



# University of Nigeria

## Research Publications

<b>Author</b>	<b>OLUOHA, Josephine N.</b> <b>PG/MBA/00/31725</b>
<b>Title</b>	<b>Marketing Of Rice in Nigeria (A Case Study Of Ebonyi State)</b>
<b>Faculty</b>	<b>Business Administration</b>
<b>Department</b>	<b>Marketing</b>
<b>Date</b>	<b>March, 2003</b>
<b>Signature</b>	

**MARKETING OF RICE IN NIGERIA  
(A CASE STUDY OF EBONYI STATE)**

**PRESENTED BY**

**OLUOHA JOSEPHINE NNENNE**

**REG. NO. PG/MBA/00/31725**

**TO**

**SUBMITTED IN PARTIAL FULFILMENT  
FOR THE AWARD OF THE DEGREE OF  
MASTER OF BUSINESS ADMINISTRATION  
(MBA) IN MARKETING**

**TO**

**DEPARTMENT OF MARKETING FACULTY OF  
BUSINESS ADMINISTRATION UNIVERSITY OF  
NIGERIA ENUGU CAMPUS**

**MARCH 2003.**

## DEDICATION

To God who is the source of my strength and blessed  
Mother Mary my Ideal Mother.

**CERTIFICATION**

This is to certify that Oluoha Josephine Nnenne, a post-graduate student in the department of marketing and with registration number: PG/MBA/00/31725 has satisfactorily completed the requirement for the award of the Degree of Master of Business Administration (MBA) in Marketing.

We therefore, wish to certify that the work embodied in this project report is original and has not been submitted in part or full for any other Degree or Diploma of this university.

**OLUOHA JOSEPHINE NNENNE**

  
**ACHISION C.B.**

**PROJECT SUPERVISOR**

  
**PROF. J. ONAH**

**HEAD OF DEPARTMENT**

Date: 12-1-004

Date:.....

## ACKNOWLEDGEMENT

I thank God who sustained me and provided the grace to carry on despite all obstacles.

I wish to express my gratitude to my supervisor Mr. C.B Achison for the guidance, and challenges he gave me all through the supervision of this work.

I am also indebted to my elder sister Mrs. Christine C. Oduah nee Oluoha for her motherly love encouragement and above all her motivation.

However, a particular debt of gratitude is owed to my friends like Chike, Philo, Ngozi etc who cross checked and made inputs to my data analysis, supplied the materials to conclude the study.

I lack words to express my happiness for your contributions. May God reward all of you.

## ABSTRACT

This project studies the problems and prospects of marketing rice in Nigeria, a case study of Abakaliki, Ebonyi State.

The followings were the objectives of the study.

1. To determine whether the continual fluctuation in the price of rice in the market was due to supply problem.
2. To determine the effect of transportation cost on the total cost of distribution rice in the state.
3. To determine the extent of application of marketing mix strategies in the marketing of rice.
4. To determine whether the locally produced rice can compete effectively with the foreign rice.
5. To recommend ways of improving the marketing of rice in Nigeria.

The data for the research was collected from both primary and secondary sources.

Primary sources included both interview and survey. Questionnaires were designed and issued to both distributors and

consumes of rice product. Multi-choice and close ended approach were used in designing the questionnaires. The sample sizes were scientifically determined and consequently producers and distributed in the major cities of the states. The data collected were analysed in tabular form. Test of proportion and chi-square were used in testing the hypothesis.

The hypothesis were tested at both 5% and 1% levels of significance.

We found that:-

1. The prevailing price fluctuation rice market stems mostly from supply problem.
2. Locally produced rice could compete effectively with foreign rice. Its majors competitive advantages are test and price.
3. The selling concept of marketing prevail in rice industry. The modern marketing concept was still lacking hence no conscious effort was being made to adopt the marketing strategies.
4. Transportation cost contributes substantial to the total cost of marketing hence greater part of the cost bone by the consumers

at the market could be relieved through proper transportation management.

5. Most of the problems encountered by the produces (rice farmers and processors) were infrastructural and technical problems. If therefore adequate attention was given to the problems, they could be solved and the supply of rice improved.
- 6 Rice as a staple food in Nigeria today is a universal product which could be cultivated in various area of the country. The industry therefore processes greatly potential for increased production and market development.

#### **CONCLUSION:**

Based on the findings of the research and the researchers vast knowledge of the theory and practice of marketing, the following conclusions were made?

1. That the fluctuation in price of rice were due to supply problems.
2. That transportation cost greatly affects the price of rice in the market.



3. That marketing mix strategies are not consciously practiced or adopted by rice marketers in Ebonyi State.
4. That locally produced rice can compete effectively with foreign rice.



2.2	General Disorganisation ... ..	17
2.3	The Domestic Markets for Foods ... ..	19
2.4	Promotion in Agriculture Industry ... ..	28
2.5	Price and Pricing of Agricultural Products ... ..	30
2.6	Food Distribution Management ... ..	33
2.7	Food Distribution Pattern... ..	35
2.8	Market Demand for Grains ... ..	39
2.9	Production and Marketing of Rice ... ..	43
2.10	Rice Production Process ... ..	44
2.11	Market size and Commodity Structure... ..	48
2.12	General Characteristics of the Agricultural Market ...	50
2.13	Commodity Flow of Rice... ..	51
2.14	Price and Pricing ... ..	58
2.15	Branding ... ..	63
2.16	Measure and Packaging ... ..	64
2.17	Transportation and Storage ... ..	65
2.18	Marketing Organisation ... ..	65

**CHAPTER THREE**

3.0	Scope, Research Design and Methodology	...	...	68
3.1	Scope...	...	...	68
3.2	Research Methodology	...	...	69
3.3	Structure of the Instrument/Pre-Testing	...	...	69
3.4	Determination of Sample Size	...	...	70
3.5	Sampling Procedure	...	...	71

**CHAPTER FOUR**

4.0	Presentation and Analysis of Data	...	...	74
4.1	Introduction	...	...	74
4.2	Consumer Survey Results	...	...	76
4.3	Middlemen Survey Results	...	...	86
4.4	Pricing	...	...	89
4.5	Function of Middlemen	...	...	92
4.6	Testing of Hypothesis	...	...	94

## CHAPTER FIVE

5.0	Summary	...	...	...	...	...	...	105
5.1	Summary and Findings	...	...	...	...	...	...	105
5.2	Conclusion	...	...	...	...	...	...	108
5.3	Recommendations	...	...	...	...	...	...	109
5.4	Areas of Further Study	...	...	...	...	...	...	111
	Bibliography	...	...	...	...	...	...	114
	Questionnaire	...	...	...	...	...	...	117

## CHAPTER ONE

1.01

### INTRODUCTION

Among the desired aims of every nation is not only to feed the populace of its citizenry but also to offer them an impressive and reasonable standard of living in terms of ensuring that the citizenry are fed not just adequately but more importantly on those food items that ensure the supply of the necessary body nourishment. For this purpose a nation tries to produce locally these food items, where it fails to do so, it imports these items to supplement the local produce.

In Nigeria, rice, garri and yam form the bulk of the food items that are commonly consumed by the people. Although some people still consume beans, maize, millet and nuts. In more recent times the consumption of beans and rice appears to be taking the lead in the consumption pattern of grains in the country today. Although tuber crops items like yam and cassava are still prominent in most Nigeria tables, the importance of grains and its bi-products in feeding the Nigerian population cannot be over-emphasized.

In recognition of the importance of these cereals, there has been a concerted effort towards the promotions of the local product of the items. This was made evident by the various government programmes designed to boost production in these areas. Unfortunately, however, with more than 50% of Nigerians engaged in agriculture, the production of cereals is still grossly inadequate in the country with the result, that sometimes attempts are made to import these items from other countries.

This inadequacy of supply in this area is reflected in price fluctuation which is generally experienced in the country. It gives the producer/supplier the privilege to effect price changes whenever he feels like doing so, leaving the consumer buyer helpless. One would ordinarily expect that in a perfect market situation, where there were numerous buyers and numerous sellers, it would not be that easy for one party to fix or affect price changes in the market.

With the deregulation of the foreign exchange market and the consequent devaluation of the naira, the export trade becomes very attractive with the result that attempts were made to sell the country

grains unofficially to the neighbouring countries. This has the Implication of reducing the supply of these grains in the country for domestic consumption thereby complicating more, a bad situation. Although the government had taken steps to remedy the situation, plans are in progress towards declaring ECOWAS a free trade area. When this is done, the movement of these food items would be freely done thereby bringing the country back to the old situation. Expanded market however, is supposed to present a good opportunity to an enterprising market or producer as it will guarantee his continual growth as well as enable him increase his sales volume and profit.

Until recently, the non oil export of the country contributed less than 25% of Nigeria's foreign earning and the government has been trying to encourage investment in this direction. With the population of over eighty million and land mass of more than 900 thousand square km of which more than 50% is available, the country can feed itself as well as have excess for export to earn the so much desired foreign exchange.



## 1.2 STATEMENT OF PROBLEMS

Traditionally, the stable food items in Ebonyi state include yam, cassava, corn food, groundnuts etc. With the advent of the whites, "rice was introduced into the food menu of the people. The food items was widely accepted having been accepted not only in the cultural areas of the country, but also by all and sundry. It however, stated as an exclusive food item consumed by the middle class even lower class on Sundays and on special occasions. Rice had gradually become a staple food item.

It's consumption in the country has been increasing. Even among the urban dwellers, it had become more important probably because of its convenience in preparation.

Rice is intensively distributed. It can be found at most convenient spots and markets all over the country. In Ebonyi state many people are engaged in the distribution of rice both in the urban and rural markets. Fortunately also, the items is cultivated in any parts of the country.

Considering the trend of development in the market the following factors were identified to be responsible for the problems encountered in the marketing of rice in Ebonyi State.

- Price fluctuations in the market resulting from the demand and supply.
- Hiking of prices by sellers.
- Presence of cartel and trade association.
- Unorganized planning arrangement in the marketing of rice.
- Operation of a sellers market by rice marketers leading to consumer dissatisfaction.
- The effect of imported foreign rice on the demand for the locally produced price in the local market.

### 1.3 OBJECTIVES OF STUDY

1. To determine whether the continual fluctuation in the price of rice in the market was due to supply problems.
2. To determine the effect of transportation cost on the total cost of distributing rice in the state.
3. To determine the extent of application of marketing mix strategies in the marketing of rice.

4. To determine whether locally produced rice can compete effectively with foreign rice.
5. To recommend ways of ensuring the availability of rice at affordable prices in the Nigerian market.

### **HYPOTHESIS**

Based on the objectives of the study the following hypothesis are formulated.

$H_0$ : Price fluctuations in the rice market is not due to supply problems.

$H_1$ : Price fluctuations in the rice market is due to supply problems.

$H_0$ : Transportation cost does not greatly affect the cost of rice in the market.

$H_2$ : Transportation cost greatly affects the cost of rice in the market.

$H_0$ : Marketing mix strategies are not consciously adopted by marketers in Ebonyi State.

H<sub>3</sub>: Marketing mix strategies are consciously adopted by marketers in Ebonyi State.

H<sub>0</sub>: Locally produced rice compete effectively with foreign rice.

H<sub>4</sub>: Locally produced rice compete effectively with foreign rice.

#### 1.4 SIGNIFICANCE OF STUDY

This study was promoted by an understanding of the pivotal role rice plays in improving the standard of living of our people as well as its role in agricultural sector in particular and economic development in general. It is expected that if the market is developed, it can serve as a source of livelihood for most people as well as create a very good wealth base for participants in the industry.

The study, though an academic exercise embodies the result of a painstaking efforts by the researcher to design a good framework and marketing strategy for both practicing marketing in the rice industry and those in academics.

It is therefore designed to search and find relevant information based on sound marketing theory and practice, recommend ways to establish good strategies for exploiting opportunities in the rice market, improve the general standard of living of the people and pave a way for a sound economic development.

## CHAPTER TWO

### 2.1 THE ORIGIN OF GOVERNMENTAL INVESTMENT IN MARKETING AND REGULATION OF STAPLE FOOD CROP IN NIGERIA

Adequate food supply is an appropriate concern of government and the people to ensure a regular flow of food stuff, and at reasonable and acceptable prices, which has been generally accepted as a proper governmental function. Although the precolonial state or Africa engaging in such activities could be documented, however, many historians and ethnographers had complained that only a few details of records were kept in respect of supplies made by them, as well as how the supplies were made:-

Certainly it was the major concern of the then colonial first African garrisons by the 19<sup>th</sup> century before their subsequent withdrawal between the 1995s and 1960s. The methods used by these early colonial masters ranged from uncompensated seizure of the farmers foodstuffs' by force to guaranteeing attractive prices for foodstuffs offered freely by producers or by traders. Jones (1970:04).

