THE INFLUENCE OF INTERMEDIARIES ON RURAL MARKETING IN KADUNA SOUTH LOCAL GOVERNMENT AREA

BY

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THE INFLUENCE OF INTERMEDIARIES ON RURAL MARKETING IN KADUNA SOUTH LOCAL GOVERNMENT AREA

A THESIS SUBMITTED TO THE DEPARTMENT OF GEOGRAPHY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF M.SC. RURAL DEVELOPMENT OF AHMADU BELLO UNIVERSITY

BY

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DECLARATION

I hereby declare that this thesis has been written by me and that it is a record of my own research work. It has not been presented to any previous application for a higher degree. All quotations are indicated and the sources of information are specifically acknowledged by means of references.

AMUSAYIN I. Tunde	13/03/2001 Date
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Head of Department	Date

DIGITIZED

CERTIFICATIION

This Thesis title: The Influence of Intermediaries on Rural Marketing in Kaduna South Local Government Area: by Amusayin I. Tunde meets the regulation of Master of science of Ahmadu Bello University, Zaria and it is approved for its contribution to Scientific Research, Knowledge and Literary presentation.

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I also remember the contributions of my colleagues and Mr. Eliza of KADP, I wish them God's blessings in the unending pursuit of knowledge.

DEDICATION

This research work is dedicated to my diseased parents (Mr and Mrs Amusayin Okotun) who wished to witness my academic success but were denied of it. I remember you always in my life - May your Gentle souls rest in perfect peace.

ABSTRACT

The need for agricultural marketing research arose from the inadequacy and inefficiency of the various farm produce marketing intermediaries and the failure of rural farming populace in the realization of adequate rewards from the efforts geared towards agricultural production.

Thus, it becomes imperative to shed research light on agricultural marketing activities especially agricultural pricing system, as this provides the signal to which farmers respond by either increasing or reducing their output. This response may be undertaken through horizontal expansion in which changes in areas under cultivation occurs, through vertical expansion in which changes in productivity is experienced (Kohls et. al, 1972), ultimately, it is agricultural price which determines resources allocation between farm and non-farm enterprises (Adegeye and Ditton 1985). Thus, the improvement in agricultural productivity and Living standard of small-scale farmers are largely occasioned by the marketing system.

Therefore, it has almost become customary believe that farmers are reaping a lot of gains from the hike in agricultural produce price. However, it is an established fact that the marketing system, performs a great role in the determination of what the farmers receive and what the consumer pays at the end of the day (Hussaini, 1990). In Nigeria, people have the notion that the marketing agents manipulate agricultural produce prices for the sake of raking in a great deal of gain at the expense or disadvantage of the local farmer and thus making the agents better-off. This research therefore, investigates the marketing system in relation to the agricultural commodity

pricing system and the effects on marketing agents' income in order to solve the aforementioned problems.

Hence, a total of 500 respondents were interviewed through Five sets of questionnaires which were spread over four settlements and their market and Badiko market centres. For this purpose, three agricultural commodities considered most popularly and widely consumed by the populace were given consideration in this research, e.g, Cowpea, sorghum and maize were chosen for the research.

However, the findings reflected a wide gap between the farmers and marketing agents, with these intermediaries making a higher gain than the farmers, who were at disadvantage with the agents. As a regard to this end, a farmer-biased strategy has been advocated to adequately tackle the problems of farmers.

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CHAPTER ONE

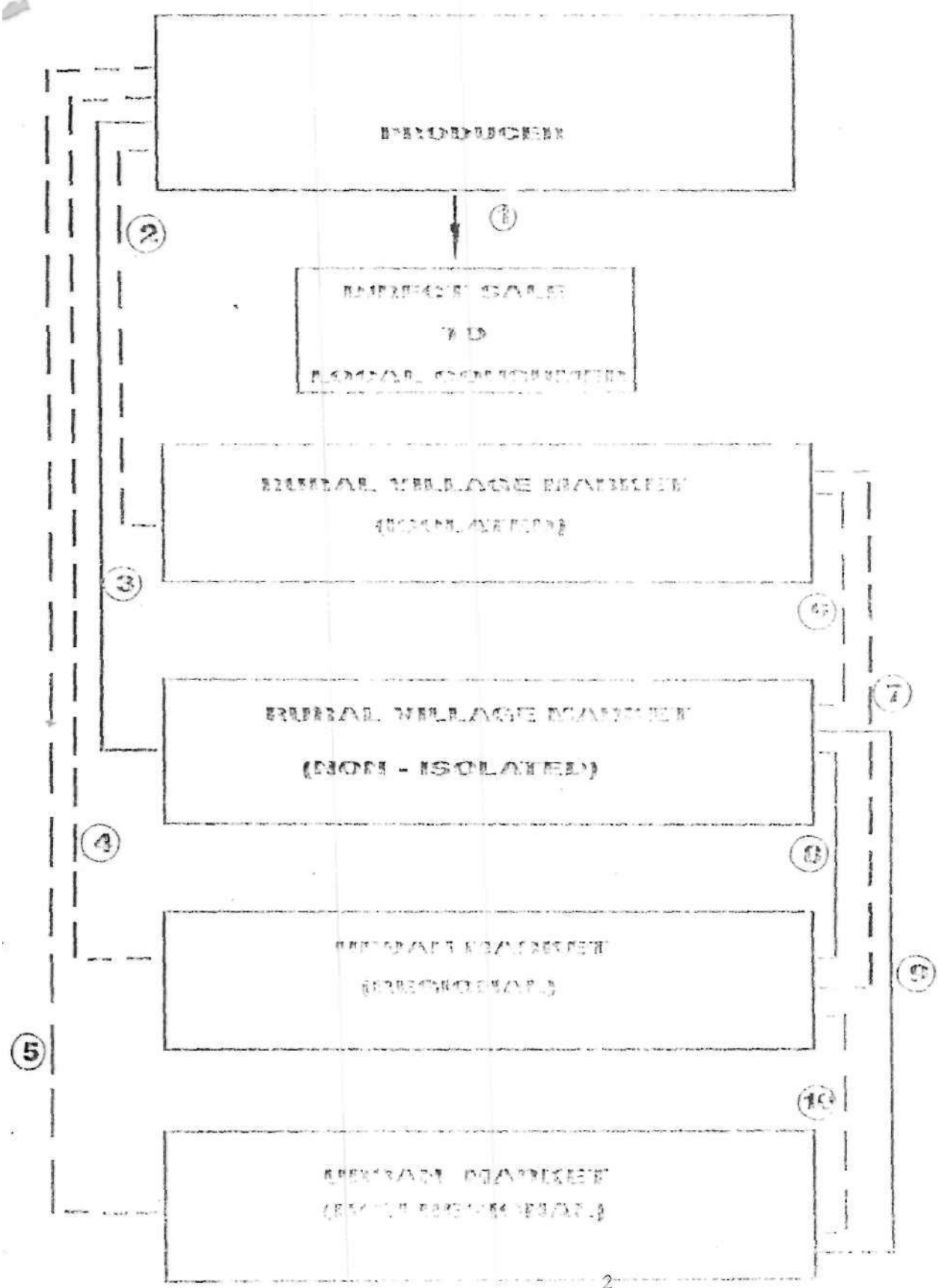
BACKGROUNDS OF THE RESEARCH

1.0 INTRODUCTION

Agricultural price provides the signal to which farmers respond by increasing their output. These may be achieved either by horizontal expansion through changes in areas under cultivation or by vertical expansion through increase in productivity (Kohls, et. al, 1972). Ultimately, it is agricultural price which determineS resources allocation between farm and non-farm enterprises (Adegeye and Ditton 1985). The improvement in agricultural productivity and living standard of small-scale farmers are largely determined by the marketing system.

Moreover, it has been estimated that only about 10 - 15% of the total production of sorghum and 5 - 10% of millet produced may be marketed around Kano City (Gilbert 1969). The corresponding figure for rice was above 50%. One reason for this is that both sorghum and millet are important in the local diet (Njoku - 1981). infact a separate study (Simmons 1971) indicate that sorghum and millet account for up to 70% of both calorie and protein intake of farmers in the Zaria area.

Production takes place in small quantities and is scattered over large areas. As a result the marketing system is required to assemble these small quantities and transport them to markets and urban areas. This involves a number of intermediaries, and these intermediaries were given by Hays (1973) - in a distributive process as shown in the Figure 1.


(NON - ISOLATED)
1
2
3
4
5
6
7
8
9
10

_____Denotes major rural-urban link

----------Denotes other possible links

Figure 1: Marketing system showing possible distribution channel of Millet & Sorghum.

Source: National accelerated food production programme - FDA (1975)

The customary belief is that the low level of efficiency in the system is due mainly to the monopolistic nature of the trade involved which in turn leads to the reaping of excessive profits by intermediaries. This study is therefore focused on finding out the effects of these intermediaries on the marketing channels (fig. 1.1) vis-a-vis their income and living standard and how these affect rural development of the chosen area.

1.2 RESEARCH PROBLEM

This success of any agricultural development depends to a large extent, on the performance of the marketing systems for the products (Njoku - 1981). This realization has attracted much public concern about the efficiency and performance of agricultural marketing system in Nigeria and other developing countries, in recent years.

This notwithstanding, published marketing studies are limited in number relative to farm production studies. Moreover, dissemination of findings of available studies is also found to be inadequate or lacking outright in most cases. As a result, relevant information needed for marketing improvement programmes tend to go unutilized. In the recent times within the government circle, the campaign for

agricultural development through the provision of farm inputs, credits and extension services to small-scale farmers has indeed resulted in increased agricultural output throughout the country, while at the same time the current economic depression and its resultant inflationary trends combined with the introduction of structural adjustment programme (SAP) led to rapid increase in the price of agricultural commodities. The structural adjustment programme (SAP) has had fundamental consequences on Nigerians society, politics and economy. Nowhere were these consequences so profound as in the drastic fall in the living standards of those sectors of the population dependent on fixed salaries. Most families engage in multiple mode of earning a livelihood as a survival strategy, which explains the mutual interaction between domestic units and macro socio-economic structure and processes especially in periods of rapid change and increased social stress.

Moreover, the introduction of SAP has led to the devaluation of Naira, abolition of the marketing boards, rationalization of subsidies on the cost of agricultural inputs, e.t.c. Initially, these actions had an untold hardship on local farmers. Surprisingly, today, some success stories are being told. For example, New Nigeria's report of 20th January 1990, drew attention to the achievement of SAP since it inception. Among these achievements are that: produces whose productions where declined to a near zero level have been rejuvenated e.g cocoa, rubber and palm produce; farmers in the villages now earn handsome amount of money from their crops; wheat cultivation has reduced the country's dependence on foreign sources for the supply of wheat to the flour mills; there is increased production of new products, etc.

However, these achievements notwithstanding, there is still a lot of poverty in

our society. Thus, it has become manifest that the average Nigerian finds it extremely difficult to live even at subsistence level due to the astronomical rise in price of staple food items. The trend has continued ever since and there is therefore a great expectation that the small-scale farmers in the country are now reaping the fruits of their labour due to the increase in income arising from the high price of agricultural products. The skyrocketing of agricultural commodity prices has led some top government officials to express delight at these high prices, believing it is to the advantage of farmers in the country. Although, many well-informed Nigerians have raised objection to the truthfulness of the statement, asking: whether it is the farmers who benefit or the marketing agents or the consumers? It is an established fact that the marketing system, especially the pricing of agricultural commodities, plays a great role in the determination of what the consumer pays and what the farmer receives at the end of the day (Hassaini, 1990).In Nigeria, people have the believe that the marketing agents manipulate agricultural prices in order to rake in a lot of gain at the disadvantage of the local farmer, thus, making these agents to be better-off.

This research therefore intends to investigate the marketing system in relation to the agricultural commodity pricing system and its effect on marketing agents income.

Thus, the temporal and spatial variations of grain food prices will be applied vis-a vis the question of whether the high prices of grain foods have resulted in increased of the generality of marketing agents; standard of living.

According to Idachaba etal, (1981), experience has shown that any strategy for agricultural development, however carefully formulated, cannot go very far to stimulate production without the pre-requisite of an efficient facilities for the safe and

economical handling of produce and institutional and legal support of orderly marketing. But not many studies or researches have investigated the marketing systems and pricing of grain foods vis-a-vis the income of marketing agents and their living standards. Rather researches on agricultural development had concentrated efforts on improving productivity of farmers while neglecting the significant part of marketing agents income and living standards. This study therefore, addresses itself to the problems highlighted above and attempts to tackle them within the framework of marketing agents', activities through the numerous marketing distribution channels.

1.3 AIM AND OBJECTIVES OF THE RESEARCH

The aim of this study is to determine the level of marketing agents' activities in the distribution of grain foods through the numerous marketing distribution channels in the study area. To achieve this aim, the following objectives were pursued:

a. To identify types of marketing system adopted.
b. To examine the variations in the prices of selected grain foods within the year and over the years taking 1994 as the base year
c. To examine the activities of marketing agents in the various marketing distribution channels.
d. To determine the extent to which marketing agents affect farmers income.
e. To identify the problems that marketing agents and farmers face in the process of grain food disposal.
f. To make recommendations on how the problems identified above can be

reduced.

1.40 RESEARCH HYPOTHESES

The basic hypotheses to be tested in this research work are:

a. That the seasonal hike in the prices of grain foods is caused by the marketing agents (middlemen) in their bid to maximize profits.

b. That inadequate storage facilities make farmers dispose off their grain produce at relatively low prices during the harvest period.

1.5 JUSTIFICATION OF THE STUDY

Marketing agents' activities had been on for many years in Nigeria, but studies are few (no enough study had been carried out) on their level of activities, living standards and the impact of these on farmers' income. Also very little use has been made of the data on grain food prices except as an indicator of the general price level in the economy, (Ingawa, 1983, Jones 1968). Moreover, as price serves as a significant guide for production and resource allocation in agriculture, research in grain food prices, income of marketing agents and their effects on farmers income would be of paramount importance to researchers, producers and technocrats (policy makers).

Thus, the data to be gathered will help towards:

i. Shedding light on the past and current activities of marketing agents in Kaduna State.

ii. Providing information on the income and living standards of the marketing agents.

iii. Identifying bottlenecks of marketing grain foods in the study area.

iv. Giving help to government on how the grain food prices, marketing agents' activities and farmers' income could be regulated in order to stimulate rural development in the selected area.

1.6 RESEARCH METHODOLOGY

In this study, different sources of data and other relevant materials were used. The sources can be broadly divided into primary and secondary.

1.6.1 Sources and types of Data

Primary Source of Data

The collection of primary data was carried out by administering sets of questionnaire, personal observation and interviews. In all, five sets of questionnaires are designed. The first set is to solicit information on the farmers' grain production.

The second set of questionnaire was specifically designed to generate information on local retailers/commission agents, has been drawn to elicit information on:

i. Price of purchase, cost and quantity.

ii. Employer if any and his place of residence

iii. Components of handling, transport and storage costs.

The fourth set of questionnaire was designed for urban wholesellers, to elicit information on:

i. Place of purchase, cost and quantity.

ii. Components of handling, transport and storage costs.

iii. Price sold and to whom.

The fifth set of questionnaire was designed for urban retailers.

It also sought the following information.

i. Place of purchase and cost.

ii. Components of handling costs (transport, storage, etc).

iii. Price sold (retail Prices).

One hundred questionnaires were administered in each case. Thus, altogether a total of 500 questionnaires were administered.

1.6.2 Sample Size and Sampling Procedure

All the markets in the study area were identified and located as shown on the map (fig 1.2)

To select the markets for study, stratified random sampling techniques were used. Thus, the markets were classified based on the following socio-economic characteristics:

i. Road linkages

ii. High population density

iii. Presence of large number of buyers and sellers

iv. Presence of commodities under study.

v. Presence of market stores

vi Periodicity of the markets.

The study area is made up of two districts, Namely Makera district and Tudun Wada district. The markets in each of the two districts were identified and arranged alphabetically and also numbered for classification as stated above. The markets

within the two districts were found to have same socio-economic characteristics based on the qualities of classification spelt out earlier on, with exception of minor differences.

Table 1.1 Alphabetical arrangement of markets and selection of markets based on socio-economic classification

Name of Market	Linked by Main road	High Pop. Density	Presence of Commodities under study.	Periodicity
A Makera District.				
1.Barnawa	1	1	1	Daily
2.Gonigora.	1	1	1	Daily
3.Kakuri	1	1	1	Daily
4.Makera	1	1	1	Daily
5.Romi	0	0	1	Daily
6.Television	1	1	1	Daily
B. Tudun Wada District.				
1.Badiko	1	1	1	Daily
2.Kabala.	1	1	1	Daily
3.Kurum	1	1	1	Daily
4.Ma'azu	1	1	1	Daily
5.Sanusi	1	1	1	Daily
6.T/Nupawa	1	1	1	Daily
T/Wada	1	1	1	Daily

N.B: 1: denotes presence of facilities sought for

0: denotes non availability of facilities sought for.

Under each of the two districts, the markets were arranged alphabetically to give room

for equal representation of each market. Under Makera district, only Romi market experienced slightly different socio-economic characteristic from other markets. Under Tudun-wada districts all the markets qualified under the socio-economic characterisation carried out on the markets. Thus two markets were selected from each of the districts, i.e. random selection, one from markets of high socio-economic characteristics and one from the market of slightly low socio-economic characteristics. Thus, Barnawa and Romi markets were selected on this basis under Makera district. Under Tudun-Wada district, the first and last markets were selected randomly to avoid the problem of `clustering' or bunching of data, since all the markets in this district qualified for selection and had been given equal chance of being picked on the basis of alphabetical arrangement of the markets and their socio-economic characterisations.

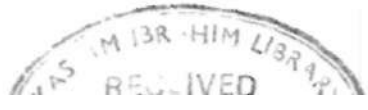
SELECTED MARKETS

- 475825

Table 1.2 C. Name of Market.

Makera District	Periodicity
1. Barnawa market	Daily
2. Romi market	Weekly
Tudun-Wada District	
3. Badiko market	Daily
4. Tudun-wada market	Daily

The four markets selected were observed as representatives of what obtains in the market delivery system elsewhere in the state. This statement is confirmed on the fact that, observation showed that there was no indication that the selected markets were in anyway unique compared with other market centres in the same locality. The



only difference can be seen as a result of the criteria adopted in their selection. Therefore, every third respondent was interviewed. The stratified sampling techniques was used to administer the questionnaires, because, in spatial sampling, in order to have a "Fair representation" of the markets under study, it is important that the samples are "evenly" spread to avoid the disadvantage of "clusters or bunching" that may arise from random sampling (Ehdon, 1977). This, therefore, ensures an `even' spread of the sample markets among the two districts of the study area. However, on the other hand the random sampling techniques was used to select the markets from each zone to give each market an "Equal chance" of being selected to avoid biases that may be introduced. Thus, every third respondent was selected on this basis for interview. A total of 100 farmers, 100 local or rural retailers, 100 rural/local assemblers and commission agents, 100 urban wholesalers and 100 urban retailers were interviewed. The overall size of the sample respondents is therefore, 500, which was considered adequate for thorough investigations.

SECONDARY DATA

A lot of reference materials and other very basic information necessary to this study were derived from published works in the following sources:

Research documents, such as project, theses' proceedings of symposia, workshops, seminars etc.

i. Record documents from state ministries, monitoring and evaluation Unit of Kaduna State Agricultural development project (KADP), libraries, Archives, etc.

ii. Published works, (such as text books, journals, magazines, and Newspapers).

METHODS OF DATA ANALYSIS:

The analysis of the data was done using both descriptive and inferential statistical techniques. In particular, non parametric test of association as well as parametric techniques were used. Graphs were also extensively used to analyse temporal and inter-temporal variations in the prices of selected grains. Specifically, coefficient of variation like pearson correlation coefficient had been extensively used to bring out the form of variations between the markets. This brought the mean, standard deviation, standard error, coefficient of variation and the variance between the variables. The moving average statistics were also employed to compute the price variations within and over the years. In all these cases, computer had been extensively and intensively applied for the computation and the analysis of data.

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

CONCEPTUAL FRAMEWORK

Analysis of formal structures of perfectly competitive markets in economic theory and empirical observation of organisational experience in the imperfect markets of the real world have led to the adoption of the "structure-conduct-performance" form of analysis as a tool of research for agricultural marketing investigations (Bain, 1959; Bateman, 1976). This structure-conduct-performance paradigm is popularly known as market structure analysis, which provides a model that may be used to assess the performance of the agricultural marketing chain. The main themes of the theoretical model are in the areas of market structures, conduct and performance.

Market structures are the characteristic or organization of a market which influence strategically the nature of competition within the market" (Bain, 1976).

The market conduct is "the pattern of behaviour which enterprises follow in adapting or adjusting to markets in which they buy (or sell)" (Ibid.p.9) Significant aspects of conduct include the methods employed to determine price, sales promotion and coordination policies and the extent of predatory or exclusionary tactics directed against established rivals or potential entrants.

Market performance refers to the economic results of structure and conduct and how well it performs in terms of efficiency and progressiveness. Thus, the outcomes are measured in terms of prices, profits, product and service, volume and qualities, product innovation and technical progress. Time series prices data are normally used

to explain the degree of competition in marketing system, like:

a. "Through inter-market price correlation, to indicate the degree of market integration widely integrated as an indicator of competition.

b. Through static analysis of the relationship between components of the distributive margin: the shares of producers and those of the various intermediaries - wholesalers and retailers, generally carried out for a limited geographical area.

c. Through dynamic analysis of the distributive margin comprising:

   i. The relationship between transport cost and intermarket price differences (via geographical plots, via regression analysis and via the analysis of average margins), to indicate the competitiveness of inter-regional trade:

   ii. The relationships between processing costs and differences in the prices for different product forms, in order to indicate the efficiency of product transformation.

   iii. The relationships between seasonal price fluctuations and storage costs, to indicate market competitiveness through time.

d. The calculation of annual and longer - term moving averages to investigating longer - period cyclical changes in the price level" (Harris, 1968, p.9-10).

(For instance) Prichard (1969) identified three principal components necessary for analysis of agricultural marketing systems in less developed countries.

The first component deals with the theories of general economics-relevant to agricultural marketing: e.g. theories of consumer demand, production and resource use pricing, and behaviour of the firm. This explains the rational behaviour of

consumers to goods produced which, of cause, are normally given preference to low prices by consumers, firms and even in terms of resource use or allocation, although at the expense of producers. The second concerns the theory of effective competition which is a result of modifications in the theory of firm representing contributions of Robinson, Chamberlain and Schumpeter (Clark 1940). Accepting to these modifications, the basic attributes of the competitive market implies that all buyers and sellers have perfect knowledge of demand, supply and prices and act rationally upon this knowledge. The implications are that if all the buying and selling is carried out at a particular point in space and at a single instant of time, then, a uniform price will prevail in market. To be more realistic one must stretch this concept of a market to consider the fact that marketing is carried out over a period of time. The expansion of the concept of a marketing to include space requires an analysis of transportation and handling costs between buyers and sellers at different locations (Pritchard, 1969).

2.10 MEANING OF MARKET AND MARKETING

Definition of market

"Market" or Kasuwa" in Hausa language was defined by Whetham (1972) as "institution for the exchange of goods and services, i.e., a place or point where people meet at regular time to purchase and sell commodities. "Moreover, Hodder and Ukwu (1969) defined market as "an authorised public concourse of buyers and sellers of commodities meeting at an appointed time". The definition of market had been given in this study because grain food marketing at authorised publics places, points and buildings where transactions in these commodities occur in orderly manner at specific

point in time, are the only ones considered under this study.

There are several points and places where some sellers, like women and children gather along the streets and where roads inter-sect, or in front of their compounds or houses where they engage in petty trading, such `marketing places or points' are not included in this research. The study does not also include marketing boards, departmental stores, super markets and street trading.

2.20 PERIODICITY OF MARKET OPERATION

Markets in the study area can be classified based on the periodicity of operation. Berry (1967), emphasised that markets could either be daily or periodic. According to Berry, daily market opens everyday, the periodic market opens only once every four days, or twice weekly and even weekly on a regular basis. Periodic markets had been classified into two types by Mabogunje (1968):

a. Provincial periodic markets. These periodic markets are usually held on every fourth day and attended by people living not too far away the market place.

b. Inter-kingdom periodic markets. These have a service area much larger than the provincial markets, where buyers and sellers come to the area from distances as far as 50 to 100km. Periodic markets perform some significant roles like collecting, breaking the bulks and even distributing locally produced and imported commodities, e.g. foodstuff, chemicals, textile materials, domestic goods, spare parts, etc.

2.30 DEFINITION OF MARKETING

According to Kohls (1968) - Marketing is the performance of all business activities involved in the flow of goods and service from the point of initial agricultural production until they are in the hands of the ultimate consumer.

Rhodes (1978) defined marketing by classifying it into macro marketing and micro marketing. According to him, macro marketing is an examination of the total system of marketing that explained what happened between the farm gate and the final consumer. Macro-marketing deals with the flow of goods through marketing channels and the nature of the various firms handling these goods. The macro view is useful in determining the minimum cost of performing a given marketing function by comparing the cost of different middlemen performing the same function. It is also useful in understanding the differences in marketing costs of various commodities. However, Rhodes said that micro marketing concerns the individual participant in marketing. He defined it as the performance of business activities which direct the forward flow of goods to consumers and accomplishing the farmers or the firms objectives of making profits.

2.40 THE PLACE OF MARKETING IN DEVELOPMENT

A watershed in the rate of economic development is the efficiency with which resources are allocated, and this in turn depends upon the functioning of the marketing system.

For instance Moyer (1968), narrated ways in which marketing contributes to economic development. As Moyer's contributions on the functions of marketing in

economic development are summarized below:

a. The marketing system can reduce risks by providing adequate information flows.

b. The marketing system may generate pecuniary and technological internal and external economies for producing firms as a result of the extension of their markets.

c. The marketing system may draw subsistent producers into the exchange economy.

d. Marketing institutions can be a major source of entrepreneurial talent and capital for other sectors of the economy.

e. Marketing institutions can lower consumer costs by improving distribution efficiency through technological innovation more intensive resource use and less spoilage.

f. The marketing system can provide incentive for the farmer to increase production through increase in farm income.

g. The marketing system can reduce transaction and exchange costs between producers and consumers (Harrison 1968).

Moreover, Idachaba, et al (1981) noted that market infra-structures hold the key to sustained agricultural production and hence to economic development. He noted that, "unless rural and urban food markets are adequate, farmers' confidence in incremental food production will collapse" (Idachaba,1981,P.72). Thus, improvement in the marketing system contributes to the objectives of agricultural and total economic developments through providing a more optimal allocation of the society's resources.

Therefore, the structure and performance of the marketing system may have significant effects on the total production of a given commodity, on consumers, prices, on adoption of improved product and marketing methods and, in fact, upon the growth and development of the entire economy of a country. Although, the place and role of marketing system is in economic growth.

2.50 MARKETING MARGINS AND PRICE CORRELATION

Marketing margin is defined as the sum total of all costs (middlemen costs) in assembling, processing, transporting and distributing products including the profits which middlemen derive for their services. Adegeye, et al (1973), defined marketing margin as a "general term referring to the differences between expenditure by consumers or price paid by consumers, and the farm gate value of an equivalent quantity of product".

Marketing margin is normally influenced by the degree of processing of the commodity in question, its bulk and values and perishability. Marketing margin is obtained first, by time lag method which is by following any specific lot or consignment through the marketing system and then assessing the costs involved at each of the different stages. Secondly, by concurrent method, that is by comparing prices at different levels of marketing at the same point in time. In this study, marketing methods were addressed in order to find out how much gain the middle men make. Price correlation was used to determine the marketing efficiency. It is believed that high price correlation between different markets is an indication of market integration and perfect competition. According to Harris (1982) the degree to

which price formation for agricultural commodities in one market town is related to the process of price formation in other towns can be indicated by the zero order correlation coefficients for wholesale prices in markets. In this study price correlation will also be studied in order to determine marketing efficiency between the various markets to be considered.

