



ECONOMIC ANALYSIS OF MAIZE MARKETING IN KADUNA NORTH LOCAL GOVERNMENT AREA OF KADUNA STATE



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Abstract

A survey of hundred (100) traders in four markets in Kaduna north (Unguwan Rimi, Unguwan Dosa, Kawo and Central Market), the traders were purposively selected and the data were collected through the use of structured questionnaire along side with oral interview. The analytical tools used for the study were descriptive statistics, marketing margin, marketing efficiency and marketing channel. The basic objectives were to determine the structure of the market, estimate the performance of the market and identify the problems of maize marketing system in the study area. The results from the study showed that there were relatively large numbers of retailers engaged in maize marketing in the study area. The average marketing margin was 14 % and the marketing efficiency was 298 % which showed that maize marketing was relatively efficient and profitable. The study however revealed that there were some constraints in maize marketing, which posed as a problem on the efficiency of the marketing system. Among these problems were price fluctuation, inadequate finance, lack of market facility, low selling price and inadequate transport facilities.

Keywords: Maize, marketing margin, marketing efficiency, marketing channel.

INTRODUCTION

Maize (*Zea mays*) production in Nigeria has greatly increased due to improved agricultural and marketing practices (Stella, 2005). In recent years, economics of marketing of some agricultural produce has continued to attract attention and consideration. This is because of the express need to increase the world food population to meet the requirement of the growing population and individual development for effective agricultural production and attaining self reliance (KADP, 1996). Maize belongs to the family gramineae and genus *zea*, growing between latitude 50°N and 10°S of the equator (Ogunsami *et al.*, 2002). According to Nwere (1998), maize originated in the Western Hemisphere, possibly in American but now cultivated in many parts of Africa, Europe and Asia. It is an important food crop grown in Nigeria, Ghana and Sierra Leone. It forms the major starchy food consumed by both man and animals in Nigeria. Maize is one of the most widely distributed of the world's food plant. It can either be eaten boiled, roasted, popped as pop corn, used as maize powder and also form the basic ingredient used for livestock feed (Edoka *et al.*, 2010).

Maize is becoming a miracle seed for Nigerian agricultural and economic development (Adeola & Akinwumi, 1993). It has established its self as a very significant component of farming in the Northern State. However, the cultivation of maize is now known to be increasing in comparison to the southern

part and adoption of improved seeds had led to the expansion of maize production in the northern parts of the country (Alamu, 2000). The prevalence of high level of food insecurity, malnutrition and high level of food among other factors have been traced to poor agricultural product distribution and marketing system that resulted into excessive loss of food produce (Abubakar, 1997). Most farmers in Kaduna North are actively involved in maize production which is often inter-planted with sorghum, millet, cowpea, etc. As a result of this, high volume of production attracts large number of marketers who engage in marketing and distribution of maize in the various markets in Kaduna North (Stella, 2005). Olukosi *et al.* (1990) also reported that within the marketing system of crops such as maize, millet, sorghum, etc price allocation of resources, income distribution and capital formation are usually determined. Therefore, the marketing efficiency of wholesalers will have significant effect on the total production of output.

Marketing of agricultural produce have tremendously improved the economic development of many countries. At the subsistence level, each family unit must grow all its own food and satisfy its demand for housing, clothing and all other necessities and human wants. It was also found that improvement in economics of maize marketing system has led to expansion in the volume of trade, rise in the standard of living of all people concerned and increase in the

economic growth of the country in general (Aweto, 1996).

The specific roles of marketing can be stated as follows:

- Cash return to producer depending on the effective marketing organization to bridge the gap between the producers and consumers.
- Certain functions of marketing ensure the stabilization of price of agricultural produce.
- Marketing place value on goods and services.
- Detailed marketing knowledge and research help in better use of scarce resources at the farm level since where, when, and how much to produce are essential in determining which produce are to be grown and the type of varieties.

Marketing of agricultural produce is often hampered by lack of uniformity of various farm produce and small scale production which poses problems during standardization. The problems are known to be responsible for low increase in marketing efficiency and fluctuation in prices of agricultural products (Olunugu, 2005). The incidence of pest and disease infestation on maize before and after harvesting reduces the quantity and quality of maize and in turn discourages buyers and reduces the market value of the crop (Kylogwon, 2001).

Inadequate marketing channel facilities and poor incentives to the farmers reduce the market efficiency. In addition, there are also informations about the marketing activities of food crops such as maize in the study area which are not known. The broad objective of the study was to determine the economic of maize marketing in Kaduna North Local Government Area and the specific objectives were to identify the socioeconomic characteristics of maize marketers in Kaduna North Local Government Area, to describe the marketing channel involved in maize marketing in the study area, to determine the marketing margin of maize in the study area, to determine the marketing efficiency of maize in the area and to identify and describe the constraints encountered by maize marketers in the area. Marketing involved all those legal, physical and economic services which are necessary to make the product from the farm available to consumer at the prices consumers and middlemen are willing to pay to take possession (Abbot & Makham, 1979). Jones (1974) defined marketing as the performance of all those business activities that direct the flow of goods from the farmers to the final consumer and which makes a commodity available at the right time; place and act a convenient form possible for the consumers.