The methods also included the construction of roads, rails and bridges (although these were most often built for some other reasons), the provision of storage facilities and construction of market places.

After farmers were compelled by law to grow specified good crops as reserves and to supply them later to the cities, mine and plantations during the depression or good scarcity. Sometimes, compulsory delivery food stuffs to governmental agencies was another method adopted by these early colonial masters (Europeans) as protection against crop failure.

If some areas government monopoly of the marketing of major export crops was extended to food crops, and prices supplies were manipulated to subsidize certain classes of producers, to assure low food costs, or to conserve foreign exchange. Government responsibility previously assumed by local authorities in order to preserve peace, discourage cheating and price manipulation etc. Jones (1972:7).

Governmental investment in marketing and regulation of staple food crop has been motivated most by the provision of the

requirements of other sections of the economy. These requirements may be expected to continue to weight heavily on food marketing policy decisions, but agricultural productivity considerations will undoubtedly have an increasing impact. In most of the countries of tropical Africa, the pressing need for increased agricultural output is an apparent and urgent problem because agriculture is, and for a long time will continue to be the largest employer. The importance of agricultural marketing was recognized in food agricultural organisation regional conference for Africa in 1964.

The report of the conference states this:-

*"The need to develop better marketing channels both by improving existing private and co-operative systems or, through government sponsored marketing organizations was widely recognized as an important factor in encouraging increased commercial production" Davidson (1966:4).*



Prominent in the recommendations of the report on the training center was the statement that "in view of the economic development now taking place in Africa countries and the rapid growth of urban population, the center expects that internal marketing of foodstuffs will become a central problem which, unless solved would seriously hamper economic development".

Wise government policies directed at food marketing, and policies affecting food marketing, indirectly, can enhance the effectiveness of the marketing system; unwise government policies can impact it Jones (1972:9). Of the first importance therefore, is that policy makers be provided with the most adequate information on the present operation of the system so that they identify where governmental intervention might improve the system's operation and where it might hamper it. Such decisions have most often been made almost completely without the necessary detailed knowledge and often without understanding of the task that is performed by thousands of assemblers, wholesalers, and retailers who undertake the distribution of foodstuffs from growers to consumers.

The economist who sets out to learn something about the marketing of staple foodstuff in tropical Africa is almost certain to be appalled by how little quantitative information is available, even though he may already be familiar with the dearth of such information about other aspects of African economics.

Almost nothing is known about the magnitude of the trade (grain trade), very little about the distances foodstuffs travel, or even the location the principal price data is collected in order to calculate cost of living indices, the prices statistics are not easily available, if they have been preserved at all.

In Northern Nigeria for instance, reports of retail prices of staple foodstuffs are actually classified as secret Jones (1972:24) when price data are made available, they are typically unreliable and frequently reveal signs of dishonest reporting. Usable series extending more than three or four years are extremely rare. There is general ignorance about how much of the year's crop is stored and where. Almost no accurate information exists about crop prospects. The operating margins of assemblers, wholesalers and retailers are

essentially unknown and the process of price determination has not been examined. The source of trading capital, and the cost are not recorded. It goes without saying therefore, that such critical questions as to the speed with which prices respond to changes in supply and demand, the efficiency with which the market allocate supplies throughout the economy and the capacity of the market to handle increase demand and supplies can only be answered by impression. Under these conditions, the probability that any particular governmental intervention into food marketing will impair the functioning of the system more than it improves, it must be rather high.

Administrators and economists may have neglected the staple food trade because it has performed rather well, its primary task of assuring regular supplies at reasonable prices, and typically it has attracted attention only when unexpected shortage forced prices upward or when bumper crops depressed prices to influential framers. Other circumstances have however, undoubtedly contributed to this

neglect. Perhaps, most important is widespread official bias towards local self-sufficiency in foodstuff.

Much government interventions in agricultural marketing has been based more on preconceived ideas about the nature of existing marketing systems than it has on factual information and economic analysis. In her book "Grain production and Distribution in Developing Countries". Uma-lele, (1964:10) observes that: "In the past there has been frequent governmental interference with grain and other food trade in low income countries that have often originated in political pleasure, popular biases, inadequate knowledge or simply in developmental zeal; often such intervention has had no justification and has proved to be inconsistent with the development of the agricultural sector.

The very complexity of the marketplace, and presumably of the food trade as well, makes it difficult to study. The small quantities that characterize most retail trade add to this difficulty, while provoking an under-estimation of the trade magnitude.

It would be a great mistake, however, to assume that all the general assertions about African food marketing presented here are false, as it would be to assume that they are all true of labour and in many countries the major producer of incomes. An efficiently integrated and accurately responsive market mechanism is of critical importance for optimum allocation of resources in agriculture, for stimulating farmers to increase output, and for assurance of regular and low cost of supplies of foodstuffs.

The difficulty is to distinguish the false from the truth, the proposition based on prejudice, ignorance and special interest from these based on knowledge gained from experience. To the extent that they are true, they have important implications for development policies, to the extent that they are false, policies and programmes based on them are likely to be ineffectual, if harmful. One of the inferences that could be drawn from these studies is that generalizations about African marketing may be misleading when applied to a particular commodity, that is to say that the marketing of one staple foodstuff may not apply to another (i.e. the marketing of

rice and maize products in Southern Nigeria, for example reveals quite different characteristics).

The conclusions that could be drawn from this subheading were that wise and unwise government policies, affect marketing of food. Secondly sufficient information (records) were not always kept by the colonial masters as at that time.

## 2.2 GENERAL DISORGANIZATION

The great and colourful marketing meetings of West and Central Africa present an appearance of congestion and confusion in which case it is easy for the foreign observer to identify the way of organizing the principles.

The physical facilities may be Jerry built and usually run down the passages between the stalls thronged with would-be customers, and thousands of retailers sitting in rows with tiny lots of products they are offering heaped before them. Some markets spread along the side of streets, around corners, and into and out of covered sheds. To some the traders are grouped by the commodities they sell, in others by their origin, but it is extremely difficult to say who is retailers, who

is whole seller. Transactions frequently are often preceded by prolonged, noisy debated between retailer and consumer.

The general seen appears to be one of the greatest confusion (Otherberg). From Otherberg's description of the atmosphere under which Africans carry out their business transaction, one can easily that thousands of buyers and sellers in the market are themselves confused. Transactions taking place are excessively time-consuming and little related to general condition of demand and supply.

Units of measurement, either by volume or piece, are not necessarily uniform even within one market, let alone from one market to another, and quality standards are extremely elusive. Under these circumstance, arbitrage between markets some distance apart seem difficult, it may at first seem a matter commodity in one market. It is often said that prices in various markets in an area do not move together, in effect there is no market system, and that the differences in prices between markets are more than the cost of transport.

As a consequence, prices in one market may reflect only the effect of nearby conditions of supply and demand and do not set in

motion equilibrating forces to bring in outside supplies to meet local shortage or to ship out supplies when there are local surplus.

If this be true, reliance on the market mechanism to meet the requirements of the cities or specialized agricultural producers could lead to disaster.

It could be deduced from this subheading that unit of measurement and prices are some the determinant of the demand and supply mechanism in the market.

### 2.3 THE DOMESTIC MARKETS FOR FOODS

A common feature of the markets for foods in Africa countries is the scarcity and high prices in the pre-harvest period weeks or months Food Agricultural Organisation (1982:1). This seasonal rise in prices is least outstanding in the areas of double rainfall where variety of crops can be harvested over a long period each year as in Western Nigeria chartered Institute of Bankers of Nigeria (1990:9). It is most market in the arid regions and dependent upon the one basic crop, such as maize, sorghum or millet. Easing this problem for the



poorer families buying foods depends partly upon better transport, so that alternative foods can be procured more cheaply in rural market, such alternatives; partly upon improved storage of the local crops from one harvest to the next.

Turning to the periods longer than one or two seasons, governments are naturally anxious to avoid both a scarcity of food, which brings rising price and shortages for the urban buyers, and periodic or continuing surpluses, which depress farmers' income.

Both are likely to cause political disturbance, and either of these occurrences may in-turn cause the other, with governments taking the blames from all sides (Wetham). Past experience has shown, moreover, that a period of rising prices for the basic foods leads to demand for higher wages and salaries from those employed in towns, many of them directly or indirectly employed by governments, and the higher earnings remain when food prices fall, thus perpetuating one cause of general inflation. Consequently, even a couple of years of shortage of the basic food can lead to a general rise in costs,

concentrated at first on the expenditure of the national and local government Todaro, (1977:3).

In times of high prices, governments are thus to impose maximum prices, in the hope of easing the hardships of the poorer buyers and restraining the claims for higher wages, but such controls are inevitably evaded unless a substantial part of the supply can be directly controlled and allocated by administrative measures to the areas or classes in the greatest need. If over several years, the output of food cannot keep pace with the rising demand, than some rise in prices is inevitable, and indeed, desirable, in order to encourage a quicker growth in output.

In most cases, maximum retail prices imposed upon most consumer goods are gradually lifted when it is discovered (which occur most times) that such controls were being continuously evaded, and that maximum prices could not be adjusted frequently as was required to maintain the necessary flow of supplies. Moreover, price control is involve with the major problems of identifying and describing the quantities and varieties of goods on sale, to ensure that

interior types are not sold at prices designed for the best qualities: weights, measures and units of sale vary greatly between markets, so that price schedules suitable for one area were often incomprehensible and enforceable in other areas.

The opposite dangers of over-production and unduly low incomes from farming enterprises are also frequently encountered from variety of causes. Periodic gluts cannot always be avoided for perishable foods whose supply changes rapidly with vagaries of weather, the incidence of such gluts may be diminished by good information and some control over the flow of suppliers. Over production has also occurred when farmer have been encouraged into new enterprises before the demand was large enough to absorb the increased output at profitable prices.

Apart from these problem of seasonal surpluses which may cause losses to farmers, there are the more enduring problems set by the periodically low income earned in farming when the supply of any product has been increasing faster than the demand, so that its price falls relatively to other prices and to costs. Here again, we are dealing

with periods of different lengths. A number of enterprises show rhythmic alternation of high and low prices lasting two, three or four years.

For annual crops, this alternation may involve some waste of resources and inconveniences from varying incomes for the sellers, but the administrative costs of smoothing out the cycles seem likely to involve, for African governments, even greater waste of scarce resources.

Secondly, there are the chance variations in prices and incomes which arise from natural hazards or agriculture and from the uneven rate of technical change. Thus swollen shoot diseases of cocoa trees destroyed a source of income for thousands of West African growers, resulting diminution in supply helped to maintain incomes for farmers in other areas not so affected, but that was little consolation for those plunged into poverty (Whetham). Price averaging schemes organized by Marketing Board smooth out the initial stages of this decline in relative incomes but the accumulated funds could not outlast the



enduring effect on a demand increasing less rapidly than supply Davidson (1966:27).

Another example of such technical changes is the introduction of the new high yielding varieties of maize, wheat and rice into tropical Africa. The increased supply must inevitably bring some fall in the prices of these grains, which will have a variety of effects upon demand in the first place, secondly there will be an increase in real income for the buyers of these basic foods, which may substantially relieve much dire poverty. Some increase in demand may result, especially in the areas where grains compete with tubers and bananas, but as noted earlier, one result of such a rise in real incomes may be an increase in the demand for maize for animal feeds, either in fattening cattle and pigs or in producing milk, the greater production of grain may then have a secondary effect in increasing the output of livestock by reducing the costs of intensive production, while the falling prices of grains may free purchasing power to buy more meat, eggs and milk.

In all areas, farmers who grow grains mainly for their consumption, and who hope to sell to reserve in years of high yield would usually incur losses in the sale of these products, when there is price fluctuations, but would certainly make profits during the poor yields periods.

Moreover, with lower prices for grain, some of these subsistence farmers may before long abandon the production of maize or rice in favour of a fully commercializing production of other crops from which they buy their foods for domestic consumption, the result may be either an improvement or a decline in real income, depending on the profitability of the alternative crops for which there are local markets. In addition, there were bound to be substantial shifts in the pattern of international trade in all grains, with net buyers gaining from the lower prices, and some countries shifting over from being net buyers to being net sellers.