2.60 MARKETING AS A STRATEGEY TO RURAL DEVELOPMENT

It is general consensus that an efficient farm marketing system is an important means of raising the income levels of the rural farm producers and for promoting the economic development of a country (Farruk 1970, Abott, et al, 1972, Raju, et. al, 1982). Therefore, strengthening the marketing structure to reduce waste and provide more incentives to farmers to expand production has been a declared goal of governments in most developing countries (Abott, et.al 1972).

Reduction of uncertainly as to the price the producer will receive and the overall increase in his income has often been the main need here. In addition, commodity prices which perform the functions of resource allocation, inter-sectoral income distribution and capital formation are generated within the framework of the marketing system (Mellor, 1968). Thus, the total effect of the improvement in these marketing services might benefit the farmer by increasing the price received for his goods and therefore increase his income. The higher income may be used to procure personal consumption goods and farm supplies and to finance added farm input. These steps may lead to additional growth in the economy and, through a multiplier effect, to even more growth (Moyer, et al 1968).

Thus, the narrow economic conception of development had been found inappropriate. For example, Seers (1977) said, "development takes place only when there has been an improvement over time on unemployment, poverty levels and inequality. However, the distribution of income and wealth has in most countries become more unequal with time despite a rapid growth rate in per capita GNP, this is believed to be the case in most developing countries (Khan, 1978).

For many years, the benefits from economic development have gone disproportionately to the rich who are mostly urban dwellers. Over time the poorest households who are mostly rural dwellers might have attained a marginally higher level of income or wealth, but such growth left them still relatively worse off compared with higher income households in the urban areas. Thus, improved prices of agric products will result in the improvement of producers' standard of living in the rural areas.

Development has been neglected by both researchers and planners for a long time, so that emphasis has been upon things like capital formation, land reform, educational reform and improved productive techniques (Moyer, 1965).

This attitude is inconsistent with a recognition of the need to plan production evidenced by the decision to formulate a plan in the first place.

Moreover, there is little doubt that the market economy, left to itself in developing countries, often gives the wrong answers. Prices do not correctly reflect relative costs, opportunities are neglected; insufficient allowance is made for the value of knowledge acquired through unprofitable activities otherwise how can we explain the continuing low standard of living of the majority of rural farmers despite a moderate

increase in production (Lele, 1971).

Therefore, since large parts of developing country's resources are usually tied up in agriculture, any effort aimed at improving the income or wealth of these purely agricultural communities will go long way to accelerating development and could be described as "the most important multiplier of economic development (Drucker, 1950).

2.70 REVIEW OF PAST STUDIES

If development policy in the 1980's was consistently shaped by an appeal to the market principle, rather narrowly defined, the process of reform in the 1990s already shows signs of increasing concern with markets practice - with what a growing number of people are calling the political economy of real market (Cynthia H.D. 1993).

This is the case for a number of reasons. The first is simply the experience of the past decade, which has forcefully illustrated the complexity of efforts at economic restructuring around the world and the difficulties encountered when insufficient attention is paid to a wide range of real market settings in reform programmmes are being applied. As a lending condition, international financial institutions have routinely imposed a standard set of policy prescriptions, intended to `get prices right', on a large number of Third World countries with debt-related balance of payments difficulties. Although economic stabilization in a narrow sense has been attained with a certain frequency, this has regressive effects on income distribution and general welfare (Ghali, 1991, Taylor, 1988). Furthermore, in may cases even stabilization

itself has proved consistently elusive. Particularly unsettling for observers of market reforms is the fact that one of the most prominent assertions made by proponents of these programmes, who hopes to better conditions in the rural areas, has proved very unreliable in practice. The assertions included predictions that the standard set of corrective measures lying at the centre of reform (including devaluation, reduction of trade barriers and curbs on the role of the state in agricultural marketing) would be strongly favourable to farmers, and in particular to small cultivators or peasants. Shifting the terms of trade towards agriculture was a principal goal of the reform process, and this was expected to provide strong impetus for improving rural livelihood (World Bank, 1981; 1986).

However, there is abundant evidence that the standard package of macroeconomic stabilization has not, on the whole, been of benefit to small farmers, and that most rural people are today worse off than they were before the policy experiment began (World Bank, 1986).

This is not to say that they might not have suffered equally or worse, if nothing at all had been done to confront economic crises. It is to say that such an outcome can be expected to raise legitimate questions concerning the adequacy of the set of assumptions utilized to device a policy remedy.

In its most simplistic form, the assumption holds that resources are allocated in an optimally efficient manner through the impersonal play of supply and demand; and that the roots of crisis lie in the systematic distortion of market signals through inappropriate government interference with free market forces. Since relative prices constitute the basic instrument of market regulation, removal of factors (like fixed

exchange rates, price controls and subsidies, restrictions on imports, export taxes and so forth) impeding the automatic adjustment of these prices constitutes, in this view, the single most important step which can be taken to revive economies and - in largely agrarian societies to ensure that rural people enjoy increased opportunities (World Bank, 1981; 1986).

Macro economists outside the neoliberal school have long criticized this form of `free market' analysis for its reductionism: it posits mechanisms of adjustment on the basis of a deductive exploration of the logic of maximizing, not on the basis of empirical investigation (Robinson, 1977, Polanyi, 1957) Economists have also opined out repeatedly that relative prices do not shift in ways which promote greater welfare for greater numbers within a context of fundamentally unequal distribution of resources. In the absence of structural reform, the unfiltered working of the market is a guarantee of development. At a more practical level, development economists have consistently challenged the notion that price distortion constitutes the most important problem of the agricultural sector in most Third World countries, drawing attention instead to the problems of ensuring that small cultivators are provided with the kind of basic infrastructure and support services they require to gain any benefit from more advantageous prices (Lipton, 1987; Pinstrup - Anderson, 1989). And a steady stream of country - level case studies has also convincingly illustrated the practical difficulties confronted by governments attempting to implement pricing and marketing reforms within a context of generalized networks, foreign exchange shortage and concomitant restrictions on the importation of basic producers goods (Kydd, 1986, Harrigan, 1988; Igebedion; 1990; Sahn and Arulpragasam; 1991). `Getting prices right' is one area of

the economy (as through devaluation of the national currency, for example) can have potentially disastrous consequences for other areas, including agricultural production.

One of the institutions most in need of study at present is, in fact, the market - not as it is hypothesized to function in neo - liberal economics, but as it is substantiated (using Karl Polany's term) or made operative through the interaction of real social groups. Markets are culturally and politically specific institutions; the significant difference in the way they function, even within the relatively narrow field of highly developed capitalist economies, is surely a telling illustration of this basic point. However traditionally, the nature of the marketing system in less developed countries is often depicted as a major barrier to agricultural development. It is commonly accepted belief that market for agricultural products do not operate efficiently (James, 1970).

Large spreads (margins) between prices paid by consumers and those received by producers, over time and space, are often cited to illustrate the point. Wide spreads presumably are caused by monopolistic elements of trade and results in a poorly functioning marketing system which adversely affect both producer and consumer welfare and, in addition, result in a mis - allocation of society's resources. However, many studies recently have shown that this stereotype description may not be true in all cases (Jones, Lele, Mellor, 1965).

Lele's study of rice, wheat and sorghum production and marketing found that in general the market structure is a competitive situation with marketing intermediaries receiving low margins. Though Lele's study failed to indicate whether the low margin includes whether producers also received Low price margins. A statistical analysis of

price variations over space found that inter-market price differentials compared favourably with the cost of transport (Lele, 1965) and that storage is not always profitable, because the off season price rise does not always cover storage costs.

Gilbert's research for grain marketing in Kano, found a competitive situation among wholesalers and retailers, and between wholesalers and retailers in the marketing of foodstuffs.

For instance, Gilbert (1970) reports that "retail and whole sale markets in Kano city have subdued competition and that "there is not any clear relationship between numbers of traders and the degree o competitiveness". According to Gilbert," marketing margins did not appear excessive but the large profits encountered derived from a shortage of lorries as well as trade in marginal surplus and deficit area which is risky "(Gilert, 1970, P.288). This shows that, the marketing margin is very high although Gilbert tries to give reasons for it.

On the question of inter-temporal price variations, Gilbert concluded that average seasonal movements corresponded rather well with the cost of storage. His analysis of inter-market prices indicated a rather weak relationship between some selected markets at different locations in the northern states of Nigeria.

Hays (1976, P.139) also concluded that intermediaries are generally productive and that marketing services are provided at reasonable costs, given their technical environment. "Organization and conduct were typical of those necessary for competitiveness in the marketing system".

It is substantiated by observations that farmers have access to many buyers and that there were many intermediaries (up to seven), though Hill (1976) in her review of

Hay's works suggested that seven intermediaries (long-chains) were rarely used, indicating that the margin taken by each of the intermediaries was larger than Hays has implied (Hill, 1976, P.88-89).

Hays, further noted that the excessive price differences among urban markets did not result from planned manipulations under monopolistic or monopsonistic conditions. They were rather a result of imperfections inherent in the system, which are due to certain characteristics of production and marketing, making effective response to inter-market price differentials difficult (Hays, 1976 P.139). Such facts according to Hays and McCoy (1977) are the existence of small sporadic surpluses, and poor information and risk.

Ejiga's thesis on cowpea marketing ends with the conclusion "there is no evidence of monopolistic or large scale exploitative practice" (Ejiga, 1977, P.366). However, Harris in her review of Ejiga's thesis observed a very large profit being made over space, according to her "he tabulates data indicating large average profits on inter-market exchange and this average have concealed any distribution of profits". The study will examined the various marketing processes, analyzed marketing margins of the numerous marketing intermediaries and the effects of these intermediaries on the marketing margins, farmer's income, and using these to provide explanation on the quality of life being enjoyed by these various agents vis-a-vis that of the farmer, in order to answer the question as to who benefit from high prices of grain food in Kaduna State.

CHAPTER THREE

THE STUDY AREA

3.1.0 INTRODUCTION

Marketing operations in any society, Kaduna South inclusive are normally influenced by physical, demographic and socio-cultural phenomena within the environment. To this end, there is a need to understand the environment under study. The chapter therefore, gives a brief analysis of the location, relief and drainage, soil and vegetation, transportation network and socio-economic characteristics of the study area.

3.02 LOCATION AND SIZE

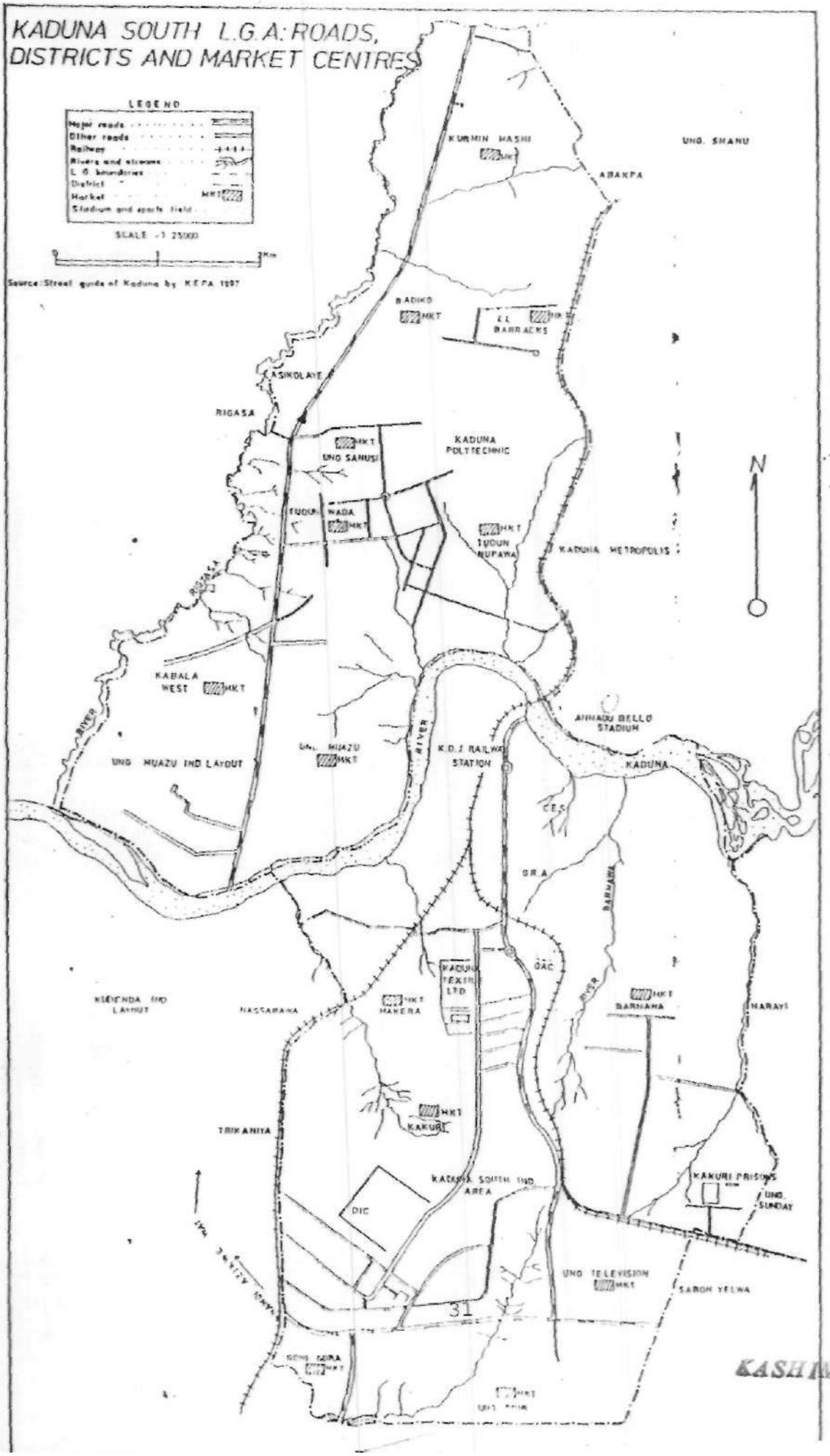
Kaduna South Local Government area is located on the northern Plateau of Nigeria with a height of about 730m above sea level and more than 500km away from the sea. The study area is confined within latitudes $10^{0}25'N$ and $10^{0}29'N$ and longitude $7^{0}20'W$ and $7^{0}30'E$.

It is bound on the west by Birnin Gwari Local Government area, on the north by Kaduna North Local Government Area, and on the east and south by Chikun Local Government Area,. At its longest sides it measures 15km (9.375 miles) north-south and 7km (4.375 miles) east-west. (Fig. 3.0.0).

3.0.3 RELIEF & DRAINAGE

The relief of Kaduna South Local Government Area can be described as an open rolling country, experiencing uplands which gently slope down into low lying

streams and swamps called Fadama'. Kaduna South is well drained by almost entirely southward in flowing rivers that rise within the area and flow into river Kaduna. The relief and drainage do not present significant physical barriers to the movement of people and goods within the area.


KADUNA SOUTH L.G.A: ROADS, DISTRICTS AND MARKET CENTRES
LEGEND
Major roads
Other roads
Railway
Rivers and streams
L.G. boundaries
District
Market
Stadium and sports field
SCALE - 1 25000
Source: Street guide of Kaduna by KEPA 1997
KUMMIN MASHI
UNG. SHANU
ABAKPA
BADIKO
BARRACKS
KASIKOLAYE
RIGASA
UNG SANUSI
KADUNA POLYTECHNIC
TUDUN WADA
TUDUN NUPAWA
KADUNA METROPOLIS
N
KABALA WEST
UNG. HUAZU IND LAYOUT
UNG. HUAZU
K.D.J. RAILWAY STATION
AHMADU BELLO STADIUM
KADUNA
CES
GRA
BARNAWA
KADUNA TEXTILE LTD
GAC
KUDENDA IND LAYOUT
NASSARAWA
MANERA
BARNAWA
NARAYI
KAKURI
TRIKANIYA
KADUNA SOUTH IND. AREA
DIC
KAKURI PRISONS
UNG. SUNDAY
UNG TELEVISION
SABON YELWA
31
KASHIM IBRAHI

3.0.4 VEGETATION

Kaduna south is characterised by woodland vegetation type, comprising low orchard bush, scattered trees, Isoberlina, mango trees and shear botter trees. However, intensive cultivation, grazing, building and construction and fire have modified the vegetation of this area, even the shrubs of this area never get the chance for further development even in the river basin areas where gallery forest is common.

3.0.5 SOILS

The soil type in the study area is mainly ferruginous tropical savanna soils which have a characteristic of becoming a hard pan on the surface during rains (i.e "iron pan") and thus, impaires drainage and in general, it is of low fertility - which affect crop yields. However, the lowland (Fadama) had developed from either alluvial or deep Aeolian drift soils. This also impedes drainage, but the level of fertility seem to be higher than the upland soils.

3.0.6 CLIMATE:

The Kaduna South is characterised by alternating wet and dry seasons. Wet season begins in May and end in September or in some years terminating in early October and from the beginning of the rains, there is a gradual increase in monthly totals until a single maximum is achieved in the month of August, (see fig. 3.0.2). The moisture level is only suitable for the production of crops like guinea corn, millet, maize, cowpea, vegetables, etc. And during this season, there is intense application of labour on the farmland in the area.

ANNUAL DISTRIBUTION OF TEMPERATURES AND RAINFALL IN KADUNA SOUTH L.G.A.

MONTHS	J	F	M	A	M	J	J	A	S	O	N	D
RAINFALL(MM)	0	0	10	30	105	130	234	300	152	70	0	0
TEMPERATURE (OC)	23	23.8	26	31	28	27	26	25.5	25.6	25	24	23

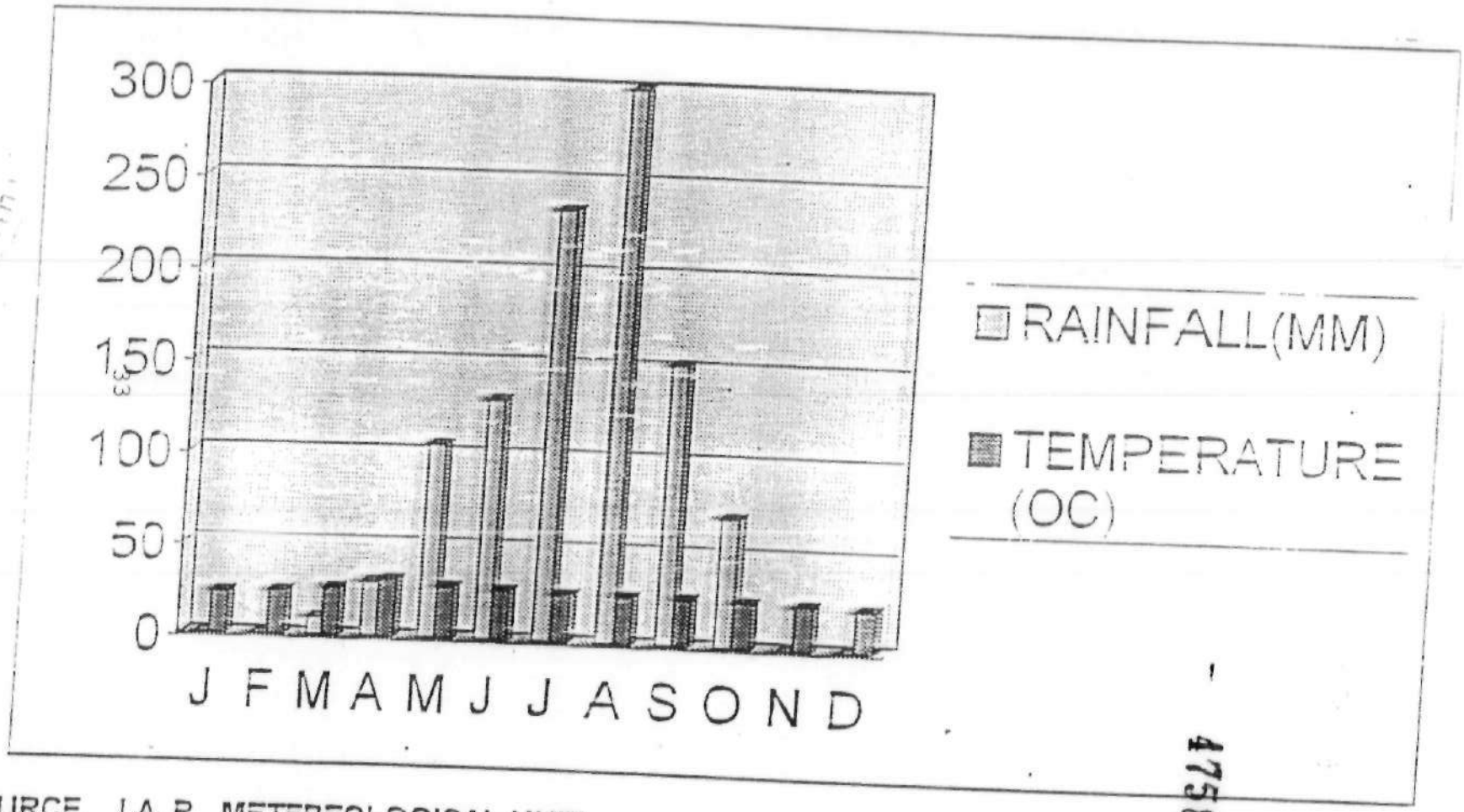


Fig: 3.02

SOURCE I A. R. METEREOLOGICAL UNIT

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Temperature varies from month to month, culminating in the highest average temperature in April, May and June, whereas December and January recorded the lowest mean temperature due to the presence of harmattan winds and fogs which tend to lower average temperature within these two months.

3.0.7 SOCIO-ECONOMIC CHARACTERISTICS

As pointed out earlier on, rural development entails mass mobilization of both human and natural (material) resources, and transforming these natural resources for the upliftment of the living conditions of rural inhabitants. Furthermore, improvement of the quality of life in the rural sectors requires careful planning in utilization of the resources and to carefully evolve solutions to constraints that have been observed in the rural development projects.

3.0.8 DEMOGRAPHIC CHARACTERISTICS

Using the 1991 national population census figure, Kaduna south local government area had a total population of 373,516 inhabitants as at that year, which was broken down into 176,510 as females and 197,006 as males respectively. The population growth rate was put at 2.5%, so that, the population projection of Kaduna South Local Government Area had been put at 466,895 by the year 2001, a 10 - year population development plan which will mean a greater population residing in this local government area, other things being equal.

Afolayan et al, (1978) says that, "the high population growth rate reflected in this area is a relatively recent phenomenon. Almost certainly, during the latter part of the nineteenth century, and the early years of the twentieth century, the population of the

area declined due to a high death rate contributed to by predatory wars, epidemics etc. From 1950 onwards, however, the rate of population increase accelerated to a high level as witnessed in the 1991 population census and a decrease in death rate to a possible 25 per thousand (Afolayan, 1978). The major factors influencing this increased growth rate appeared traceable to general improvement in the basic level of health and living standards.

A considerable variation in population density exists between the various parts of the area. For instance, high population density exists within the urban towns of Barnawa, Kakuri and Tudun-wada areas. On the other hand, low population density exists around Ungwan Romi, Goni-Gora, Kurmin-Mashi, with the over all population density of the study area given as 3,557 persons per Km^2.

The age distribution of the population indicates largely young population with a high proportion being under 40 years.

Table 3.10 Age Distribution Of Respondents According To Occupation.

OCCUPATION	AGE GROUP				TOTAL
	20-29	30-39	40-49	50-59	60
-Farmer	5	38	44	10	3 100
-Rural Commission Agent	3	45	32	20	- 100
-Rural Assemblers	6	46	28	18	2 100
-Urban Wholesalers	2	51	39	8	- 100
-Urban Retailers	2	42	48	6	2 100
Total.	18	222	191	62	7 500

Source: Field work 1999.

3.0.9 SOCIAL STRUCTURE

Traditionally, the mainstream of socio-cultural life and tradition in Kaduna

south local government area originated from within the area. It has been established that, there is a high degree of cultural, linguistic and religious uniformity. The difference in patterns of social and economic organisation relate rather to the contrast between rural and urban life than to ethnic differentiations. The people are predominantly Muslims and the Islamic faith has been a unifying force between the ruled and the rulers.

However, there is a reasonable percentage of Christians in this area of study. The Fulani and the Hausa emphasize agnatic kinship and domestic life. They both practice polygon (polygamy), They divorce with ease and they both hold common judicial administrative institutions (Hill, 1972). Other tribes within this local government area are Gwari (Gbagi - new name), Kaje (Bajju - new name), Jaaba, Kataf, Ilulu, Kurama, Kagoro, Kanikon, Maruwa, Kagoma, which are said to be minority tribes. Thus, Hausa/Fulani tribe was found to be the largest tribe in the study area. They both speak Hausa language, but all Hausa speakers are not Muslims or Hausas. For instance, the Jaaba, Kataf, Kaje, Gwari, are Hausa speakers but are neither Muslims nor Hausas. In spite of this ethnic complexity, the Islamic faith and common linguistic bonds and traditions of the people, have resulted in an underlying uniformity in the social structure of the area and appears to form the basis of its social values.

Moreover, it was observed that girls in Kaduna south local government area marry at early ages (about 15-18 years) and there is also a high level of polygny, especially among the Hausa/Fulani tribe, in which most o the house-hold heads have two or more wives.

The age of girls at marriage has some implications on the economic development of the area understudy, due to seclusion of married women (Pudah system), who are still in their socio-economically active age. Thus, early marriage had prevented many of these girls from being educated or knowledgeable in any kind of trade, subsequently, many of these women are stack illiterates. This illiterate class has become an economic burden to the government, since, they are unemployable and therefore unproductive. Moreover, as many of these girls had gone into early marriage unprepared and also largely ignorant of marriage institution, this had led to broken homes, production of agabonds, prostitution and economically worthless class of people. In the health circle, maternal age also has been one of the factors closely associated with low weight of babies at birth, complications and some other associated problems.

3.10 ECONOMIC ACTIVITIES

The majority of the inhabitants of Kaduna south local government area engaged mainly in primary economic activities. For example, farming, blacksmithing, carpentry, mat making, pottery. Other functions include, civil service, trading, tailoring, machine repairs, etc. Farming is usually undertaken on uplands during the wet-season. The main crops grown include guinea corn, maize, millets, beans, Okra, pepper. These crops are gown for subsistence but a large quantity of fresh okra, peeper and even large quantity of dried maize, guinea corn, millet, beans are sold in the local markets. The farmers practice mixed cropping system on the upland farms, where guinea corn, millet, maize, cowpea and pepper are usually intercropped on the

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same plots.

During the dry season, most of the farmers are actively engaged in market gardening farming along the fertile fadama land of River Kaduna and other rivers. The principal crops grown on the fadama are sugar cane, tomatoes, onions, pepper, sorel, carrots, Irish potatoes, spinach and host of others. These crops are mainly for commercial purposes. Livestock is also important in the economy of the area and it is a major producer of cattle, sheep, pigs, goats and poultry. These are sold through various marketing channels available in the area.

Agricultural production in this local government is under-taken by small-scale farmers, most of whose labour force, management, and capital originate from the house hold. The farmers are economically important in this area, but, surprisingly, they constitute the poorest segment of the society.

These farmers are unorganised and thus lack political and economic power; consequently, they are poorly served, slow to change and use of modern technologies. They apply simple old technologies like, hoes, cutlasses, pegs, etc. and as such these farmers have not been able to produce assured surplus.

