

ECONOMIC ANALYSIS OF FRUITS MARKETING IN MINNA, NIGER STATE

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Abstract

The economic analysis of fruits marketing in Minna, Niger State was the principal objectives of this study and other objectives include estimation of the determination of efficiency of fruit marketing and identification of the major constraints militating against fruits marketing in the area. The necessary data required for the study were generated through the use of questionnaire. The sample size consisted of ten (10) fruit traders that were selected from the major markets within Minna town and its surrounding villages culminating into hundred (100) respondents but ninety-eight (98) were used for this work. The data collected were analysed. The results showed that the marketing channel for fruits was decentralized, domination of retailers in fruit marketing, the farmers were the major suppliers of the fruits while the chronic problems include inadequacy of storage and transport facilities, poor price determination and bad record keeping. In spite of these bottlenecks, fruits marketing was comparatively profitable with the mean income of N638,812.20 per annum and the average gross margin of N65,605.34 per trader.

Introduction

From the botanical point of view, a fruit is a part of a plant or tree formed after flowers have died and in which seeds are formed (Hornby 1999). Tropical fruits such as oranges, bananas, apple, pineapple, coconut, pawpaw, mango, pear, guava, cashew etc are sweet. Fruits can also be any plant product used as food such as fruit juice, fruit cake, tinned fruit, dried fruit, fresh fruit etc (Rice et al 1993)

Fruits are important in tropics due to their carbohydrate and vitamin contributions to the diet. Most fruits contain large quantities of sugars and are high in vitamins A and C which are not abundant in most African staple foods. Since fruits are normally eaten fresh rather than cooked, the vitamin content is not diminished in preparation. The palatability and digestibility of fruits makes it easier to be consumed in large quantities. Thus, contributing markedly to the nutrient intake of the body. Fruits may also be economically important since they can produce large yields in small area and yet sell for high prices when compared to crops such as maize, groundnut or rice. This combination of high yield and high price means that in highly populated areas, farmers can make good incomes even from small farms. (Wilfred et al 1985).

Also, products from tropical fruit trees such as coconuts, cashew and many others enjoy wide popularity among millions of people all over the world. Millions of people are engaged in their cultivation as commodity crops while other process and trade in their products. Several million of hectares of fertile land in the tropics and to a less extent in sub-tropics are devoted solely to cultivation. Tropicalized green houses are built in temperate zone for experimental growing of these crops (Opeke, 1992). The importance of fruit cuts across various aspects, such as nutrition, ornamental, medicinal, livestock feed as well as source of revenue.

Nutritionally, bananas are eaten fresh as desert fruit, plantain can be cooked, fried, roasted or may be even pounded alone or with yam. Ripe guavas are eaten fresh or made into jam, jelly, paste or juice. Unripe mango fruit can be pickled, made into chutney ground into powder and made into soup.

Medicinally, the leaves of guava, mango, cashew and lime fruits are boiled and made into herbal concoction for treatment of malaria, convulsion and dysentery etc Pepsin which is a meat tenderizer (softener) is prepared from the latex of unripe pawpaw fruit. Ornamental fruit trees are planted to beautify the environs of the homes, public places etc. These trees include guava, mango, cashew, and some varieties of pineapple are grown as

ornamentals (David et al 1989). In spite of the advantages of fruit business, fruits are faced with problems attributed to factors associated with the availability of land and poor land use in the country (Onioueme, 1979).

According to Hayes (1988), the high price in the cost of the fruit products are influenced by factors that contributed to the wide fluctuations in the price of fruits and its product such as processing, packaging, storage, transportation, etc and also factors like weather variables. Other sources of increase in the cost of the products may be attributed to the distribution channels (i.e. middlemen; retailers; assemblers, whole sellers etc). However, what informed these studies are; (1) to determine the common fruits marketed in Niger state, (2) to examine the efficiency of fruit marketing, (3) to estimate the marketing costs and marketing margins of these fruits at the study area, (4) to examine the problems of marketing of fruits, and (5) to make necessary recommendations which when implemented will increase fruit marketing activities in the study area.

Methodology

The study was carried out in ten markets from ten different locations in Minna and its environs. These ten location falls within Bosso, Beji, Chanchaga, Kpankungu, Tunga, Gwari, Gwada, Maitunbi, Paiko and Mobil Central markets in Minna township. Data used were collected for a period of three months. Questionnaire was used in collecting data for this study. The questionnaire was structured in a way to capture the demographic characteristics of the fruit sellers as well as the prices, measures, transportation modes, and channels of fruit marketing. Ten markets were chosen with a sample of hundred (100) respondents. Ten fruit sellers were selected randomly from each of the markets enumerated above. The questionnaire was admitted through personal interview and in some cases the use of enumerators. The data collected were analyzed using descriptive statistics and gross margin analysis.