Many countries may protect their own farmers from too sudden a decline in grain prices by exporting quantities, which threaten their controlled markets; the fall in grain prices upon international markets

will thus be intensified for those countries which are substantial sellers.

Finally, there is the continuing phenomenon of the relatively low incomes derived from most types of farming relative, that is, to most of the incomes earned in other occupations, though, not in all. In Africa, the rural poverty derives fundamentally from low levels of output achieved by most farm families, which leave only smaller quantities for sale. Give the current rate of increase in population and the slow growth of industrial employment, it seems inevitable that the rural population must increase rather than decrease in the foreseeable future in most African countries. The rise in rural incomes is therefore, limited ultimately by the growth of demand in the domestic and foreign markets for the products grown by African farmers; for the support to rural incomes provided by the industrialized countries are hardly feasible in the African countries where the majority of the population are engaged in agriculture and themselves provide in a variety of ways a part of the total volume of taxes.

There may be situations when control of output is the general interest, but many administrative measures designed to alter the general level of agricultural prices upon domestic markets run the danger of imposing unnecessary costs, and of impeding the innovations and enterprises, which stimulate economic development.

Government attempting to control prices, for whatever reasons, operates with some concept, however rudimentary, of the price-elasticity of supply and the desired level of supply. However, with the prevailing difficulties in measuring price elasticity of supply for products sold in domestic markets in Africa, regulation of prices proceeds only by trial and error, with the general supposition that a rise in the farm price for a particular commodity relatively to other prices and to costs, will have some effects at some future time in raising output, while a reduction in price is likely, eventually to reduce supplies.

Linking price changes to some index of costs may give slightly more precision to such concept but such linkage can be seriously disturbed by cross elasticity of supply between commodities, and by



the dominating influence of opportunity rather than money, costs in the pattern of African farming.

One can easily conclude this aspect of area by stating that the following problems affect the overall marketing of domestic foodstuff: scarcity of domestic foodstuff: scarcity of domestic foodstuff reasoned with high prices and political disturbances, over production associated with undue low and irregular incomes, natural hazards, technical changes in the overall production, abandoning of production these grains for other profit-oriented grain products and the inability of government to protect the producers (farmers) and so on.

## **2.5 PROMOTION IN AGRICULTURE INDUSTRY**

Because the agricultural product itself is substantially a commodity that cannot be physical differentiated from the offerings of other supplier, the seller does not really engage in branding, advertising or other forms of demands creation for his products. Rather, the seller earns patronage by gaining a reputation for meeting

his quality and delivery commitments while changing competitive prices over a period of time.

The extent of promotional activities undertaken by grain distributors are in terms of personal selling as shown when one passes along the sheds of dealers with several of them calling and beckoning on you to buy their own, claiming to have stocked the best quality Arua (1988:94) they neither advertise the stalls nor the products carried. In fact, it could be said that the condition under which grains or their distribution is advertised is during severe scarcity when government intervenes in the distribution through government agencies. This may not even be classified as a pure promotional advertising because the government merely announces the existence of grains at some depots or ministries.

However, there is a section of the grain distributive system that carry out intensive promotional activities. This is the processing sector like the pokobros, Food and Chemical Industry, Temp Feeds etc; all in Anambra State. They advertise their products (four) through the radio, television and newspapers.

The promotional activities undertaken by government were considered to be inadequate, and were as a result not strong enough to influence the distributive network of the sellers in the market.

## 2.6 PRICE AND PRICING OF AGRICULTURAL PRODUCTS

A general character of food marketing in Africa countries is price fluctuation. Grains in particular show seasonal variations in price and supplies. These variations are caused by a number of factors among which are the seasonal nature of supply, lack of market or price information on the part of the participants, natural tendency of distributions to board especially during scarcity of when government intervenes.

In their article, "Marketing of Agricultural Products" Kolls and Downey proposed many ways of evaluating the performance of a marketing system but the most common criteria according to them are:-

1. The size of profit margin: Artificially high prices lead to excess profit, which in turn results in the reduction of consumer satisfaction.
2. Pricing and operational efficiency, which respectively relate to the economic power structure in the system and the cost of providing or marketing goods and services.
3. Wastage in the marketing process.

In their write up, "Evaluation of Performance", Antonio and Thodey contend that using the above criteria – a "frame work for evaluating performance of the private food marketing system in Nigeria", it is easy to isolate several areas of inefficiency, but as indicated earlier, some authors have shown that the system has performed relatively well considering the constraints under which it functioned.

With respect to the size of the profit margins, the fragmentary data are hardly available and neither are they up to date. But while reviewing studies in Thodey and Antonio, Olayemi and Jones

concludes that, while the available evidence is not sufficient, middlemen do not seem to earn excessive profits as often alleged.

Writing on price mechanism of this product, there are certain observable factors that tend to reduce the competitiveness of the market structure.

These include inter-personal relationships that often exist between sellers and buyers, the formation of powerful trade associations by sellers of the same commodity and barriers to entry created by the size of initial capital required and the scarcity of market stalls. One other inhibiting factor to pricing efficiency, they continue, was unavailability of information service.

A good knowledge of developments by all participants regulates their actions at the various stages of the marketing channel and improves the functioning of the system. Currently, no institution has an accurate knowledge of such vital information such as trends in national and regional production, costs. One consequence of these factors is that food prices often wide fluctuation.

In summary, could deduced that size of profit margin, pricing and its operational efficient mechanism as well as waste in the marketing process, could be regarded as vital evaluating tools in terms of performance of the marketing system.

## 2.7 FOOD DISTRIBUTION MANAGEMENT

Today the demand for food involves much more than farming. It includes many others activities beyond farm gate. The Nigerian traditional farmer finds it extremely difficult to meet the food needs of the country because of the attendant problems confronting the traditional farmer such as:-

- Inability to provide modern fair equipment
- Poverty
- Lack of loan facilities from banks.

Nevertheless, there is still the problem of providing the food need for the consumers. Food marketing, therefore, is the bridge between food producers and consumers Onah, (1981:124).

This 'bridge' is both a physical distribution and an economic bridge designed to facilitate the movement and exchange of commodities from the farm to the kitchen.

The food marketing system is composed of alternative product flow (called marketing channels), a variety of firms (middlemen), and numerous business activities (marketing functions) – This system plays two important roles in the food industry:-

- a. The role of physical distribution
- b. The role of adding value to farm commodities and facilitating the exchange process between buyer and sellers.

Figure 1: Shows the basic food marketing system indicating the channels and institutions for food distribution.

This subheading highlighted that food marketing helps to facilitate the movement and exchange of commodities between the farmers and the consumers.

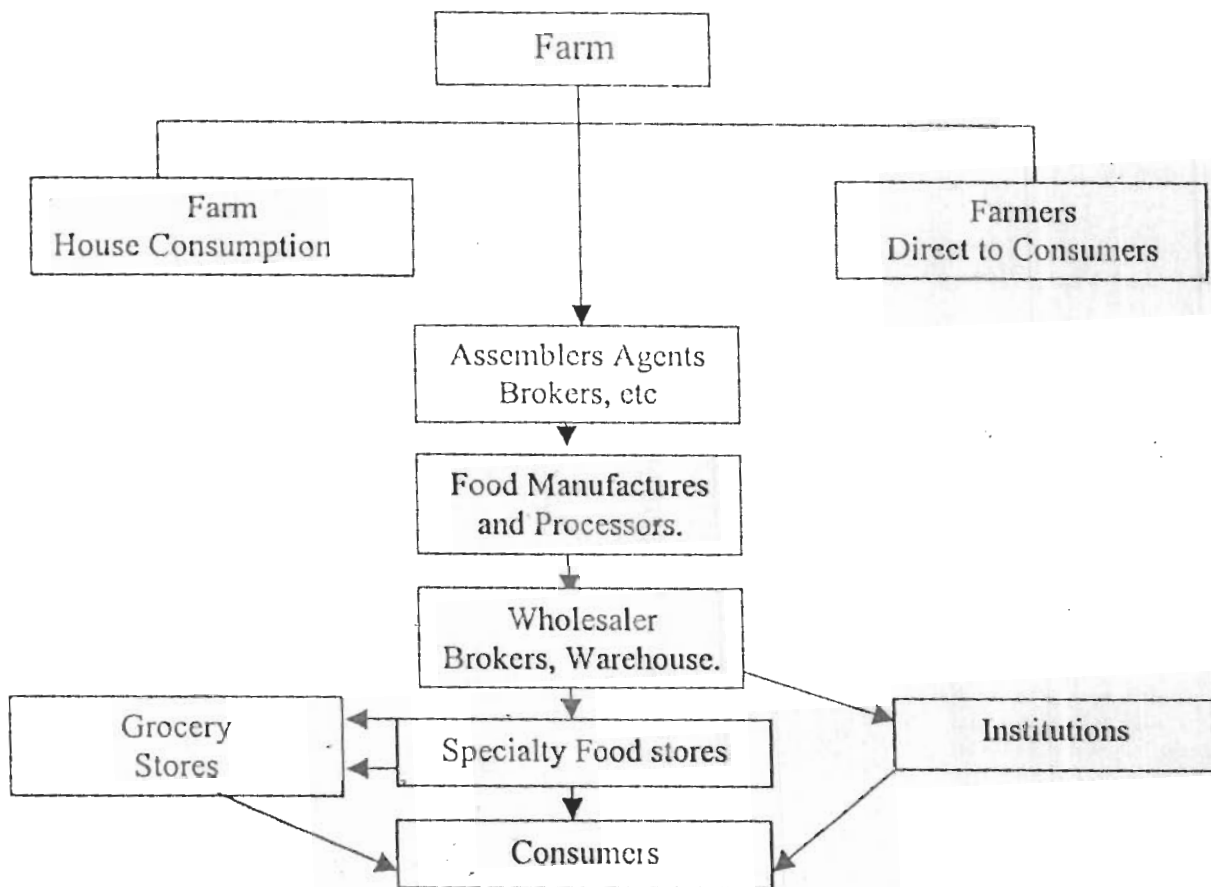


Fig. 2.1 The Food Marketing System

### 2.7.1 FOOD DISTRIBUTION PATTERN

The task of alternative patterns of distribution

These are:-

- i. Farmer (F) ..... Consumers

Farmers sell directly to consumers. In this case the farmers or the consumers perform the marketing function.