Although, agriculture forms the mainstay of the rural economies, there are in addition, various secondary occupations into which rural labour may be absorbed either conjunctively with farm operations or during the slack periods of farm labour demand.

These occupations are important alternative means of rural employment, and supplementary sources of cash income. The secondary occupations which took the form of various services are tailoring, hire labouring, butchering and exchange (petty-trading), which were orientated more towards the nucleated settlement, while local

crafts (weaving, black-smithing) were orientated more toward dispersed settlements.

3.11 LAND TENURE

Land under cultivation is acquired through four main sources viz; allocation, inheritance, gift and purchase. Other less important ones are: pledge (jingina) and loan (Aro). Generally, in the area farmlands were held under permanent usufructuary rights, chiefly through acquisition by inheritance and acquisition by purchase. This is because, the farmers prefer tenure arrangements which ensure maximum security. Due to the relative exclusion of land gifts (kyauta), pledge (jingina) and re-allocations by village heads, inheritance (gado) and purchase (saye) remain the only two media by which permanent usufructuary right can be gained over land.

3.12 SIZE DISTRIBUTION OF HOLDINGS

The distribution of land which is an important factor of agricultural production is a vital aspect in all agricultural economies. The population density decreases as communication with Angwan Romi, and other small settlements become more difficult. The different land per-resident-ratio in most villages has an influence on the size of farm or holding and the size of family. Thus, as the population decreases from larger settlements to smaller ones, the average size of family decreases (Norman, 1970).

It has been established that in traditional agriculture, there is often a direct relationship between land distribution patterns on the one hand, and political social and economic stratification on the other hand (Keddie, 1968). Generally, farmers in the study area can be grouped into three categories to their size of land holdings, viz:

small farmers (those operating less than 6 hectares); medium farmers (those operating between 6-9 hectares) and large farmers (those operating 10 hectares or more (Olayide, et al, 1981). Usually, most of the farmers in this study area belong to the first categories except in few cases where people with strong political influence, and high social status usually have larger farmlands than the ordinary peasant farmers. Moreover, some of the farmers with large land holdings have their farmlands sited in other local government areas with more land area, better soil fertility etc. such as Chikun and Birnin Gwari local government areas.

3.13 LABOUR SOURCE

Labour, as a factor of production refers to the farmer and all fellow human beings whose services the farmer engages on his farm (Whetham, 1960). Kaduna south settlements have labour in surplus compared to land. Four main sources of labour can be identified and distinguished. These are, family labour, hired labour, hired and family labour and communal labour - e.g., at Angwan Romi Village. Of these, the first three are the most important. The principles and practice of this labour sources have been discussed in detail by various investigators (Hill, P.251-252, Norman, P.30, Smith, 1955, P.141). Table (3.02) shows the incidence of the various sources of labour in the study area as observed from the primary survey.

Table 3.02 Incidence Of Labour Sources

LABOUR SOURCE	NUMBER	PERCENTAGE INCIDENCE
Family labour	30	30
Hired labour	25	25
Both hired/Family labour	41	41
Communal labour	4	4
Total	100	100

Source: Field work; 1999.

From the table, while there is considerable decrease in the use of communal labour (4%), there is a considerable or significant increase in the use of both family and hired labour accounting for (41%). Explanation for this trend may not be unconnected with the modernization and monetization of the economy and the resultant disintegration of the shared poverty concept of the past.

3.14 TRANSPORTATION

To achieve efficient marketing and movement of agricultural, industrial commodities and even services, an extensive and reliable transportation system is essential. Although, much can still be done to improve and even extend it, Kaduna South local government area can be said to have a relatively well developed transportation network especially its road system. This can be seen from the figure (3.0.1) which shows both road and rail networks. The road system can be classified into major roads, and other roads as shown in the diagram.

In addition to the main roads, there are numerous rural roads which are laterite roads that are normally difficult or even impassable during wet season as a result of lack of bridges across some of the streams in this area.

Railway from the southern part of Nigeria links Kaduna south local government area through Gonigora and Sabo station (Chikun L.G.A), rail line has junction at Barnawa, where the rail line divides into two, creating the Jos bound line and the south-west bound line. However, the railway system, in effect only passes through the region and does not have an extensive feeder line system like road. Thus, it cannot compete favourably with road transportation in the intra-regional conveyance of goods and

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people. Even in the long distant trade, the railway is finding it difficult to complete with road transport. Due to this limitation, the railway system is relatively minor in the intra-regional movement of grain foods.

CHAPTER FOUR

THE STRUCTURE AND ARRANGEMENT OF THE MARKETING CHANNEL

4.0 INTRODUCTION

The marketing activity in the local government area consists of various types and exchange points where services like assembly, storage, transportation and even bulk braking are performed. These marketing activities occur in an organized manner through the marketing hierarchy. The marketing process ranged from the simple exchange between house-holds at the village level to the movement of grain to rural and urban markets and to the final consumer.

The exchange or transaction between house-holds at the village level is often referred to as house trading which consists of trade between the producers and residents of this village and other close villages (Hill) Customary transaction has also been identified which involves religious gifts to local mallams, and gifts to beggars which may later find their ways to markets. Although, this does not normally result in a significant amount of grains reaching the market, but play some role in the life of rural house-hold.

4.01 CLASSIFICATION OF MARKET TYPES

Rural Markets

Rural markets are normally those markets that are located in rural areas, having rural characteristics and can be classified on the basis of their accessibility by transport

route into isolated and non isolated rural markets. Isolated rural markets serve mainly village and community needs. They are isolated due to the fact that, they are difficult to reach by road, except by foot, bicycle, motor cycle, beast of burden; and big lorries during dry season. Occasionally, local traders purchase grain from these markets and convey them to other markets either isolated or non-isolated. However, the amount of grain moved from these markets is very insignificant. The non-isolated markets are those which serve the village and its locality but in addition are located on or near a road that is motorable. These markets are the focal points for grains assembly, which are later moved to other markets. The non-isolated markets usually meet once or twice a week and draw both farmer and local traders even up to 16-24 km in radius. Apart from being accessible, these markets are distinguished from isolated markets by larger attendance of both buyers and sellers. These markets link up the rural markets with some larger urban markets or consuming centres.

URBAN MARKETS

These urban markets are major sources of grains for the urban consumers. They operate daily and they are normally more than one market in large urban centres. Urban markets attract a large number of people and offer a wide selection of goods than can be found in rural markets. Urban markets therefore, serve as a major distribution centre for certain types of non-food items for surrounding rural areas. The urban markets have larger number of sellers than most rural markets. Once the grain reaches the urban markets, it is normally sold by wholesalers and retailers to either consumers or to regional wholesalers. The physical infrastructures

in urban markets are of better condition and more in number than in rural markets. For instance, most of the urban market stalls have roofs, doors and even gates which can be locked up at night,

4.02 STRUCTURE OF THE MARKET

The market structure can be explained as those features of the organisation of market which tend to influence strategically the nature of competition and pricing within the market (Clodius and Muller, 1967, P.385).

The variables that are important in determining market structure include; number of buyers and sellers, how distinguishable the products are from each other, the degree of difficulty for new people to enter such a trade, the nature of marketable surplus and how the marketing system has organised to distribute that surplus in terms of channels and intermediaries (middlemen).

PERIOD OF SALES IN THE YEAR

Some of the farmers in this local government area do not dispose off all their farm produce at once they retain some of the products for certain number of months in the year before such products are sold by the farmers.

Table 4.01 Period Of Sales For The 1998/99 Crop-Season

Period after harvest.	**Number of Farmers/percentage-based on grain Types**		
	Sorghum	Maize	Cowpea
1 - 3 months	28	22	26
4 - 6 months	26	27	18
7 - 9 months	36	42	52
Over 10 months	10	9	4
Total	100 (100%)	100 (100%)	100 (100%)

Source: Field work 1999.

Looking at table 4.01, it indicated that farmers dispose off about 54% of their farm produce within the first half of the year, about 90% of their produce is also sold within 9 months after harvest and after this period of 9 months only 10% of their annual produce is left. It shows that farmers in the study area have surplus quantities of these grains in the early part of the year before selling them. Some farmers who stored their own produce up to 9 months, confirmed that they, did so constantly in order to have adequate cash to finance their farming activities in the following planting season, that is, to pay labour and to support other financial obligations.

GRAINS AVAILABLE FOR SALE

The quantity of grain that is left over unconsumed by the farmers and their families is the amount of grains sold. This is a reflection of how much in excess above the farmers own consumption needs are produced. Surprisingly, some farmers later in the year turn round to purchase the grains they have earlier marketed. A bigger proportion of the grains produced is consumed by the farmers and their family members, which resulted into a reduced quantity of grains sent to the market by these farmers. It is as a result of these small quantities being sent to the Markets by farmers that warranted the necessity for bulking activity in marketing of the grains. The total quantity of grains produced by the farmers into the year and the average quantity sold per week are shown on table 4.02.

The table shows that out of a total of 406 tones of sorghum produced, only 3.45 percent is left over for sale per week, it is 3.53 percent for maize and 2.43 percent for cowpea.

Table 4.02 Total Quantity Produced By The Farmers And Quantity Sold Per Week in June, 1999.

Grains	Total Production (Tonnes)	Average Weekly Sales (Tonnes)	Over-All Percentage
Sorghum	406	14	3.45
Maize	622	22	3.3
Cowpea	82	2	2.43

Source: Field Work 1999.

The fragmentary nature of available grain for sale in the markets has effects over the farmers income; i.e. dwindling and insignificant income derivable for this kind of grain transaction.

4.03 CHANNELS OF DISTRIBUTION

The marketing system consists of various channels through which produce flows from the producer through the markets to the final consumer. The product flows known as distribution channels may result in the movement of grains from rural to urban centres. Normally, it takes several of these distribution channels to complete the marketing process.

Thus, marketing channels are important in evaluating marketing system because, they reflect how the various participants in the marketing chain have organised to accomplish the movement of a product from the producer to the final consumer.

The marketing channels of the selected grains (Sorghum, maize and cowpea) is characterised by many participants and consequently long distribution channels as against a sickle unidirectional flow of grain. This is shown in figure 4.01.

The diagram shows how grain may move through these various channels. Normally, the farmers retain parts of the grain for seeds, giffs and domestic consumption before sending it to the market. The farmer conveys his grains to one of the markets (Isolated or non-isolated) and sell to either the rural or urban consumers, which is usually through the commission agents, moreover, the rural retailer sells his grains within the village market, but the rural assembler takes his own grain to either an urban market or to an industry (flour mills).

When he conveys it to the urban market, he sells to urban wholesaler or it is handled by urban commission wholesaler who sells on his behalf for commission. The urban wholesaler sells to urban retailers and sometimes to urban consumers. It should be noted that marketing channels vary from crop to crop. For instance, cowpeas are traded over a long distance and therefore, have longer chain than maize, sorghum and even millet whose trade tends to be in sub-regional areas. This is shown in figure

4.0.2 **MARKETING CHAIN**

This explains the succession of markets through which products are exchanged, which indeed, portrays the importance of various markets or exchange points. The chain of marketing for selected grains under study is shown in figure 4.03. This shows that the most simple form of marketing is the direct sale or exchange between households at the village level often regarded as house trading representing the first chain in figure 4.03. Farmer may sell grains to buyers in their compounds or take the grains to village markets (isolated or non-isolated). Farmers may also proceed to rural village markets (non-isolated) to dispose off large grain quantities.

Grains are moved from rural non-isolated markets to urban markets located in the regional area or to urban markets sited in other regions. If the grains are produced within the region, they normally end up in small retail markets located in different parts of the urban centre. On the other hand, if the products are imported into the ration (for instance, gari or palm oil) coming to Kakuri or Tudun-wada, they are often distributed from such markets to other smaller urban markets and to the village markets.

4.40 MIDDLEMEN IN THE CHANNELS OF DISTRIBUTION

The middlemen are the numerous functionaries involved in the marketing of grains as it proceeds from the farmers to the final consumer. These intermediaries perform certain marketing functions like storage, assembling, transporting and selling of grains.

The characteristics of each of these middlemen shall be explained in this part of the study.

RURAL COMMISSION AGENT

This is a resident of the village or near-by village who rents a market stall and normally comes to the market on market days to measure and sell grains. This agent does not take title to the grains, but draws together buyers and sellers and also measures the grain. He collects money from purchasers and returns the same amount of money to the seller in return for a small commission normally in cash and sometimes in kind, if there is some degree of relationship between the two parties, for the services rendered. The commission agent sell both to the local consumers, rural

assembler and rural retailers from both within the market, nearby markets and urban centres. His initial capital is seen in the baskets and bags he has bought and the measures required (the local government measure and the non-local government type) to perform his services. He is an important marketing intermediary in mediating price negotiations and also helping to clear the market.

RURAL ASSEMBLER

Rural assembler is an individual residing in either a rural or urban area who moves around the rural areas purchasing grains from villages or rural commission agents at rural markets and sometimes directly from farmers. The rural assembler goes to rural areas, even, to other local government areas, carrying along empty bags to convey the grains he wishes to buy. He also hires a lorry or van together with the help of other assemblers to transport the purchased grains to appropriate location.

The rural assembler holds title to the grain and may sell it to a wholesaler in an urban market, or take it to a commission wholesaler who will market it and in turn receives a commission from the rural assembler or he can sell it to the consumer directly or to an industry (flour mills). The rural assembler makes purchases through the use of bags only. He possesses enormous entrepreneural ability and is exposed to considerable risk and uncertainty. The rural assembler provides a large sum of capital and is one of the best sources of market information in the locality.

RURAL RETAILER

There is some similarity between rural retailer and the rural commission agent in the sense that, like the rural commission agent, rural retailer is also a resident of village or

nearby village (in other local government areas), who rents a market stall and comes to the market on market days to sell grains. However, unlike the rural commission agent, the rural retailer takes title to the grains. The rural retailer purchases his grains directly from the farmers and sometimes through the commission agent. He sells his grains to the local consumers and at times to rural assemblers at retail prices. The rural assembler sometimes perform the functions of a commission agent.

URBAN WHOLESALER

This is a resident of urban areas who rents a stall in the urban market and handles bulk quantities of grains usually in bags, although, some perform the functions of a retailer also. We can identify two types of urban wholesalers:

The first type performs the normal marketing function like buying storing, financing and has title to the grains. The second type of urban wholesaler is a commission wholesaler who sells grains on a commission basis either for other wholesaler or for rural assemblers. The commission wholesaler receives the bags of grain at his stall. He then sells them giving the money to the wholesaler or rural assembler and keeping back a commission for his services and bears no title to the grain.

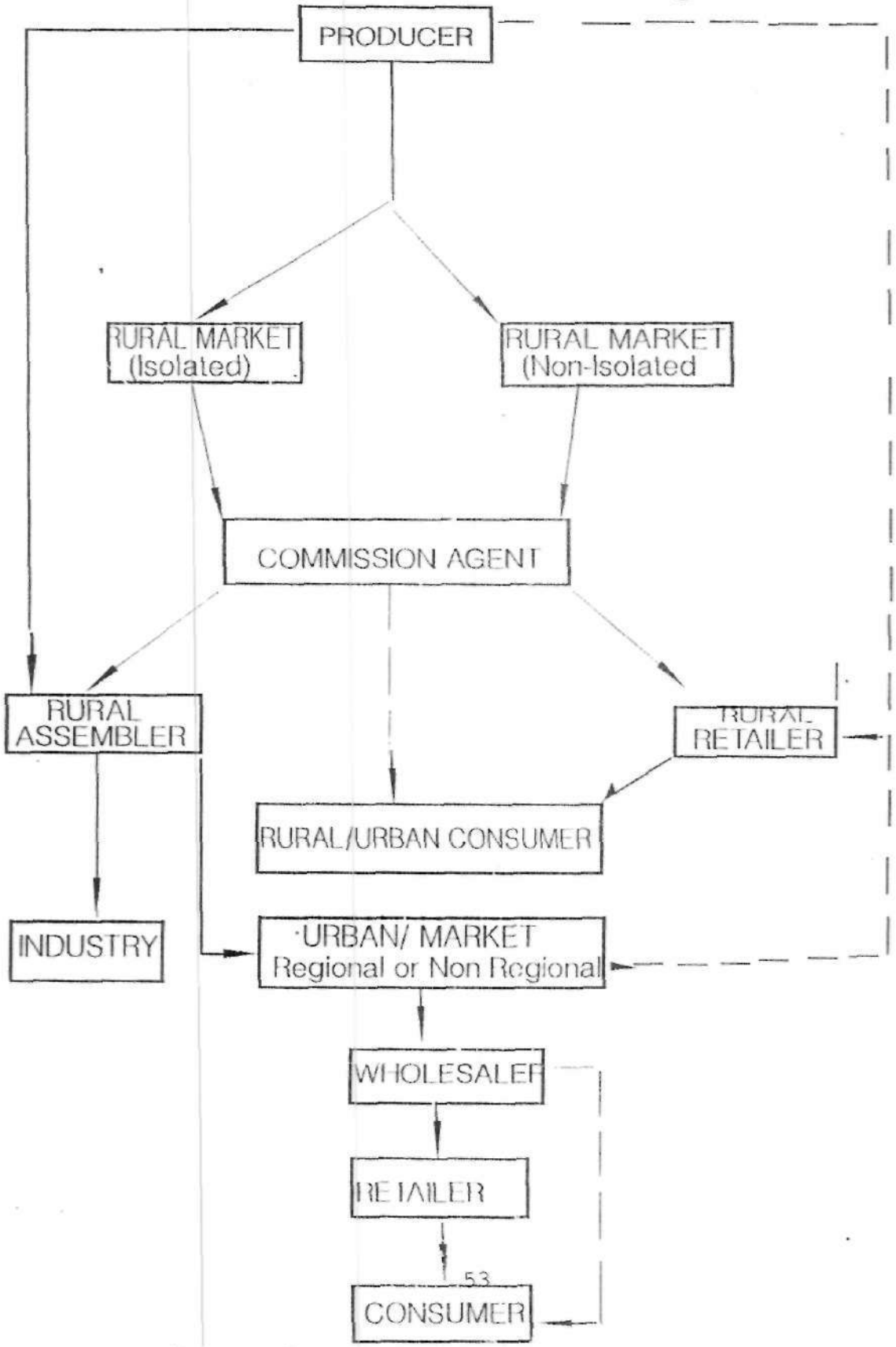
URBAN RETAILER

Urban retailers normally sell in the urban markets in small quantities to the final consumer. The retailer purchases in the market, or buy from rural assemblers and sometimes buy directly from the commission agents and sell in mudu (1.3kg) or tiya (2.7kg) units.

ABDULLAHI IBRAHIM

The distinguishing characteristics of retailers are that most of their sales are to the final consumers and the most important function of retailing is that of bulk breaking. The retailers constitute the largest interms of population in the chain of grain distribution.(fig. 4.0.2)

MARKETING CHANNEL FOR MAIZE AND SORGHUM: Fig 4.01

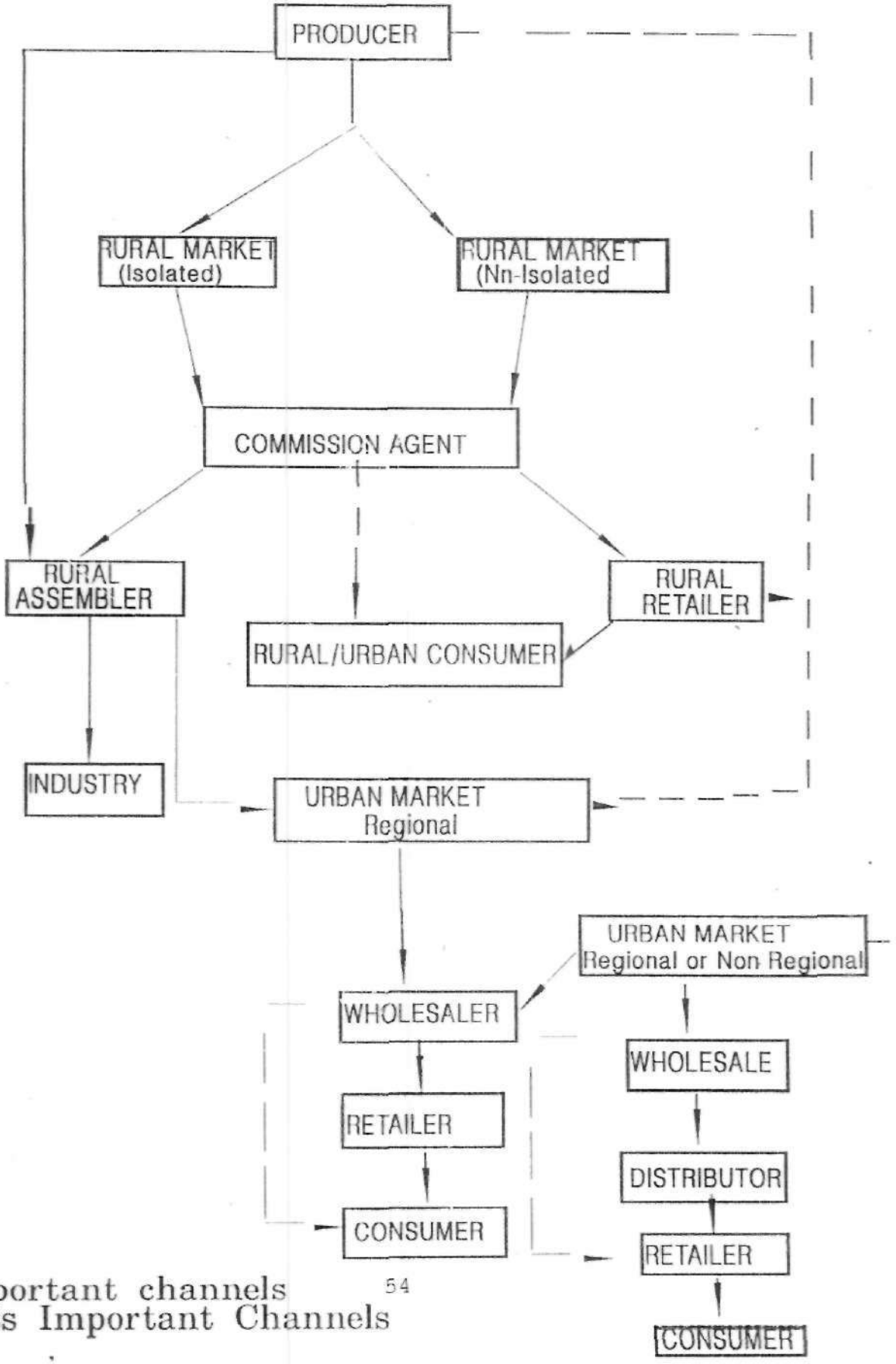


Important channels

--- Less important channels source: Field survey 1999

MARKET CHANNEL FOR COWPEA:

FIG 4.02

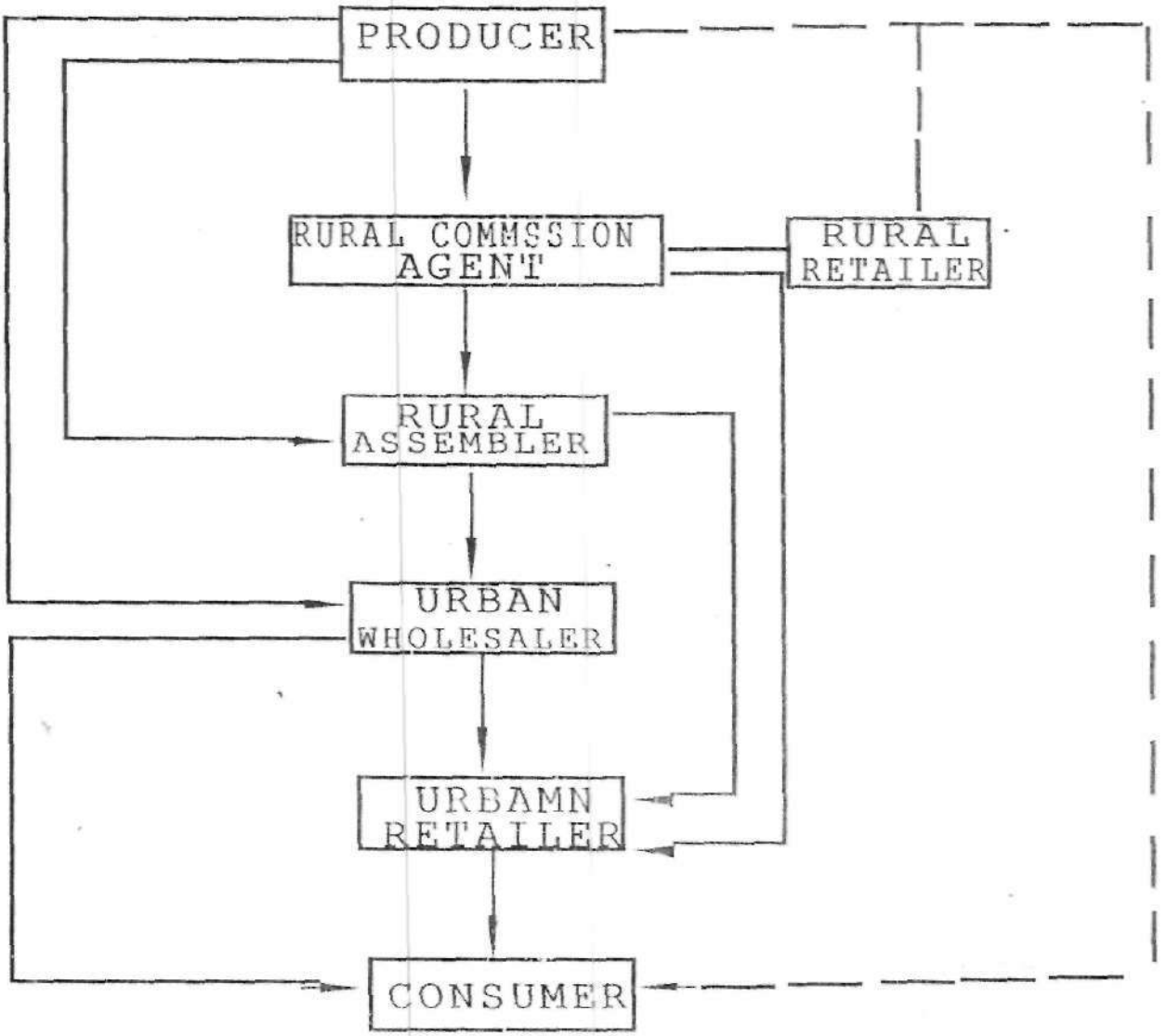


— Important channels
- - - Less Important Channels

SOURCE: Field Survey 1999

MAJOR DISTRIBUTION CHANNEL OF THE INTERMEDIARIES IN THE MARKETING SYSTEM:

Fig 4.03



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——Important channels

----Less Important channels

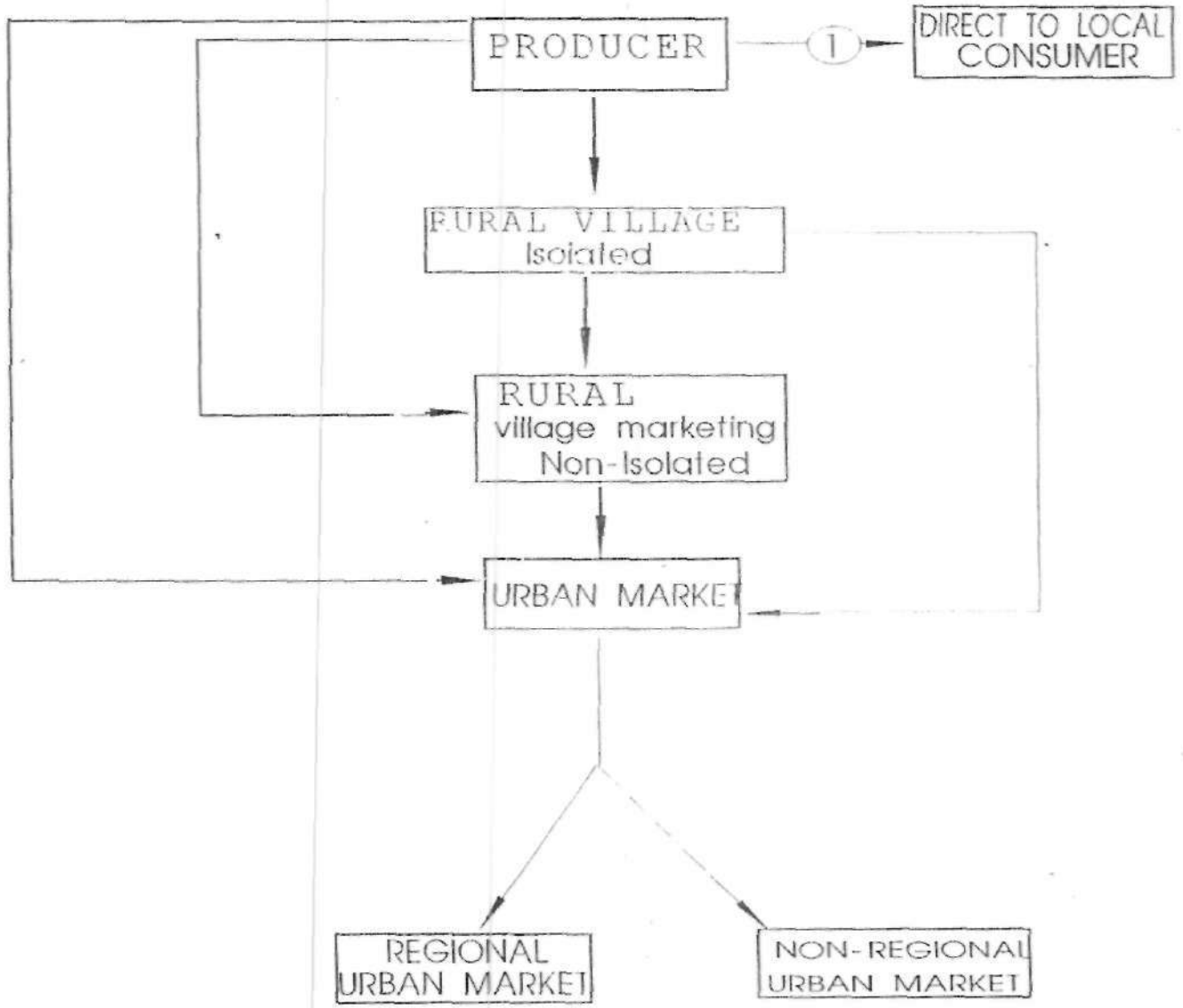
Source: Field survey 1999

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MARKETING CHAIN FOR MAIZE SORGHUM AND COWPEA:

Fig. 4.04



SOURCE: FIELD SURVEY 1999

CHAPTER FIVE

ANALYSIS OF MARKETING OPERATION

Chapter four discussed the marketing structure by considering various media involved in the movement of grains from the producer through rural markets to consumers in both the rural setting and even urban markets or industries. The current chapter and the next will deliberate on the marketing operation, performance of the marketing system, which is inclined with the theoretical framework of structure - conduct performance adopted in this study.

