INVESTIGATIONS ON BUILDING FOOD MARKETING POLICY EVIDENCE BASE IN NIGERIA: OPERATION OF THE MAIZE MARKETING CHAIN IN GIWA MARKET, ZARIA, NIGERIA.

DR BENJAMIN AHMED

DEPARTMENT OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

AHMADU BELLO UNIVERSITY, ZARIA- NIGERIA.

* This paper was developed under a networked research programme funded by the UK Department for International Development. The paper provides the views of the authors only and not necessarily those of the other contributors to the programme or the funder. The Department for International Development can accept no responsibility for any information provided or views expressed.

1. INTRODUCTION

The Giwa market is located at about 30 km from Zaria on the Zaria- Sokoto highway. Giwa is the headquarters of Giwa Local Government Area (LGA). It is a semi-urban town with a population of about 50000 people. The town has basic infrastructure like a primary and a secondary schools, a general hospital and electricity. The town is served with a tarred road, the Zaria- Sokoto highway, which provide access to the market for all types of vehicles and people.

Giwa is located in the northern guinea savanna agro-ecology where, there are two seasons: the rainfall season beginning in May and ending in about mid October and the dry season that start about mid-October and ends in April each year. The dry season has two distinct characteristics: a cold dry and windy period called the harmattan season from November to February and a very hot period from March to May. The climate allow for cultivation of different crops in the area. In particular, cereal crops like maize, sorghum, rice and millet are grown while legume and oil seed crops like groundnut, cowpea and soybean are all grown under rain-fed condition. Vegetable crops like amaranths, onion, pepper and tomatoes are grown under both the rain-fed and irrigation conditions.

Giwa market is therefore an important market for the supply of food to both urban population and the rural poor living in the close by villages that patronize the market. The market serves urban populations in Samaru and Zaria in Kaduna state and Funtua in Katsina state and other far away towns in the far north, north central and southern towns through long distance food crop haulage and food chain. The nearby rural producers and dwellers use the market as disposal outlets for the crops and also as purchasing points for other crops not produced or in short supply using the rural road networks that is available and using such transport means as motors, bicycle, motorcycle, motor vehicles and foot depending on the distance of these dwelling villages to the market.
The maize commodity chain selected for this study is a key food chain in the ecology because of the importance of maize crop for food in Nigeria and because maize is a major cash crop for farmers in the area.

Agriculture is a major occupation in Nigeria and it presently contributes about 35.8% of the total Gross Domestic Product (GDP) with output increasing by 6.1% in 2003 (CBN, 2003). Over Ninety percent of maize produced in Nigeria is produced by the small-scale farmers and it is mainly in the northern guinea savanna of Nigeria where, Giwa market is located. Giwa market is one of the four major maize bulking markets in Nigeria. The other bulking markets are Dandume, Bakori, Makarfi and Saminaka and all these markets are located in the northern guinea savanna of Nigeria. Maize production has been on the increase in Nigeria for sometimes now rising from 6515MT in 1999 to 7019.5MT in 2003 (Table 1).

Table 1: Maize production trend in Nigeria, 1999 – 2003.

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (000 MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>6515</td>
</tr>
<tr>
<td>2000</td>
<td>6491</td>
</tr>
<tr>
<td>2001</td>
<td>6592</td>
</tr>
<tr>
<td>2002</td>
<td>6698</td>
</tr>
<tr>
<td>2003</td>
<td>7019.5</td>
</tr>
</tbody>
</table>


2. CHARACTERISTICS OF MAIZE MARKETING CHAIN

Maize as a crop is consumed as staple food by both the rural and urban households either in green form as roasted or boiled maize or as food preparations from the dry grains. In the industries it is used in flour mills for flour; in feed mills for animal feeds; in food and beverages industry for biscuits and beverages; in oil and starchy industry for sugar and pharmaceutical oil and in brewery industry for malt and beer.