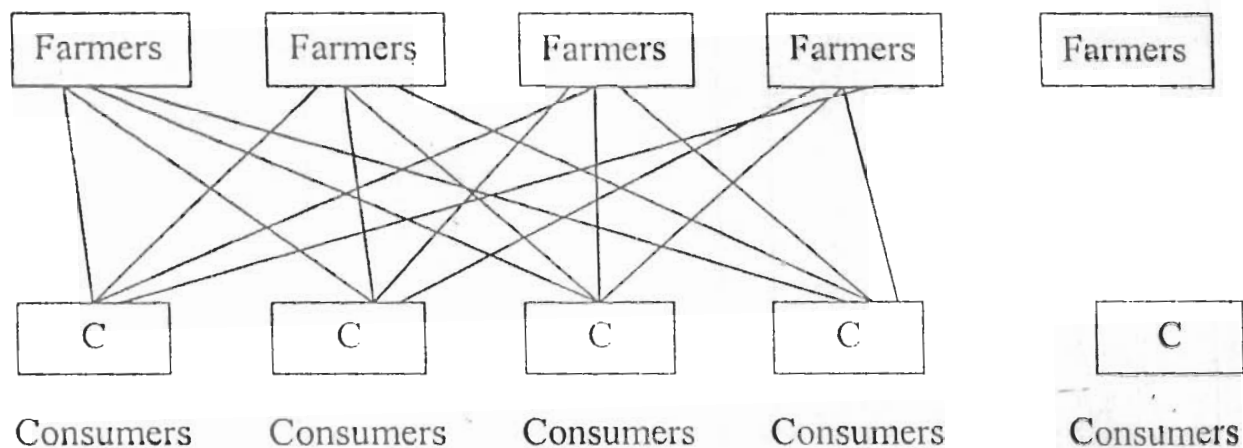
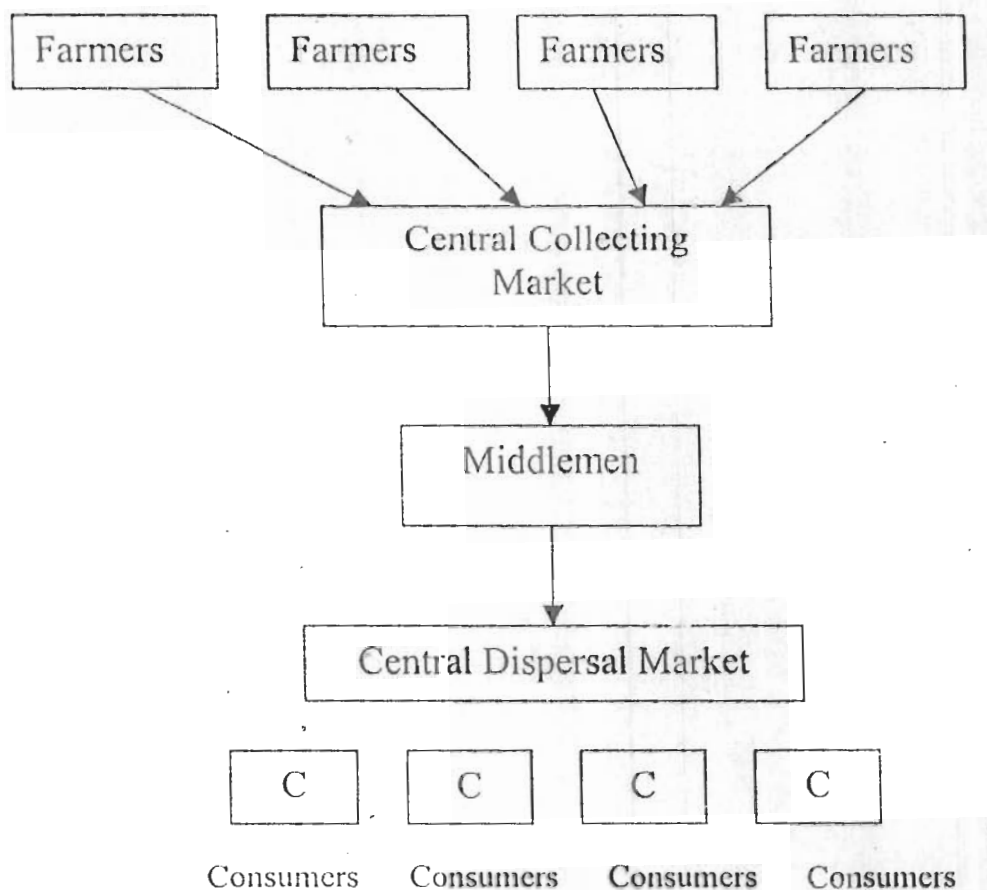


Figure 2.2.1 Farmers (F) sell directly to Consumers (C).

ii. Farmers (F) ..... Middlemen (M) ..... Consumers (C)

In this situations as shown in figure 2.2.2 specialized food middlemen perform the marketing functions allowing farmers and consumers to specialize in other activities.

Farmers sell to middlemen who then sell to consumers.



Figures: 2.2.2 Food Marketing Patterns

## 2.7.2 FUNCTIONS PERFORMED IN THE DISTRIBUTION CHANNEL

Functions performed in the distribution channel:

- i. Making contact: reaching potential and current buyers of the products.

- ii. Inventory ownership and risk-bearing (Goods are bought and stored until sold. Risks such as loss, spoilage and pilferage is borne by the middlemen until the product is sold!
- iii. Sorting and grading.
- iv. Storage and Transportation – storage creates time utility while transportation creates place utility.
- v. Financing – funds are provided to finance the purchase of stock by the middlemen. Purchase could be either of the following forms:-
  - Cash and carry
  - Credit.

The following problems were deduced from the study of functions that took place in the distribution channel of rice. They are:-

- a. Communication problem.
- b. The inability of the farmers to preserve their products.
- c. Bad roads (d) Unavailability of vehicles

e. Lack of warehouses, and (f) Inability of the middlemen of secure enough funds for further purchases of products and subsequent storage.

## 2.8 MARKET DEMAND FOR GRAINS

Market demand for grains and grain products derives first from the urban centers, the new one with populations largely divorced from farm employment and the older one where increasing specialization in employment makes own production less important. The population of Tropical Africa is still largely rural, but the cities have grown rapidly in the past two decades. The F. A. O. of United Nations estimates that 82 percent of the tropical African population was agricultural in 1962, when non agricultural population totaled 36 million.

### 2.8.1 AGGREGATE DEMAND

Urban market demand for foodstuffs may be expected to expand at a faster rate than urban population because of increasing occupational specialization.

It will grow as incomes rise but although the income effect is likely to be most market for animal products, and luxury foods, it will affect the demand for grains as well.

Increase agricultural specialization will be accelerated or inhibited by the regularity with which foodstuffs are available in the market and by their cost. Farmers are not likely to trust their basic food supply to a marketing system that cannot assure availability at all times nor to one in which prices fluctuate violently and unpredictably.

Production of good crops in any specific area cannot be expected to increase more rapidly than the farm population unless the producers receive an effective demand from outside. This is the primary function of marketing system, as opposed to physical movement transformation, and storage which are the functions of transporters, processors and warehouses. It is critical, therefore, that the growing demand for domestic foodstuffs in the cities and the growing market demand in rural areas be fostered if they are to create desired increase in agricultural output and specialization. Writing about Nigeria's economic growth in 1967, in the chapter titled "the

stagnant section”, Arthur Lewis said, “the growth of GDP is kept down because the majority of Nigerians are producing food for domestic consumption with stagnant productivity .... For most of the period since the war if the farmers produce more food, they could not have sold it reasonable prices, some of it they could not have sold at all, since in the absence of storage facilities, transport and wholesaling, marketing food surpluses tend to have very restricted markets. It follows that the right way to attack the stagnation of the food producing sector is to increase the demand for food.

Efforts to increase supply faster than demand will come to naught.

According to professor Lewis, concentrating attention on aggregate demand, however may obscure other functions performed by an integrated and efficient marketing system. The complex task of allocating supplies to areas of scarcity, a primary responsibility of commerce, tends to be forgotten until disruption of trade by civil strife leads to outright famine, as it did in Eastern Nigeria.

## 2.8.2 SUPPLY RESPONSES

The potential market demand for grains can be demonstrated but the task of supplying that demand from domestic production is formidable. Specialized production of these commodities has not gone far. The very small quantities that farmers have for sale must be assembled from wide areas, often accessible only by foot paths, and brought into rural market centers. From there truckers carry them to consuming centers through roads that may be impossible during part of the year and that are typical hazardous and destructive vehicles. Despite the difficulties, the food trade is growing.

Development of improved transport in many parts of tropical Africa has led to area specialization in the production of staple food grains.

The tropical Africa export achievement was built on the existence of an effective demand for a set of commodities that African farmers could produce and on the persistent elaboration by profit seeking merchants of a marketing system that could deliver these commodities at competitive prices and at the same time, pay

producers prices attractive enough to bring forth regular supplies Jones (1972:39). If the food crop sector is to achieve equal success, similar conditions must be established.

## 2.9 PRODUCTION AND MARKETING OF RICE

### 2.9.1 INTRODUCTION

Rice, like any other food supply in developing countries has a supply problem. This means that there always exists a kind of supply problem. It can at one time exhibit an excess supply problem and as such create such other problems as storage, preservation, glut and high rate of damages, wastages and spoilages. At other time the problem is under-supply with its own problems of gap, arbitrary price increase, production of inferior goods etc.

In between these two extreme are artificial problem caused by middlemen in the process of creating utilities (time, place ownership) or performing their bona-fide economic function.

This chapter intends to discuss the processes involved in the production, supply and distribution of rice with a view to identifying



likely sources of problems and suggesting problem remedies or ways of improving this situation.

The data were sourced from past literature and oral interviews at various rice mills and farms.

## 2.10 RICE PRODUCTION PROCESS

Rice farming involves rigorous processes ranging from land-preparations, planting and harvesting. The farmer needs first of all to take a decision on which planting method to adopt, what variety of rice to plant and which farming method to use. After taking these decisions, he can then at the proper time start preparing the land for his farming.

### LAND PREPARATION

Rice planting can be done in the upland (completely dependent on rainfall for its water supply. It can also be done under irrigation and lastly could be done under fadama. Fadama is possible where there is a kind of overflow of river- at River banks or swamps at the

foot of streams and water ways. Fadama is very common at the Northern parts of Nigeria.

Normally the first stage is clearing and stumping. After this the next stage is ploughing and paddling if the area is swamps, or harrowing in the case of upland planting.

The next stage is rice planting which can be done in three ways namely:-

- i. Nursery method;
- ii. Broadcasting and
- iii. Direct seeding.

Seeding is common with upland planting while broadcasting and nursery transplanting is common with irrigated swamp cropping.

Also the two methods can be used in fadama land. It is important to stress the need for adequate supply of water in a rice farm.

Rice requires a lot of water otherwise the filling of the grains would be poorly done hence resulting to a very poor yield.

Adequate water therefore, must be provided either by ensuring that rice is planted during the peak periods of the rainy season or ensuring that irrigation water is consistently supplied.

### **RICE HUSBANDRY**

After planting, the next important stage is the husbandry. If not very well managed, the planted grains might be eaten up by birds and ants. Weeding is equally important because rice is very sensitive to used hence can reduce yield greatly. In fact world bank report on rice culture shows that, yield can be reduced by as much as 70% if weed control is not carried out in the first five weeks following the transplanting. If left longer to

About 7 weeks the loss may amount to 85% and 90% for 2 months. For the 12 weeks maturing varieties: Weeding can be done manually or with chemicals. When panicle initiation starts, there is a need for bird scaring as birds' prey on the crop especially at this milk stage. The danger is reduced when the dough is formed.

## HARVESTING

Harvesting is done when the seeds are dry but not too dry to cause shatter loss. Shatter loss happens when the seeds are so dry that even touching the stem of the rice would shatter the seeds and lead to a loss. Rice is generally harvested between 11 weeks to 13 weeks depending on the variety. Harvesting is done mechanically or manually. The harvested proceed is threshed either with a thresher (mechanically) or it is done manually. In threshing, the seeds are separated from the stalk. This then is bagged and ready for milling.

## PROCESSING

Rice could be milled parboiled or unparboiled. In parboiling process, the rice is heated for sometime to facilitate the separation of the grain from the tests coating. This also has the ability to enhance the mineral/vitamin content of the grain. The rice is sundried and milled. This done, the rice is ready for consumption. A further step could however be taken to destone the rice mechanically. There is another process that precleans the rice. Though, not common yet but

its gradually being introduced. These processes improve the quality of the final product and enhance the market values.

## 2.11 MARKET SIZE AND COMMODITY STRUCTURE

Information available shows that commodity entering the Nigerian market are either locally produced or imported and destined either for domestic use or for export. On the basis of published statistics, the structure of food supplies in 1977 is presented on Table

2.1.

**TABLE 2.1: STRUCTURE OF FOOD SUPPLIES 1977**

DESCRIPTION	VALUE IN (Nm)	PERCENTAGE OF TOTAL SUPPLIED	PERCENTAGE OF MARKETED SUPPLIES
Total food supplies	9,606.2	100	140.2
Domestic			
Agricultural Produce	7,549.6	78.5	110.2
Farm Consumption	2,549.9	28.7	40.2
Marketed Agricultural	4,794.7	49.9	70.2

Produce			
Domestic Manufactures	1,139.7	11.8	16.6
Imports	916.9	9.5	13.4
Total Marketed Supplies	6,851.3	71.3	100.00

Source: Ukwu I. U. Lecture Notes on Nigerian Marketing System, 1983.

The food sector is the largest in the Nigerian product market Ukwu, (1983:18) in 1977 accounting for 43% of total supplies and 27% of marketed commodities. Table 2.1 show that 70.2% of the marketed food supplies came from farms, 16.6% from factories and 13.4% from imports. However, factory products were dominated by luxury items, 61% domestic 'food' manufactures being accounted for by spirits, wine, beer, soft drinks and tobacco, and another 19.6% by sugar and confectionary. The only basic processed food-grain milled and bakery products (13%) are heavily dependent on imported grains.

Food import include not only manufactured food but basic foodstuffs as well. In 1977, wheat and rice imports were worth N240.5 million or 26.2% of food import.

## 2.12 GENERAL CHARACTERISTICS OF THE AGRICULTURAL MARKET

Agricultural producers in the country can be categorized into three namely:

1. Peasant or small-scale productions of agricultural foodstuffs.
2. Peasant or small-scale productions of export crops and industrial raw materials.
3. Large scale agricultural producers.