How the market is conducted is also analysed through the observation of the marketing operations of all the participants of the marketing system. Market performance is analysed through the calculation of the temporal and spatial variation in process. Thus, with this approach, we shall be appraising the extent to which the activities of the various intermediaries result to the efficient allocation of resources.

5.10 How farmers obtain credit facilities

From the interview conducted, farmers obtained credit facilities through banks, friends, relatives and traders. The percentage of farmers who obtained credit facilities from each of the sources is shown on table 5.01.

Table 5.01 Line of Credit for Farmers.

Credit Sources	Number (Percentage) of Respondents.
Friends and relatives	38
Traders	10
Commercial Banks	43
Nigeria Agric and Coop. Bank (NACB)	9
Total	100

Source: Field Work 1999.

From the table, the largest source of credit facility to the farmers is through commercial banks, with a percentage of 43% closely followed by friends and relatives 38%, while, only 10% and 9% of the farmers interviewed obtained their credits from traders and Nigerian Agricultural and Co-operative Bank (N.A.C.B) respectively. The length of loan is generally for one planting season, except, if the farmer could not pay back due to either crop failure or mis-appropriation of the fund. Most of the farmers interviewed pay their loans back in cash, but a few percentage of the farmers pay totally or to some degree in kind for the said loan. For instance, out of the farmers who obtained loans, about 19% paid fully in cash, but instalment ally. Farmers who did not obtain loans from the banks paid no interest, as the loans came from their relatives and friends. Those who obtained bank loans paid high interest of about 21% to 22.5%. This is one of the reasons why most farmers try to avoid obtaining loans from commercial banks and other financial institutions.

5.20 STORAGE AND MARKETING STRATEGIES OF FARMERS

Storage methods and marketing of produce by farmers.

The farmers who were interviewed in the markets claimed to produce several varieties of maize, sorghum and cowpea mainly by hired labour with varying times of planting and harvesting. The time of sales although, criss-crossed into one another, but with some degree of variation which was exhibited in harvesting period. The grains are therefore, normally stored or marketed by the farmers to traders, wholesalers, and retailers, who later sell them to the final consumers in a gradual process within the year.

The methods of storing maize, sorghum and cowpea are the same. If the grains are needed immediately for consumption, they are normally threshed before storage and packed in bags. The unthreshed grains are stored in a specially built structure made from a mixture of clay and dry grasses referred to as RUMBU. At Angwan Romi, Tudun-wada, Goni-Gora, Kurmi-Mashi, and some other places within the study area, this structure (Rumbu) could be seen within the compounds of the inhabitants. The grains packed in bundles and stored in the Rumbu, are later extracted from this Rumbu when needed for consumption or sale.

The method of threshing the grain into bags required the application of chemicals against insects before storing, is commonly applied than the use of Rumbu in this area. This is because it is cheaper and even safer compared to the use of Rumbu which is still prone to Insect, rat, fire and even thief attack.

Table 5.02 Storage Methods of Grains

Type of Storage	Maize	Sorghum	Cowpea
Rumbu	15	17	5
Bags (stall)	84	80	94
Others	1	3	1
Total	100	100	100

Source: Field Work 1999.

From the table, (5.02) more than 80% of the farmers interviewed applied bagging method of storing their grains with less than 20% of the farmers using rumbu. Thus, threshing of grains into bags is more common and preferable by farmers than the old method of rumbu.

Table 5.03 Why Farmers Store Grains

Reasons	No (%) of Respondents
Holding until cash is needed	64
Waiting for the price to rise	31
Waiting for transportation	3
Others	2
Total	100

Source: Field Work 1999.

The greatest reason for storing the grains is due to demand for cash (64%). Only 31% of the respondents stored grains in anticipation for a probable price increase, which will probably induce them to sell. (Table 5.03).

Table 5.04 Reasons For Not Storing Grains.

Reasons	No (%) of Respondents
Need the money	61
Lack of storage facilities	26
Fear of theft	-
Fear of fall in price	13
Total	100

Source: Field Work 1999.

The main reason for not storing the grains is the need for money and this may lead to selling off the grains at give away price: This is one of the reasons why farmers earn low income.

Table 5.05 How Long Farmers Store Grains.

Grains	Number of months				
	1 - 3	4 -6	7 - 9	Over 10%	Total
Maize	20	31	42	7	100
Sorghum	26	32	38	4	100
Cowpea	32	49	16	3	100

Source: Field work 1999.

Table 5.05 shows the frequency distribution of length of storage for maize sorghum and cowpea. It shows that 51% of the farmers store maize up to 6 months of the year, while 58% store sorghum up to 6 months, that of cowpea is 81% for the same period of time.

Table 5.06 Were Buyers Available/Do Farmers Buy The Same Grains Within The Year

Question	Respondents (%)			Total
	Yes	No	Neutral	
Do you have buyer always	82	18	-	100
Do you buy the same grains Within the year.	42	58	-	100

Source: Field Work.

Table 5.06 shows that, there were always buyers available for the grains, this is reflected in the figure of positive response of 82% as against 18% who said no. This is explain based on the relatively high population of the area, which signifies large market for goods especially foodstuffs. Those who said that buyers were not always available attributed this to, scarcity of means of transport as a result of non-supply of fuel (Petroleum) by Nigerian National Petroleum Corporation (N.N.P.C) which was reported as being under a "Turn Around Maintenance (TAM)", for the past one year. This situation of fuel scarcity has prevented the regular supply of grains to these markets from the rural centres, this therefore, caused price rise above normal price level before, the fuel crisis. This problem has caused untold hardship to the marketing agents.

Table (5.07a)Reasons Why Farmers Sell Off The Grains Early

Reasons	Respondents %
Lack of storage facilities	26
Do not produce enough	7
High demand for money	67
Total	100

Source: Field work 1999.

Table 5.07, shows that 67% sell off their grains so early due to high need for cash and this explains why they would have to buy back the same grains within the year. Many of these farmers sell off their grains so early in order to procure money to pay back the money they are owing their various creditors. Thus, it is another reasons why farmers earn low income. Only 33% of these farmers dispose off the grains early as a result of lack of storage facilities and not having enough grains to put in store, respectively. Why farmers dispose off grains as this can be seen with a chi-square value of 67.0, at 0.005 level of significance at 4 Degree of freedom.

Table (5.07b): Results of statistical Tests

SPSS/PC+ Cross tabulation: V1

REASONS FOR SELLING

TYPE OF CROPS PRODUCT

	Count Row Pct	SORGUM	MAIZE	COWPEA	
V2->	Col Pct				Row
	Tot	1.00	2.00	3.00	

V1					
	1.00	4	5	17	26
STORAGE		15.4	19.2	65.4	26.0
		9.1	27.8	44.7	
		4.0	5.0	17.0	
	2.00	1	1	5	7
NOT ENOUGH		14.3	14.3	71.4	7.0
		2.3	5.6	13.2	
		1.0	1.0	5.0	
	3.00	39	12	16	67
NEED CASH		58.2	17.9	23.9	67.0
		88.6	66.7	42.1	
		39.0	12.0	16.0	
	Column	44	18	38	100
	Total	44.0	18.0	38.0	100.0

Chi-Square	D.F	Significance	Min E.F.	Cells with E.F. < 5
20.09790	4	.0005	1.260	4 OF 9 (44.4%)

Statistic	Symmetric	with V1 Dependent	With V2 Dependent
Lambda	.20225	.03030	.30357
Uncertainty Coefficient	.11480	.13141	.10192
Somers' D	-.40065	-.35260	-.46385
Eta		.42527	.44712

Statistic	Value	Significance
Cramer's V	.313700	
Contingency Coefficient	.40908	
Kenda 11's Tau B	-.40442	.0000
Kenda11's Tau C	-.33300	.0000
Pearson's R	-.42527	.0000
Gamma	-.66071	

Variable	Cases	Mean	Std Dev

V1	100	2.4100	.8773
V2	100	1.9400	.9081

SPSS/PC+ Correlations: V1 V2

V1	1.000	-.4253
	(100)	(100)
	P=.	p=.000
V2	-.4253	1.0000
	(100)	(100)
	p=.000	p=.000

(Coefficient / (Cases) / 2-tailed Significance)
" . " is printed if a coefficient cannot be computed.

Thus, the null hypothesis can therefore, be rejected; since the dominant reason observed was the need for cash by farmers. This need for cash was attributable to Loans or credits obtained by farmers during planting season, especially from reach farmers and other individuals who usually demand for their money immediately after harvest. The hypothesis which says that "inadequate storage facilities make farmers dispose –off their grain produce at relatively low prices during the harvest period", was bested with chi-square procedure to determine why producer of grains dispose off their grains at the harvest time. Table (5.07b) shows the chi-square distribution of crops produced by different farmers and reasons why they dispose off their grains at harvest time.

Table (5.07b): Chi-Square table of analysis why farmers dispose off grains at harvest time.

V1: Reasons for selling: V2

Table (5.08b) showed that producers of cowpea trended to have storage problems as this can be seen with a chi-square value of 65.4, degree of freedom at 4 and at 0.0005 level of significance, which accounts for the disposing off of their produce at harvest time.

However, an observation of the table reveals that the need for money accounts for most reason why all farmers dispose off produce at harvest period. It can be seem with chi-square values of 88.6, for sorghum, 66.7 for maize and 42.10 for cowpea, at average chi-square value of 20.0979, degree of freedom at 4 and at 0.0005 level of significance.

The observed chi-square value for the table (5.08b) revealed that, this single reason cut across producers of the three grain crops understudy in the selected area. It is only cowpea which ended to have a slight variation from the other two crops, as this crop seemed to have more problem with storage facility than the other two grain crops. Nevertheless, the chi-square row total showed that, the need for cash was the main reason why farmers dispose off grains as this can be seen with a chi-square value of 67.0, at 0.005 level of significance at 4 degree of freedom.

Thus, the null hypothesis can therefore, be rejected; since the dominant reason observed was the need for cash by farmers. This need for cash was attributable to Loans or credits obtained by farmers during planting season, especially from reach farmer and other individuals who usually demand for their money immediately after harvest.

Table 5.08 Source Of Information On Price

Source of Information	Respondents (%)
- Relatives/Friends	32
- Checking market himself	39
- Fixing price for himself (in order to make profit)	18
- From fellow farmers	6
- From purchasers	5
- Other sources	-
Total	100

Source: Field work 1999.

From table 5.08, About same proportion(39 and 32%respectively) obtain their price information themselves by checking the markets, and from relatives and friends. Almost one – fifth fixed the price themselves in order to make profit, which about are – interactive each obtained information through fellow farmers, and from purchasers. Price information is a process through which farmers and marketers gain knowledge of current market prices of produce and therefore adjust their own price quotations.

Thus, from tables 5.03, 5.04 and 5.07, it is evident that farmers dispose off their grains due to high demand for money to pay back their various creditors. Therefore, we can reject the hypothesis which states that "inadequate storage facilities make farmers dispose-off their grain produce at relatively low prices during the harvest period". Although, farmers dispose off more than half of their grain produce during harvest period, it is not due to inadequate storage facilities, but other reasons as

stated earlier on.

5.03 The Parts Played By Marketing Agents In Marketing And Storage Processes

Each of these agents will be discussed in this section

RURAL COMMISSION AGENTS.

The rural commission agents are the links between sellers and buyers of grains. They are also interlinks between farmers, assemblers and even consumers. The rural commission agent has a good first hand information bout the nature of supply and demand within the study area.

The rural commission agent sells on the average up to 3 bags of maize, 2 bags of sorghum and 1 bag of cowpea per day. The number of bags sold per day is a bit low because, they are many and so there is a lot of competition between them. Due to this, the influence of a rural commission agent on price and quantity manipulation is minimal as consumers and other buyers can turn to other rural commission agents in the same market. However from a strategy view-point of the individual commission agent, product differentiation can be considered an attempt to gain a larger share of the market by promoting differences between his grain sales and those of competing commission agents. This seems to confirm Hays (1976, P.55) finding, that, rural commission agents can alter the size of the measure of grain, allowing a certain number of measures to contain more or less volume. However, this practice had been limited or checked by the presence of large number of rural commission gents in these markets. Out of the 100 commission agents interviewed, 65% of them confirmed they have been into this business for up to ten years, and they come to the market every

day, except if they do not have sufficient grains to sell.

Table 5.09 The Grain With The Highest Quantity Being Sold By Commission Agent

Grain	No. of Respondents (%)	Average number of Bags per day
Maize	46	3
Sorghum	32	2
Cowpea	22	1.5
Total	100	6.5

Source: Field Work, 1999.

Making judgement from the table 5.09 above, it is seen that maize is the grain with the highest quantity being sold by the rural commission agents and 46% of them confirmed this. Maize is closely followed by sorghum with about one-third and the least of the three crops is cowpea with just a little more than one-fifth. The reason why maize come up as the grain with the highest sales is due to the fact that maize is more consumed than other grains, because maize is used for various types of local diets like tuwo, koko (Palp), popcorn, maize flour, animal feeds etc. While the other two grains are totally adaptable to these uses.

Table 5.10 Periods Of Sales In The Year

Grain	Respondent Percentage			
	Nov-Jan;	Feb-April	May-July;	Sept-Oct
Maize	33	45	16	6
Sorghum	18	68	9	5
Cowpea	22	55	17	6

Source: Field Work, 1999.

From table (5.10) 78% of maize, 86% of sorghum and 77% of cowpea are sold between the months of November and April in the year, this is simply the peak period of sales in the study area. This is explained on the fact that, this period coincides with the harmattan period, the Christmas and sallah periods when people take a lot of paulp, tuwo (local delicacy prepared from maize) and other meals prepared with the same grains. It is also a period of buying for storage by the urban wholesalers, with the hope of reselling them later in the year, when these grains must have become very expensive due to scarcity normally occasioned by non production of these grains within the period of April to early September. The rural commission agents sell mostly to rural assemblers as 79% of them confirmed this statement.

RURAL ASSEMBLER

The rural assembler engages into rural markets to purchase grains that would later be sold in the urban markets. These rural assemblers reside in the urban centres as 93% interviewed claimed to be living within Kaduna city and more than 58% said they visit other markets like Kujama, Moraba-Nrido, Zonkwa, Chikum, Kasuwa Magani, to purchase grains and convey them to the selected markets. About 38% also

said they visit the selected markets almost on weekly basis.

A total of 89% out of the rural assemblers interviewed claimed that they travel to the markets by motor vehicle, 5% claimed to possess motorcycles, 2% had bicycles, while 4% treck to the markets.

In terms of quantity purchased on an average, the rural assemblers purchased about 4.6 bags of maize, 2.8 bags of sorghum and about 1.3 bags of cowpea per day, during period of high sales. Rural assembler normally moves round the markets to gather latest information on the marketing situations of these grains. Sometimes, rural assembler engages in price haggling with rural commission agent and finally a price indicating current cost of grain and quantity is arrived at and the quantity will be sold. Prices of these grains were found to be the same in the same market but slightly differ between the markets. Prices are sometimes forced to rise if there is a sudden decline in the supply of these grains or a speculation of declination in supply due to problems of fuel scarcity and transport problems.

Table 5.11 Where Rural Assemblers Take Their Grains To

Markets	Wholesaler	Commission whole Seller	Retailer	Consumer	Total
Barnawa	58	14	17	11	100
Badiko	49	32	11	8	100
Tudun-wada	66	22	7	5	100
Romi	61	27	8	4	100
Central Markets	67	13	5	15	100

Source: Field-work, 1999.

Table 5.11 indicated that most rural assemblers sold their grains to wholesalers. For instance, 66% of assemblers in Barnawa market sell their purchases to wholesalers

and 61%, 58%, 49% of rural assemblers at Romi, Tudun-wada and Badiko markets respectively also sell to wholesalers.

Most of the rural assemblers, when interviewed confirmed that most of their purchases were to be transported to central markets. Table 5.11, shows the various agents through which rural assemblers dispose off their purchases in the central market of Kaduna City. Most of the assemblers sell to wholesalers (67%) in the central market. The reason for this was that, the urban wholesalers have large storage facilities and were also ready to buy from them anytime the grains were brought in by the assemblers. When asked why they did not purchase more grains from other sources for storage, about 58% of the respondents said that they would likely find it difficult to accommodate more as they did not have adequate facilities for more purchases. About one-third (33%) said they did not have enough money for more purchase while 9% said, there was no transport facilities, or that the transport situation was rather too erratic and were unsure of what the transport situation would be due to fuel scarcity.

When asked whether they were buying agents for certain bodies, 42% indicated that they were buying for wholesalers in central markets, 14% for big firms (Flour mills) and 44% said that they store a little quantity of these grains in their shops for some months, for instance, up to five months or more.

The rural assemblers are very current about prices and market situations of these grains in other markets. They obtain information of price changes in other markets from their friends, fellow traders and buyers who visit them.

URBAN WHOLESALER

The urban wholesalers are found in all the selected markets and their organization, activities and performance influence pricing system in these markets. Although, the wholesaler is powerful in capital base and other facilities, their presence is in no way inimical to the activities, organization and performance of other intermediaries. The wholesalers sometime perform the functions of both rural assemblers and even retailers. The condition of entry of the wholesalers into the market do not constitute any problem to the normal functioning of the market.

Interms of average age of the urban wholesalers in the selected markets, about 67% claimed to be 46 years old and had been in the business for up to 24 years, while, 2% had their average age to be about 22.38 years and had been in business for up to 8 years.

Out of the 100 wholesalers interviewed, 33% claimed to have learnt the trade from older traders, 42% started the trade on their own, 12% were helped by friends who gave them grains to sell with an agreement to return proceeds accruable to the grain lender, while 13% inherited the business from their parents. How the wholesaler obtained initial capital for their business is analyzed in table 5.12 below.

Table 5.12 Initial Capital For Business

Sources	Respondent number (percentage)
Savings	42
Friends and Relatives	27
Inherited	13
Others	18
Total	100

Source: Field-work, 1999.

The table indicates that, 42% of the respondents obtained initial capital through personal savings, 27% from friends and relatives, while 13% and 18% through inheritance and other sources respectively.

The average number of bags of grains sold per week by a wholesaler are given as: 22.60 bags of maize, 27.42 bags of sorghum, 18.72 bags of cowpea. In the selected markets, the bulk of sales is done by the wholesalers.

The wholesalers have large storage facilities for these gains. Some have up to four large rooms for grain storage and on the average a wholesaler stores up to 80.60 bags of these grains. The rent per shop ranges between N350.00 and N550.00 per month, depending on whether the trader is inside the market or facing the road, i.e. open to the main road leading to the market. A wholesaler stores grains for an average period of three to four months before disposing off. This is because, within four months, they must have made appreciable gain as a result of price increase during off-season period.

During interview, the average number of bags of grains held by the wholesalers was; 28 bags of maize, 23.52 bags of sorghum and 21.72 bags of cowpea. Some wholesalers extend the storage of their grains by adding chemicals or openly dry the grains. For instance, a total of 32% use chemicals, 28% dry grains in the sun at certain periods, while 40% do not use anything.

On the average, a wholesaler employs 2 to 3 workers in his shop and in most cases one of the workers is the wholesaler's child or relative. An average of 2 assemblers work for an urban wholesaler and these assemblers carry out constant

supply of grains from different sources to the wholesaler. Furthermore, an average of 3 commission agents were attached to a wholesaler, and the commission agents were expected to return the grains entrusted in their custody in form of cash who were also rewarded in cash or in kind, like giving him some cups of grains as gifts.

URBAN RETAILERS

Urban retailers normally live in town and sell their grains to final consumers in the selected markets of Barnawa, Romi, Badiko and Tudun-wada areas. These agents use baskets, basins, pans and bags (exposed) to display or advertise their grains to buyers. They are generally numerous in all the markets and any one may join them to sell grains, that is, there is free entry and free exit. The average age of retailers interviewed is given as 32.25 years and had been in business for up to an average of 12.89 years.

An estimated amount of money needed to start a retail trade, including the purchase of materials like baskets, basins, cups pans and tables was N15,000.00. The various sources of initial capital for the urban retailers are shown in the table below.

Table 5.13 Sources of Initial Capital For Urban Retailers

Sources	Respondent number (percentage)
Savings	48
Friends/Relatives	36
Inherited	5
Others	11
Total	100

Source: Field-work, 1999.

From the table, 48% of the respondents started their retail business through savings, 36% through friends and relatives, 5% and 11% through inheritance and

other sources respectively.

A retailer sells on average 3 bags of maize, 2 bags of sorghum and 2.5 bags of cowpea per day in the selected markets. However, the quantity sold varies within the week. Some retailers confirmed Saturdays as the day they normally experience highest sales. Other days of high sales include Mondays, Thursday and Fridays. Sundays are said to be their days of lowest sales in the selected markets, due to non availability of Christian buyers in these markets on Sundays. Tuesdays and Wednesdays (mid-week) were said to experience low to average sale. Public holidays were also said to encourage sales among the urban retailers in the selected markets, due to expectedly large number of buyers that would turn out. However, some retailers sell more than others due to availability of customers known to such retailers, manipulation of selling techniques in the retailers attempt to differentiate his grain from that of his fellow competitors. The use of volume and measures in selling grains instead of weight leaves room for this type of manipulation which may result in the retailer gaining an extra of about N250.00 to N300.00 or even more on each bag of grain sold! The effects of these practices of retailers on their real income are difficult to assess. However, it is clear from this statement that, retailers actually rake in excess gains compared to other intermediaries in the channels of grain distribution.

Retailers have very little storage facility available to them and their stocks do not last long before they deplenish. The average number of grains stored by retailers in their shop was 7.42 bags of maize, 6.37 bags of sorghum and 4.29 bags of cowpea. The average cost of a shop per month was between N350.00, inside the markets, and N550.00, outside the markets. Some retailers share the same shop, but have different

stands or points in the markets, where they sell their grains, although, such points were normally a "Stone throw" to the shared store. An average of 36% of urban retailers were supplied with grains through buying agents, using 'Pickup' vehicles and these workers were paid up to N2000.00, on average per month. These workers were normally a driver and an attachee, who go to rural areas to purchase grains for the retailers 43% claimed to be commissioned by wholesalers to sell for them and 6% of the respondents obtained their grains through other sources. About 13% of the respondents claimed to have retail shops in other markets and an average of 2 shop attendants were employed with an average salary of N1,500.00 per month each.

CHAPTER SIX

ASSESSMENT OF MARKETING OPERATION

To assess the marketing system or the marketing activity of this kind, the market performance method is applied. This explains the appraisal of the extent to which interactions of buyers and sellers in a market stimulate results that are consistent with social purposes (Marion and Handey, 1975, p.11). Market performance is generally applicable, although less precise, it is more popular among researchers (Breimyer, 1976, p.126). Performance is generally applicable because it embraces more dimensions than efficiency and therefore gives a better explanation of the marketing system than would efficiency (Marion and Handey, 1975, p.21).

Analysis of the quality of the marketing system in terms of market performance was centered on efficiency in this research. Therefore, analysis of marketing efficiency will be applied to test the following hypothesis: `that the seasonal hike in the prices of grain foods is caused by the marketing agents (middlemen) in order to maximise profits'.

6.10 VARIATIONS IN PRICES WITHIN THE YEAR AND OVER THE YEAR.

The prices of commodities obtained from KADP on monthly basis were used to compute the efficiency of the price variation in the year and also over the years.

The yearly variation in prices is the temporal, while the variation in prices over the years is the spatial price variations. The yearly price variation is normally

estimated by applying the moving average method. This means that, actual prices of the commodities are expressed as a percentage of their yearly average, i.e. moving average. Moreover, seasonal indices are also computed from these moving averages in this same manner. These calculations will help the producers and even traders in taking important decisions on selling and purchasing activities.

Pricing Variations

Variation in prices can be analysed in two ways: One way concerns the temporal or yearly price variations and the second concerns the inter-temporal or seasonal variation in prices.

Temporal Price Variations

Table 6.01 shows price variations over the period of 1994-1998, indicating an upward trend in the prices of the selected grain. For example, sorghum has an average price of N4,318.00 as at 1994, by 1998, it increased to N23,142.00, cowpea also increased from N16,912.00 (1994) to N37,677.00 (1998), and maize from N3,996.00 (1994) to N20,203.00 (1998), per tone respectively.