The maize market is segmented into a retailing section, which is in the main market and a bulk buying section, which is separated and walled round for security. There are many actors who play active roles at different times in the maize marketing chain. Understanding the roles of each actor in the market is necessary because they determine how the rural producers and consumers have access to the market for buying and selling maize and also how the maize gets to the urban consumers and industrial users. The study also identified the institutions that facilitate transactions in the market particularly as it affects maize marketing. The different
actors, their local names, sex, wealth status and roles are shown in Table 2. The actors may act in one or both of the sections in the market on a given market day.

Table 2: The actors, local names, sex and their roles in the maize marketing chain in Giwa market, Nigeria

<table>
<thead>
<tr>
<th>No</th>
<th>Key Actor</th>
<th>Local name</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Relative wealth</th>
<th>Role in the chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Producer/farmer</td>
<td>Manoma</td>
<td>Male</td>
<td>Hausa/Fulani</td>
<td>Poor or average</td>
<td>Supplies maize to markets in small or large quantities</td>
</tr>
<tr>
<td>2.</td>
<td>Rural consumers</td>
<td>Masu siya nachi</td>
<td>Male/female children</td>
<td>Hausa/Fulani/other tribes</td>
<td>Poor/average</td>
<td>Buys for consumption at home or to make food for sale</td>
</tr>
<tr>
<td>3.</td>
<td>Retailers</td>
<td>Mai-auna</td>
<td>Male</td>
<td>Hausa/Fulani</td>
<td>Fair or average</td>
<td>Buys from farmers/rural assemblers and sells in measures to rural consumers and Yanjabali in the market</td>
</tr>
<tr>
<td>4.</td>
<td>Rural assemblers</td>
<td>Mai-mudu</td>
<td>Male/female</td>
<td>Hausa</td>
<td>Average</td>
<td>Buys from farm gates and rural markets and bulk for sale in the market</td>
</tr>
<tr>
<td>No</td>
<td>Key Actor</td>
<td>Local name</td>
<td>Gender</td>
<td>Ethnicity</td>
<td>Relative wealth</td>
<td>Role in the chain</td>
</tr>
<tr>
<td>----</td>
<td>-----------</td>
<td>------------</td>
<td>--------</td>
<td>-----------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>5</td>
<td>Maize bulking traders</td>
<td>Yanjabali</td>
<td>Male</td>
<td>Hausa</td>
<td>Poor/average</td>
<td>Buys from the retailers in measures and sell in bags at the bulking section through delallai</td>
</tr>
<tr>
<td>6</td>
<td>Maize merchants</td>
<td>Yanbuhuna</td>
<td>Male</td>
<td>Hausa / Fulani and other tribes from within and outside the town</td>
<td>Rich</td>
<td>Buys in large quantities in bags from delallai for sale in other markets or for temporary storage or for companies as suppliers</td>
</tr>
<tr>
<td>7</td>
<td>Commission agents /dealers</td>
<td>Dillalai / yan-kamassio</td>
<td>Male</td>
<td>Hausa / Yoruba / Igbo</td>
<td>Average/Rich</td>
<td>Dellalai facilitate sales for owners of grains while yan-kamassio facilitate buying for bulk and company buyers for a fee</td>
</tr>
<tr>
<td>8</td>
<td>Brokers</td>
<td>Yanajawo</td>
<td>Male</td>
<td>Hausa</td>
<td>Poor</td>
<td>Bring together buyers and sellers for a fee</td>
</tr>
<tr>
<td>9</td>
<td>Urban consumers/company agents</td>
<td>Male/female</td>
<td>Hausa and other tribes</td>
<td>Average and rich</td>
<td>Buys for home consumption, processing for sale or for company processing into other products</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Key Actor</td>
<td>Local name</td>
<td>Gender</td>
<td>Ethnicity</td>
<td>Relative wealth</td>
<td>Role in the chain</td>
</tr>
<tr>
<td>----</td>
<td>-----------</td>
<td>------------</td>
<td>--------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Transporters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Head load carriers</td>
<td><strong>Dandoko</strong></td>
<td>Male</td>
<td>Hausa</td>
<td>Poor</td>
<td>Carries small quantities of the grains on head to facilitate transportation for sellers and buyers in the market for a fee</td>
</tr>
<tr>
<td></td>
<td>Wheel-barrow carrier</td>
<td><strong>Mai-baro</strong></td>
<td>Male</td>
<td>Hausa / Fulani</td>
<td>Poor</td>
<td>Carry grains that Dandoko may not be able to carry for both buyers and sellers within the markets and to houses close by. Buyers/sellers</td>
</tr>
<tr>
<td></td>
<td>Vehicle loaders</td>
<td><strong>Mai-lodi</strong></td>
<td>Male</td>
<td>Hausa / Fulani</td>
<td>Poor</td>
<td>Help to load and off load the bags of maize into and out of vehicles for buyers and sellers for a fee</td>
</tr>
<tr>
<td></td>
<td>Vehicle owners</td>
<td><strong>Mai-lori</strong></td>
<td>Male</td>
<td>Different tribes</td>
<td>Very rich</td>
<td>May own the vehicle or may be driver and conveys the maize and traders into and from the</td>
</tr>
<tr>
<td>No</td>
<td>Key Actor</td>
<td>Local name</td>
<td>Gender</td>
<td>Ethnicity</td>
<td>Relative wealth</td>
<td>Role in the chain</td>
</tr>
<tr>
<td>----</td>
<td>-----------</td>
<td>------------</td>
<td>--------</td>
<td>----------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td>Institutions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Market chief</td>
<td>Sarkin Kasuwa</td>
<td>Male</td>
<td>Hausa / Fulani</td>
<td>Average</td>
<td>Political head of market and ensure justice and safety of market participants</td>
</tr>
<tr>
<td></td>
<td>Local Government Revenue officials</td>
<td>Revenue</td>
<td>Male</td>
<td>Hausa / Fulani</td>
<td>NA</td>
<td>As owners of the market collect market rates, fees and charges</td>
</tr>
<tr>
<td></td>
<td>Commodity trader association leaders</td>
<td>Sarkin for each commodity or market section</td>
<td>Male</td>
<td>Hausa / Fulani</td>
<td>Average or rich</td>
<td>Sees to the welfare of the group and their solidarity</td>
</tr>
<tr>
<td></td>
<td>Market guards</td>
<td>Mai-gadi</td>
<td>Male</td>
<td>Hausa / Fulani</td>
<td>Poor</td>
<td>Ensures security of grains left in the market</td>
</tr>
</tbody>
</table>

