products flowed from the farmers to the merchants, his representatives (commissioned buying agents and speculative buyers), farm-gate middlemen, wholesalers, retailers and consumers. Also, market locations (farmers' homes, farmers' farms, and local community markets) were scattered over the production areas, where title to commodities was exchanged.

The decentralised trade channel according to Kohls and Uhl (1980) will enhance operational efficiency. However pricing efficiency may be affected negatively because of inadequate information, and variation as well as increase in distribution cost. Figure 1 shows a typical marketing channel for Palmyra palm. From this channel, once the farmers' produce and products (hypocotyls, fruits and mats) are ready, market intermediaries (processors, farm-gate middlemen, assemblers, commissioned buying agents) get to them to purchase these products in line with their demand levels. Some intermediaries, example the processors, also sells to retailers and sometimes directly to consumers. The speculators buy from the farmers and travel to neighbouring state markets and sell their products. Some wholesalers secure their products from the neighbouring markets and sell either to retailers or consumers. Consumers sometimes move straight to neighbouring states' markets to make their purchases. This kind of trade was particularly observed in the case of mats and hypocotyls trade between Adamawa and Bauchi. The long chain of marketing intermediaries made possible collusion of marketing information. However, in line with Raintree and Francisco (1994), the market intermediaries are also important to the farmers because they bear the risk and cost of distributing products to the final consumers.

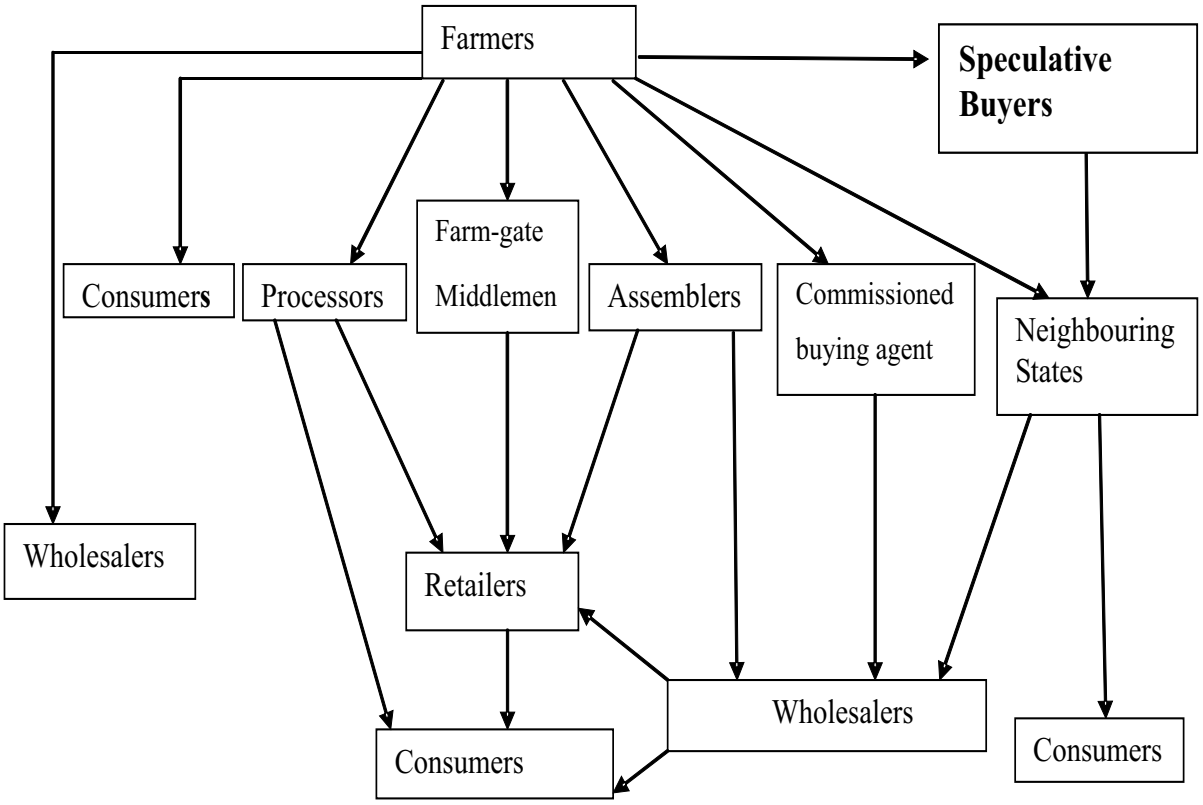

Figure 1: Marketing Channel of Palmyra palm Products in North-eastern Nigeria

Source: Adapted from Popoola and Oluwalan, 2001

Market Participants and their Roles

The participants in Palmyra palm product markets are presented in Table 2. The result revealed that farm-gate middlemen (46.6%) and consumers (29.5%) were the most active participants in the market. The entire marketing system was a sequence of activities comprising farmers (suppliers) at one end of the sequence and consumers at the other. In-between the sequence was the marketing agents. Farmers were the primary suppliers and sellers of products. Consumers, as applied here, were the buyers for household consumption. Farm-gate middlemen were buyers who use to move into the farmers' enclaves to purchase, assemble and then transport the products out to other participants within or near the villages and local markets. Retailers were brokers who use to sell in bits to the final consumers after buying from wholesalers, farmers or farm-gate middlemen. The wholesalers were buying from farmers and the farm-gate middlemen. They also enlisted the services of commissioned buying agents and empower them financially to buy goods on their behalf. This probably explains why they were less seen involved in active buying of products/produce (Table 2). Speculative buyers were price arbitrators. They locate markets and move into it and buy commodities they want at reduced prices and resale at higher prices in the same market or nearby markets at a margin. Processors added value to products by converting them into different forms. For example; the conversion of Palmyra palm leaves into mats, which were more valuable.