According to FAO (1997) marketing is also defined as the movement of agricultural products from where it is produced to the consumer or manufacturers. This includes physical handling and transportation, initial processing and packaging, grading and quality control

to simplify and meet different consumers' requirement. Marketing can further be defined from two different perspectives namely: macro and micro view point. From the micro view point, agricultural marketing was defined as the performance of all business activities which direct the forward flow of goods and services to consumers in order to accomplish the producer's objectives while the micro view point examines the total system of economic activities concerned with flow of agricultural produce from the producer to the consumer. Marketing of maize has created a great impact in the entire life of the people. Economic of comparative advantage which states that, a nation should concentrate on producing goods that has little cost advantage. This has called for the existence of specialization and exchange; therefore, people can now exchange what they can produce with what they cannot produce. This can only be achieved through marketing. Marketing has equally helped both developed and undeveloped countries to move to a more advanced stage. Hence, the importance of maize marketing in the economy's development cannot be over emphasized. Kohl (1998) stated that for farmers to adopt improved production techniques such as fertilizer, seed and cultivating machinery in order for farmers to adopt such changes, however, they must also be able to sell their products profitably to someone else. Olukosi & Isitor (1990) summarized the importance of marketing in economic development as follows:

- i. Marketing providers detailed knowledge to the producers in order to know how to go about their production process.
- ii. It helps to provide an effective distributive organizational frame work necessary in production and consumption of commodities.
- iii. Marketing improves market organization and facilities which enables the farmers to take full advantage of the favourable production opportunities.

Detailed studies on marketing have shown that numerous numbers of people (middlemen) are actively involved during the movement of agricultural commodity from the farms to the final consumers. Marketing channels are defined as the path of the commodity from production to consumption (Adekanye, 1998). He further stated that the marketing channel is either centralized or decentralized. A centralized marketing channel is one in which commodities are assembled in central and terminal markets they are purchased by wholesaler from farmers agent. Decentralized channels do not have such large assembling marketing facilities and traders buy directly from farmers (Adekanye, 1998). Olukosi & Isitor (1990) defined marketing channel as the pathway of a commodity from its raw form to the finished form or path of a product as it move from the producer to the final consumer through the various agencies involved in marketing.

MATERIALS AND METHODS

Study Areas

The study was conducted in Kaduna North Local Government Area of Kaduna State. It is located between latitude 10° 35' North and 10° 40' North and longitude 7° 25'E and 7° 20'E. The Local Government is bounded within the Sahel Savannah region of the country with an annual rainfall of 500mm with land mass of 45, 569 square kilometre with a population of 357, 694 persons. The Local Government Area is bounded in the North by Igabi Local Government Area and to the West by both Kaduna South and Igabi Local Government areas. The major markets in Kaduna North are Central, Kawo, Unguwan Rimi, Badarawa and Unguwan Dosa markets respectively. The major ethnic groups in the Local Government Area are Hausa, Gbagyi, Fulani, Kadara, Jaba, Bajju, Kagoro, Kagoma, Ikulu, Ayu, Yoruba, Igbo, Idoma, Tiv, Jukun, Igala, Nupe and Efik, respectively. The major occupations of Kaduna North inhabitants are civil servants, traders and farmers and the major crops grown in this area are maize, rice, beans, fruits and vegetables. They are also involved in animal rearing.

Five markets in Kaduna North Local Government were used such as Central, Kawo, Unguwan Rimi, Badarawa and Unguwan Dosa markets for the purpose of the study. A random sample of twenty marketers were selected from each market which made up a total of 100 marketers selected from the five markets, however out of the distributed questionnaires only 92 were retrieved and used for the study. These markets were chosen because they were involved in the marketing of maize and a reasonable number of maize marketers were found there. Descriptive statistics involving frequency distribution, mean, range and percentages were used to summarize the socio economic characteristics of the maize marketers. The margin and efficiency were computed using marketing margin and marketing efficiency respectively and are computed below:

Marketing margin is defined as the difference in price between what the farmer receives from certain products and the amount the consumer pays for an equivalent amount of the product.

Marketing margin =

$$\frac{\text{selling price} - \text{supply}}{\text{selling price}} \times 100$$

Marketing efficiency is defined as a measure of productivity of the resource engaged in marketing.