### 3. METHODOLOGY

The study identified the different actors described in section 2 and conducted interviews with the different groups and individuals using an interview schedule that has been designed to include specific and relevant information on the different actors. The interviews were conducted in the market on different market days, which were Thursdays for the main market day and Sundays for the minor market days in January 2005. In all, 24 different actors were interviewed and primary data collected from them (Table 3). The technique of probing was highly useful in ascertaining and verifying issues and responses to the asked questions during the interview. The data collected were supplemented with information from secondary sources particularly from studies dealing with maize marketing in the zone which includes the studies on maize marketing in northern Nigeria by Ahmed and Omolehin (1998), the determinants of the internal and cross-border maize flows in northern Nigeria by Meagher et al., (1996) and the long term changes in food provisioning and marketing in the Kano region, 1960 – 2000 by Ariyo et al., (2001) were very useful to this study and were consulted.
The limitation to the study is that it was not possible to reach actors like transport owners because they were not in the market particularly for the trucks and trailers which were the main vehicles being used for transporting grains in Nigeria. Such vehicles were bought and given to drivers to drive without the owner accompanying them. As a result, some of the issues arising from transport ownership could not be verified. Also, the companies could not be directly interviewed but the dealers provided information on the companies they supply to. Similarly, direct consumers could not be interviewed as the focus of my study was on the transportation mechanism.

The data collected were analyzed using narration and description of the processes and actor involved.