Table 6.01 Yearly Average Price Of Selected Grains (1994-1998) (N Per Tonne)

	Grain selected		
Year	**Cowpea**	**Sorghum**	**Maize**
1994	16,912	4,318	3,996
1995	23,474	12,605	11,482
1996	41,887	15,132	13,553
1997	37,010	21,110	20,248
1998	37,677	23,142	20,203

Source: KADP.

It is obvious from the evidences gathered from the field, that the continuous upward variation on the prices of the commodities was traceable to inadequate production of the grains in discussion, coupled with high demand from the ever teeming masses of the selected area, had therefore, occasioned a continuous upward positive trend in the prices of the commodities selected.

This temporal price variations of the selected grains can also be seen and analysed through price indices shown in table 6.02. This table shows that, the price indices for sorghum experienced a positive variations throughout the period of 1994 to 1998, with the highest average price index in the month of November and the lowest price index in the month of April.

For Cowpea, and Maize highest price indices are shown in the month of August and lowest in the month of January. Both cowpea and maize experience

lowest price indices in January due to surplus supply of these grains in the early months of the year. The decrease in price indices of the selected grains begins from the month of December and continue till January, only sorghum continues up to February, after which the price indices pick up again. The decrease in price indices occurs during post-harvest period which normally cause over supply of these commodities in the markets selected and thus a general tendency towards lower price fluctuation in the aforementioned months.

Table 6.02 Average seasonal index of prices (1994-1998)

	Months											
Grain	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Cowpea	78	88	90	107	104	114	106	120	113	102	116	89
Sorghum	79	72	84	65	90	105	119	114	110	116	120	98
Maize	78	82	88	98	98	117	119	123	97	88	95	100

Source: Computed from yearly average prices (KADP)

It is crystal clear that, agricultural commodity (selected grain) prices were marked by positive upward movements during the period under study.

It was only post harvest periods that brought about a downward trend in prices which is a very short period in the year after which prices begin their normal upward trends. The reasons for this is that, the price elasticity of supply is fairly low, which means that, a small decline in production due to adverse weather conditions increase in input costs, poor market information situations or poor supply situation caused by

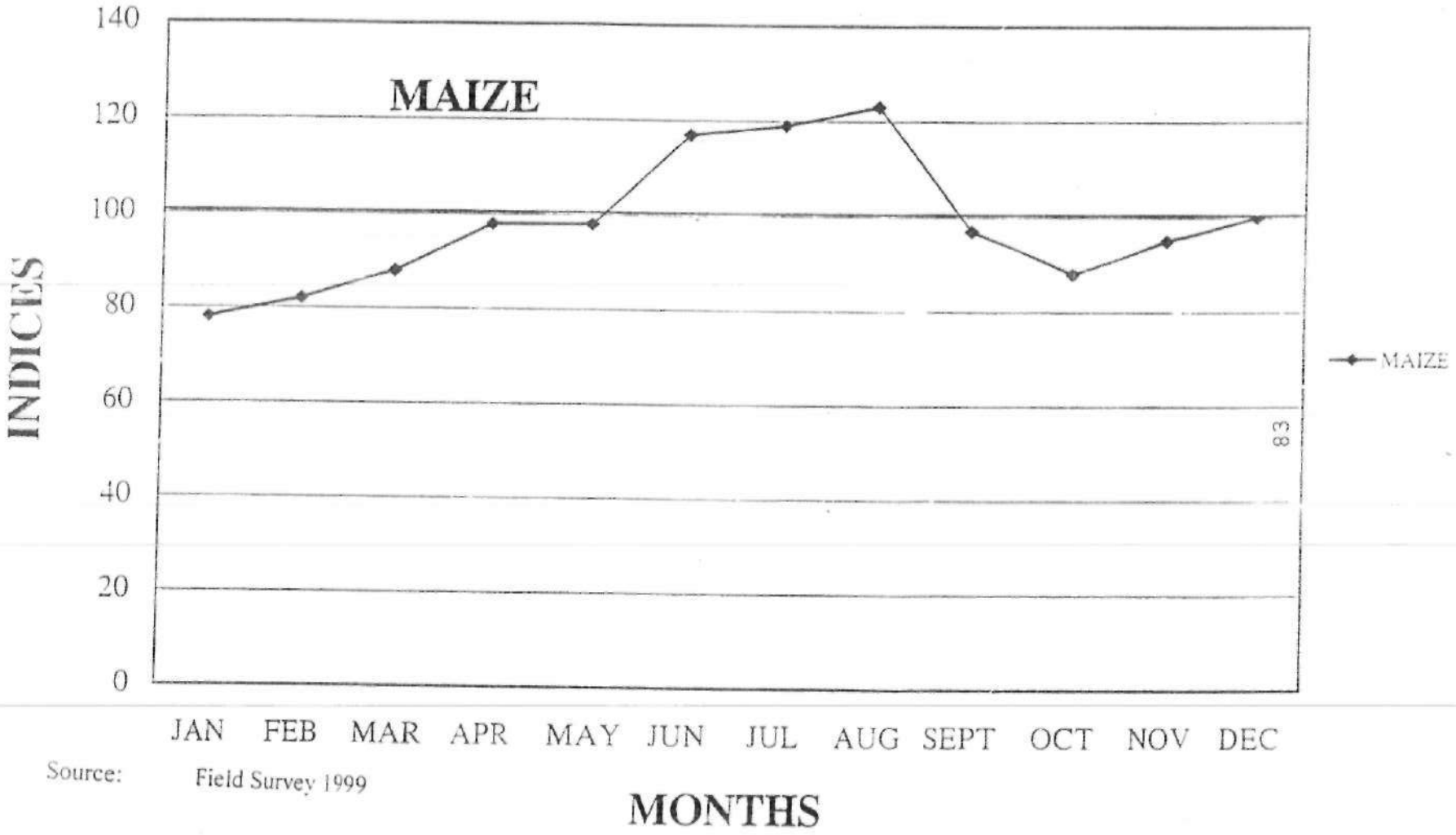
inadequate, transportation system due to fuel scarcity, could lead to skyrocketing of prices.Commonly, a small increase in supply either due to seasonal glut in the market, or due to enhanced production or improvement of other conditions mentioned above, could depress the price cycles, that are not responding to development efforts.

The variations in prices of these grains have also been shown in linear over the years (1994-1998) - Fig. 6.4

The linear graphs showed the cyclical variations of the prices of the selected grains pointing out the peaks and the troughs over the years and even within the years. It compares the prices of one commodity within the year and over the years with another commodity, appearing together in a diagram. This helps to show the variations at a glance over the years.

AVERAGE SEASONAL INDEX OF PRICE (1994 - 1998)

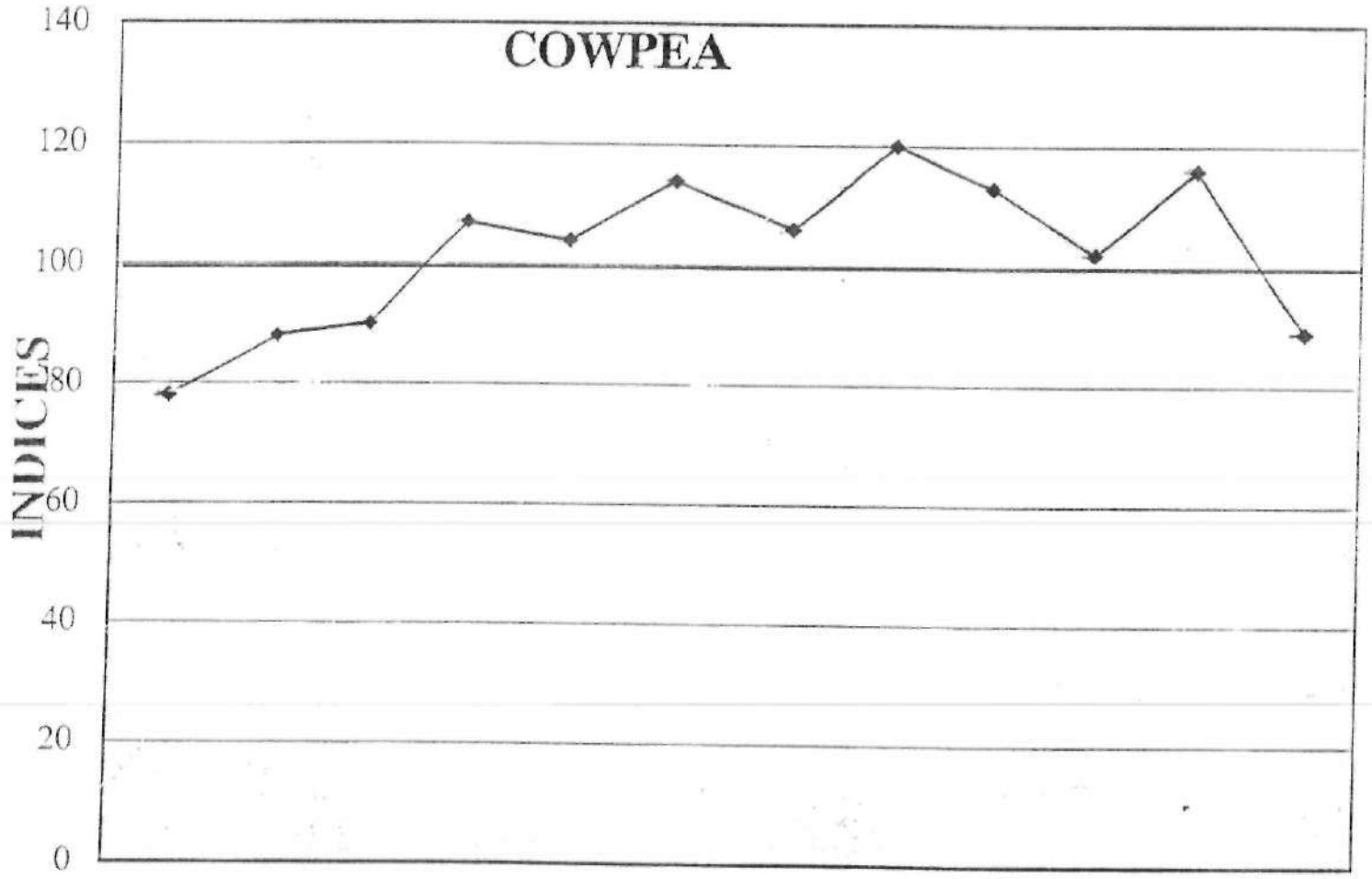
Fig. 6.1



Source: Field Survey 1999

AVERAGE SEASONAL INDEX OF PRICES (1994-1998)

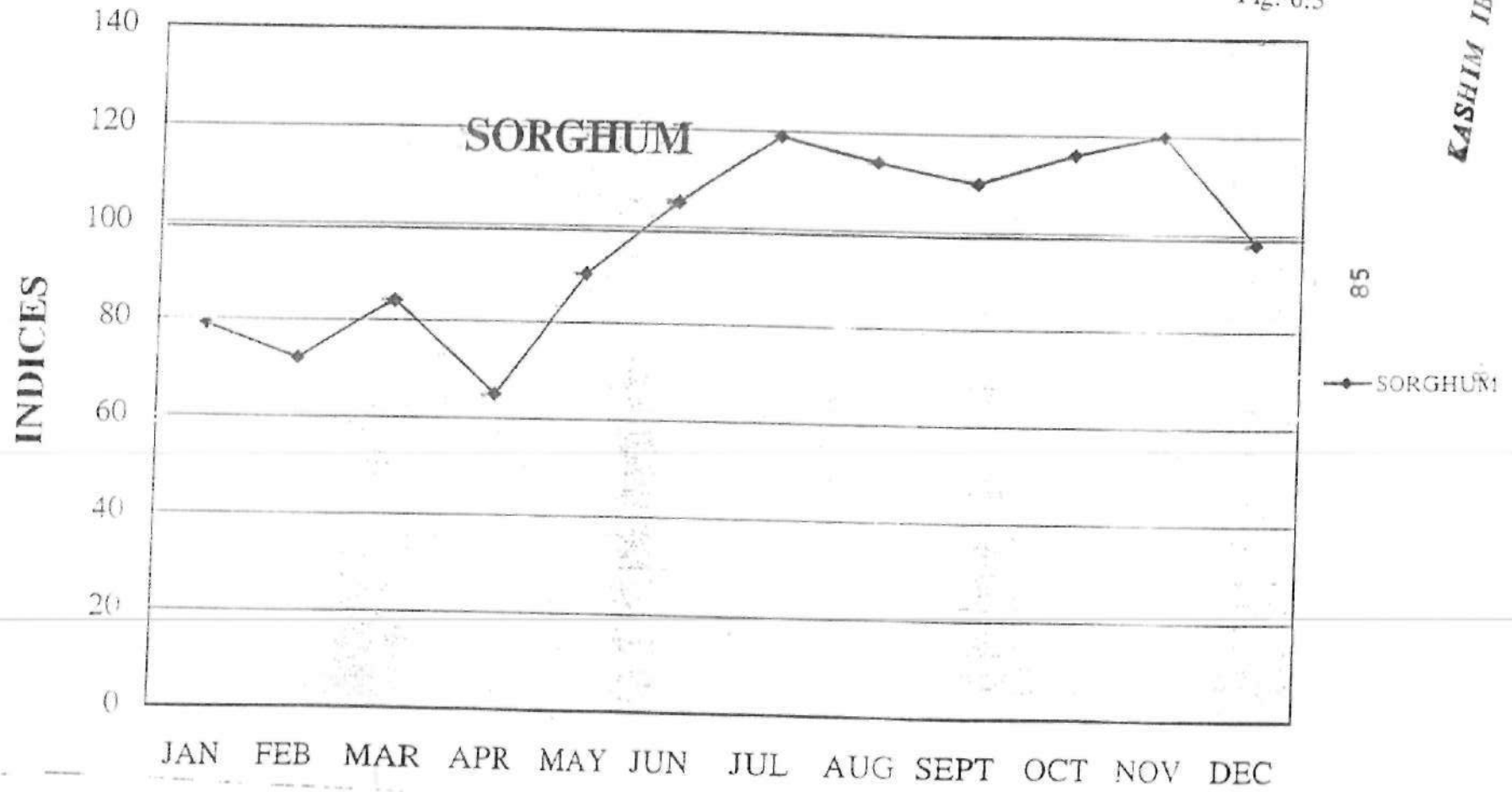
Fig. 6.2



Source: Field Survey 1999

AVERAGE SEASONAL INDEX OF PRICE (1994 - 1998)

Fig. 6.3

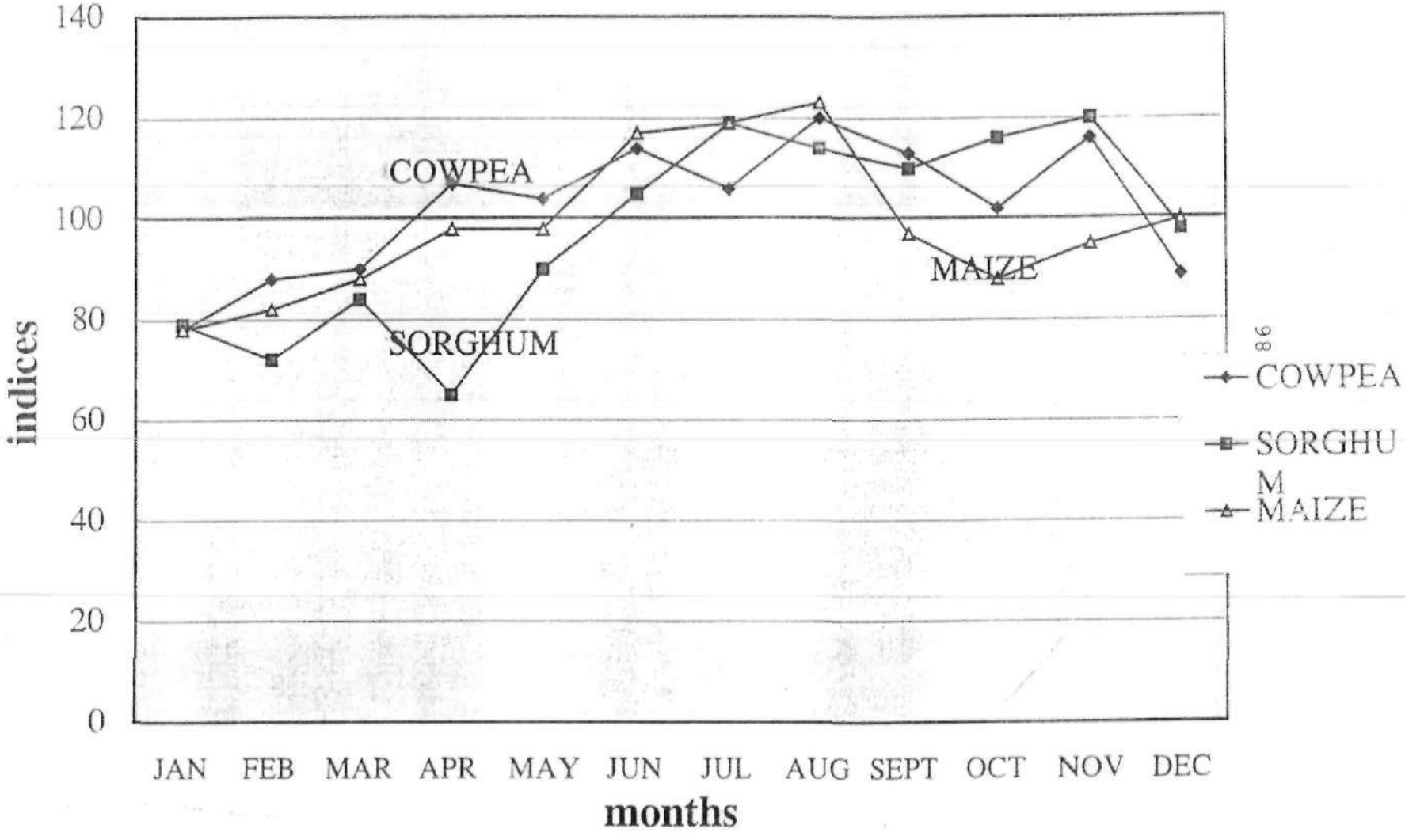


Source: Field Survey 1999

KASHIM IBRAHIM LI

Average seasonal index of price(1994-1998)

Fig. 6.4



Source: Field Survey 1999

6.20 INTER-TEMPORAL PRICE VARIATIONS

To further examine pricing efficiency, the seasonal price variations of the selected grains were analysed in relation to storage costs of the grain.

Economic theory suggests a post-harvest price rise to equal the cost of storing the grain in a perfect market. Thus, a price rise which is greater than the costs of storing grain provides the opportunity for intermediaries (market agents) to make more than normal profits, due to hiking of the prices of these grains through long time hoarding by the middle men. Therefore, to test the hypothesis, that, "the seasonal hike in the prices of grain foods is caused by the marketing agents (middlemen) in order to maximize profits", the seasonal fluctuation of prices in relation to storage costs and also the price variations in the selected markets were analysed and the results given by the computer.

However, the seasonal nature of agricultural production has resulted in variations in the prices of the selected grains between the different weeks, months and even years. Thus, table 6.3 shows the monthly and yearly average prices of maize, sorghum and cowpea for years 1994-1998. The corresponding seasonal price indices have also been constructed with the yearly average as 100 and presented in table 6.4.

The seasonal index of maize in 1994 was lowest during the post-harvest months of January and February and very high during the pre-harvest months of July to September. It was highest in July and August.

Actual price ranged from N3469.00 per tonne in January to N5,769.00 in August. This pattern of price movement remained the same throughout the year 1995

to 1998, with increase in price in pre-harvest periods and slight price decrease in post-harvest periods. The range of price between the highest and lowest for maize was N2,821.00 in 1994; N8,908.00 in 1995; N6,255.00 in 1996, N12,860.00 in 1997 and N15,550.00 in 1998.

Sorghum prices remained subdued during the early months of 1998, but later picked up and reached its peak by the middle of the year, it ranged fron N18,573.00 per tonne in January to N27,883.00, in July.

Similarly, cowpea price also exhibited market differences as between different seasons. The seasonal index of cowpea was 80 in January 1998 and reached its highest peaks of 123 in April and 121 in August. The actual prices during these months were N30, 268.00 in January, N46,522.00 in April and N45,435.00, in August respectively. The range of prices was N6,748.00 in 1994; N9,977.00, in 1995, N28,106.00, in 1996; N14,826.00, in 1997, N16,254.00 in 1998.

From the above analysis, it is obvious that grain food prices in the state have exhibited an upward trend over the years, inter-rupted by yearly cyclical movement as shown in the diagram, as well as monthly variations. (See fig. 6.5).

Thus, a distinct pattern of seasonal fluctuation in prices was also observed, grain prices decline rapidly during post harvest months and shoot up during the of-season periods. The prices sometime start a downward trend during the period immediately preceding the harvest as traders begin unloading their stocks if they anticipate a good harvest - the next season. Such fluctuations are caused by inadequate development of market infrastructures, such as the market yard, storage facilities, market intelligence, transport and credit system. Due to this, a slight

increase in market arrivals can cripple the pricing structure and these conditions offer ample opportunities for speculators who tend to exploit both the producer and the consumer.

This observed practice by marketing agents had been subjected to statistical test, by testing the variations in the prices charged by the agents over the years. The pearson correlation coefficients statistics showed that the three crops experienced positive price correlation along increment direction occasioned by the agents within the year and over the years. For instance, pearson statistics revealed that Sorghum has a value of 0.674, with standard deviation of 64.549, Cowpea showed 0.6225 at 62.9152 standard deviation, which revealed a positive price increase over the years, with standard error of 3.526 and 1.126 respectively in Table 6.3a

Therefore, the hypothesis which says that "that seasonal hike in grain food prices is caused by marketing agents", can be accepted. This acceptance is based on the pearson correlation coefficients which revealed a high positive price increase caused mainly by the agents who constantly review their prices inorder to be in the markets and also to make excess profits under every possibility.

Table 6.3a Results of statistical tests

Variable	Mean	Std Dev.	Std Error	Cv	Vaiance
MAIZE	1712.50	47.8713554	23.9356777	2.7954076	2291.67
SORGUM	1825.00	64.5497224	32.2748612	3.5362711	4166.67
COWPEA	5587.50	62.9152870	31.457635	1.1260007	3958.33

Correlation Analysis

3 'VAR' Variables: MAIZE SORGHUM COWPEA

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
MAIZE	4	1713	47.8714	6850	1650	1750
SORGUM	4	1825	64.5497	7300	1750	1900
COWPEA	4	5588	62.9153	22350	5500	5650

Pearson Correlation Coefficients / Prob > :R: under No: Rho=0/N=4

	MAIZE	SORGHUM	COWPEA
MAIZE	1.00000	0.67420	0.62254
	0.0	0.3258	0.3775
SORGHUM	0.67420	4.00000	0.71818
	0.3258	0.0	0.2818
COWPEA	0.62254	0.71818	1.00000
	0.3775	0.2818	0.0

6.30 TEMPORAL VARIATION IN PRICES AND STORAGE COST

The storage costs for the selected grains by the market intermediaries were obtained through interview conducted on the retailers and wholesalers in the local government area. Thus, data was obtained on rent storage, interest charges for money invested in the selected grain, charges for material losses of grain and even depreciation costs per bag. Rental costs per unit or per shop was a bit complicated especially due to storage capacity of these shops, either inside the market or outside the market. For instance, shops inside the markets cost on average about N350.00, while outside shops cost N550.00, per month respectively for storage capacity of about 50 bags of grain. Night-guard services cost about N25.00 per head or shop per month, which adds to storage cost. Consequently, the rental charge for storing bag of

grain is 13.20 naira.

Inclusively, the cost of loan needed to finance the investment in grain stored; alternatively, the opportunity cost of funds tied up in holding the grain have to be included in storage costs. Thus, to calculate this, an interest rate of 2.3% per month has been adopted based on the rate charged by banks for short term loan advances (28% per annum).

A study by Giles (1965, P. 211) - estimated storage losses at 4%, for sorghum, millet and maize, stored at producer level. In this analysis, storage losses are calculated by using 1.5% per annum, considering the improvement in storage facilities since the period of Giles study.

Moreover, as a result of the fact that bags are used for grain storage, it makes it crucial to estimate the depreciation of bags used in grain storage. For instance, a new bag cost about N30.00 on average, while used bags with approximately two years of service left, cost between N15.00 to N20.00 on average. Based on this price data concerning the life expectancy and cost of bags obtained from traders, the charge for depreciation used in this analysis is 1.5% per bag per month. the expected temporal (seasonal) price increase which would be consistent with the storage costs may be computed as follows:

$E(pti) = pto + t(R+I+L+D)$; where

Pto - price of one bag of grain stored

E(Pt) - Expected price per bag of grain stored in tme ti

t - time (in month, t=o=11 months)

R = rent per month per bag of grain stored (13.00 naira)

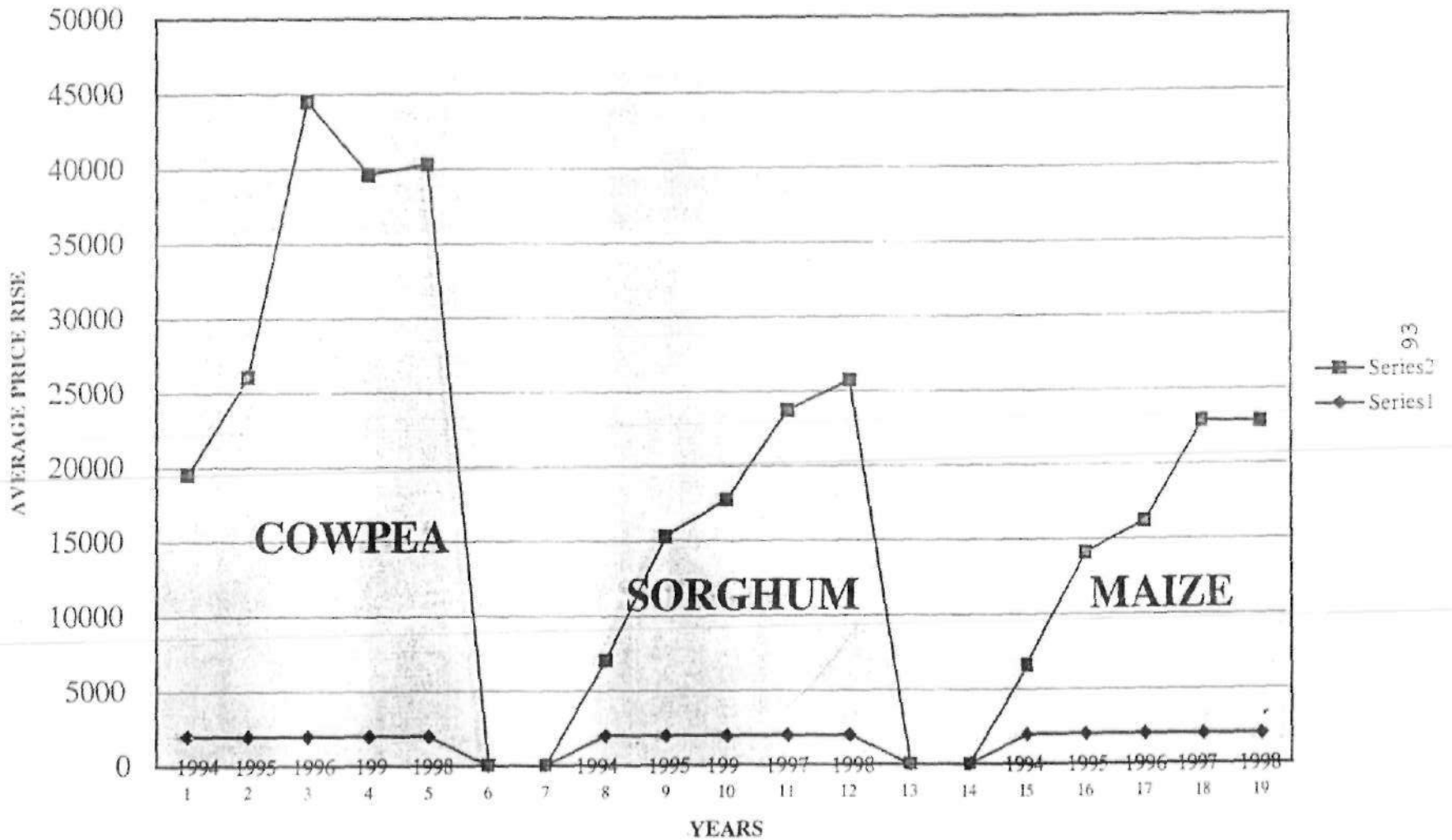
I = interest capital needed for the purchase of one bag of grain for storage (2.3%) per month.