Marketing efficiency =

$$\frac{\text{value added by marketing}}{\text{cost of marketing services}} \times 100$$

RESULTS AND DISCUSSION

Socio economic characteristics of maize marketers

Table 1 showed that majority (54.35 %) of the respondents were males and 45.65 % were female. This shows that males are more involved in maize

marketing compared to females in the study area. The table showing the ages of the respondents shows that (63.04 %) of the respondents were between the ages of 21–50 years which is termed as the youthful or active stage, showing that majority of the maize marketers are mainly in their active stage. This result agreed with the findings of Rahman *et al.* (2002) who showed that the age of marketers influence their decision in areas of resource allocation which makes it more likely for them to try new technology. 81.52 % of the respondents were married, showing that married men and women were actively involved in maize marketing in Kaduna North, while 15.22 % were single and 3.26 % were widowed respectively. This means that majority of the marketers were married and their engagement in maize marketing is to cater for their family need (Aloko, 2010). Moreso, their children can take care of the labour involved in terms of marketing. The table also shows that majority of the respondents (48.91 %) attended secondary and tertiary institutions, which does not only raise their productivity but also increases their ability to understand and adopt innovative packages associated with marketing. The results also showed that a good number of the respondents (25.00 %) had no formal education and only 28.09 % claimed that they attended primary school. This is in agreement with the earlier works of Usman *et al.* (2006) which showed that 83.3 % of Garcinia kola sellers in Ibadan were not having formal education, found it difficult to get information and adopt to new information on modern ways of marketing agricultural products. It shows that 51.07 % of the respondents were retailers who purchase their produce in small quantity and sell likewise. Also 44.57 % were wholesalers while 4.34 % were commissioning agents. The years of experience in maize marketing by the respondents showed that 56.71 % have been marketing maize between 1–10 years, while about 42.39 % have been marketing maize between 11–20 years. This shows good indication for risk management, resulting in better marketing performance.

Table 1: Distribution of the farmers according to their socio-economic characteristics

| Socioeconomicgroup | Frequency (n=92) | Percentage |
|-----------------------------|-------------------------|-------------------|
| Gender | | |
| Male | 50 | 54.45 |
| Female | 42 | 45.65 |
| Age (years) | | |
| 21–30 | 18 | 16.56 |
| 31–40 | 18 | 16.56 |
| 41–50 | 22 | 20.24 |
| 51–60 | 25 | 23.00 |
| 61–70 | 9 | 8.28 |
| Marital Status | | |
| Single | 2 | 1.67 |
| Widow | 1 | 0.83 |
| Married | 117 | 97.5 |
| Educational Status | | |
| Primary education | 24 | 26.09 |
| Secondary education | 38 | 41.30 |
| Post secondary education | 7 | 7.61 |
| Quranic school | 23 | 25.00 |
| Status | | |
| Wholesalers | 41 | 44.57 |
| Retailers | 47 | 51.09 |
| Commission agents | 4 | 4.34 |
| Marketing experience | | |
| 1–10 | 53 | 57.61 |
| 11–20 | 35 | 38.04 |
| 21–30 | 4 | 4.35 |

Source: Field Survey, 2011

The Marketing Channel

Fig. 1 showed the marketing channel for maize in the study area. The participants involved were the farmers, rural assemblers, commission agents, manufacturers and processors wholesalers, retailer and consumers who buy directly from the farmers, merchant middle men and from others down the chain.