Table 2 : Sellers Distribution by Customers Categories

Customer Category	Frequency	%
Farm-gate middlemen	68	46.6
Consumers	43	29.4
Retailers	22	15.1
Wholesalers	5	3.4
*Others	8	5.5
Total	**146**	**100.0**

* This category included processors, speculative buyers and commissioned buying agents.

The emerging fact from the on-going result is that, the activities of most market participants negate the concept of a perfect market. For instance, the farm-gate middlemen that seemed to dominate the market; the commissioned buying agents who depends so much on the wholesaler for finances and their prowess in buying commodities at prices lower than what they received from the wholesalers. Also, the activities of the price arbitrators; all negates the concept of market perfection, and so, the marketing system of the Palmyra palm was therefore adjudged imperfect. This finding corroborates the earlier conclusion by Onu (2000), who reported that the presence of the above flaws and in-equality in the distribution of power in the market negates the concept of market perfection.

Marketing Facilities

Market Places: Palmyra palm products sellers (farmers) sell their products predominantly at home (Table 1). Some sell on the farm and across neighbouring states' markets (Borno, Gombe and Taraba). The inherent problem with these market locations was that they were isolated, far off motor-able and easily accessible roads. The implication is that, buyers have to move into these isolated areas to purchase the commodities and products they want. Means of transportation and the cost were therefore serious problems to contend with. Also for new entrants, production areas were not easily identifiable, signifying poor communication network. Besides, auxiliary services such as storage houses, packaging, loading and off-loading, and garages for vehicles that manage to go there, and resident porters were lacking. These services were needed for operations to be efficient, but they can operate economically only where the volume of trade is sufficiently large.

Storage facilities: The farmers who produce and supply products generally lack standard storage facilities. For instance, there were no modern silos and cold-rooms for preserving fruits and edible hypocotyls. Because of inadequate storage facilities to improve the shelf life of products, farmers were compelled to dispose them immediately after production,

even at unfavourable prices. Among the general traditional storage facilities used in storing edible hypocotyls were Jute bags, baskets and dug out pits. Key informants reported that the packaged edible hypocotyls in Jute bags and baskets stored in dry cool places could last for a maximum of three weeks after harvesting. Those that were buried or stored in dug out pits could last for up to 4weeks. These practices were ineffective and risky, and often they resulted to additional costs in marketing produce.

Processing Facilities: Processing facilities for Palmyra palm were generally lacking. Edible hypocotyls were processed through washing and boiling. Facilities like basins, baskets and calabashes were usually employed in washing the hypocotyls. Farmers that could not afford aluminium and steel pots usually resort to traditional earth/clay pots, in boiling the edible hypocotyls. The Leaves for making mats, baskets, hand fans and hats were usually sun dried. After drying, local knives were used in splitting the leaves into desired shapes and sizes for the product that were to be made. Processing generally adds value to a resource and is essential in marketing. There is need for improving processing facilities for Palmyra palm and the possibility of securing other devices that can be used in processing other Palmyra palm produce that are as yet being processed.

***Transport Facilities*:** The remoteness of production areas made the transportation system very difficult. In fact, most roads were in a serious state of disrepair and some very remote centres had no routes that could accommodate even motorcycles. The common transportation facilities for conveying goods were: Bicycles, motorcycles, wheel barrows and porters who carry loads on their backs, shoulders and heads. These products were usually conveyed from farmers' homes to the local markets. From the markets, the buyers who are from relatively accessible areas arrange with vehicle owners or drivers to come and convey the purchases to other required destinations, towns and cities. Due to these problems, transportation costs of products such as edible hypocotyls and fruits varied between N80.00 to N100.00 per 50kg jute bag for short distances (7-10km). Conveying mats varied between N20 to N50 per dozen (12pieces). This however, was also a function of distance. Generally, longer distances of 20km and above attracted higher charges.

***Credit Facilities*:** Generally, credit facilities were unavailable. Those available were not accessible to most farmers because of lack of banking and other financial institutions. Where these were available, collateral security was required. Majority of the farmers reported that, the start up capital for their activities was raised through personal savings. Friends were also useful sources for raising funds or capital.

Packaging Supplies: Edible hypocotyls and fruits were usually packaged in 50kg jute and nylon bags. Other traders also use baskets and basins. Mats were usually bundled together in dozens (12 pieces) using ropes. Once title to a commodity is handed over to the buyer, the seller collects back his/ her packs or containers.

CONCLUSION

The marketing of Non-Timber Forest Products (NTFPs) in the country typified by the Palmyra palm in North-eastern Nigeria is operational at four levels namely; the local markets, farmers' homes and farms, and inter-states' markets. Marketing facilities were poor and inadequate. The roles of market

participants were domineering and thus there were flaws in the marketing system of the Palmyra palm products in the region that requires immediate intervention. These flaws included dominance of the farm-gate middlemen in the marketing operations of Palmyra palm in the region, over-dependence of commissioned buying agents on wholesalers for capital, and collusion in price determination shown by the middlemen. These conducts therefore mitigate the concept of a perfect competitive market. This study therefore recommended provision of improved marketing facilities and communication gadgets, formation of consumer co-operative organizations to check the excesses of the middlemen in the market. These issues if adequately addressed will improve marketing facilities, smooth flow of market information and hence improved market management and development.

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