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# PROFITABILITY OF PINEAPPLE MARKETING IN OWERRI, IMO STATE, NIGERIA

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## ABSTRACT

*The study article examined the profitability of pineapple marketing in Owerri, Imo State, Nigeria. Owerri was purposively chosen because there are markets in the city where pineapple is traded and the inhabitants purchase and consume them. Data collected was from sixty randomly selected marketers of pineapple. Quesstionnaire was the instrument of data collection. Descriptive statistics, flow chart and net margin principle were used to analyse the data. The result of the field data showed that that the major flow for pineapple marketed in Owerri was producers to wholesalers, to retailers and finally consumers. The marketing and gross margin for pineapple was N25601/ tonne and N18682/tonne respectively. The total cost of marketing pineapple including imputed cost was N50581.23/tonne and the gross return was N60285/tonne. The net return for management and risks was N9703.77/tonne. Efficiency of marketing was 1:70 or 70%. Pineapple marketing had constraints with high cost ranked very highly.*

## INTRODUCTION

Pineapple is a fruit and according to Samson (1980), it is the developed ovary of a flower resulting after fertilization has taken place. Pineapple is a good source of Vitamin A and C. It contains organic acids, ethereal substances, Pigments, and tannis. It originated in tropical America and introduced by Portuguese traders to Europe, India and other Parts of the World including Africa. (Anochili and Tindall, 1986). When the fruit mature, it is picked by hand and carried in baskets or other containers to a roadside for collection with vehicle. It is processed by canning and most pineapple producing regions have cannery which produce canned pineapple in various forms (Williams and Chew, 1980) and are meant for export to earn foreign exchange.

In Nigeria, there has been low or inadequate availability of pineapple for consumers (Chinweze, 2003). This may be as a result of inefficient marketing and distribution system. The importance of marketing in stimulating the production and consumption of agricultural productions has been established (F.A.O. 1970). But in most developing countries such as Nigeria, research efforts have been on production with the result that gains in production have been lost through inefficiencies in marketing (Anochili and Tindall, 1980; Samson 1980). Besides, the quantity available for consumption and the price paid by consumers for this product depend on how efficient the marketing system function in terms of costs and returns of marketing operations (Abbot and Makeham, 1979). Adegeye and Dittoh (1982)

observed that lack of information flow or presence of too many or too few middlemen in the marketing system, often, result in differences between the prices paid by the consumers and prices received by the producers. Moreover there is little or no study on the profitability of pineapple marketing in the study area. It therefore becomes necessary that a study on profitability of pineapple marketing be carried out to specifically ascertain its costs component, channel of distribution and marketing constraints in Owerri, Imo State, Nigeria.

## 2. Materials and Methods

The study was conducted in Owerri municipal council Area of Imo State, Nigeria. The area was intentionally chosen because though the inhabitants do not grow pineapple, a large proportion of them consume the product. This, they purchase from the three major markets in the study area namely, Relief, Ekeukwu and New markets. A sample of sixty pineapple marketers was randomly made from a list of pineapple marketers in these markets. This list constituted the sample frame. Twenty of the respondents were selected at random from each market. The respondents selected deal mostly on fruits including pineapple. Pineapple is marketed when most other fruits are off-season. This made it easy for the researcher to capture the marketing expenses incurred by the marketers during the study.

Primary and secondary data were collected and used for the analysis. The primary data were collected using structured questionnaire. Data were collected on socio-economic characteristics of the marketers, channels of distribution of the pineapple, costs and returns involved in marketing 1000kg of pineapple, the marketing equipment were depreciated using the straight line method of depreciation. Data were analyzed using simple statistical tools. Net return (profit) from pineapple sales was determined using net margin principle

$\pi = TR - TC$

Where

$\pi$ = Net profit, TR = Total Revenue

TC = Total cost

Marketing efficiency is derived as a ratio of marketing input to marketing output. Such inputs as labour, capital, land and management are used in performing marketing functions (Kohls and Uhls, 1980) while the major outputs are the consumers' satisfaction with the goods and services.

**The decision rule:** if the ratio in high above 0.5, it means that the market is efficient, if it is low below 0.5 it means that the market is inefficient (Kohls and Uhls 1980). However, marketing efficiency could be measured as the total estimated cost as a percentage (Farrel, 1957). Flow chart was used to show the channel of pineapple distribution in the study area from the farm gate to the consumer. The constraints or inhibitions to pineapple marketing were ranked with one as the most serious constraint.