Table 3: The actors sampled and their numbers for the study

<table>
<thead>
<tr>
<th>Actor</th>
<th>Number interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retailers (Mai-auna)</td>
<td>3</td>
</tr>
<tr>
<td>Rural assemblers (Mai-mudu)</td>
<td>2</td>
</tr>
<tr>
<td>Commission agent (Dellalai) and yan commassio</td>
<td>4 of dellalai and 2 of yan komassio</td>
</tr>
<tr>
<td>Brokers (yan ajawo)</td>
<td>2</td>
</tr>
<tr>
<td>Merchants/company agents</td>
<td>4</td>
</tr>
<tr>
<td>Maize bulkers (yan jabali)</td>
<td>1</td>
</tr>
<tr>
<td>Mai-baro</td>
<td>3</td>
</tr>
<tr>
<td>Mai-motor (drivers)</td>
<td>2</td>
</tr>
<tr>
<td>Sarkin kasuwa</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
</tr>
</tbody>
</table>

4. PRESENTATION AND ANALYSIS OF FINDINGS

The findings based on the key actors identified and interviewed are summarized below.
Maize retailers (mai auna)

The maize retailers usually deal in more than one grain at a time and in fact all the retailers interviewed were buying and selling maize, sorghum, millet and soybean. They all operate in the grain retailing section of the market.

The maize traded are obtained in two ways; first, the farmer/rural assembler brings the maize into the market in smaller measures (usually less than a bag) and give it to a known or familiar retailer or if a first timer seller, to a retailer that must have been recommended by relative or known person based on earlier services received from such retailer. The farmer/rural assembler will leave the maize with the retailer to sell for him/her. He or she may or may not disclose the quantity brought to the retailer at the initial stage until the sale has been made. The farmer/rural assembler might stay with the retailer while the sale is being made or might go into the market for other transactions but will return later to collect the money from the sale. When the farmer/producer returns, the retailer will ask for the quantity brought (number of measures) if that has not been disclosed earlier to him and on confirmation by the retailer, he pays the exact amount to the owner of the maize. The retailer is not paid for the services rendered to the producer/rural assembler but may receive gratification of any amount as gift although such gratification is not compulsory. If however, after measuring the quantity brought and there is a fraction of a measure left, that fraction is forfeited to the retailer. The retailer gathers such fractions from all the customers and sells that for himself as his gain from the services provided to his customers. The second way by which the retailers obtain the maize sold is by buying from farmers/rural assembler that brings maize to them to buy. In this case, the retailer knowing the likely prevailing price for the maize in the market for that day will buy it from the farmer/rural assembler at slightly lower price (₦3 – 5 less per measure) and pay him/her on the spot. The retailer then waits to sell the maize at the prevailing market price or he keeps it till the next market if the prevailing market price of maize that day was not good enough for him to make profit.

Customers patronizing a retailer mostly come from the same village as the retailer but at times, the customers may come from a different village from the retailer but in such cases, the retailer must have been recommended to the customer. The customer-retailer relationship is built based on mutual trust particularly, if such customer always tells the truth on quantity brought for sale and if the retailers always pay correctly for quantity brought to him without dispute on price of sale. The trust as basis of transactions in the market is based on both familiarity and religion. The familiarity is the fact that in most cases, the people involved knows themselves over some times while the religious basis is the fact that they are all Muslims who believe in the supremacy and judgment of Allah, should anybody cheat the other.

Conflict resolution in Market

The retailers were asked if there has been disagreement between them and their customers in the past and how such conflicts were resolved. They agreed that there could be disagreement between them and their customers. An instance was given in which the maize brought to one of the retailers by a farmers/rural assembler turned out to be a stolen one from where motor vehicles from villages disembark in the market. Cases of stolen grains being brought to the retailers for buying were said to be common in the market and therefore the retailers said they are often careful when
buying from those who bring grains to them. According to them, those who bring stolen grains often are in a hurry to dispose off such grain to them as quickly as possible by selling at much lower prices than the prevailing prices and they often leave behind the container in which the grain was brought. If somebody lost his/her grains and complains to Sarkin Kasuwa of the theft, the Sarkin would his officials/assistants to go round and see if it could be found with anybody. They tracking team would first visit the retailing section of the market to see if it could be found with anybody through the recognition of the container of the grain or the grain itself. If it is found with any retailer, the case will be reported to their leader (Sarkin mai auna). If the person who stole the maize has been paid and could not be found the retailer on whom the stolen maize was found would be asked to pay for the stolen maize. Where the amount involved is more than the retailer’s immediate capacity, member of his association may be asked by their leader to contribute money to help him out to quickly offset the bill of the stolen maize. The contribution to bail out a member from a problem is not compulsory nor fixed but effective as members do this as insurance against the day they too might enter into a problem. The experience from a past episode is described in the box below.