Results and Discussion.

Common Fruits Marketed in Niger State.

To determine the common fruits marketed in Niger state, a personal eye witness survey was carried out by visiting the major markets in Minna township. This visit revealed the commonest fruits marketed in Minna which are shown in table 1.

Table 1: Common fruits marketed in Minna

S/N	Fruit Types	Botanical Names
I	Citrus	Citrus Spp.
ii	Mango	Magnifera Indica
iii	Banana/Plantain	Musa spp
iv	Pawpaw	Carica papaya
v	Pineapple	Ananas Comosus
vi	Apple	Eugenia jambes or jambes syzygium
vii	Guava	Psidium guagra
viii	Coconut	Cocos nusivera
ix	Avocado Pear	Persea Omerica
x	Cashew	Anacardium occidentale

Source: Field survey, 2001

Gross Margin Determination

The essence of gross margin analysis was to determine the profitability of fruit market in the study area, and the results obtained are presented in table 2. as shown.

Table 2: Gross Margin Analysis of Fruit Market in Minna Per Annum

Market	Mean Total Cost (N)	Mean Gross Income (N)	Gross Margin (N)	Gross Margin Per Trader (N)
Bosso	47,897.00	695,017.00	647,120.00	64,712.00
Mobil	45,313.50	913,505.00	868,191.50	86,819.15
Gwadabe	49,467.50	642,000.00	592,532.50	59,253.30
Gwari	34,527.00	66,030.00	625,503.00	62,550.30
Tunga	20,517.50	706,750.00	686,232.50	68,623.25
Chanchaga	65,394.40	697,220.00	631,825.60	63,825.56
Kpakungu	35,645.00	769,650.00	734,005.00	73,400.50
Maitunbi	32,285.00	612,500.00	580,215.00	58,021.50
Beji	53,070.00	431,250.00	378,180.00	37,818.00
Paiko	37,463.00	754,200.00	716,737.00	71,673.00
Mean	42,157.99	638,812.20	656,054.16	65,605.34

Source: Field Survey Data, 2001

Table 2 reveals the gross margins recorded per trader at the different markets studied. A gross margin of-N71,073.00 per trader recorded in Paiko may be as a result of it's closeness to Minna town. However, from these results, Mobil market recorded the highest gross margin of N 86,819.15. This may be attributed to the fact that the market is the most popular and highly patronized market in the town, clearly due to the high population density in the town consequently leading to higher demands. The lowest gross margin of "N37,818.00 was recorded in Beji market. This may be caused by very low demand for fruits among the villagers. An average marketing margin of-N65,605 =34 revealed in the study area is considered not too large but reasonable. It is however, worth mentioning that the size of the marketing margin would have been greater if the number of intermediaries involved were fewer.

Revenue Realised By Traders

It is important to mention that the amount received for fruits among other factors depend on the season of harvest, period of sales, size of fruits, quality of fruits, variety of the fruits, market area as well as the type of processing, storage and transportation of the fruits. Analysis of revenue and cost is shown in table 2 above. Respondents in the study area disclosed that there is profit in fruit marketing business. They were however, unable to give comprehensive information on gains made per unit measurement of fruit sold. This may be attributed to the fact that retailers have no measure for selling fruits and therefore, fruits were observed to be sold loose and the prices varied between traders and even within a particular area.

Hence, fruit of the same size attract different prices within the same market at the retail level. Unlike the retailers, the wholesale level showed no much price difference in the study area. It was observed that prices of fruits in the big markets were higher than those of the smaller markets. This might be due to higher number of participants in the marketing and cost of transportation to and from places of purchase.

Market Conduct and Structure Standard of fruit measurement:

Fruits were sold using a variety of measures, such as the standard basket, standard baskets, big jute bags, small jute bags a load of pick up van, a load of lorry, a kilogram of fruit weight, unit (pyramidal) and single sales. At the wholesale level standard measures such as bags, baskets and basins are used. However, a multitude of measures characterize retail trade. These range from selling a single fruit to a kilogram of fruits. Fruit producers and wholesalers sell and buy mostly in the same measures. Each of this attracts different prices. During the period of survey, a fruit of sweet orange, apple, paw-paw, pineapple, coconut sold for N5, N35, N40, N50 and N30 respectively depending on the quality and size. Thus, because the survey covers the available fruits in the study area, the costs of fruits in different measurements are not analyzable since different fruit have different measurements and command different prices at certain conditions.

Transportation

One of the physical functions in the channel of distribution in marketing is the transport function. It entails the movement of agricultural products from one location to another. Thus, adding to the commodity the utility of place which is the satisfaction a consumer derives as a result of having the product he wants at the right time and in the right place.