L = amount of losses over time (1.5% per year).

D = Depreciation of bags used in storing one bag of grain (1.5%).

THE EXPECTED PRICE RISE OF ONE TON OF GRAIN CONSISTENT WIDTH STORAGE BY INTERMEDIARIES (1994 - 1998)

Fig. 6.5



Source: Field Survey 1999

However, the net seasonal rise in price, that is, the rise above that considered to be consistent with storage costs for any period would be given NSRPti=Pti-E(Pti); where

NSRPti = Net seasonal increase in price at period t. (Farruk, 1976, p.30).

Assuming a perfect market condition the net seasonal increases in price will equal zero, which means that the seasonal price rises are just equal to the computed storage cost.

Thus, the seasonal (temporal) price variations and the results of the analysis on the expected price rises which would be consistent with storages for 1994 to 1998, is shown on the graph in tones for easy computation. The graph showed that the seasonal price movements for maize and cowpea indicate the high and low points consistent with harvest period (September). Sorghum normally harvested in December seems to experience seasonal high price which generally occurs several months before it harvest and a little after maize harvest. This tendency reflects the close substitute that maize serves to sorghum in consumers' diets, but, also because of approximate estimate of sorghum crop prospects and if they are favourable, farmers therefore, market their surplus sorghum.

The seasonal increase in all the grain prices was generally above storage costs and therefore, the belief that seasonal price rises are consistent with storage costs can not hold water in the case of all the grains for the five years, But, there was a slight variation between grains as indicated on the diagram. For example, cowpea seasonal rises for 1998 were below the expected storage cost for more than half of the year, showing that it is not profitable to store grain especially between January and May,

although, the level of profit would be dependent upon the traders' skill in storage decisions.

Thus, the net seasonal price rises can be applied to do hypothetical estimates of per unit profits consequent upon assumptions about the timing of storage decisions by the intermediaries. Therefore, net seasonal price increases can be interpreted as a gross return, as its computation permits for all storage costs except for the risk factor and a return to the trader for his entrepreneural ability.

On the average, cowpea shows a substantial monthly gross returns than those of maize and sorghum. Thus, a policy of purchasing at harvest and storing until the off-season high accrued would certainly result in the highest per unit profits. From the diagram, the highest per unit profit would and do occur around July and August for all the grains. Maize price increase seems to be more consistent with storage cost than any of the crops, followed by sorghum.

This analysis regarding traders profits from storage operations indicates that there is possibility of profits made by intermediaries. Although, it has not been obviously shown they were actually attained since this is dependent on the trader's skill in storage ability and decision.

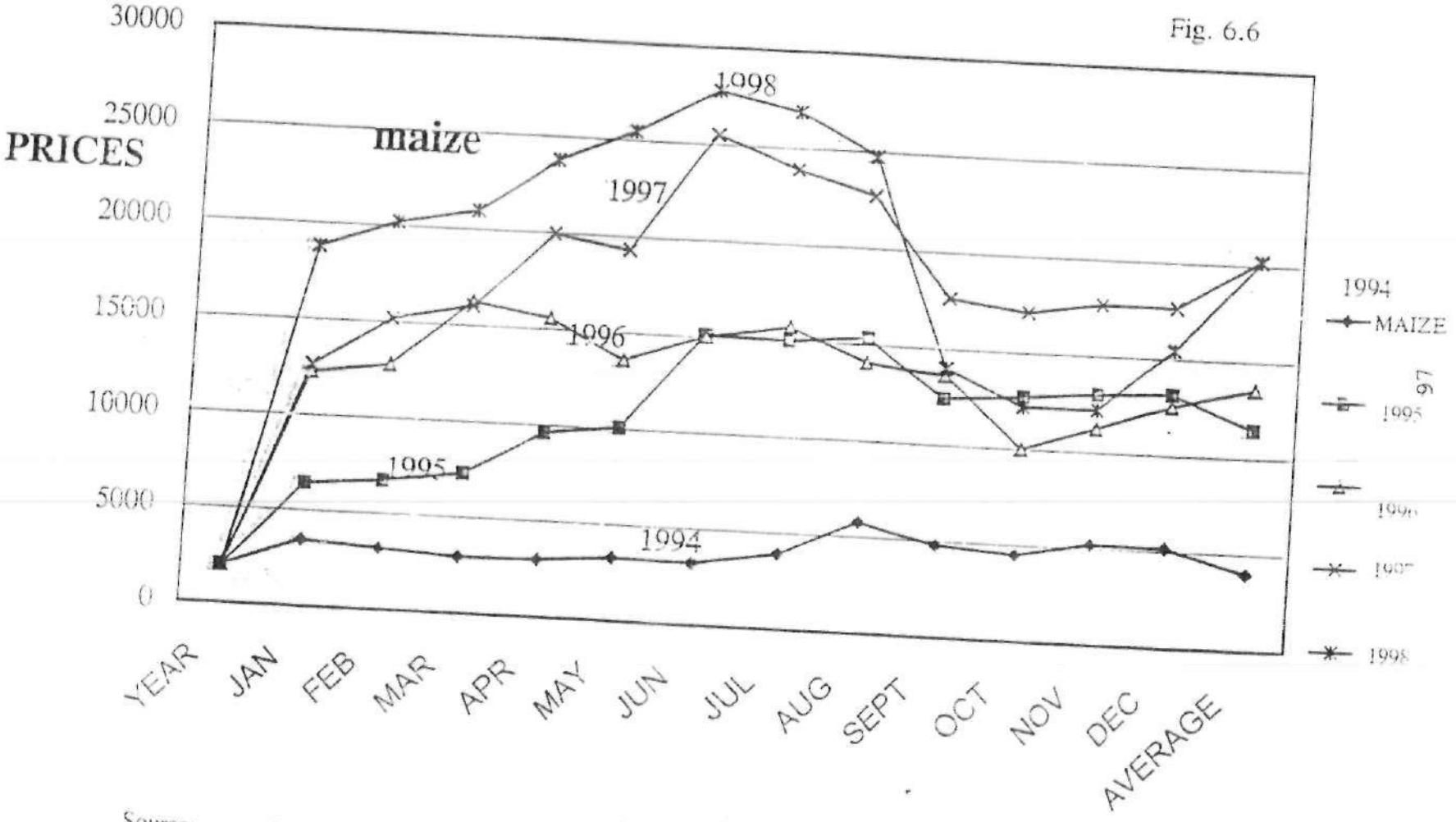
This is supported by the fact that little to moderate storage take place in the urban markets by the traders. Thus, it is evident that the traders make excess profits. It is therefore, possible to accept the hypothesis that "the seasonal hike in prices of grain foods is caused by the marketing agents (middlemen) in order to maximise profits", as, they do really and evidently make profit that were found not to be consistent with storage cost especially for cowpea and sorghum.

6.40 MARKET INTEGRATION

The table 6.3 below shows how prices of the commodities selected vary in the markets under study. The slight price variation in the market was said to be due to cost of transportation and handling between various points or locations. This kind of price variation is expected considering the environment in which the marketing agents operate - wheel motorists face fuel scarcity and inadequate spare parts.

CYCLICAL AND IRREGULAR VARIATION IN PRICES FOR THE SELECTED GRAINS 1994 - 1998

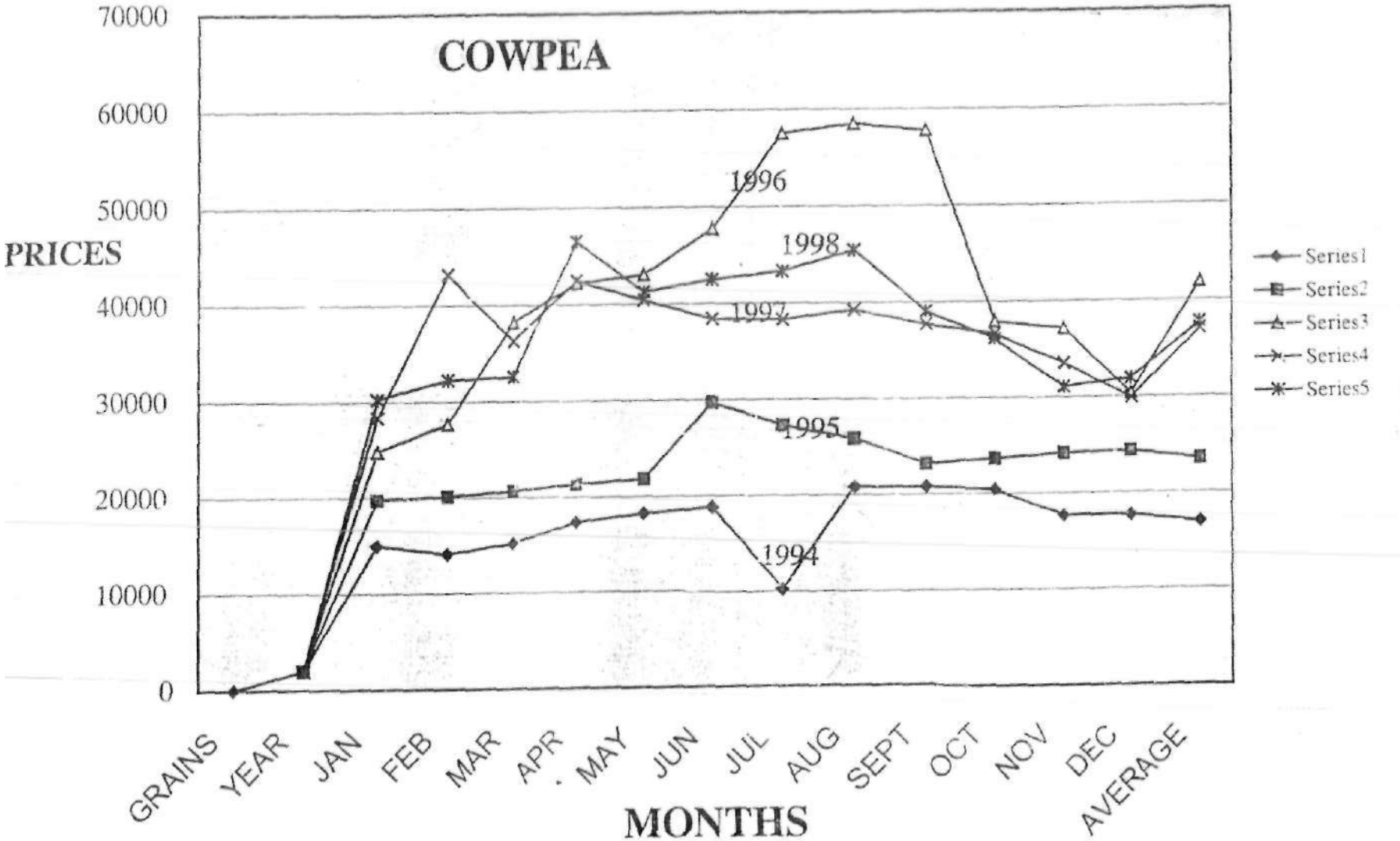
Fig. 6.6



Source: Field Survey 1999

CYCLICAL AND IRREGULAR VARIATION IN PRICES FOR THE SELECTED GRAINS 1994 - 1998

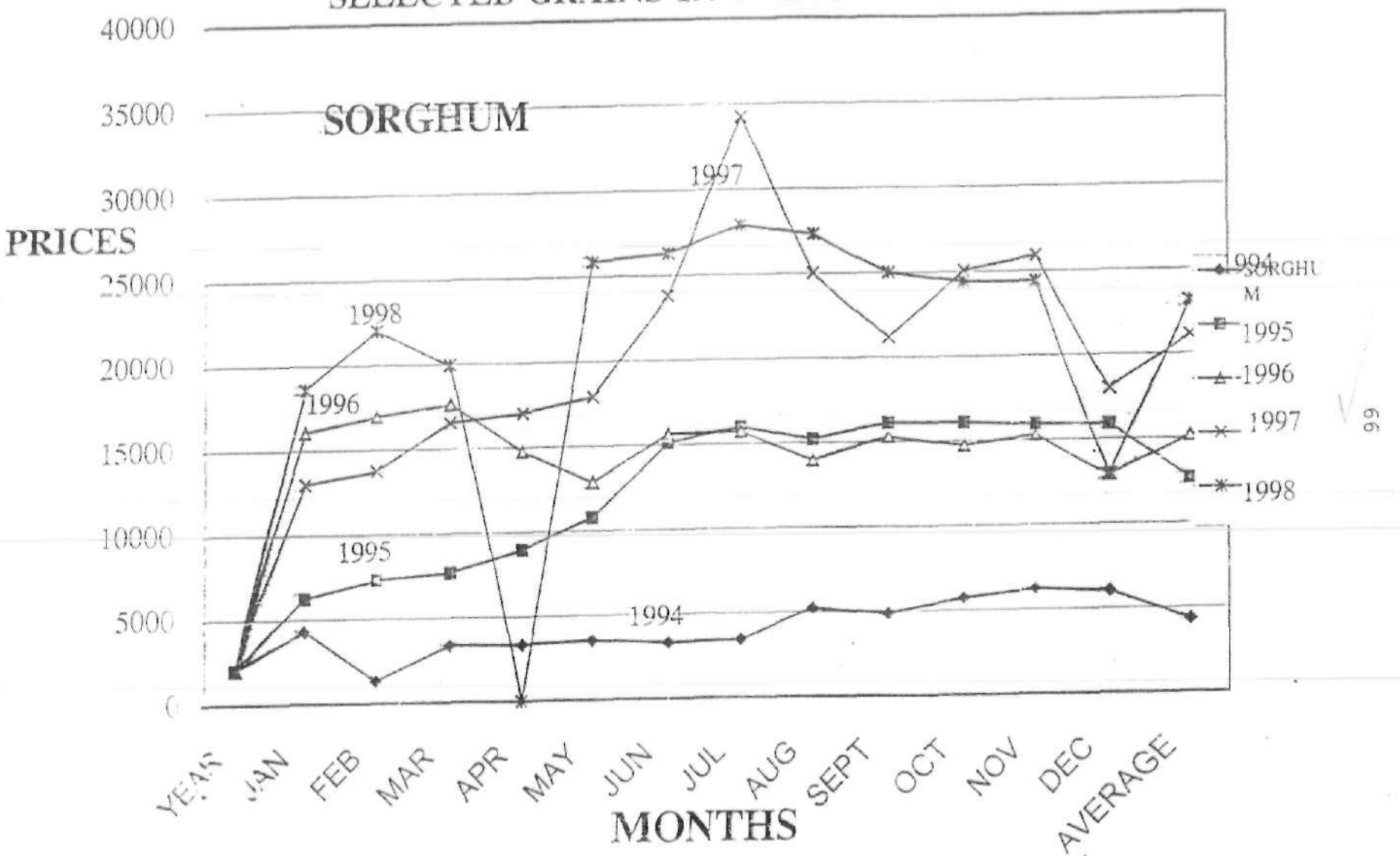
Fig. 6.7



Source: Field Survey 1999

CYCLICAL AND IRREGULAR VARIATION IN PRICES FOR THE SELECTED GRAINS 1994 - 1998

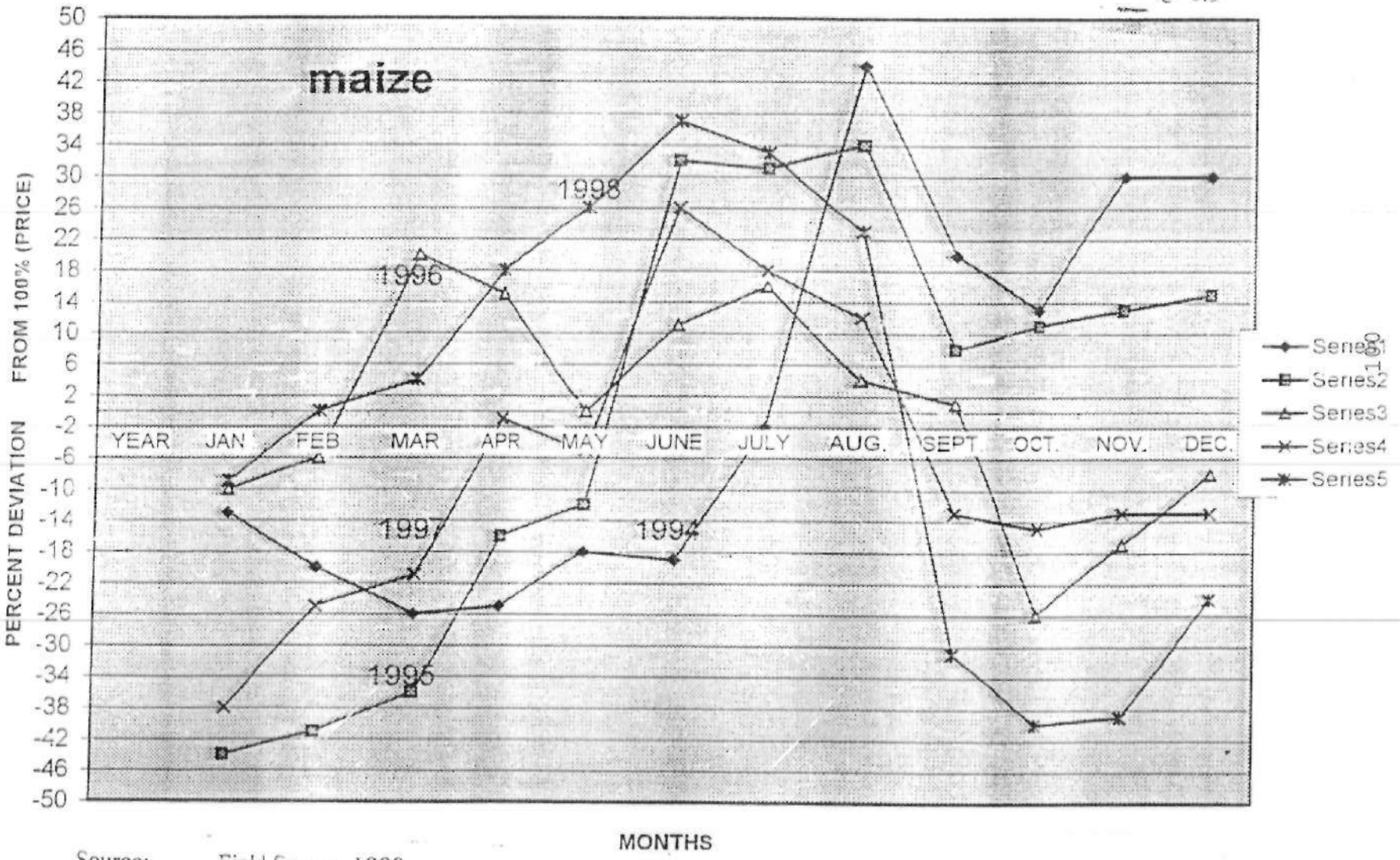
Fig. 6.8



Source: Field Survey 1999

CYCLICAL AND IRREGULAR VARIATION IN PRICES OF THE SELECTED GRAINS 1994 - 1998

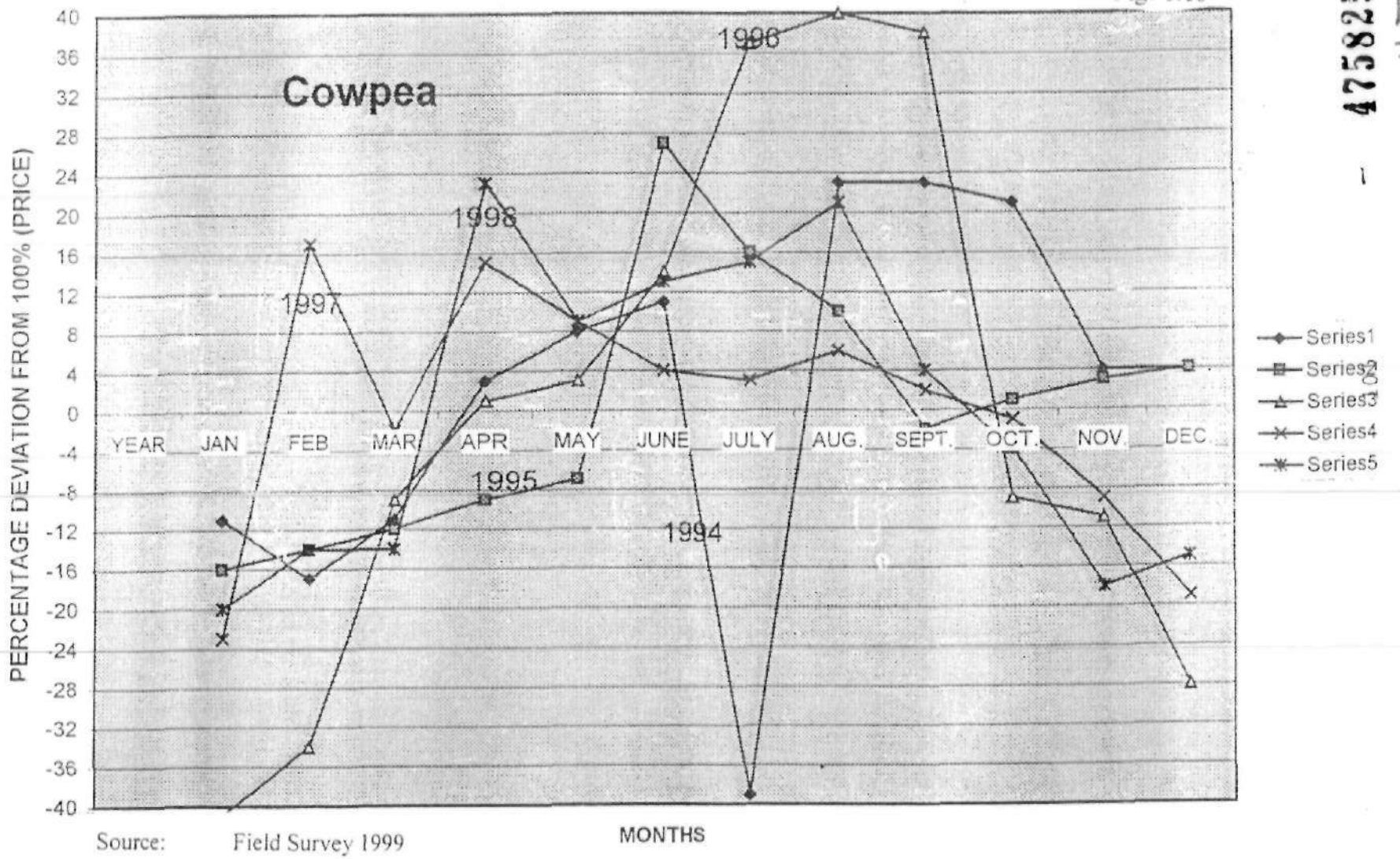
Fig. 6.9



Source: Field Survey 1999

CYCLICAL AND IRREGULAR VARIATION IN PRICES OFTHESELECTED GRAINS 1994 - 1998

Fig. 6.10

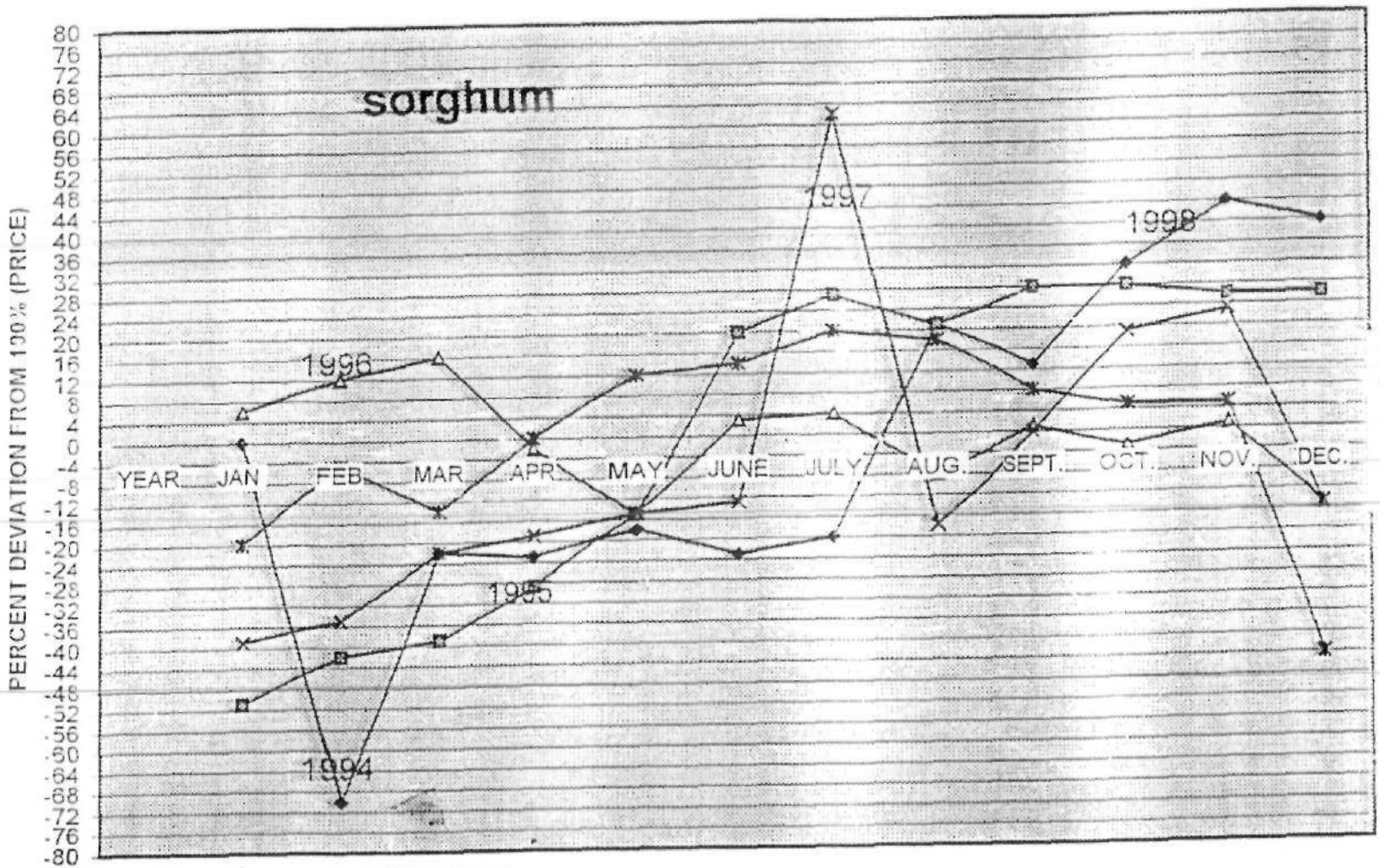


Source: Field Survey 1999

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CYCLICAL AND IRREGULAR VARIATION IN PRICES OFTHE SSELECTED GRAINS 1994 - 1998

Fig. 6.11



Source: Field Survey 1999

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Table 6.3b Price Variations In The Selected Markets

Grains	cost per bag of grain in the markets				
	Barnawa	**Romi**	**Tudunwada**	**Badiko**	**Average cost.**
Maize	1750	1650	1700	1750	1712.50
Sorghum	1800	1750	1850	1900	1825.00
Cowpea	5600	5500	5650	5600	5587.50

Source: Field-work, 1999.