## 3. Results and Discussion

### 3.1. Socio economic characteristics of pineapple marketers

Table 1 shows that 45% of the respondents are between 25 and 34 years while about 37% are between 35 and 44 years. These years are the most active and productive of part of human life and very useful in business. Majority of the respondents (63%) had been in the business for at least five years. Majority (78%) had household size of more six persons. Seventy five percent of the respondents are females. This means that pineapple marketing is a woman dominated business in the study area. Eighty eight per cent of the respondents are retailers. Only 12% of them are wholesalers. The fewness of the wholesalers could be attributed to the early perishability of the pineapple fruit arising from its difficulty to store for longer periods. Majority (58%) of the pineapple marketers surveyed had primary education. Forty two per cent had post primary education. However, it was observed that formal education is not a requirement to be a pineapple marketer.

**Table 1: Percentage distribution of respondents according to socio-economic characteristics**

| Socio-economic variables | Frequency | Percentage |
|---|---|---|
| Age (Years) | | |
| 25 – 34 | 27 | 45 |
| 35 – 44 | 22 | 36.70 |
| 45 – 55 | 11 | 18.30 |
| Trading/Marketing experience (Years) | | |
| 1-5 | 38 | 63.30 |
| 6-10 | 22 | 36.70 |
| Household size | | |
| 2-5 | 13 | 21.70 |
| 6-10 | 26 | 43.30 |
| 11-15 | 21 | 35.0 |
| Gender | | |
| Male | 15 | 25 |
| Female | 45 | 75 |
| Marketer Classification | | |
| Retailer | 53 | 88.30 |
| Wholesaler | 7 | 11.70 |
| Level of Years of formal Education | | |
| 1-6 | 35 | 58.30 |
| 7-13 | 25 | 41.70 |
| Source of initial capital outlay Isusu | 13 | 21.70 |
| Personal savings | 52 | 86.67 |
| Bank loan (community Banks) | 4 | 6.70 |
| Gift | 24 | 40.00 |

**Source:** Field data 2003

The major source of initial capital outlay for the pineapple trading business was personal savings (87%) and gift from friends and relations 40%. Only about seven percent indicated having obtained capital from community banks and these are mainly the few wholesalers interviewed.

### 3.2. Sources of Pineapple and channel of distribution

The major sources of pineapple marketed in the study area were Obiti (42%), Awara (32%) and Umuagwo (27%). The flow chart through which the pineapple move from the producers (farm gate) to the consumers is shown in figure 1.

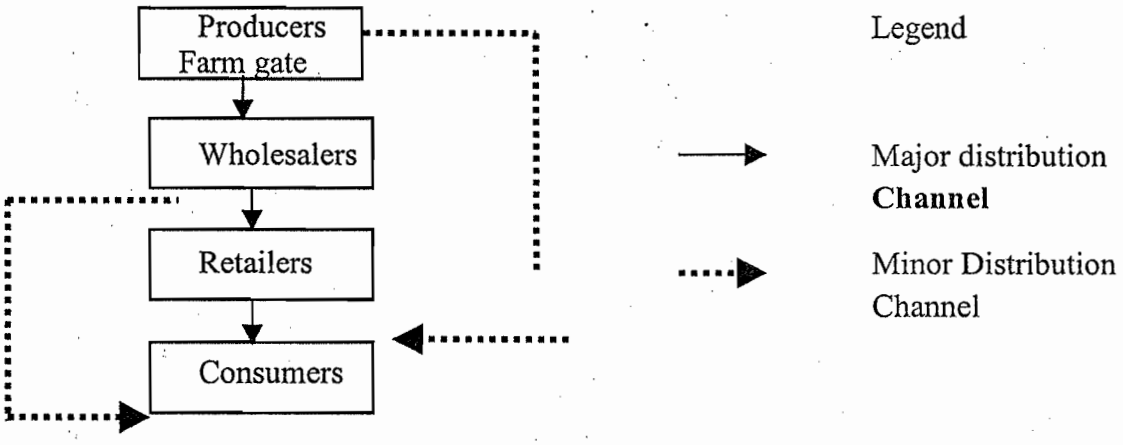


**Figure 1:** Marketing channel for pineapple in Owerri, Imo State source. Field data 2003.

The majority of the respondents (77%) indicated that in the distribution of pineapple, it flows from the producers to the wholesalers, retailers and consumers. About 15% stated that the movement starts with the producers to the retailers and finally to the consumers. Only eight percent indicated that the pineapple flowed from the producers through the wholesalers and them to the consumers. This channel of pineapple distribution ensures that its production is efficient and complete since it enables the product to move from the rural production points to the urban final consumer points. A channel of distribution is considered to have ended when the product is significantly altered by processing or consumption (Chinweze, 2003).