In 1977, there were an estimated 18.7 million farmers in Nigeria.

With domestic production valued at N4,772.0m average output per farmer was N255,19, of which produce worth N13.15 was marketed Ukwu (1972:10)

Peasant agricultural production is unspecialized and most farmers produce the range of crops and animal products suitable for

their ecological zone. Commodity composition: The numerous agricultural commodities in the Nigeria market can be grouped in many different ways. In the National Income Estimates the gross output was accounted for under activities sectors, their respective shares of the gross domestic product for 1980 being as follows:-

Agricultural	N5,745m	13.27%
Livestock	1,554	3.57%
Forestry	315	0.73%
Fishing	2,007	4.64%

### 1.13 COMMODITY FLOW OF RICE

The consumption of rice has increased very much in recent years but local production has not kept pace with the increase in demand.

The greater part of the available supply is now imported as shown in Table 2. Like maize, rice is a universal grain in Nigeria, no region produces less than 5%. The ranking for 1978/79 was as follows:-

Middle East	43.2%
North West	17.9%



South West	16.8%
Middle West	16.2%
North East	11.1%
South East	5.2%

Source: Ukwu I. U. Lecture notes on Nigeria marketing system, 1983.

Relative to population, the region with significant rice surpluses are the Middle East and the Middle West while the South East and South West have large deficits.

### 2.13.1 SPATIAL PATTERN

The urban centers are the primary focus of professionally organized bulk movements of foodstuff from rural markets most of it destined for local urban consumption.

The inter-regional trade on a small number of urban centers which have developed special relationship and facilities, not necessary the largest centers.

Enugu is a good example of a major city whose main food marketing role is that of consumer centre. In an enumeration of lorries bringing foodstuffs to the Enugu main market in May, 1967, 59% of the journey originated from Enugu, 14% from Nsukka, the only urban centre in the zone, 11% from Abakaliki town and 9% from Onitsha.

All other source contributes only 7%. Rail shipments show a similar concentration; a rail traffic survey in 1965 showing Jos, Lafia, Makurdi and Igumala as the only significant suppliers from the Northern States. Enugu's principal links with the rest of the Nigerian market are through three major inter-regional centers: Onitsha, Abakaliki and Jos.

Inter-regional trade involves a long sequence of flows: from the local market to zonal market, from the zonal market to regional market or zonal markets in other regional: from the regional market regional markets to other regional markets and to zonal markets within the regional hinterlands and from the zonal market to the local markets.

A 1966 survey of Onitsha by Prof. Ukwu showed that 40% of its food lorry traffic was in long distance trade over-whelmingly with other major centers. The zonal centers in Anambra, Bendel and Imo State accounted for 30% of the total traffic, Lagos 20%, the rest of the Western state 10% and the Northern centers 20%.

**TABLE 2.2**

**(IMPORT OF GRAINS: 1957 – 1977 ₦'000)**

COMMODITY	1957	1966	1977
Wheat and spelt	8	11,436	56,359
Rice	234	246	154,944
Barley	-	43	43
Maize	4	24	7,589

### 2.13.2 HOUSEHOLD CONSUMPTION

Data from the first nationwide survey of household income and expenditure conducted in 1973/75 and published in the monumental report National Income of Nigeria 1973 – 75 indicate some of the main features of household consumption patterns. For the year 1975, total household expenditure amounted to N8,145 million. This was

equivalent to 43.4% of Gross Domestic Expenditure and 74.6% of Private Final Consumption Expenditure.

The report distinguished three types of households: the rural household, urban self-employed and urban wage earner. Table 2.3 shows their aggregate expenditure pattern of local foodstuffs.

**TABLE 2.3**  
**ANNUAL EXPENDITURE OF HOUSEHOLD 1975 LOCAL**  
**FOODSTUFF (EXTRACT)**

		N'm	Percentage
% Urban Index	35.06	-	97
Rural	-	1,693.3	20.78
Urban Self Employed	-	410.4	5.04
All households	-	2,515.4	30.88
Urban Households	-	882.1	10.83

### 2.13.3 DISTRIBUTION

The size of the distributive sector is often regarded as an index of development Ukwu (1983:14). It is a large rigorous sector reflecting a high level of industrial and regional specialization in the

economy, with sophisticated demand pattern and high level of demand for distributive services.

The market is characterized by the presence of large number of buyers and sellers. Retailers of grains are especially numerous and daily sales are in small quantities. Wholesaler, although less numerous, also show some evidence of concentration. Survey reports on rice marketing show the number of traders in the commodity in the five city markets in July 1981.

(The market covered by this study are Ettium, Izogo, Amogu Nwofe, Inyimagu and Isinkpuma market and all in Abakaliki, in Ebonyi State.

**TABLE 2.4**

**RICE DISTRIBUTION**

TYPE OF SELLER	ONITSHA	ENUGU	AWKA	ABAKALIKI	NSUKKA
Retailer	560	330	170	301	203
Wholesaler/Retailer	220	30	3	95	29
Wholesaler	160	97	26	210	34

The total number of the sellers in any of the cities mentioned increased after the end of the rainy season. Average weekly sales of retailers in Enugu amounted to 4 to 7 bags of rice. Retail sales at Onitsha average about twice this.

Generally the channel of distribution originated from the producer who sells to the processor or sometimes performs processing function himself. The processed grain is in turn sold to large scale wholesalers. At Abakaliki, Ettium and Amagu where production is relatively high, large scale retailers some from far and wide (Lagos and other big cities) come to purchase the commodity and haul to various centers, from where they sell to smaller wholesaler.

The chain continues to the retailers who then sell in small quantity to consumers. In areas where production is relatively small wholesalers of any scale buy the product directly from the processors.

However, there are cases of consumers who live close to the processing locations they buy directly from the processors or wholesalers at the processing point. This is more common among the

middle-upper class bracket especially those who have their own means of transportation.

Other buoyant consumer buy from the wholesalers at the local market. The bulk of transactions in the rice market utilize the traditional channel which goes to the consumer through the retailer, and wholesaler from the producer.

#### 2.14 PRICE AND PRICING

The most visible symptom of the food problem is the persistently fluctuating prices of foodstuff in the past few years.

In Anambra State the prices in Nigeria per tonne of rice from 1981 to 1987 are shown in the table below.

TABLE 2.5

AVERAGE FARM-GATE PRICES IN NAIRA PER  
TONNE OF RICE 1981 – 1986

YEAR	AVERAGE URBAN PRICE	FARM-GATE PRICE
	N : K	N : K
1981	1152.00	659.00
1982	930.00	650.00
1983	1066.00	480.00
1984	2429.00	750.00
1985	2286.00	850.00
1986	2350.00	-

Source: Arua, J. C. Survey Report 1988

The table shows a steady increase in the price and significant difference between in farm-gate prices and the average urban price.

The difference representing the cost of processing and the middlemen's margin.

Apart from this steady increase in general price, there is also a seasonal variation in prices as show in Table 4.6 below.



The table records the retail price indices of rice in Lagos area between 1985 and 1989. The base period is November 1975.

**TABLE 2.6**

**RETAIL PRICE INDICES OF FOREIGN AND LOCAL RICE IN ABAKALIKI AREA MARKET 1985 – 89 (100 – NOVEMBER, 1975)**

YEAR	FOREIGN 3 <sup>rd</sup> QTR.	4 <sup>th</sup> QTR.	3 <sup>rd</sup> ATR.	Local 4 <sup>th</sup> QTR.
1985	-	838.3	-	713.2
1986	891.6	831.1	750.0	711.8
1987	789.9	901.8	741.7	825.9
1988	1302.1	1389.3	1140.2	1220.4
1989	2489.5	2488.8	1795.9	1766.4

Source: CBN Economic and Financial Reports 1986 – 1990.

The table shows that there exists price fluctuation even between seasons for both foreign and local rice. The variations represent price changes between the 3<sup>rd</sup> Quarter (July to September) and 4<sup>th</sup> Quarter (October to December). There appears to be general increase prices of rice worldwide, the local market is more volatile.

Consider Table 2.7 which shows world prices of rice from 1985 to 1989 (4<sup>th</sup> Quarter) recorded in Avenue Prices in dollar/Naira per tonne.

TABLE 2.7

WORLD PRICES OF RICE FROM 1985 - 1989  
AVERAGE IN DOLLAR/NAIRA PER TONNE

YEAR	NAIRA ₦	DOLLAR ₦
1985	221.5	236.9
1986	900.6	237.0
1987	-	-
1988	1546.0	303.0
1989	2550.7	345.0

Source: CBN Economic and Financial Report 1985 - 1990

The price increase (considered in dollar) is more systematic.

Although increasing on a general not out a bit more gradual.

The sharp increase in Naira price represents the change in Naira exchange rate with the dollar.

Pricing: Interview of the farmers and processors reveal that rice is priced either in paddy form or as a fully processed product.

To sell the rice paddy, cost of production must be considered. Because the processes are quite involving, the farmer cannot sell below a certain price and possible mark-up. However, prices tend to fall during Christmas season not because the cost is low but because the farmers who are largely small scale tend to be a bit anxious to sell part of their stock to enable them raise money for their Christmas celebration.

More buoyant farmers and organized firms store their own stock and sell after Christmas and soon before the planting season when prices are generally higher, because of the pressure on demand caused by the consumption need and planting need.

The farmers generally sell at farm-gate prices to the processors who can store and sell at will taking advantage of the long shelf of the grains. The processors as it were include the price as they take control of the good. For them, their pricing is based on cost plus pricing.

Others factors that affect price include weather and quality of the product. Weather affects the supply of rice in various ways.

For instance at the peak of rainy season, it is difficult to sun-dry rice after parboiling if there is no mechanical dryer. This affects the supply of the milled product. The difference in quality could be variety quality difference or total seed quality which involves the quality of the processing and hence the final product.

As at 1988, rice paddy sold for N215 to N250 per sack of 80-90kg. After milling, this quantity will give between  $1\frac{1}{2}$  to  $1\frac{3}{4}$  bushels depending on the variety. While a bushel of processed rice bought directly from the processor costs between N150 to N170.

## 2.15 **BRANDING**

There is no obvious existence of branding or product differentiation in the local rice market even though the sellers make casual references to the 'source' as a mark of quality, hence one hears "this is a genuine Abakaliki or rice ... buy it".

This is however, long-grained while others are short. Some enjoy consumer-preferred taste. These varieties have their various identities mostly derived from the research/breeder institutions.

Some of the varieties are identified as follows:-

BG	1416
IB	8
IITA	306
FARROR	15

## 2.16 MEASURE AND PACKAGING

Apart from rice paddy, which is sold in tones, the mostly used standard measure is the bushel. A bushel is measured about 22kg. In most cases, the buyer provides their own packages. At the retail points however, rice is sold at a smaller unit measure of cups, which weight about 0.22kg. One hundred of these cups make up a bushel.

In organized marketing companies, rice is packaged in measures of 5kg, 25kg and 50kg bags. In most cases celothene and just bags are used.

## 2.17 TRANSPORTATION AND STORAGE

According to Prof. Ukwu, the principal marketing costs in grain market are (indeed) transportation and wastage. Transport account for some 15% of the consumer naira while some 20% of the produce is lost or spoilt before reaching the consumer.

The situation is different in rice market. Because of the nature of the product, rice is moved over a very long distance from the point of production/processing to the point of consumption as such a lot of money is spent on transporting the item from one place to the other. Again because of the long shelf life of the produce, rice can be stored and sold at any point. According to the farmers well-stored rice can last for upwards of two years after milling.

## 2.18 MARKETING ORGANIZATION

A study carried out by Arua (1988:9) reported that the organization in the grain market is generally poor. Table 2.8 is a reproduction of findings on the nature of organisation in the market.

TABLE 2.8

## EXTENT OF ORGANISATION IN GRAIN MARKET

	NO	PERCENTAGE
Fairly organized	7	22%
Poorly organized	16	50%
Not organized	3	9%
Well organized	1	3%
Individuality	5	16%
<b>TOTAL</b>	<b>32</b>	<b>100%</b>

In confirmation of this situation, the researcher observed during the oral interview sessions with farmers and processors that there were no forms of organized management system in the market.

Although there would be a sales unit as distinguished from production unity but operations were not defined as such. In fact in about (12) twelve out of the eighteen people interviewed, one could safely say that there was no form of organized management in operation there.