Table 6.40 Price Per Tiya And Mudu Of Grain

	Barnawa		**Romi**		**Tudun-wade**		**Badiko**	
Grain	Tiya	Mudu	Tiya	Mudu	Tiya	Mudu	Tiya	Mudu
Maize	520	25.00	500	22.50	550	24.00	545	23.00
Sorghum	610	21.00	600	20.00	620	20.00	600	20.00
Cowpea	1900	65.00	1850	62.00	1800	63.50	1850	62.50

Source: Field-work, 1999.

From table 6.3, the cost per bag of maize is N1,750.00 at Barnawa market, at Romi market is N1,650.00, a difference of just N100.00, at Tudun-wada it is N1,700.00 which is N50.00 lower than that of Barnawa market and N50.00 higher than the cost per bag of maize at Romi market. Maize costs N1,750.0 at Badiko market, the same cost as in Barnawa market. Cost per tiya and mudu had also been gotten for these markets. From table 6.40, cost per tiya and mudu of maize at Barnawa market had been given as N520.00, N25.00 respectively, while at Romi the

same grain sells for N50.00 per Tiya and N22.00 per mudu, it is N55.00 per Tiya and N24.00 per mudu at Tudun-wada market.

Sorghum and cowpea cost N610.00 and N1,900.00 per tiya respectively at Barnawa market, the cost per mudu also showed that, sorghum costs N21.00 and cowpea costs N65.00. At Badiko market, a tiya of sorghum and copwea cost N600.00 and N1,850.00 respectively, while the cost per mudu of the same commodity costs N20.00 and N62.50, respectively in the same market.

From the two tables (Tables 6.3 and 6.4) it can be seen that, there is a lot of correlation or integration of prices between the markets. This is because, excessive hike in prices has not been experienced in any of the markets. The high integration displayed between the markets was found to be due to better price information's between the markets, better road linkages and patronage by the various market intermediaries involved in these grains.

A pearson correlation coefficients statistical test was conducted to test the level of integration between the markets under consideration. This revealed a high level of integration between the markets, as pearson correlation coefficients figures showed that Barnawa, Romi and Badiko correlated at 0.99993 level, while, Romi and TudunWada correlated at 0.99994 level. This shows that, Barnawa, Badiko and TudunWada had a slight difference in correlation coefficient with a difference of 0.00001 level of variation. These values revealed that the markets were highly integrated, due to reasons that had been had been given earlier on. Table 6.3b shows, the values of Pearson correlation coefficients for the four markets under study.

Further investigate the level of market integration in the study area, analysis of variance statistics were used and the results are given in table 6.50 below. The figures of prices per bag in the various markets selected as shown in table 6.30 were used.

Table 6.3b: Results of rearson Correlation Coefficients Statistical Tests

Variable	Mean	Std Dev.	Std Error	Cv	Vaiance
BARNAWA	3050.00	2208.51	1275.08	72.4100421	4877500.00
ROMI	2966.67	2194.50	1267.00	73.9719338	4815833.33
TWADA	3066.67	2238.49	1292.39	72.9942089	5010833.33
BADIKO	3083.33	2180.79	1259.08	70.7228374	4755833.00

Correlation Analysis

4 'VAR' Variables: DARNAWA ROMI TWAdA BADIKO

Simple Statistics

Variable N	Mean.	Std Dev	Sum	Minimum	Maximum
BARNAWA	3	3050	9150	1750	5600
ROMI	3	2967	8900	1650	5500
TWADA	3	3067	9200	1700	5650
BADIKO	3	3083	9250	1750	5600

Pearson Correlation Ceofficients / Prob > :R: under No: Rho=0 / N = 3

	BARNAWA	ROMI	TWADA	BADIKO
BARNAWA	1.00000	0.99993	0.99973	0.99973
	0.0	0.0073	0.0141	0.0147
ROMI	0.99993	1.00000	0.99994	0.99993
	0.0073	0.0	0.0068	0.0074
TWADA	0.99975	0.99994	1.00000	1.00000
	0.0141	0.0068	0.0	0.0006
BADIKO	0.99973	0.99993	1.00000	1.00000
	0.0147	0.0074	0.0006	0.0

Table 6.50 Analysis of Variance Table

	Sum of squares	Of	Mean squares
Row means	38912916.67	2	19456458.34
Column means	24,166.67	3	8055.56
Residual	7083.83	6	1180.56
Total	38944166.67	11	
	F(row) = 16480.70 F(column) = 6.824		F.95(2,6)=5.14 F.95(3,6)=4.76

Source: Field-work, 1999.

Degrees of freedom for residual is obtained by subtraction (11-2-3)=6. F-ratio is used to test the deference among row for significance by comparing the estimate of variance for row means with residual variance, which is an estimate of variance independent of the differential in means of both rows and columns. A test is also conducted among means of the different columns independent of any difference in rows.

F.95 (2.6)=5.14, thus, we accept the hypothesis of no difference among means of different rows. This shows that, there is no any significant difference in the prices of the selected grain crops between the various markets under study. This is a reflection of the earlier conclusion, that the markets are highly integrated.

Note:

The residual sum of squares measures experimental errors which are not explained by differences in row means or differences in column means. Note that, the two sums of squares for means and the value obtained as residual sum of squares add

up to the total sum of squares (38944166.67).

DF = Degree of freedom

DF = 2 (degree of freedom for rows) =K(3-1)

DF = 3 (degree of freedom for columns) = K(4-1)

Total degree of freedom = K(2+3+6).

Table 6.60 Analysis Of Variance Table

Means	Sum of squares	df	mean square	estimate of
Between	$\sum \frac{Ti^2}{ni} - \frac{T++^2}{}$	K-I	SM^2	d^2 ndm^2
Within	$\sum xij^2 - \frac{-^2+}{ni}$	N-K	SP^2	d^2
Total	$\sum x\,ij^2 - T++^2$	N-I		

I. Within-Groups mean square or within groups variance (SP^2) $= \frac{\sum xij^2 - \sum (Ti+/ni)}{in-k}$

II. The sum of squares for means or between categories is given as: $sm = \frac{\sum Ti+^2 - T++^2}{I = ni \quad N}$

$K-1$

Where:

T++ = Xij = Total of all row observation

N = ni = Total number of observation.

6.50 MARKETING MARGINS

Marketing margins will be the last marketing efficiency to be analysed based on

marketing intermediaries. The middlemen perform certain marketing activities which add up to the value of the grains. These services require labour, time and capital and therefore, cost money. However, the marketing margins is the difference between the buying and selling prices. The theory in this case is that, in a perfect market, the margin received should be commensurate with the costs of services rendered.

Thus, to obtain market margins the concurrent method was applied which involved comparing prices at different levels of marketing at the same point in time and obtaining gross and net margins. The study was done by interviewing the various channels involved in grain marketing in the study area; that is, it involves farmers in the markets, commission agents, rural assemblers, wholesalers and retailers. Table 6.70, shows the various prices charged at various levels of marketing by traders or intermediaries. The prices received by the farmer were arrived at after he has added his marketing costs to it. Other intermediaries also added costs of loading and off-loading market fees, transport, rent for market store, or stall, storage losses, etc, before arriving at the price given by them on a monthly basis.

Hence, the net margins of the various middlemen were computed by subtracting the purchasing prices and their costs for their selling prices. Regarding the retailers' sales price as the consumers' purchase price, the producers' share in a consumers' naira is calculated. The estimates of marketing margins computed for the selected grains in the study area are shown in table 6.7.

The table shows that, the farmers' share in the consumers' naira is small considering the fact that only his marketing costs added. If his costs of production were added to this cost, the amount that would have been taken by the farmer would

have been great, but, this is not so.

Table 6.70

Market Margins

Levels	Grains Maize	Sorghum	Cowpea
1. Farmers			
Sale price	850	820	3,800=
Net sale price	1,050	1,000	4,200
Market charges	200	180	600
2. Rural Assembler			
Purchasing price	1,050	1,000	3,800
Sale price	1,380	1,410	4,750
Net margin	330	410	550
3. Urban Wholesaler			
Purchase price	1,380	1,410	4,750
Sale price	1,700	1,750	5,500
Margin	320	340	750
4. Retailer			
Purchase price	1,700	1,750	5,500
Sale Price	1,800	1,855	5,650
Margin	100	105	150

Source: Field-work, 1999.

Thus, it is evident that, the gross margins are strikingly wide for the middlemen even though, they involve different grain foods. For instance, the gross margins for cowpea is slightly higher, closely followed by sorghum and maize respectively. The size of the margin is greater for the rural assembler, and urban wholesaler. Moreover, evidence for the high margin may also not be unconnected

with the fact that, often, while the producer is insulated from price increases at the consumer level, assemblers and urban wholesalers are free to hoard and make windfall profits from the artificial scarcity created by them at the expense of farmers.

CHAPTER SEVEN

7.0 PROBLEMS OF MARKETING AND SUGGESTED SOLUTIONS

7.10 PROBLEMS ENCOUNTERED BY FARMERS IN MARKETING THEIR PRODUCE

The farmers interviewed outlined several problem of marketing. They are low price quatation for their produce, inadequate demand, poor transportation inadequate storage etc. (Table 7.1) . Thus, the farmers have come to realize that any period production is increased which triggers up better harvest, price have always been found to fall backward instead of picking up and this usually brings their revenue down. This tendency in production-price-revenue relationship is actually responsible for the pauperization of most farmers interviewed in the selected markets of the study area.

Thus, considering the activity involved in sale, which inclines on both the amount sold and the price received for such produce, in this case, there exists a negative correlation or relationship between the two variables. For instance, the more farmers sell on the aggregate, normally during harvest surplus the lower the price received.

Consequently, the total revenue obtained by the farmers decline. The price flexibility of major food crops in Nigeria is more than one. Thus, a one percent expansion in grain production will invite more than one per cent reduction in price leading down the total revenue accruable. Consequently, the farmers likely to become poorer especially at harvest period or season, if adequate corrective measures are not

applied.

The farmers also complained of not having adequate market for their products especially during harvest, with surplus supply of these commodities in the markets and thus become worse off due to the low price of their products.

Thus, these problems showed that the farmers are the looser, but then, certain section of the marketing chain gains, that is, the intermediaries and even the consumers can be said to be the gainers. Farmers may therefore, continue to be net losers and the intermediaries and the consumers to certain level will continue to be net gainers, if corrective policy measure is not applied.

Furthermore, the farmers complained of inadequate transport facilities caused as a result of fuel scarcity which emanated from the so called "Turn Around Maintenance" (TAM) being conducted on the Kaduna Refineries during this time by the Nigeria National Petroleum Corporation (N.N.P.C). Thus, it becomes very difficult for the farmers to convey their products from rural centres to the urban markets and even between the selected markets because, the cost of transporting the grain was very high due to the fact that only few vehicles remained on the roads. Other having withdrawn for a lack of fuel.

Inadequate storage facilities to farmers in the markets have also been found to be a problem. This is because, if a farmer takes his grains to the market eventually and finds out that the facilities for storage in the market were unsatisfied, he maybe forced to sell off his grains at low price instead of storing them up for the next market day or at his own convenience. In this regard, the lack of facilities such as storage forced farmers to dispose off their grains at very low price because they cannot afford

to transport the grain back to their homes or to the village again. It is indeed a reality when due to one reason or the other, the farmer comes to the market late and due to inadequate or lack of storage facilities, he has to sell at a cheap rate to the commission agent.

Table 7.10 Problems Encountered By The Farmers In Marketing Their Produce

Problems	Number of Respondents	Percentage of Respondents
Lack of buyers.	08	08%
Lack of storage facilities in the market.	26	26%
Fear of fall in price.	36	36%
Transport problems.	30	30%
	100	100%

Source: Field-work, 1999.

Lack of buyers is also another problem pointed out by the farmers in the selected markets. It is discovered through this study that during harvest season, surplus is normally created and due to this, farmers normally release a lot of their produce to the market, intermediaries therefore, buy surplus grains at a much reduced price. Also during the months of April and May traders or intermediaries normally pile up their stocks. At this time visit to rural centres to purchase more is much reduced, thus creating a condition of inadequate buyers in the rural market centres. The results are that surplus created as a result of lack of buyers in the rural markets depresses prices, while in the urban centres prices are still relatively high.

The farmers also complained of unfavourable weather in some years usually caused by rain regimes in the study area, which affects both quality and quantity of grain produce. In seasons of adequate rainfall, produce are said to experience high quality yield and quantity is also enhanced. Thus, according to these farmers, high quality grains command better bargain in the market and hence, better price, while poor quality attracts low price. The farmers were also interviewed on whether they would be interested in bringing back the marketing and commodity boards. The result showed that, 62% indicated unwillingness for the board to be brought back, because, according to these farmers, the boards cheat farmers by offering lower prices for their produce and mopping up the grains only to sell at very high prices and make unexplainable huge profit at the expense of the producers. About 31% wanted them re-instituted because the board buys up excess produce and also fixed up grain prices in advance, which they said would have helped farmers during season of surplus, when prices usually fall below farmers' expectation a source of concern and even frustration for farmers. About 7% was found to be neutral, claiming that, they would not be bordered.

7.20 PROBLEMS ENCOUNTERED BY THE MARKETING AGENTS

A lot of problem faced the marketing agents in their efforts to distribute and market the grains produced by the farmers. One of these problems faced by the intermediaries is inadequate transportation facilities triggered up by fuel scarcity. Although, lack of transportation facilities is a general problem but, it affects this set of people more than others because, they deal directly with movement of farm produce from one location to another. This problem according to the middlemen has

contributed in no small measure to the wide margin existing between the various marketing points or channels and even between the rural and urban centres.

Other problems being encountered by the intermediaries include lack of capital to buy enough grains, storage facilities in the various markets, inadequate space to dry their produce in order to increase the age of these grains, attack by insect pest while grains are in storage, high interest rates paid to creditors and some other minor problems.

Lack of capital is said to be compounded by the government attitude toward the marketing agents. According to them, government had not accorded them the required recognition they wished to be given as an important instrument in the distribution and marketing of farm produce in the study area and even in Nigeria as a whole. In cases where these agents have to borrow money from banks, they have to pay at high interest rates, which therefore, reflects in the prices of the grains they sell.

The lack of recognition of this important agent of distribution by government has resulted in governments not having any consideration for this marketing system in any development policy. The marketing agents therefore emphatically voiced out together as "an important and indispensable fractional part of the marketing chain", in Nigeria. According to them farmers and government can not combine the functions of marketing agents with their day-to-day activities and therefore, the market system must be separated and treated as an entity on its own. Consequently, the marketing system should always be provided for in the nations development policy.

Lack of storage or inadequate storage facilities is also a big problem facing the intermediaries. According to them, the sizes of market stalls were too small for them,

which led to some of them keeping some bags of grains outside the market stalls covered normally with the aid of polythene materials to prevent rains from falling directly on them. Even with the coverage of these grains, rains still cause damages to some of them, according to the intermediaries.

Due to inadequate storage facilities, some intermediaries resulted to using their living rooms and kitchens at home for grain storage - which they also said created a problem of inadequacy of living space for them at home. They also complained that, the various markets existing in the study area lack adequate frontage space for other auxiliary uses, like drying up of their grains during certain time of the year in order to increase the quality and the life span of the grains. The reason for this inadequacy of frontage space was given to be due to the fact that, the shops were built too close to one another, which also caused the problem of inability of the free movement of vehicular means to convey produce in and out of the market centres.

They also noted possibility of insects attack on grains in storage which sometime lead to reduction in quality and life span of the grains or even an outright destruction. To reduce the possibility of insects attack on the grains, the marketing agents apply chemicals on the grains and also spray their stalls with chemicals. This is at extra costs which are normally added to the market value of their grains.

7.30 SUGGESTED SOLUTIONS

In practice, there is no single policy measure to improve farm income and the marketing of farm produce, rather a combination of appropriate policies should be adopted.

Adapting from (Binswanger, et al, 1978), the policy measures which had been in operation for long time in the United States of America.

These policy measures are grouped into three viz: major policies, alternative policies and supporting policies are given as suggestions for improving the farm income and the efficiency of the marketing system.

The major policy is explained on the impact of surplus gains at harvest which usually resulted into intermediaries biased impact.

It is biased because the surplus is never reflected in the farmers income but goes directly or indirectly to the intermediaries and sometime to the consumers. To reduce the effect of intermediaries biased impact, the farmer-biased strategy and policy should be adopted as the first policy towards improving farm income.

To carry out this policy measure, it will involve government establishing an agency that will operate - through buying, selling and storing grains, and the government would make it farmer - biased.

It will now be the sole responsibility of the government to stablize price through the board or agency. Thus, producers and marketers will supply the usual quantity of grains required to the consumers. It would now be necessary for the agency (from their storage) to release an amount of grains to satisfy the demand of the intermediaries and consumers. Thus, production surplus would always be purchased up by this agency and be released strategically into the market all-year-round to eliminate usual season of grain scarcity and cyclical variations of the prices of these grains. Thus, farmers will be better off, because, they will benefit due to increase in market supply at harvest. However, the position of the intermediaries and consumers

will remain unchanged, because, they are also co-benefitters of this arrangement.

The strategy analysd above can be achieved through the adoption of farmer-based policies such as price support and vent for surplus:

(a) The strategy of price support programme is to create more demand through government purchase. Hence, the government play an important role in the market mechanism for the better farm price.

(b) Also, due to increased marketable surplus at harvest, if the government has to buy the excess amount seasonally, the government stock may increase much faster than its annual release of grain and so there will be need to find some channel to get rid of these stocks.

This can be done by finding vent or for surplus and channelling excess amount through that vent. Vent of surplus must be found either in the export market or in the commercial industries of the country-which should encourage grain-food production increase.

Alternatively, suggestions are also offered which can aid the improvement of farm income where the major policy failed to be adopted. For instance, after crops have been harvested, the first decision the farmer is faced with is when to sell the marketable surplus. To enable him make this decision efficiently, it is important that he has the freedom to store till a later period or sell immediately. Access to credit at reasonable rates of interest will give him (the farmer) that freedom. Such credit can be granted with alien on the crop he is storing. Such a credit program is more easily administered if community storage program is adopted.

It is important that farmers who wish to store their grains are given protection from risks. The guaranteed minimum prices of the commodity boards give protection from price declines.

Risks of, physical deterioration can only be lowered if modern storage facilities are provided. Most farmers do not have enough capital to invest in such storage facilities which are essential in the use of modern pest control systems, such as fumigation, hermetic storage needed for the more susceptible products. Therefore, there is a need for "community storage" facilities.

The type of facilities envisioned are modern storage structures located in rural areas which can be used by both farmers and traders that have crops to store.

Fees are charged for the use of such facilities and stored products are protected against physical risks by employing modern storage methods and insurance programs. Farmers who bring commodities for storage are issued warehouse receipts and these receipts can be the basis of credit programs. The community storage programs could be run by both government and non-governmental organisations. A phased approach is suggested for this.

In a situation where those who supply inputs (mainly fertilizer) are different from those who extend credit facilities and these in return are different from those who purchase the final products, confusion and lack of effectiveness in any is the likely result. Thus, there is a need for an integrated approach for production efforts, that is, granting of credit and marketing of products and supply of input should all be tied to the community program.

For farmers and traders to take advantage of profitable price differentials over space and time, it is necessary that they know the places where such differentials exist. This is where market information fits in. Consequently, information about crop supply prospects and amounts in storage should be widely disseminated so that farmers and traders could make efficient decision as to storage. Similarly, information about prices in other markets should be disseminated so that farmers can bargain effectively and traders can make appropriate decisions about happenings between markets.

Considering the supporting policies, which are indeed necessary policies that could help improve the efficiency of the marketing system especially as it relates to farm income. These, therefore, include, the need to develop roads in general, especially the development of roads reaching into isolated areas is very vital. The benefit is that, it will not only ease the distribution of inputs and evacuation of grains, but, will allow the farmers a better opportunity to market their grains. Thus, relying less on local assemblers and obtaining a larger share of the final retail price. Furthermore, the improvement of existing infra-structures and development of new ones will lower the cost of transporting grains by attracting many lorries and other vehicles and at the same-time reducing wear and tear on lorries and other risks associated with road transport.

Additionally, an important supporting policy is the need for an improved physical marketing facilities such as stores, stalls, market places and lorry parking spaces. These kind of improvement will expedite the marketing processes and decrease marketing costs by reducing material losses of grain and even handling

expenses.

An inclusion to supporting measure is the need for improving agricultural production, input distribution systems to all increased productivity and ultimately a larger marketable surplus and a reduction in cost is very important. It is seen here that, if it is not exploitation in the product marketing system which decreases production incentives of farmers, it may be the unavailability of improved inputs necessary to increase production that results in low production level and low productivity.

Moreover, market information will not be meaningful in the absence of standards for quantity measures. There is therefore, a need to come up with meaningful and an acceptable measure for volume. Thus, the use of standardized measure would expatiate the collection, analysis and dissemination of accurate price data. In addition, it would do away with the opportunity for manipulation of different units of measure for grain in marketing transaction.

However, considering the socio-political and economic environment of Nigeria, an ideological shitt from hitherto, had been prescribed by Mabogunje (1980, p.337), which was rested on that of "a radical shift from capitalism towards socialism". However, it is easy to appreciate that, neither capitalism nor socialism can become the dominant mode of societal organisation in Nigeria. This is due to the fact that we need first to conceive and visualize the type of society in which we wish to evolve for ourselves, given the initial cultural differences and secondly, we need to workout a consistent framework of social relations which would offer adequate incentives and opportunities for the majority of the population. Thus, articulating basis and content

of these should form the ideology of development, taking into consideration the culture and peculiar social circumstances of the country.

Hence, the suggestion here is that, any ideological re-orientation that would aim at restructurings the country's base in such a way that would maximise the role of the majority of the population in the processes of government and resource decision is prescribed for the nation.

This is first an issue of creating appropriate institutions for raising the awareness of the majority of the population especially the ruralites, then coherently organising them, and finally of equipping them with the capacity to improve their standard of living through adequate incentive and opportunities by performing tasks hitherto being performed by few elites. These would consequently lead to self reliance and distributive justice, and commitment to both of these is seen as the greatest ideological challenge in Nigeria's development effort.

KASHIM IBRAHIM LI

CHAPTER EIGHT

SUMMARY AND CONCLUSION

8.0 SUMMARY

This research text has primarily attempted to examine the influence of marketing agents on rural produce marketing in the selected area. Thus, the current economic depression that the nation is experiencing in addition to various measures being adopted by the government to put the Nigerian economy on a solid foundation has resulted in the escalation of prices of agricultural commodities most especially grain foods.

This actually prompted concern about the efficiency and performance of the marketing system in promoting an optional allocation of resources by reflecting this high prices back to the producer and thus facilitating the increase in farm income.

A question very central to this research or investigation is that of-whether, the marketing agents were solely responsible for the seasonal hike in the prices of grainfoods in the study area? The complexity and seriousness of this question led to the application of market structure using the structure-conduct-performance paradigm. These provide guidelines on the efficiency of the price system in giving expression to the performance of the marketing as resource allocator as well as determining the operational efficiency of the intermediaries in the marketing.

8.10 MARKETING OPERATIONS

The marketing operations are totally in the hands of the private enterprises, with their capital and entrepreneurial ability. They are found in various types of markets and

exchange points where the marketing services of assembly, storage, transportation, bulk breaking and retailing are performed.

The structure, organisation and operation of the markets that were investigated and the conduct of the intermediaries show that:

It is indeed true that the producer stores considerable amount of grains and were not forced to sell their grains at harvest, and farmers receive some amount of income on the average from the retail price of grains.

The farmers sell a reasonable quantity of their grains immediately after harvest due to high demand for cash to meet their financial needs like settling their creditors and other family and personal problems.

However, there was no evidence that marketing tied to credit extension were significant in the area. The marketing agents have large marketing facilities with relatively large number of buyers and sellers whose independent action and number seemed too large to permit monopolistic practices in trade in the selected markets.

In general, entry into grain marketing was relatively free at any level of the marketing chain. Thus, at any level of the marketing processes, price determination was found to be competitive, while storage of grains till off-season period of scarcity by the marketing agents allow for the exploitation of the farmer by the intermediaries. The marketing link from the producer to the final consumer involves as many as five intermediaries.

8.20 OPERATIONS OF THE MARKETING SYSTEM

The temporal price relationship was investigated for the whole state by analysing the yearly price variation and observing the trend over the years 1994-

1998. It indicated that, grain-food prices were marked by positive movement during the period under study.

This is seen in the diagrams used for this analysis, which showed a continuous rise of prices for the five years. The reason being that, there was a continuous high demand, which was always higher than supply throughout the period. There should be equilibrium between the forces of demand and supply in order for the price cycle to respond to development.

The inter-temporal price variation revealed that prices vary weekly, monthly and even daily. Further analysis was carried out by relating the seasonal variation with the cost of storage. In line with the hypothesis that "marketing agents were responsible for the seasonal hike in prices of grainsfoods". The seasonal increase in most of the grain prices was above average costs providing the opportunity for middlemen who stored large quantity of grains to make more than normal profit. However, the extent of traders' profits would depend upon the traders' skill in storage decisions. Thus, the findings suggest that the inter-temporal price variations were as a result of traders having monopolistic power to influence prices at certain period of the year, through their operations and in the process make more than normal profits.

Marketing patterns of producers showed that the farmer is not the beneficiary of seasonal price rises in many cases. Although, a small storage is done by the farmers, but there is a considerable amount of storage about 4 to 5 months from harvest, occurring at the urban market level. The farmers were also discovered to be buying the same grains they earlier disposed off or sold. On the other hand, middlemen hike their prices during post-harvest period to reflect the scarcity created by high demand.

8.30 CONCLUSION

Conclusively, the analysis revealed that, the marketing agents were responsible for the inter-temporal price variations in the selected markets of the study area. Also, the grainfood prices were found to experience increase over the years, with farmers not receiving adequate income. This implies that, the farmer had not received adequate incentives in order to increase grain production that will result into improved productivity and hence, agricultural development. Suitable measures should be given to farmers interms of high prices through farm-biased crop, buffer stocking, orderly distribution and subsidization of certain inputs. Thus, there is a need for a long term price policy in Nigeria, that will carry along with it, the interest of both producers, marketers and consumers.

Thus, it is seen from the above that effective rural development is inevitable if the teeming rural masses are to live above the poverty line. Scientific research of this kind, no doubt, is imperative for rural development.

In-depth research into the diverse problems of rural emancipation should be adequately emphasised. Rural problems need to be correctly identified and appraised so that appropriate research procedures could be applied in order to realise the benefits of research efforts.