A thief stole 2 bags of cowpea in the market and sold it to a retailer in the market. Later that day, the owner identified the thief and he was caught and taken to the Sarkin Kasuwa. The Sarkin Kasuwa asked the thief to lead them to the buyer, which he did but unfortunately, the thief pointed to a wrong retailer as the buyer. Since the real buyer could not be ascertained the pointed retailer was asked by the Sarkin kasuwa to pay the money for the 2 bags and the money was given to the owner of the maize. The thief could not pay because he had spent it.

For the reason of receiving/buying stolen grains in the market, the retailers are very cautious of their customers particularly if they are first timers by doing the followings:

a. watching on the price they are willing to accept (would sell cheap)
b. finding out the number of measures contained in the container (may not know if it is stolen)
c. Whether the seller is going back with the container with which the grain was brought for sale (going with the container can lead to easy identification by the owner who is also in the market).

Measures used

The retailer uses two types of measures for the grains in the market. They are *tiya* and *mudu* (½ *tiya*). These measures looked standard but the retailer said that each type has smaller and bigger sizes, which is only known to the retailers (difference not visible to ordinary buyers and sellers). The difference was demonstrated to me by the retailer who used the long finger to measure the surface diameter. The buyers (rural or urban) may not know this difference unless he/she is told. These measures
were bought from open markets and were not regulated by anybody but are accepted by both buyers and sellers since weights are not used in the market for measuring grains. When asked if the retailer use the same measure for buying from farmer/rural assembler for selling to the urban and rural consumers, the answer was affirmative but they cautioned that if a retailer wants to cheat he would use the bigger measure to buy and will sell with the smaller measure. The implication of this practice is that the rural poor farmers and assemblers are cheated as they receive smaller prices while the rural and urban consumers are made to pay more prices for getting less quantity of maize.

The retailer’s customers are; rural poor people from the neighboring villages who buy 3 – 5 tiyas at a time for processing for food that may account for about 40% of total sale on a market day; the richer people from the villages that buy up to 10 tiyas or even more at a time that may be responsible for about 20% of the sale; the bulk buyers (yanjabali) who buys from retailers into bag (40 tiyas =1 bag) that may account for about 20% of total sale and the urban retailers and speculative middle men (mainly civil servants who buys grain for storage for selling later) that may account for about 20% of the sale. These last groups of buyers from the retailers except, yanjabali patronize the retailers in order that they have no shortage at selling since they too sell in measures.

Credit sale of maize by retailers

Credit sale of maize to consumers and other buyers by retailers was not common because of past experiences. One of the retailers told the story of how he sold on credit to a customer and the credit turned out to be a bad debt. Since then, he has learnt not to do so again. Mallam Mu’azu, the retailer gave an example of how he sold maize worth ₦350 to a co-retailer who lives near the Giwa market to sell and return the money to him in the next market day but has not been paid two years after the credit was given. The man who was shown to me has changed business from grain trade to selling water in the market. When the retailer was asked why he didn’t take action on him, he said that having persistently asked to pay and he refused to pay, he has left him to God since he no longer belong to their association where report could have been made and perhaps sort the intervention of their leader and members. To him that debt has been written off as bad debt. It is also suffice to note that forcing somebody to pay debt especially small one like this is not common in the community as everything are often left to God by virtue of their religion. One of the retailer however said that he sells on credit to other retailers in the market but such person will have to return the money plus any unsold grain at the end of the market that day. This usually happens when a retailer runs short of a particular grain type and his customers are looking for it to buy. Those retailers who have more sell through those who do not by giving the sellers some discount on the bag. One of the trader said that his credit sale is about 10% of his total sale on any market day.