For instance, the same person sells the product and keeps the account of the organisation. There was no form of formal annual

budget or plan to guide operation. In fact it was almost impossible to get any reasonable records on the operation (both financial and administrative) of the company.

However, as usual, there were always that skeletal management system, where the owner of properties takes charges of virtually everything hence the absence of delegation of power authority.

Control was difficult and unfortunately too, there was hardly the opportunity for workers to suggest innovating ideas. Generally, the poor organisation prevalent in the industry retards the growth of the market.



## CHAPTER THREE

### 3.0 SCOPE, RESEARCH DESIGN AND METHODOLOGY

#### 3.1 SCOPE

The study focuses on the marketing of rice in Ebonyi State. It did not cover the area of rice flour or any other by-product of rice. The area of interest was "rice destined to consumer market".

This means that the market for rice as raw material or input for rice flour industry or rice as form input for rice farmers were not covered by this study.

The geographical area covered was Enugu State only and under the present dispensation, the covered the towns within the states.

Time and money were obvious limitations. To mention also, were the paucity of information in the field and general reluctance of people to release information on their activities.

### 3.2 RESEARCH METHODOLOGY

A preliminary study was initially carried out during which the opinions of different farmers were utilized in formulating the hypothesis and to generate ideas.

In view of this structural questionnaire which represented our main instrument was developed and administered among our respondent numbering 217 made up of 70 consumers of rice, 50 participants 40 rice producers, 30 sellers of rice and 27 major producers. All the data collected were subject to analysis for purposes of meaningful conclusion of the study.

### 3.3 STRUCTURE OF THE INSTRUMENT/PRE-TESTING

The questionnaire was highly structured. The use of structured questionnaire was aimed at further encouraging response. The question asked were both multiple choices, close ended and open questions, which demand the respondents to write down a few sentences and make comments where it is necessary to do so. Thus, in this paper, care was taken in using words to average respondent

could easily understand so as to achieve proper communication with respondent and reduce the influence of bias of the information channel.

The questionnaire was pre-tested and it resulted into minor changes in wording and sequence; the questionnaire was designed to secure information from rice producers, and to know the impression about the quality of rice.

Hence relevant questions of about 20 were administered to consumers of rice, participants, rice producers, sellers of rice and major producers. The responses were assembled and analysed.

#### 3.4 DETERMINATION OF SAMPLE SIZE

To determine the sample size, 30 questionnaire were administered to some people using the simple random sampling, hence the question. "How do you rate rice marketers practices" was administered to 30 people. 25 or 83% of the respondents rated it as being satisfactory while 5 or 17% said it is unsatisfactory.

So to determine the sample size we use the formula.

$$n = \frac{z^2 \cdot P \cdot q}{e^2}$$

Where n = Sample size required

z = 1.96, the normal variable for desired level of confidence.

95%

p = 83% of the positive response

q = 16% of the negative response

e = 5% of the limit of levance error (10.95)

q = 1 - P = 1 - 0.83 = 0.17

$$\text{Therefore } n = \frac{(1.96)^2 \times (0.83) \times (0.17)}{0.05^2}$$

$$= \frac{3.8416 \times 0.141}{0.0025}$$

= Approximate 217

### 3.5 SAMPLING PROCEDURE

Our respondents numbering 217 were randomly selected Rice Marketers. The respondents are made up of consumers of Rice, Rice

marketers consumer, participants and sellers in the ratio of 70:50:30:27. The ratio structure is justified by the fact that we have greater number of consumers of rice. All the 217 questionnaire administered were returned, due to the researchers meticulous attitude.

## 3.6

**QUESTIONNAIRE DISTRIBUTION SCHEDULE**

PLACES	CONSUMERS	MIDDLEMEN
Effium	50	50
Izogo	50	50
Nwofe	50	50
Isimkpuma	47	47
Amagu	20	20
<b>TOTAL</b>	<b>217</b>	<b>217</b>

**METHOD OF ANALYSIS**

Data collection from the study were assembled and grouped into frequencies for easy understanding.

Simply percentages were computed to make the analysis of the tables easier. The simple percentage also makes comparison of responses quicker. Hence the formula used is:

$$\frac{X}{N} \times \frac{100}{1}$$

Where  $x$  = number of responses or frequency

$n$  = total number of questionnaire.

In addition, the data was analysed in tabular form using chi-square, correlation analysis and test of proportion were used in evaluation the results as well as testing the hypotheses.

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF DATA

#### 4.1 INTRODUCTION

The classes of primary data were used for this study. One obtained through the survey of the middlemen who deal on rice.

For the consumer survey two hundred and seventeen (217) were distributed to consumer or rice out of which all were returned giving a response rate of 85%.

Table 4.1 shows the overall response ratio of the consumer survey.

**TABLE 4.1**

#### RESPONSE RATIO OF CONSUMER QUESTIONNAIRE

	NUMBER	PERCENTAGE
Returned	217	100%
Not Returned	-	-
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

For the middlemen questionnaire, the same two hundred and seventeen (217) questionnaire were distributed and were duly returned, giving a response ratio of 100%.

**TABLE 4.2**

**RESPONSE RATIO OF MIDDLEMEN  
QUESTIONNAIRE**

	<b>NUMBER</b>	<b>PERCENTAGE</b>
Returned	217	100%
Not Returned	-	-
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

Response to consumer questionnaire distributed according to sex showed that eighty two out of the two hundred and seventeen respondents were male representing 30% while the remaining one hundred and thirty five were female.

This is show in Table 4.3.



**TABLE 4.3**

**CONSUMER QUESTIONNAIRE RESPONSE RATIO  
ACCORDING TO SEX**

	<b>NUMBER</b>	<b>PERCENTAGE</b>
Male	82	30%
Female	135	70%
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

#### 4.2 CONSUMER SURVEY RESULTS

The consumer questionnaire was designed with a view to finding out the impression of the consumers about rice marketing in Ebonyi State. The survey started by trying to find out the level of patronage enjoyed by rice in the market. To get this information the respondents were asked to rank or list 3 of most popular grains in the market in order of preference or mostly patronized.

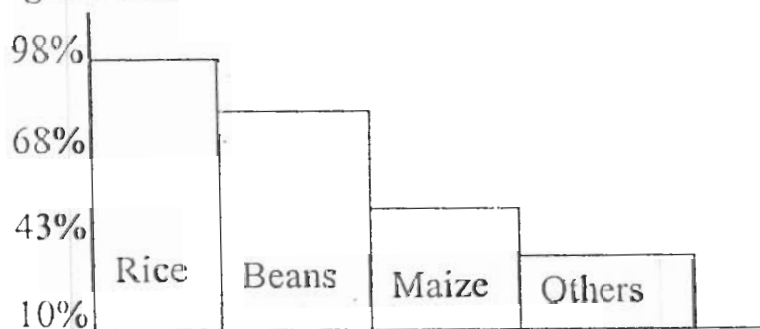
The result to this survey is presented in

**TABLE 4.4 BELOW:****CONSUMER'S RANKING OF GRAINS IN ORDER OF PREFERENCE**

GRAINS	NUMBER	PERCENTAGE	RANK
Rice	195	90%	1 <sup>st</sup>
Beans	148	60%	2 <sup>nd</sup>
Maize	93	43%	3 <sup>rd</sup>
Others	22	10%	4 <sup>th</sup>

The result showed that 195 out of the 217 respondents buy rice representing 90% while 148 of them buy beans representing 60% and 93 which represent 43% by maize.

Other grain like sorghum, millet etc, were covered under "others" and this attracted a 10% patronage. This result was further expressed in a histogram.

**Figure 4.11**

From the result, rice ranked first among the grains as most preferred by the consumers. Followed by beans with 68% and maize occupied the 3<sup>rd</sup> position with 43% patronage.

A further question was asked with a view to finding out the factors that influenced the consumers choice of grain rice in preference to other grains. The question result is presented in Table 4.5. The result showed that 55% of the respondents buy rice because it is always available, 30% buy because it is convenience to prepare.

While the next 8% buy because it is cheap, the remaining 7% says it is a matter of choice.

**TABLE 4.5**

**RESPONSE TO WHY CONSUMERS PREFER TO OTHER GRAINS.**

FACTORS	NUMBER	PERCENTAGE	RANK
Availability	119	55%	1st
Convenience	65	30%	2 <sup>nd</sup>
Low Rice	18	8%	3 <sup>rd</sup>
Choice	15	7%	4 <sup>th</sup>
<b>TOTAL</b>	<b>217</b>	<b>100%</b>	

A further question sought to find out the source of purchase of the respondents and the question "From whom do you buy" was asked. The result is shown in

**TABLE 4.6**

**CONSUMERS SOURCE OF PURCHASE OF RICE**

SOURCE	NUMBER	PERCENTAGE
Retailers	180	83%
Wholesalers	22	10%
Farmers/Processors	33	15%
Supermarkets	22	10%
Others	15	7%

The result shows that most of the respondents buy from market retailers. 180 out of the 217 respondents i.e 83% buy from this source. 15% or 33% of the respondents buy directly from the farmers or processors. 10% each buy from wholesaler and supermarkets. While 7% buy from others sources. It is pertinent to explain that a person who buys from (say) the farmer/processors can still buy from the retailers sometimes.

In order to find out the units of measures used in rice market the respondents were asked the question "How do you buy". The result shows that majority of the customers buy in cups. 195 out of the 217 respondents or 90% use this method. Other measures suggested were mudu. (10%) Bushels (17%) Bags (9%) packets (3%) and other" (70%) This result is presented in Table 4.7

**TABLE 4.7**

**STANDARD OF MEASURES WITH WHICH  
RESPONDENT BUY**

	NUMBER	PERCENTAGE
Cups	195	90%
Mudu	-	-
Bushels	37	17%
Bags	20	9%
Packets	7	3%
Others special	15	7%

## 4.2 COMPETITIVE POSITION

Rice imported into the country compete with the locally produced rice. This survey therefore sought to discover the competitive strengths of the locally produced rice, hence question 8 of the consumers questionnaire read "what type of rice do you generally buy?"

Respondents were allowed to indicate whether they mostly buy local rice or foreign rice. Table 4.8 show the results of the responses.

**TABLE 4.8**

**CONSUMERS PREFERENCE OF LOCAL OF FOREIGN RICE**

	NUMBER	PERCENTAGE
Foreign	87	40%
Local	130	60%
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

The table shoes that 87 out of the 217 or 40% respondents mostly buy foreign rice while 130 or 60% of them patronize local rice.

Further question was marked in order to determine the factors that influence their preferred types.

Question 9 read, "why do you prefer that type?" The result is presented in Table 4.9.

**TABLE 4.9**  
**FACTORS THAT INFLUENCED THE CONSUMERS**  
**REFERRED TYPE OF RICE**

	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
It is cheaper	65	50%	6	7%
Quality	39	30%	55	63%
Well packed	7	5%	15	17%
Taste	19	15%	11	13%
<b>TOTAL</b>	<b>130</b>	<b>100%</b>	<b>87</b>	<b>100%</b>

The result of the survey shows that most consumer (50%) buy local rice because they considered it cheaper while most 63% buy foreign rice because of the perceived quality. On noticing the emphasis on quality for foreign rice a few of the respondents were interviewed to know what quality is better (i.e stone free) only a small percent of the respondents are interested in taste both for the local and

foreign rice. This seemed to confirm the view that quality is not often associated with taste.

The low price command of the local rice seemed to give it a comparative advantages over its foreign counterparts, as half of the people who patronize it do so because of its cost. An impressive 30% acknowledge its quality. This implies that with a little effort, the quality of the local rice could be improved to appeal to customers more than price, because appeals with price may not carry for a long time as people give less consideration to price difference as their income improves.

Package appear to be neglected totally with regards to local rice but 17% attention it received with respect to foreign rice shows some people really mind. This means that is can be made a strong competitive instrument, even in the marketing of local rice.

The survey tired to find out if the consumers were aware of any form of product differentiation existing in rice market. The result which is presented in table 4.10 shows that III out of the 217 respondents representing 51% were aware of such differentiation,



while 85 or 39% said that no form of product differentiation exists. 10% however declared that they do not know if it exists.

**TABLE 4.10**

**EXISTENCE OF PRODUCT DIFFERENTIATION IN RICE MARKET**

	<b>NUMBER</b>	<b>PERCENTAGE</b>
Yes	111	51%
No	85	39%
Do not know	21	10%
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

This question was followed up with oral interview of few of the respondents, who confirmed the existence of price differential. Although the respondents tried to associate different products types with different prices, they still felt that the differences in product types were not so obvious. All the same, the associated high price with quality product in rice market. Few questions were asked about the prices of rice in the state. Question 4.11 tried to find out the state of price while question 4.12 of the same consumers questionnaire tried to

find out the reason for price fluctuation. (if any). The results are presented in tables 4.11 and 4.12.