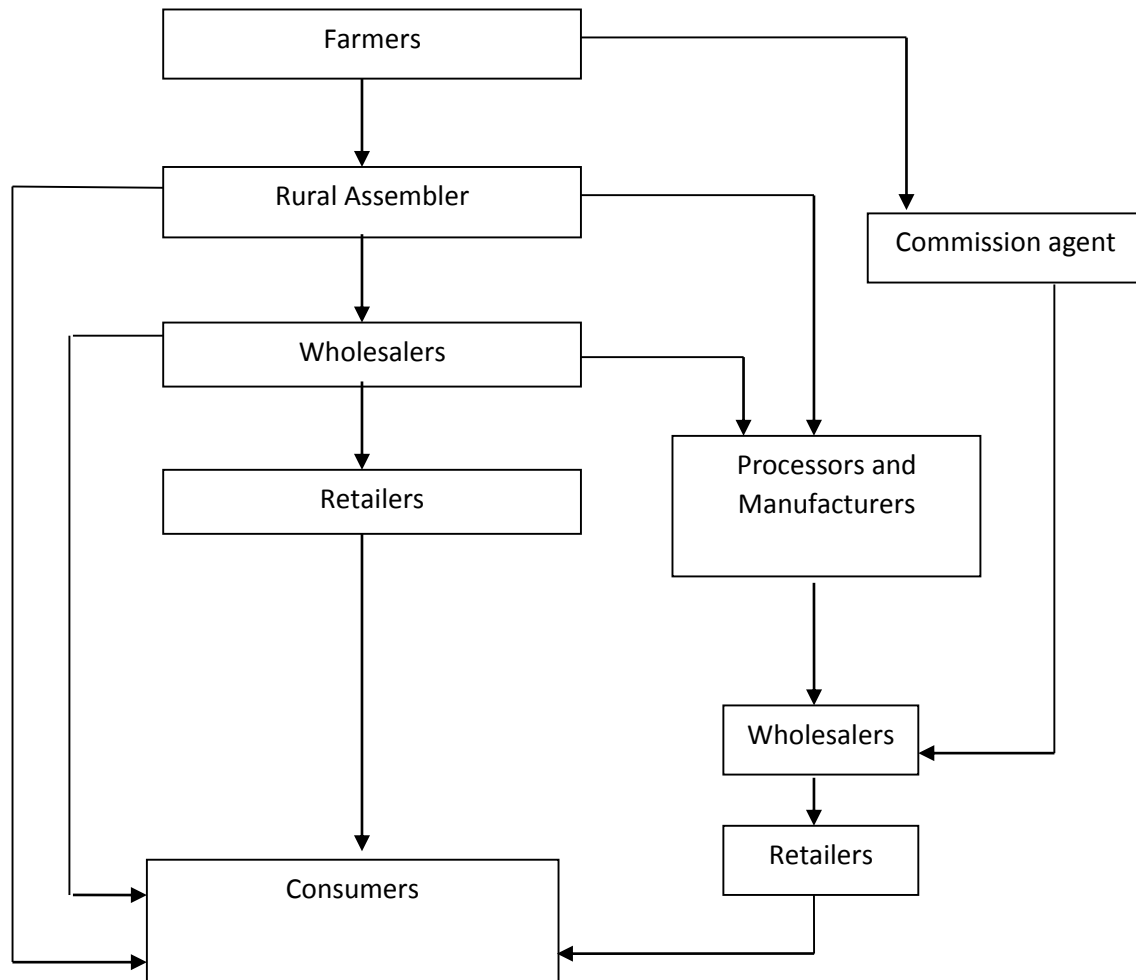


Fig. 1: Marketing Channel for Maize in Kaduna North; **Source:** Market survey, 2011

Marketing Margin and Marketing Efficiency

Marketing margin was used as a measure of market performance in the market. The marketing margin of maize in Kaduna North was presented in Table 2. It shows the average price received in the four markets. This includes the price received by the producers, farmgate price or supply price and the price received by the retailers which is the selling price. The cost of marketing includes cost of transportation and handling at ₦114, market charges at ₦24, storage cost at ₦80 and commission paid to agent at ₦70. The marketing profit was 66.27 while the marketing profit

as a proportion of marketing margin was 288. Marketing efficiency was also used as a measure of market performance and was also shown in Table 2. The table shows the producer's price, cost of marketing, retail price and value added by marketing for the four markets. The value added by marketing services comprised of the retail price at the farmer's level where the retail price was ₦6144 while the producer's price was ₦5285, so the value added by marketing was ₦6144 subtracted from ₦5285 which gives ₦859.

Table 2: Marketing margin and marketing efficiency in Kaduna north local government area of Kaduna state

| Marketing services | Cost |
|-------------------------------|-------------|
| Producers price | 5285 |
| Selling price | 6144 |
| Market cost | |
| Cost of transportation | 114 |
| Storage cost | 80 |
| Commissioning agent charges | 70 |
| Charges by market authorities | 24 |
| Total | 288 |
| Marketing margin | 13.98 |
| Marketing profit | 65.54 |
| Value added | 859 |
| Marketing efficiency | 298.26 |

Source: Field Survey, 2011

Problems Affecting Maize Marketing

Table 3 shows the distribution of the problems associated with maize marketing in the Local Government Area it showed that, price fluctuation, inadequate finance and lack of marketing facilities which were 38.76 %, 30.61 % and 18.37 %, respectively were the major constraints to maize marketers in the arera.

Table 3: Distribution of respondents according to the problems associated with maize marketing

| Problems | Frequency | Percentage |
|------------------------------|------------------|-------------------|
| Price fluctuation | 38 | 38.76 |
| Inadequate finance | 30 | 30.61 |
| Lack of marketing facilities | 18 | 18.37 |
| Lack of transportation | 8 | 8.16 |
| Low selling price | 4 | 4.08 |
| Total | 98* | |

Source: Field survey, 2011; Multiple responses*

CONCLUSION

Maize has a lot of economic benefits in terms of production, marketing and its uses. Based on the finding the study concluded that maize marketing in the study area was profitable and efficient, and that both the problems of price fluctuations and poor marketing facilities could be improved with policies make to stabilize prices so as to reduce loss also good and better marketing facilities should be provided by the government for efficient marketing performance.

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