Table 3: Traders Means of Fruit Transportation

Types of transportation	No of Traders	Percentage
Head potter age	4	4.1
Wheel Barrow	26	26.5
Pick-up	52	53.1
Loading	11	11.2
Others	5	5.1
Total	98	100.00

Source: Field Survey Data 2001.

The table revealed that 64.3 percent of fruit traders relied on modern means of transportation that is pick-up for conveying their products to the market. 26.5 percent of the traders conveyed their fruits using wheel barrow (which is an improvement on head potter age). While 4.1 percent relied on head carriage for transportation. Few others however, conveyed their fruit through various means like bicycle, motorcycle, taxi cab, bus, ferry etc. The choice of transportation by the traders depends on the quantity of fruits and the distances between the location of supply and the market. The use of modern means of transportation which takes care of distant locations is expected to affect the marketing price of fruits by increasing the transportation cost.

Storage

This involves the handling of a commodity from the time of harvest until they are needed. This means that storage confers on a commodity, the utility of time. The moisture content of fruit influences the storage quality. A high level of moisture content gives fruit a poor keeping quality. Storage of agricultural products generally influences the shelf-life and price variability of the product (Isesele, 1997). If fruits cannot be stored for long, it means that its supply cannot be regulated which indirectly explains the fluctuation in fruit market price.

Table 4: Fruit Storage Site Used by Respondents

Storage Site	No of Traders	Percentage.
Regulated fridge at home	-	-
Rented stall in the market	32	32.7
Owned stall in the market	37	37.8
Others	29	29.5
Total	98	100.00

Source: Field survey, 2000

The result revealed that all the ninety eight (98) respondents stored their fruits. It is evident that those who have their own personal stall in the market did more of storage with 37.8 percent out of the ninety eight traders. While the use of rented storage and other forms of storage revealed 32.7% and 29.5% respectively. The storage carried out by the traders were the traditional type where jute bags are placed in a big basket or on a wooden shelf in a well aerated environment. The fruits are then arranged in the basket and wetted. This type of storage is however not meant to be for a long period of time. A storage loss of 1 or 2 fruits out of 10 was incurred. Nevertheless, some who incurred these remarked that they sometimes pass the loss to their customers by increasing the selling price. Although this may depend on market situations.

Processing.

The physical function of marketing that involves the conversion of agricultural products from its raw state to a form more acceptable to consumer is termed processing. It adds to a commodity, the utility of form. The processing of fruits cannot be over emphasized looking at the constant level of, fruit loss and spoilage especially during periods when they are in season. Example, a look around when mango fruit is in season presents a number of fruits lying around in waste and consequently spoilage. The conversion of such fruits to juices wine, jam, jelly, cake, chips, flour flavour e.t.c. gives the product a better keeping quality, adds revenue and importantly makes this fruit available to consumers even when it is not in season.

The traditional method of fruit processing in the study area is by peeling, slicing (optional) and roasting (as in plantain). Peeled oranges are sold in the market and sliced pawpaw, water melon and pineapple are also sold too. Marketing of fruits in the processed form is not very common because the major marketers of fruits deal mostly in fresh fruits. Its marketing is found mostly among those traders involved in the marketing of general food items at retail capacity.

Marketing Channel for Fruits.

Marketing channel is the path in which a commodity moves from production point until it reaches the final consumer. This is an important aspect of fruits marketing because of their high degree of spoilage. Therefore, this study showed that the fruits moved from the farmers (producers) through the commissioned agents to the local assemblers, then through to the wholesaler and another set of commissioned agents before they got to the retailers, and to the final consumers. There were interlinks along these movements. But generally, the channel could be regarded as decentralized in nature, more so production points were scattered and no acceptable central place of assembling the fruits before haulage.

Efficiency of fruit marketing.

Marketing efficiency of fruits in the study area could be regard as very poor judging from the conduct and structure of the market in which there was absence of standard weights

and measures, storage was done by traditional methods, processing was carried out using local and crude facilities, lack of organized market for fruits, and little or outright absence of modern facilities required in any standard market.

Problems associated with the marketing.

Problems associated with the marketing of fruits in the study area are poor transportation, inadequate storage facilities, inadequate credit facility, poor pricing, weight and measure variation, poor record keeping and lack of space for fruit marketing activities, and inadequate processing units in the town

Conclusion.

Different fruit marketing constraints were identified during the research work. The elimination of these constraints would improve the marketing structure of fruits. However, this might require a huge capital investment on the governments side.

Recommendations

Urgent problems such as the poor transport situations, the provision of good storage facilities, credit facilities at both producers and traders level. Detailed planning is required for the actualization of effective fruit marketing. The government should address the low state of infrastructural facilities in order to minimize transportation cost. There should be provision of storage facilities and processing units (e.g fruit making industries) to minimize fruit wastage and losses. Marketing cooperatives should be motivated to handle fruits efficiently as a necessary step towards guaranteeing reasonable fruit prices.

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