**TABLE 4.11**

**STATE OF PRICE IN THE RICE MARKET**

	NUMBER	PERCENTAGE
Always increasing	196	90%
Generally steady	4	2%
Not ready	13	6%
Reducing	4	2%
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

The above table shows that 90% of the respondents perceive the price of rice in the state as “Always increasing”, while 6% think that it fluctuates, that is rising at one time and falling the next time. On reason for the change in price, 40% of the respondents believed that cost of production is responsible while 25% of felt that it was due to seasonal variations, 20% and 15% blame that fluctuation on supply source and middlemen respectively.

In concluding the consumers questionnaire, respondents were asked to suggest the way of improving the market-ability of rice in the state. Many suggestions were proffered among which were:-

- i. Proper destining of the local rice
- ii. Packaging the rice in small-standardised units like 10kg, 25kg bags.
- iii. Improve storage system to ameliorate seasonal supply problems.
- iv. Construction and improvement of rural roads to facilities excavation of farm produce from hinterland of urban cities.
- v. Abolition of trade association.

#### 4.3 MIDDLEMEN SURVEY RESULTS

The two hundred and seventeen (217) middlemen questionnaire were distributed throughout the five urban arrears in Ebonyi state and the returns from each of the town was recorded and presented in 4.12. In all, 217 questionnaire were returned out of 217 distributed representing a return rate of 100%.

TABLE 4.12

**DISTRIBUTION MIDDLEMEN QUESTIONNAIRE AND  
RETURN RATE**

	NO DISTRIBUTED	NOT RETURNED
Effium	50	50
Izogo	50	50
Nwoge	50	50
Inyimaigu	47	47
Isinkpuma	20	20
<b>TOTAL</b>	<b>217</b>	<b>217</b>

The respondents were asked to indicate the category of channel member they belong to with the question, "What position do you occupy of the channel of distribution"?

The result which is presented in table 4.13 shows the one hundred end sixty-five out of them were retails while twenty to of them or 10% were wholesalers. About thirty perform both wholesaling and retailing function and represents 14% of the respondents.

TABLE 4.13

## POSITION OCCUPIED IN THE CHANNEL

NUMBER	PERCENTAGE
165	76%
22	10%
30	14%
217	100%

Respondents were further asked to indicate whom they buy from. This was with the view to establishing the length of the channel. Result shows that 60% of the respondents buy from wholesalers while the remaining 40% buy straight from the farm or the processors.

Further question was asked to know the source of supply. In response the following towns among several were mentioned as the major sources of supply.

- a. Effium
- b. Isinkpuma
- c. Nwofe

- d. Izogo
- e. Okporo
- f. Ekebeligwe
- g. Onueke
- h. Amagu

#### 4.4 PRICING

To determine how price of rice are fixed in the market, the middlemen were asked to indicate the method used most. Three suggestions were given namely.

- i. Haggling a bargaining,
- ii. Fixed per measure
- iii. Market condition.

The result is presented in table 4.14

TABLE 4.14

## METHOD OF FIXING PRICES

	NUMBER	PERCENTAGE
Haggling or bargaining	54	25%
Fixed per measure	22	10%
Market condition	141	65%
<b>TABLE</b>	<b>217</b>	<b>100%</b>

Result shows that majority price their product in line with prevailing market condition. This category represents 65% of the respondents or 141 out of 217 of the respondents.

The next 25% bargain their prices while 10% just fix their prices per measure. Further enquires were made as to what constitutes, "market condition". The middlemen said that cost of producing rice and its yield on one hand and availability of processing facilities and action of the dealers, all go to determine the supply level in the market which in two influences the market price.

Transportation cost also was mentioned as one of the major cost factors and the researcher wanted to know the extend to which transportation cost affects their prices and asked the question "How

much does transportation cost affect your total cost? The result is presented in table 4.15

**TABLE 4.15**

**EFFECT OF TRANSPORTATION COST ON TOTAL COST**

	NUMBER	PERCENTAGE
Not much	33	15%
Much	65	30%
Very much	119	50%
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

The result shows that 55% of the respondents feel the cost of transportation exerts is lot of influence of the total cost and eventually the final price at which the product is sold to consumers, 30% thinks the cost is much while 15% think the impact is not much. The variation seem to reflect the distance between the respondents destination and the market (source of supply) on one hand and the road condition on the other hand because these factors affect the total transportation cost.



#### 4.5 FUNCTION OF MIDDLEMEN

In order to identify the functions performed by middlemen in rice marketing the respondents were required to mention the auxiliary functions they perform along the channel, that is from the time they bought the rice to the time they sold it off. In response the following identified functions were ranked in the order by which they are performed by the respondents. This is presented in table 4.16

Functions of middlemen in rice market.

FUNCTIONS	NUMBER	PERCENTAGE
Transportation	119	55%
Warehousing	115	50%
Assembling	43	20%
Packaging	43	20%
Processing	33	15%
Financing	22	10%
Promotion	20	9%
Other	-	-

The middlemen were further asked whether they belonged to any cooperative society with respect to their role as rice sellers. 28 out of 217 belonged to a society while as much as 189 representing 87%

of the respondents do not belong to any co-operative society as shown in table 4.15.

**TABLE 4.17**

**DO YOU BELONG TO ANY CO-OPERATIVE AS A RICE SELLER.**

	NUMBER	PERCENTAGE
Yes	28	13%
No	189	87%
<b>TOTAL</b>	<b>217</b>	<b>100%</b>

In conclusion the respondents for middlemen questionnaires were asked to mention the problems.

They encounter in the course of carrying out their business as rice seller. Many problems were mentioned but the major once are listed below:-

- a. Bad roads
- b. Lack of adequate and serviceable transport facilities. Only road routes are available to the hinter lands and even the roads are

not in good condition. Vehicle spare parts are very costly that most vehicle are not in such good condition to play rural roads.

- c. Scarcity of the product. Rice farming involves a lot of difficult processes that discourage many farmers from venturing into it.
- d. Weather condition – rice production is very susceptible to weather vagaries, so that any slight change in the weather can cause a lot of problem both in its field and its processing. As a result, the supply level cannot be predicated with certainty.
- e. Lack of adequate milling machines. Sometimes breaking down of a machine during season results to a shortfall in supply. Also destining and pre-cleaning machines are not yet very popular.
- f. High prices – because of high cost of production and the prevailing uncertainties in output, prices are generally high. To mention also is the pressure of demand, which is always high.

#### 4.6 TESTING OF HYPOTHESIS

The following hypotheses were tested;

Hi-price changes of rice in Nigeria are not a result of inadequate supply of the product.

To test the above hypothesis, the opinion of the consumers was sought as to whether there were changes in the price of rice. More than 90% believed that there were changes which mostly favoured increase in price (table 4.4). On the reason for the price changes, a total of 60% of the respondents. Believed that it was due to supply problems using the test of proportion,  $H_1$ , would be tested at 5% and % levels of significance whether the changes in price was actually due to supply problems.

The Null hypothesis ( $H_0$ ) suggests that the changes were not due to supply problems while the alternative ( $H_1$ ) suggests that the changes were due to supply problems. If therefore, the calculated Z – score ( $Z_0$ ) is greater than the expected Z – score ( $Z_e$  at the various levels of significance, the null hypothesis would be rejected hence accepting the alternative ( $H_1$ ). It is expected that at least 50% of the population would support this opinion that changes in prices was due to supply problems, hence

$$H_1 - P - 0.5$$

$$H_1 - P - 0.5$$

From survey it was gathered that 60% (0.7) supported the opinion that changes in price was due to supply problem. This proportion is hereafter considered as the success rate (P).

$$\frac{ZO - P - P}{Pa/n}$$

Where P - Expected Proportion

P - Observed proportion

Q - 1 - P

n - Sample size

ZO - Calculated Z - Score

$$ZO = \frac{(0.6 - 0.5)}{\frac{(0.5 \times 0.5)}{217}} = \frac{0.1}{0.0339411} = 2.946$$

At 5% level of significance  $Z_c = Z_{0.5} = 1.645$

At 1% level of significance  $Z_c = Z_{0.01} = 2.33$

Therefore at both levels of significance,  $ZO > Z_c$ , as such the null hypothesis is rejected, accepting the alternatives which suggested that changes in price was due to supply problem.

$H_2$  – transportation cost does not greatly affects the price of rice in the market.

To test the above hypothesis, the opinion of the respondents as shown in table 4.15 on the effect of transportation cost on their total cost would be used. A test of proportion would be tested at both 5% and 1% levels of significance.

The null hypothesis ( $H_0$ ) suggests that transportation cost does not affect the price of rice in the market while the alternative ( $H_1$ ) suggested that it does. If the calculated Z – Score is greater than the expected Z – Score at the various levels of significance the null hypothesis will be rejected the alternative will be accepted. To hold that transportation cost actually the price of rice in the market, more than 50% of the population must subscribe to that opinion, hence

$$H_0 - P = 0.5$$

$$H_1 - P = 0.5$$

$$\& - 0.01; 0.05$$

From the table (4.15) .85% asserted that transport cost “much/very much” affect the total cost of rice.

This proportion is here considered as the success rate:

$$ZO = \frac{P_1 - P}{\sqrt{PQ/n}}$$

Where

P = Expected proportion

P<sub>1</sub> = Observed proportion

Q = 1 - P

n = Sample size

ZO = Calculated Z - Score

ZO =  $\frac{0.85 - 0.5}{\sqrt{\frac{0.5 \times 0.5}{217}}}$

$$\frac{0.5 \times 0.5}{217}$$

217

$$\frac{ZO = 0.35}{0.0339411} = 10.312$$

At 5% level of significance  $Z_e = Z = 1.645$

At 1% level of significance  $Z_e = ZO = 2.33$

At both levels of significance,  $ZO > Z_e$  10.312

(1.645 or 2.33), the null hypothesis which states that the transportation cost do not affect the price of rice in the market is therefore rejected.

The alternative, which states otherwise is hereby accepted. It is therefore accepted that transportation cost greatly affected the price of rice in the market.

$H_3$  – marketing mix strategies are not consciously adopted in the marketing of rice in the state.

At various stages in this survey, questions were asked about the application or otherwise of marketing mix. In some cases however, the question may not bother directly on the mix itself but on an attribute of the mix. For instance, storage and warehousing are attributes of distribution or place mix. In such situation the attributes would be used instead to represent the mix, which it pertains to using the contingency table presented in 4.18, the test of independence chi-square would be used to test whether there is a significance difference in attributes of the table at 5% and 1% levels of significance.



In this test, the null hypothesis ( $H_0$ ) suggests that there is an association between adoptions of marketing mix elements and the elements themselves. While the alternative hypothesis ( $H_1$ ) suggest that there is no association – precisely, that the operation of marketing in rice market is independent on the adoption of marketing mix. If therefore the observed chi-square value  $x^2_o$  is equal or less than the expected value  $x^2_o$ , then null hypothesis would be accepted. If on the other hand  $x^2_o > x^2_c$  then null hypothesis is rejected and the alternative will be accepted. This will be interpreted to mean that marketing mix strategies are not consciously adopted in the marketing of rice in the state.

**TABLE 4.18**

**CONTINGENCY TABLE**

	MARKETING MIX ADOPTED	MARKETING MIX NOT ADOPTED	
Product and producing	117(99.49)	100(117.51)	217
Pricing methods	124(99.41)	93(177.59)	217
Promotions	66(99.41)	151(117.59)	217
Place (storage & warehousing)	109(99.41)	108(177.59)	217
<b>TOTAL</b>	<b>204</b>	<b>241</b>	<b>868</b>

**NOTE:** The expected frequencies are enclosed in parenthesis and are calculated as row total times column total divided by grand total for each cell.  $X^2_o$

$$X^2_o = \frac{(O. e)^2}{2}$$

$$\begin{aligned} & \frac{(117-99-49)^2}{99.49} + \frac{(100-117.51)^2}{117.51} + \frac{(124-99.412)^2}{99.41} \\ + & \frac{(93-117.59)^2}{117.59} + \frac{(66-99.41)^2}{99.41} + \frac{(151-117.59)^2}{117.59} \\ + & \frac{(109-99.41)^2}{99.41} + \frac{(108-117.59)^2}{117.59} \\ = & 3.082 + 2.61 + 6.08 + 5.14 + 11.23 + \\ & 9.49 + 0.93 + 0.78 \\ X^2_o = & 39.432 \end{aligned}$$

$$\begin{aligned} \text{Degree of freedom} &= (r-1)(K-1) = (4-1)(2-1) \\ &= 3 \times 1 = 3 \end{aligned}$$

$$\text{at 5\% level of significance} = x^2_{.05} = 11.345$$

The result therefore shows that the observed value  $x^2_o$  39.342 is greater than the expected values at 5% and 1%

respectively (7.815 and 11.345). Hence the null hypothesis is rejected and alternative which states marketing mix strategies are not consciously adopted is accepted.