**3.3. Marketing Margin, Costs and Returns Analysis of Pineapple Marketing Operations in Owerri Municipal:** Marketing margin is the difference between the consumer price and the price received by the producer or farmer (Adegeye and Dittoh, 1982). This is presented in table 2. The marketing margin was derived as ₦25601 per tonne of pineapple marketed. The gross margin was computed as ₦18682 per tonne. This represent about 30.81% of the marketers Gross returns. The marketing margin, costs and returns were computed based on an average of 1.1 tonnes of pineapple bought and marketed by the respondents. However, the respondents incurred a loss of ₦4668 due to spoilage.

**Table 2:** Marketing margin, costs and Returns Analysis of one tonne of Pineapple.

| Item | Average Amount (₦) |
|---|---|
| Sales Receipts (Gross Returns per tonne) | 60285 |
| **Variable costs** | |
| Trading Stock (1100kg) | 34684 |
| Transportation cost (1000kg) | 1653 |
| Marketing tax | 112 |
| Cost of feeding during marketing | 486 |
| Spoilage cost | 4668 |
| Total variable cost (TVC) | 41603 |
| Gross Margin (GR– TVC) | 18682 |
| Marketing Margin (GR-Trading stock) | 25601 |
| *Fixed costs* | |
| Storage rent for the duration of the sale (1week) | 109 |
| Union fees and dues | 100 |
| Security fees | 220 |
| Depreciated equipment | 260 |
| Total fixed cost (TFC) | 689 |
| Total Cost of Marketing | 42292 |
| Net Return (Capital, risk and management) | 17993 |
| Opportunity cost of capital at 19.6% 2003 interest rate | 8289.23 |
| Total cost | 50581.23 |
| Net Return (Risk and management only) | 9703.77 |

**Source**: Field data, 2003

Table 2 shows that total variable cost per tonne of pineapple was N41603 and was made up of cost of the trading stock (83.37%), Spoilage (11.22%) and other variable costs (5.41%). Spoilage could be attributed to the perishability of pineapple, lack of and poor storage and preservation facilities for pineapple in the study area. Thirty-eight percent of the total fixed cost was the depreciated value of the traders equipment (basins, tables, baskets) while thirty two percent was the value for security expenses made on the security men who guard the market stalls. The variable cost (₦41603) accounted for 98.37 of the total cost of pineapple marketing operations of ₦42292 per tonne.

The marketers net return from marketing operations was computed as ₦17993/tonne. This net return represent 42.55% of the total cost of marketing operations. The implication is that for every one naira invested in the marketibusiness, the respondent gained 43 kobo for capital, management and risk used for the operations. However, if the imputed cost or opportunity cost of capital is put at 19.6% the reigning interest rate during 2003 fiscal and monetary policy period, the marketers net return to risk and management becomes ₦9703.77 or 19.19% of the cost of marketing. This implies that for every one naira spent in the

marketing operation including imputed cost, the respondents benefit 19 kobo which is not too high considering the significance of marketing services in the production and distribution channel. The marketing efficiency for pineapple was computed as 70% or 1:70. This means a high marketing efficiency. This is inspite of some marketing hindrances. Improvement on these hindrances could further improve the efficiency in the product marketing. Nwosu (2003) noted that economic efficiency in maize grain wholesale marketing could be improved by solving the problems associated with maize grain production, distribution and transportation.

**3.4. Inhibitions of pineapple marketing in the study area:** The ranking of the marketing problems of pineapple (table 3) indicated that the most critical of all was high cost of pineapple per kilogram weight which is a function of high marketing costs including high transportation cost, high spoilage cost, security, storage, union dues and poor road network to the production centres. The respondents also face the difficulty in obtaining credit facilities that could have enabled them make meaningful living from their marketing business. This difficulty in sourcing for credit by the respondents had the consequence of low capital base, low investment and low profit margin in the pineapple marketing. Table 3 shows the constraints in pineapple marketing according to ranks.

**Table 3: Constraints in pineapple marketing according to rank**

| Constraints | ranking |
|---|---|
| High cost of pineapple | 1 |
| Poor road network | 5 |
| High spoilage rate/perishability | 2 |
| Poor storability | 6 |
| Difficulty in obtaining credit/finance | 3 |
| Insufficient demand for pineapple | 7 |
| High marketing cost | 4 |
| People's interest in other fruits | 8 |

**Source:** Field data 2003

## 4. Conclusion and Recommendations

The pineapple marketers make marginal profit in the business. The marketing efficiency is low due to constraints in the marketing system. For improved profitability from pineapple there is an urgent need for the marketers and government to improve upon the pineapple marketing associated problems such as high cost of the fruit, spoilage, storage facilities, credit facilities, and road network among others. There is also a need to undertake a further study on marketing operations for pineapple with a view to better understanding and determining the nature of pineapple and measures for improvement in the marketing of this all important fruit in the study area.

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