Table 8.10 SEASONAL INDEX OF PRICES (STATE-WIDE) 1994-1998

GRAIN	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
	1994	89	83	89	103	108	111	61	123	123	121	104	103
	1995	84	86	88	91	93	127	116	110	98	101	103	104
COWPEA	1996	59	66	91	101	103	114	137	140	138	91	89	72
	1997	77	117	98	115	109	104	103	106	102	99	91	81
	1998	80	86	86	123	109	113	115	121	104	96	82	85
	1994	100	30	78	77	82	77	80	121	113	132	144	140
	1995	49	58	61	71	85	120	127	121	128	128	126	126
SORGHUM	1996	106	112	116	98	85	103	104	92	101	97	101	85
	1997	61	65	78	81	85	113	162	118	100	119	123	85
	1998	80	95	86	-	112	114	120	118	108	105	105	56
	1994	87	80	74	75	82	81	98	144	120	113	130	130
	1995	56	59	64	84	88	132	131	134	108	111	113	115
MAIZE	1996	90	84	120	115	100	111	116	104	101	74	83	92
	1997	62	75	79	99	95	126	118	112	87	85	87	87
	1998	93	100	194	118	126	137	133	123	69	60	61	76

SOURCE: Calculated from monthly average prices (KADP).

Table 8.20

YEARLY/MONTHLY AVERAGE PRICES (1994-1998) OF SELECTED GRAINS ONLY.

GRAINS	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVERAGE
	1994	14990	14048	15126	17337	18217	18805	102245	20796	20796	20418	17658	17657	16912
	1995	19718	20133	20644	21315	21778	29695	27267	25845	23172	23632	24158	24334	23474
COWPEA	1996	24796	27669	38185	42179	43025	47709	57503	58459	57739	37903	37134	30353	4188
	1997	28346	43172	36234	42427	40406	38383	38260	39212	37676	36631	33505	29898	3700
	1998	30268	32250	32551	46522	41250	42500	43288	45432	39000	36129	31055	31881	3760
	1994	4303	1308	3372	3340	3521	3322	3440	5209	4863	5702	6206	6035	4318
	1995	6215	7259	7654	8929	10758	15106	15972	15195	16114	16076	15938	15893	12605
SORGHUM	1996	16030	16935	17597	14753	12834	15625	15703	13939	15280	14729	15293	12877	15132
	1997	12967	13714	16517	17006	17887	23795	34218	24998	21168	25060	25893	17981	21110
	1998	18573	22000	19924	-	25850	26300	27883	27314	25000	24410	24388	12923	23142
	1994	3469	3196	2948	2988	3288	3248	3927	5769	4811	4512	5212	5185	3996
	1995	6446	6734	7292	9622	10067	15106	15030	15354	12438	12727	13009	13171	11482
MAIZE	1996	12254	12783	16263	15557	13586	15016	15728	14059	13632	10008	11233	12519	13553
	1997	12640	15185	16020	19967	19309	25500	23903	22730	17642	17116	17668	17651	20248
	1998	18808	20200	20968	23775	25450	27750	26875	24752	14000	12200	12222	15428	20203

Sources: KADP.

PERCENTAGE DEVIATION FROM 100% (1994-1998)

Table 8.21

GRAIN	YEAR	JAN	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
	1994	-11	-17	-11	+3	+8	+11	-39	+23	+23	+21	+4	+4
	1995	-16	-14	-12	-9	-7	+27	+16	+10	-2	+1	+4	+4
COWPEA	1996	-41	-34	-9	+1	+3	+14	+37	+40	+38	-9	-11	-28
	1997	-23	+17	-2	+15	+9	+4	+3	+6	+2	-1	-9	-19
	1998	-20	-14	-14	+23	+9	+13	+15	+21	+4	-4	-18	-15
	1994	-10	-70	-22	-23	-18	-23	-20	+21	+13	+32	+44	+40
	1995	-51	-42	-39	-29	-15	+20	+27	+21	+28	+28	+26	+26
SORGHUM	1996	+6	+12	+16	-2	-15	+3	+4	-8	+1	-3	+1	-15
	1997	-39	-35	-22	-19	-15	+13	+62	-18	0	+19	+23	-15
	1998	-20	-5	-14	0	+12	+14	+20	+18	+8	+5	+5	-44
	1994	-13	-20	-26	-25	-18	-19	-2	+44	+20	+13	+30	+30
	1995	-44	-41	-36	-16	-12	+32	+31	+34	+8	+11	+13	+15
MAIZE	1996	-10	-6	+20	+15	0	+11	+16	+4	+1	-26	-17	-8
	1997	-38	-25	-21	-1	-5	+26	+18	+12	-13	-15	-13	-13
	1998	-7	0	+4	+18	+26	+37	+33	+23	-31	-40	-39	-24

Source: Calculated from seasonal index of prices (state-wide) 1994-1998.

PERCENTAGE DEVIATION FROM 100%

Table: 8:22

GRAIN	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
COWPEA	-22	-12	-10	+7	+4	+14	+6	+20	+13	+2	+16	-11
SORGHUM	-21	-28	-16	-35	-10	+15	+19	+14	+10	+16	+20	-2
MAIZE	-22	-18	-12	-2	-2	+17	+19	+23	-3	-12	-5	0

Source: Computed from Average seasonal index of prices (1994-1998) (KADP)

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AVERAGE SEASONAL INDEX OF PRICES (1994 – 1998)

Table: 8:23

GRAIN	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
COWPEA	78	88	90	107	104	114	106	120	113	102	166	89
SORGHUM	79	72	84	65	90	105	119	114	110	116	120	98
MAIZE	78	82	88	98	98	117	119	123	97	88	95	100

Source: Computed from yearly average prices (KADP).

(1) Table 8:20

AVERAGE ANNUAL COMMODITY RICES FOR THE MONTHS OF JAN.-DEC: 1994*STATE WIDE*

MONTH (N/TON)

GRAIN	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVE 1994	% INCREASE OR DECREASE
COWPEA	14990	14048	15126	17337	18217	18805	10245	20796	20796	20418	17658	17657	16912	+31%
SORGHUM	4303	1308	3372	3340	3521	3322	3440	5209	4863	5702	6206	6035	4318	+123%
MAIZE	3469	3196	2948	2988	3288	3248	3927	5769	4811	4512	5212	5185	3996	+135%

Source: KADP

(2) Table 8:31

AVERAGE ANNAL COMMOSITY PRICES FOR THE MONTHS OF JAN, - DEC: 1995, * STATE WISE*

MONTH (N/TON)

GRAIN	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVE '95	AVE '94	% INCREASE OR DECREASE
COWPEA	19718	20133	20644	21315	21778	29695	27267	25845	23172	23623	24158	24334	23474	16912	+39%
SORGHUM	6215	7259	7654	8929	10758	15106	15972	15195	16114	16076	15938	15893	12605	4318	+199%
MAIZE	6446	6734	7292	9622	10067	15106	15030	15354	12438	12727	13009	13171	11482	3996	+187%

Source: KADP

(3) Table 8.33

AVERAGE ANNUAL COMMODITY PRICES FOR THE MONTHS OF JAN. TO DEC. 1996 STATE WIDE MONTH (N/TON)

GRAIN	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVE '96	AVE '95	% INCREASE OR DECREASE
COWPEA	24796	27669	38185	42179	43025	47709	57503	58459	57739	37903	37134	30353	41887	23474	+78%
SORGHUM	16030	16935	17597	14753	12834	15625	15703	13939	15280	14729	15293	12877	15132	12605	+20%
MAIZE	12254	12783	16263	15557	13586	15016	15728	14059	13632	10008	11233	12519	13553	11482	+18%

Source: KADP

(4) Table 8: 33

AVERAGE ANNUAL COMMODITY PRICES FOR THE MONTHS OF JAN. TO DEC. 1997 STATE WIDE MONTH (N/TON)

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GRAIN	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVE '96	AVE '95	% INCREASE OR DECREASE
COWPEA	28346	43172	36234	42427	40406	38383	38260	39212	37676	36631	33505	29898	37010	41887	-11.6%
SORGHUM	12967	13714	16517	17006	17887	23795	34218	24998	21168	25060	25893	17981	21110	15132	+39
MAIZE	12640	15185	16020	19967	19309	25500	23903	22730	17642	17116	17668	17651	20248	13553	+49

Source: KADP

(5) Table 8:34

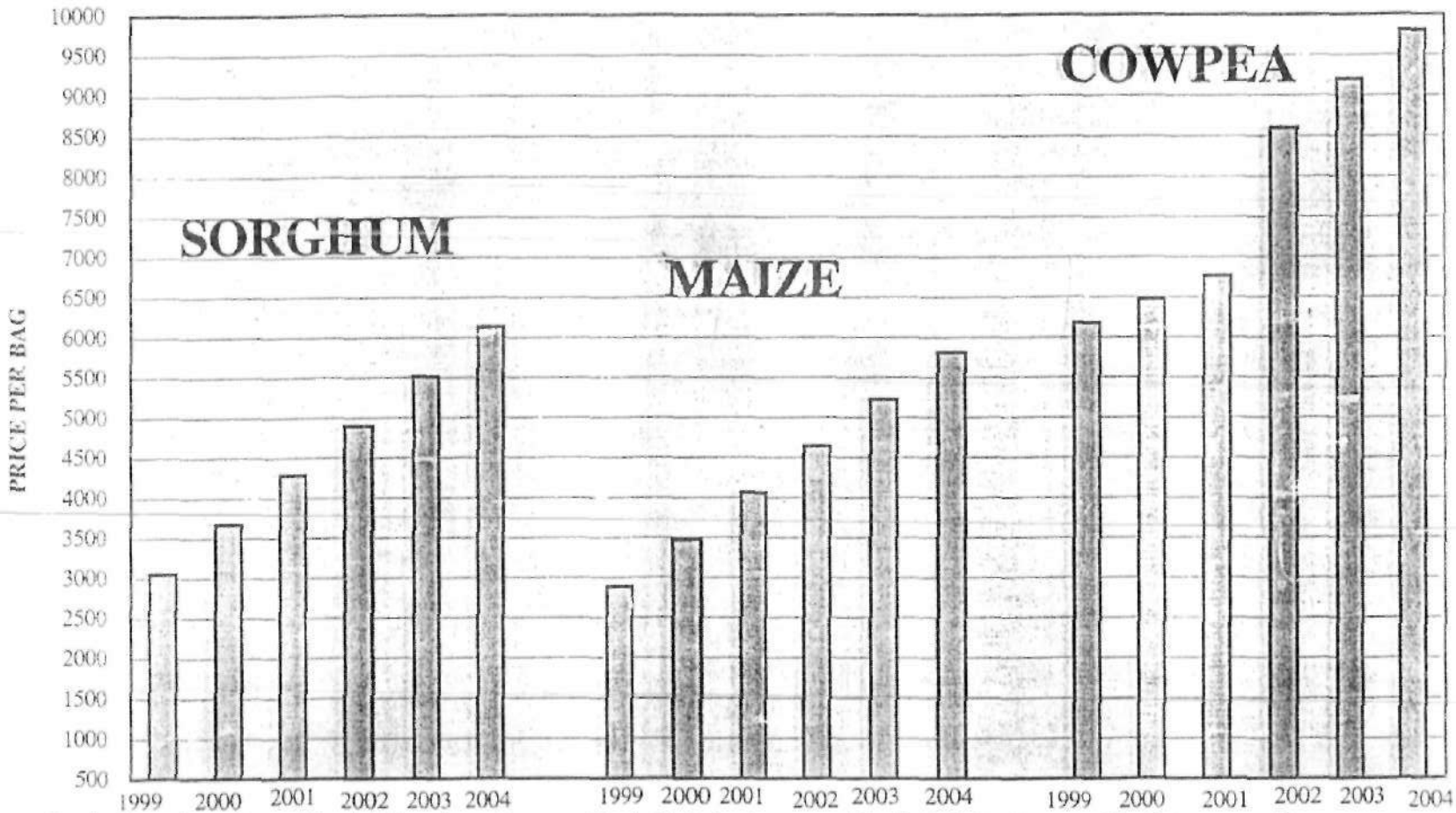
AVERAGE ANNUAL COMMODITY PRICES FOR THE MONTHS OF JAN. TO DEC. 1998 STATE WIDE MONTH (N/TON)

GRAIN	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVE '96	AVE '95	% INCREASE OR DECREASE
COWPEA	30268	32250	32551	46522	41250	42500	43288	45435	39000	36129	31055	31881	37677	37010	+1.8%
SORGHUM	18573	22000	19924	-	25850	26300	27883	27314	25000	24410	24388	12923	23142	21110	+10.0%
MAIZE	18808	20200	20968	23775	25450	27750	26875	24752	14000	12203	12222	15428	20203	20248	-0.22%

Source: KADP.

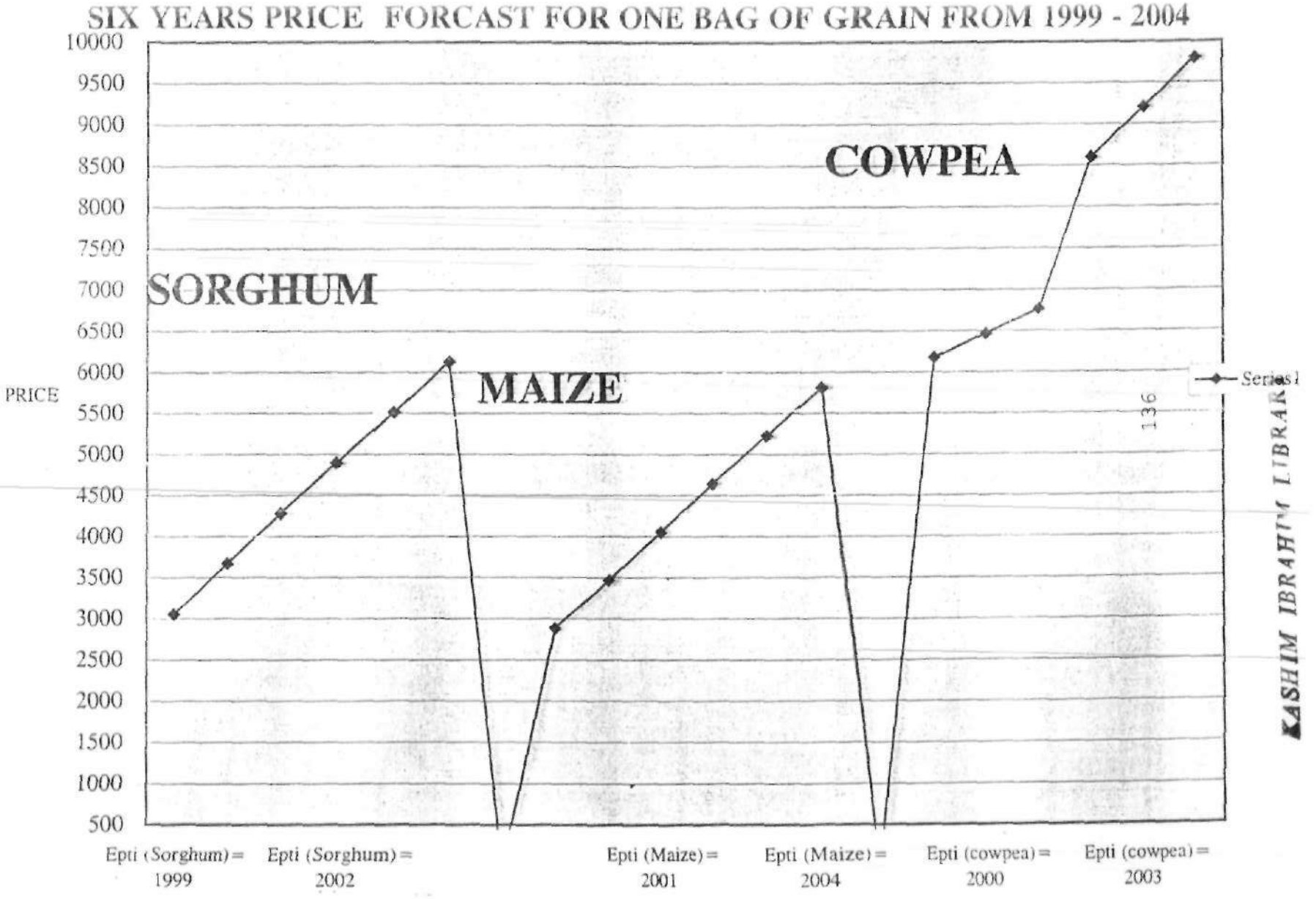
2000

GENERATED RESULT FOR SEVEN YEARS PRICE FORCAST1999 - 2004



Source: Field Survey 1999

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Source: Field Survey 1999

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Crosstabulation: V1 REASONS FOR SELLING
By V2 TYPE OF CROPS PRODUCE

V1	Count / Row Pct / Col Pct / Tot Pct	SORGHUM 1.00	MAIZE 2.00	COWPEA 3.00	Row Total
1.00 STORAGE		4	5	17	26
		15.4	19.2	65.4	26.0
		9.1	27.8	44.7	
		4.0	5.0	17.0	
2.00 NOT ENOUGH		1	1	5	7
		14.3	14.3	71.4	7.0
		2.3	5.6	13.2	
		1.0	1.0	5.0	
3.00 NEED CASH		39	12	16	67
		58.2	17.9	23.9	67.0
		88.6	66.7	42.1	
		39.0	12.0	16.0	
	Column Total	44	18	38	100
		44.0	18.0	38.0	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
20.09790	4	.0005	1.260	4 OF 9 (44.4%)

Statistic	Symmetric	With V1 Dependent	With V2 Dependent
Lambda	.20225	.03030	.30357
Uncertainty Coefficient	.11480	.13141	.10192
Somers' D	-.40065	-.35260	-.46385
Eta		.42527	.44712

Statistic	Value	Significance
Cramer's V	.31700	
Contingency Coefficient	.40908	
Kendall's Tau B	-.40442	.0000
Kendall's Tau C	-.33300	.0000
Pearson's R	-.42527	.0000
Gamma	-.66071	

Variable	Cases	Mean	Std Dev
V1	100	2.4100	.8773
V2	100	1.9400	.9081

Correlations:

	V1	V2
V1	1.0000 (100) P= .	-.4253 (100) P= .000
V2	-.4253 (100) P= .000	1.0000 (100) P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

Variable	Mean	Std Dev	Std Error	CV	Variance
BARNAWA	3050.00	2208.51	1275.03	72.4100421	4877500.00
ROMI	2966.67	2194.50	1267.09	73.9719338	4815033.33
TWADA	3066.67	2238.49	1292.39	72.9942009	5010833.33
BADIKO	3083.33	2180.79	1259.02	70.7282074	4755833.33

Correlation Analysis

4 'VAR' Variables: BARNAWA ROMI TWADA BADIKO

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
BARNAWA	3	3050	2209	9150	1750	5600
ROMI	3	2967	2195	8900	1650	5500
TWADA	3	3067	2238	9200	1700	5650
BADIKO	3	3083	2181	9250	1750	5600

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / N = 3

	BARNAWA	ROMI	TWADA	BADIKO
BARNAWA	1.00000 0.0	0.99993 0.0073	0.99975 0.0141	0.99973 0.0147
ROMI	0.99993 0.0073	1.00000 0.0	0.99994 0.0068	0.99993 0.0074
TWADA	0.99975 0.0141	0.99994 0.0068	1.00000 0.0	1.00000 0.0006
BADIKO	0.99973 0.0147	0.99993 0.0074	1.00000 0.0006	1.00000 0.0

Variable	Mean	Std Dev	Std Error	CV	Variance
MAIZE	1712.50	47.8713554	23.9356777	2.7954076	2291.67
SORGHUM	1825.00	64.5497224	32.2748612	3.5369711	4166.67
COWPEA	5587.50	62.9152870	31.4576435	1.1260007	3958.33

Correlation Analysis

3 'VAR' Variables: MAIZE SORGHUM COWPEA

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
MAIZE	4	1713	47.8714	6850	1650	1750
SORGHUM	4	1825	64.5497	7300	1750	1900
COWPEA	4	5588	62.9153	22350	5500	5650

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / N = 4

	MAIZE	SORGHUM	COWPEA
MAIZE	1.00000 0.0	0.67420 0.3258	0.62254 0.3775
SORGHUM	0.67420 0.3258	1.00000 0.0	0.71818 0.2818
COWPEA	0.62254 0.3775	0.71818 0.2818	1.00000 0.0

Variable	Mean	Std Dev	Std Error	CV	Variance
COWPEA	31392.00	10648.63	4762.21	33.92184774	113393325
SORGHUM	15261.40	7468.96	3340.22	48.94901720	55785296.80
MAIZE	13096.40	6703.83	2998.32	51.19171491	44930209.30

Correlation Analysis

3 'VAR' Variables: COWPEA SORGHUM MAIZE

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
COWPEA	5	31392	10649	156960	16912	41987
SORGHUM	5	15261	7469	76307	4319	23112
MAIZE	5	13096	6704	65482	3996	20240

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / N = 5

	COWPEA	SORGHUM	MAIZE
COWPEA	1.00000 0.0	0.91099 0.0300	0.81048 0.0962
SORGHUM	0.91099 0.0300	1.00000 0.0	0.99495 0.0004
MAIZE	0.81048 0.0962	0.99495 0.0004	1.00000 0.0

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FORM A.

PRODUCERS QUESTIONNAIRE

Questionnaire NO.....DATE.....MARKET.....Frequency of Market day.....
Respondent's Sex: Male.....Female.....Age.....
Respondent's Home/Street.....

1. What crops do you produce and sell?.....
2. How many bags of these grains did you harvest this seasons?
   .....
3. Where do you sell your grains?.....
4. How far is your house to the market?.....
5. Who do you sell your grains to?.....
6. Were buyers always available for these grains?.....
7. After selling the grain you produce, do you have to purchase the same crop for your requirement at later date?.....
8. Do you sell your grains before harvest?.....
9. Do you sell to the same people each year?.....
10. Do you know what prices are currently being paid in the market for the crops you grow?.....
11. What is your source of price information?.....
12. How many bags of Sorghum did you bring to the market today?....
13. Mode of grains storage.....
14. Reason for storage.....
15. Reason for not storing.....
16. Is there any market difference between the prices of last year and this year.....
17. Reason for the difference.....

18. Do you think the price will still go up.....

19. If yes, why?.....

20. Do you borrow money for agricultural operation?.....

21. Sources of credit.....
22. At what interest rate did you borrow?.....

23. How do you pay back?.....

24. Type of labour used on the farm activities.....

25. Mode of transport applied.....

26. Cost per Bag each of these grains.....

27. What types of problems do you encounter when marketing your product/grains.....

28. Does high quality grain commodity brings better price?.....

29. Do you think marketing board and the commodity board should be reinstituted.....

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FORM B

RURAL COMMISSION AGENTS QUESTIONNAIRE

Questionnaire NO..... DATE.....MARKET.... FREQUENCY OF MARKET DATE.....

RESONDENTS HOME OR STREET.....

1. What grain do you sell?.....
2. How long have you been in this business of trading.....
3. How frequent do you come to this market?.....
4. From who do you buy your grains from?.....
5. How many bags of sorghum do you estimate to buy and sell per months?.....
6. How many bags of maize do you estimate to buy and sell per months? .....
7. How many bags of Cowpea do you estimate to buy and sell per months?.....
8. Do you experience low price and low profit sometimes?.....
9. What do you do in that case?.....
10. If yes, how long?.....
11. Do you buy maize and store them for a long period of time?.....
12. Do you buy sorghum and store them for a long period of time?.....
13. If yes, How long?.....
14. Do you buy cowpea and store them for a long period of time?.....

15. If yes, How long?.....

16. Where do you store your maize, sorghum and cowpea?.....

17. Rent do you store your maize, sorghum and cowpea?.....

18. Do you sustain any losses through storage?.....

19. What are the causes of such losses for maize and Sorghum and cowpea.....

20. What are the causes of such losses for cowpea?.....

21. How much do you sell a unit of sorghum maize and cowpea?.....

22. How much do you sell a unit of maize?.....

23. How much do you sell a unit of cowpea?.....

24. What crop do you sell most of?.....

25. Which month do you sell most maize cowpea, and sorghum?.....

26. Which month do you sell cowpea?.....

27. Do you belong to any association in this market?.....

28. If yes, what is the name?.....

29. Why are you a member of the association?.....

FORM C

RUAL ASSEMBLERS QUESTIONNAIRE

QUESTIONNAIRE NO..... DATE..... MARKET.... REQUENCY OF MARKET DAY.....

RESPONDENT'S SEX: MALE..... FEMALE.....AGE..... RESPONDENTS'S HOME OR STREET:

1. How do you come to the markets?.....
2. How often do you come to this market?.....
3. Do you buy from specific sellers?.....
4. If yes, Why?..... 47
5. How many bags of maize sorghum you expect to buy per day?....
6. How many bags of maize do you expect to buy per day?.....
7. How many bags of cowpea do you expect to buy per day?.....
8. Where do you takes these grains to?.....
9. Who will sell them for you?.....
10. What other markets have you visited last week?.....
11. Why do you think farmers sell to you rather than to market his grains himself?.....
12. Are you a buying agent?.....
13. If yes, To who?.....
14. Do you have a licence as a buying agent?.....

KASUM IBRAI

FORM D.

URBAN WHOLESALERS QUESTIONNAIRE

QUESTIONNAIRE.....DATE.... MARKET/VILLAGE/TOWN.....

FREQUENCY OF MARKET.....DATE..... FREQUENCY RESPONDENTS

SEX MALE.....

FEMALE.....AGE.....

RESPONDENTS HOME OR STREET.....

1. How many years have been in the trading business?.....
2. Where did you get the initial capital of your business?.....
3. How many labourers do you employ?.....
4. How many seller/retailers working for you?.....
5. How many assemblers/commission agents working for you?.....
6. Who do you sell your grains to?.....
7. How do you obtain supply of your grains.....
8. Which channels is the most important means of selling your grains?.....
9. How many bags of grains do you sell on the average per market day?.....
10. How much does a bag, Tiya of Mudu of your grains cost you?....
11. How much do you sell a bag, Tiya or much of your grains?.....
12. Where do you store your grains?.....
13. Why do you store your grains.....

14. How much is market rent for stall for these grains?.....

15. Do you sustain any losses through storage?.....

16. What are the Causes of such losses for the grain?.....

17. Are the prices of grains rising or fallings?.....

18. If they are rising, what do you think are responsible for the rising price?.....

19. What do you do to extend the storage age of your grains?.....

20. What problems do you identify in the marketing of grains in the area?.....

21. What suggestion will you offer to improve marketing system in your Area?.....

KASHIM

FORM E

URBAN RETAILERS QUESTIONNAIRE

QUESTIONNAIRE NO..... DATE.....MARKET.....FREQUENCY..... OF MARKET DAY..... RESPONDENT'S SEX: MALE..... FEMALE.....AGE... RESPONDENT'S HOME OR STREET.....

1. How many years have you been in the trading business?.....
2. Where did you get the initial capital of your business?.....
3. How many agents buy grains for you in the rural market?.....
4. How many retailers work for you?.....
5. How many labourers work for you?.....
6. How do you obtain your supply of grain?.....
7. Through which ways do you procure your largest supply of grains?.....
8. How many bags Tiya or mudu of grains do you sell per market day?.....
9. How much does a bag of grain cost you?.....
10. How much do you sell a bag of grain?.....
11. Where do you store your grains?.....
12. How much is the rent for stall per months? N.....
13. What is the storage capacity of your stall for these grains?..
14. Do you sustain any losses through storage?.....
15. If yes, What are the causes of such losses for the grain?.....

16. Are the price of grains rising or fallings?.....

17. If they are rising, who do you think are responsible for the rising prices?.....

18. Do you belong to any sellers association in the market?.....

19. If you buy your grains from rural markets, how far is the market?.....

20. What do you to extent the storage life of your grains?.....

21. What problems do you identify in the marketing of grains in this area?.....

22. What suggestion do you offer to improve grains marketing system in your Area?.....

KASHIM IBRAHI