H4 – locally produce rice cannot compete effectively with foreign rice.

To test the above hypothesis, table 4.9 which evaluated the competitive opportunities and threats of both the foreign and local rice was used. A test of difference between two population means was used and tested at both 5% and 1% levels of significance.

The null hypothesis states that the local rice cannot compete with foreign rice while the alternative ( $H_2$ ) says that it can compete.

If therefore the observed value is greater than the expected value we shall reject the null hypothesis and accept the alternative.

$$H_0: N_1 = N_2$$

$$H_1: N_1 \neq N_2$$

$$; \quad 0.05; \quad 0.01.$$

calculating with the data on the table, the statistics were determined as follows:

$$\text{For } N_1; n_1 = 130 \quad x_1 = 32.5 \quad S_1 = 17.36$$

$$\text{For } N_2; n_2 = 87 \quad x_2 = 21.75 \quad S_2 = 14.47$$

To calculate the observed value in the test of difference for a large sample.

$$Z_0 = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

Where  $\bar{x}$  = means scores

S = standard error

n = sample size

Z<sub>0</sub> = observed z - score

$$\frac{32.5 - 21.75}{\sqrt{\frac{(17.36)^2}{130} + \frac{(14.47)^2}{87}}}$$

$$= \frac{10.75}{\sqrt{2.32 + 2.41}}$$

$$= \frac{10.75}{2.1749}$$

$$= 4.943$$

From the normal curve table Z - score

At 5% level of significance  $Z_{.05} = 1.649$

At 10% level of significance  $Z_{.10} = 2.33$

At both levels of significance, the observed value is greater than the expected values, hence the  $H_4$  which suggests that locally produced rice can compete effectively with foreign rice accepted.

## CHAPTER FIVE

SUMMARY, IMPLICATIONS AND  
RECOMMENDATIONS, AREA FURTHER RESEARCH  
AND CONCLUSION

## 5.1 SUMMARY OF FINDINGS

The following major findings were made:-

1. It was found out that the prevailing price fluctuation in rice market stems mostly from supply problems.
2. Locally produce rice could compete effectively with foreign rice, its major competitive advantages are based on the price and tests of the local rice.
3. The practice of marketing in rice industry is yet at the selling concept only. The modern marketing concept is still lacking hence no conscious effect is being made to adopt the marketing mix strategies.

4. In the organizational structure of the industry, marketing is not given any recognizable position and as such no obvious attempt is made towards planning marketing efforts.
5. Transportation cost constitutes substantially to the total cost of marketing hence greater part of the cost borne by the consumers at the market could be relieved through proper transportation management.
6. Most of the problems encountered by the producers (rice farmers and processors) are infrastructural and technical. If therefore adequate attention is given to the problems, they can be solved and the supply of rice improved.
7. Rice as a staple food in Nigeria today is a universal product which can be cultivated in various areas of the country, and consumed in even wider areas of the country. The industry therefore, possesses great potential for increasing production and market development.

8. The following conditions call for proper consideration and improvement, if consumer satisfaction must be achieved in the industry:
- i. Reduction and regularization of prices
  - ii. Improvement of quality through proper destoning and pre-cleaning method.
  - iii. Packaging of the commodity is smaller and convenient units of 5kg, 10kg and 25kg bags.
  - iv. The branding and leveling of the production reflect the quality and/or preparation methods.
  - v. The consumers consider the presence or trade associations as detrimental.

Other findings of the research include:-

- a. Most of the farmers are small scaled.
- b. Most of them do not belong to co-operative societies.
- c. The farmers benefit immensely from the results of research findings done and submitted by previous researchers.



## 5.2 CONCLUSIONS

Based on the researcher's vast knowledge of the theory and practice of marketing, and his painstaking effort to bring about the information that will lead to the development and growth of rice marketing in Ebonyi State in particular and Nigeria in general, data from both primary and secondary sources were collected and evaluated with known statistical tools. The hypothesis statements of the research were tested at both 5% and 1% levels of significance. As a result, the following conclusions were made:-

1. That the changes in price of rice was due to supply problems.
2. That transportation cost greatly affects the price of rice in the market.
3. The marketing mix strategies are not consciously practiced or adopted by rice marketers in Ebonyi State.
4. That locally produced rice can compete effectively with foreign rice.

### 5.3 RECOMMENDATIONS

That ever increasing price noticed in the research was not a healthy development because such uncontrolled increase in price will weaken the competitive strength of the local rice. If this trend is left unchecked the foreign brand will have competitive edge over the local rice more especially now the consumers preference favour it in quality.

If this is allowed to happen, it will have a serious consequence on the rice marketers. It is therefore recommend that rice marketers should set their objective by maintaining a steady price in the market. If prices must increase at all, then the margin of such increase should be controlled. This they can do by adjusting some of their internal variables. For instance, they can increase their production capacity and supply more of the product to the market; on the other hand, the farmers can cut down on the distribution chain by assuming some of the marketing function like processing and storage. They can also improve their processing facilities. This arrangement can not only increase supply but will also improve the quality of the product, and

as such grain back the market that is already being lost to foreign brands of the product.

The market for rice in Ebonyi State is dominated by sole proprietors who are or less small scaled. Besides, the marketing philosophy still being practiced by these operators is the selling concept where no overt effort is made to satisfy the consumer. Even though the practice is an outdated marketing approach but the traders seemed to be satisfied with it because they appear to be enjoying the glory of a sellers market. This situation obviously cannot last for so long considering the tempo of development in Nigerian market. It is therefore recommended that the marketers should organize themselves and establish larger concerns. This will enable them to introduce a modern marketing and management techniques into the business as experts will then be involved in its operation. Moreso, a more formal organisation can benefit from bank loans and improve its facilities.

Transportation and distribution cost constitutes a substantial part of the cost of marketing rice. It is suggested that rice marketers should form a co-operative society. This will enable them buy, haul

and store the product in larger quantity as well as enjoy a large scale advantage.

Beside, if the marketers are organized they will be in a better position to influence the government to provide some of the necessary infrastructures needed to facilitate the distribution of their product.

#### 5.4 AREAS TO FURTHER STUDY

This study concentrated on the marketing of rice grains, which has very great potential to grow. If the expected happens, then there is going to be attendant problems of storage and distribution technique. A further research could therefore undertake to study the best way of storing and distributing the grains to save cost.

Furthermore, when supply grows enough to satisfy the market demand, there is the need to know other used of the product. A further research can be undertaken to study the problem. Example of this is grinding rice into rice flour.

With the establishment of ECOWAS as a trade zone, it provides further opportunities for local producers and businessmen to expand their market.



Department of Marketing  
Faculty of Business Administration  
University of Nigeria  
Enugu Campus  
8<sup>th</sup> March 2003.

Dear Sir/Madam,

**RE-MARKETING OF RICE IN ABAKALIKI (A CASE STUDY OF EBONYI STATE)**

I am a post graduate student of the Department of Marketing University of Nigeria, Enugu Campus, conducting a research on the above project topic.

I view of the above the propose of this questionnaire is to collect data for academic use on issues connected with the project topic. I would appreciate it if you could assist me by completing this questionnaire adequately and sincerely.

This is in partial fulfillment of the requirement for the award of masters in Marketing Administration by the University. The information supplied would be treated as confidential and used specially solicit for your co-operation.

Yours sincerely,

**JOSEPHINE N. OLUOHA**

**BIBLIOGRAPHY**

- Jefkins, F. Introduction to Marketing and Public Relations London; the Mac Milians Press, (1984).
- Kest, K. Public Utilities and Industrial Policy London Herold and Danbeat, (1975).
- Nwabuko, P. Fundamental of Statistics, Enugu; Koruna Publisher, (1896).
- F. A. O. Food outlook No.6 (1982).
- C.B.N Economic and Financial Review volume 28 No2 (Lagos, Nigeria, (1990).
- Baker M. J. Market Strategy and Management London Macmillian (1985).

- Boone L. E. and D. L. Kurtz, Contemporary Marketing (1974).
- COXR, Distribution in a High – Level Economy Englewood Cliffs, New Jersey Prentice – Hall (1965).
- Cravens, David W. Strategic Marketing Homewood Illinois: Richard D. Irwin Inc. (1982).
- Careens D. W. et al. Marketing Decision Making: Concept and strategy Illinois R.D Irwin Inc. (1982).
- Drucker P, Marketing and Economic Development Journal of Marketing Vol. 22 No 3, January (1958).
- Haper Royal Jr. W and William F. Massy, Marketing Management (New York 1972).



- Kerby Joe Kent, Essentials of Marketing Management  
S. W. Publisher Co. (1970).
- Kotler Philip, Marketing Management Analysis,  
Planning, and Control, Prentice Hall,  
Inc, (1984).
- Nwokoye N. G; Modern Marketing for Nigeria  
London: Mac Millian Publisher, Ltd.  
(1987).
- Nwokoye N.G. Strategic Marketing: A case  
Approach, Onitsha Jet Publisher (Nig)  
Ltd. (1989).
- Osuala E. C. Fundamentals of Nigerian Marketing  
(Obosi Pacific Publisher (1988).

## MIDDLE MEN QUESTIONNAIRE

Please indicate your choice of answer by ticking on the appropriate space, and supply the necessary information where required.

Business Name:.....

Town:.....

Location:.....

Business Status:.....

1. Sex of respondents Male  Female
2. What position do you occupy in grain distribution channel?  
Wholesaler  Retailer
3. From whom do you buy? Wholesaler/Dealers   
Processor/Farmers
4. From where do you buy? Indicate town(s).....  
.....
5. How do you determine your prices?
  - i. Haggling
  - ii. Fixed per measure
  - iii. Market condition (Cost plus)

iv. Market going-rate

6. How much does the cost of transportation affect your total costs? (i) Not much  (ii) Much  (iii) Very much

7. As a middlemen what other functions do you perform in the channel of distribution? (i) Processing  (ii) Assembling   
(iii) Transportation  (iv) Warehousing  (v) Packaging   
(vi) Funding (Financing the Farmers)  (vii) Others

8. What problems do you encounter as a middleman?.....  
.....

9. Do you belong to any form of co-operation society as a rice seller? Yes  No

10. Suggest ways of improving rice market in the

State:.....  
.....  
.....  
.....  
.....  
.....

## CONSUMER QUESTIONNAIRE

Please indicate your choice of answer by ticking on the appropriate space and supply the necessary information where required.

1. Name (optional):.....
2. Town:.....
3. Age:.....
4. Educational Qualification:.....
5. Occupation:.....
6. Marital Status:.....
7. What grains do you buy: (i) Rice  (ii) Beans   
(iii) Maize
8. What factors influence your purchase of rice?  
Available  Convenience  Low price  Choice
9. From whom do you buy rice?  
i. Market Retailers  ii. Wholesalers   
iii. Processors/Farmers  iv. Supermarkets  v. Others
10. What type of rice do you buy? (a) Local  (b) Foreign

11. Why do you prefer that type?

	Local	Foreign
i. It is cheaper	.....	.....
ii. Quality	.....	.....
iii. Well packaged	.....	.....
iv. Very sweet	.....	.....
v. Others	.....	.....

12. What can you say about price of rice in the State?

- i. Always increasing
- ii. Generally steady
- iii. Not steady
- iv. Reducing

13. What causes the rice changes?

- i. Cost of production
- ii. Supply problem
- iii. Middlemen
- iv. Season

14. How do you buy (Standard of measure)?

i. Cups

ii. Mudu

iii. Bushels

iv. Bags

v. Packets

vi. Others

15. Do you think that there is any form of product differentiation in rice marketing? Yes  No

16. In what ways do you think the marketing of rice can be improved?.....

.....

.....

.....

.....

.....

.....

.....