There is no regulatory body controlling the activities of the retailers as such although, there is an association of the retailers whose membership is very loose as there is no membership register. The association has a leader that is appointed by members and such leader in most cases has a bigger share of the market and share the interest of the people under him. The association binds the retailers together in fighting for common interest, providing space for new entrants in the market and for helping one another in times of need or problem. When a member is in financial
problem, members could rally cash assistance in form of loans or give grains at slightly lower prices (in kind assistance) to the person to sell so that after the sale, he can make some profit while returning the agreed amount and still remain in business. They also help settle disputes among members when ever they arose.

b. **Rural maize assembler/traders**

The rural assembler could be a maize producer or purely a grain trader. Those who are farmers sell their own maize too and also buy from other farmers and traders in the rural areas and markets for sale at Giwa market. The purchasing may be done from family members, friends and other relations who may be males or females or from the rural markets in small measures and bulked up into bags for the bigger market at Giwa. The rural assemblers are Hausa and Fulani by tribe and mainly males although, young females of 11 -15 years may be involved. The smaller rural assemblers brings about 2 – 3 bags to the market but the bigger ones can bring up to 20 bags depending on their capital base and the season. The quantity of grains for sale is more available in the market from November to march of the following years. The rural assemblers cover a distance of up to 30km and uses vehicle to transport the maize to the market. He bears the transport cost which ranges from ₦40 – ₦50/bag from near by villages and about ₦100/bag for distant places. He also pays ₦5 per bag of maize when loading at rural market and when off loading at Giwa market. In the Giwa market, he has to sell through a dellali and pays ₦20 per bag sold to the dellali as commission. There is no regulation as to which section of the market where the sale is done but there sections for wholesale and retailing. If they sell at the retailing section, there will be no payment for commission but will have to pay *dandoko* or *maibaro* to transport them from motor pack to the section at a fee of ₦10 per bag. But because the retailer buys a very few bag at a time and may not pay until after sale, the rural assembler prefers to sell at the wholesale section through the dellali and get his full money. The dellali canvases for buyers negotiate prices based on quality of the maize and consults with the rural assembler on the offered prices before the maize is finally sold to ensure that that price is acceptable to him. The rural assembler bought his maize from the nearby villages @ ₦3400 per bag and sold it through the dellali @ ₦3700. His transaction cost would be ₦70 per bag (2.1%) while his profit is ₦230 (6.2%). The rural assembler’s benefits from going through the dellali are that he does not have to stay there to negotiate sale prices with the buyer which is a saving on time and energy in negotiation and he also gets his money in full once the sale has been made. The maize is given to a male *Dillali* for sale but the actual buyer could be a male or a female.

The rural assembler’s sources of trading capital were:

a) Personal savings and

b) Borrowing from family member.

Alhaji Magaji was the Sarkin Mudu (leader of rural assemblers) and one of those interviewed said that he got a credit of ₦3000 only once but for production and it was from his relation (grandfather) and it was without any interest payment. All the others claimed they had not borrowed from any formal sources of credit for the trade.
The rural assemblers convey their maize to the market using motor vehicles. However, the choice of vehicle type to use depends on the type readily available, condition of the road and quantity of maize needed to be conveyed. From the villages, pick-up vans and buses are the common means of transportation of grains to the market. From the remote villages, the maize is conveyed on motor cycles and cart or donkeys to a central point where the pick up vehicle is available. Sometimes, the driver could be invited home if the available quantity is enough to fill the truck. If there is a vehicle break down while carrying the maize, the driver arranges for another vehicle to complete the trip once it has been paid by owners. If however, there are damages like burst of a bag as a result of a bag falling off or an accident, or the maize is stolen in transit, the owner shares the cost of the loss with the driver. The proportion of share is often negotiated between the owner and the driver on the basis of who was careless in causing the loss. If the owner followed the vehicle and there is a missing bag, he bears the full loss as it is taking that it was his own carelessness. Transportation within the market is done using head carriers who are faster than wheelbarrow pushers. However, the charge for carrying a bag is ₦10 whether by a head carrier or by a wheelbarrow.

The National Union of road Transport Workers of Nigeria (NURTWN) fixes the transportation fee for the loads and passengers where they union exist or by the driver where it does not exist and the amount charged is supposed to be a function of the prevailing fuel prices (should increase with increase in petrol and diesel prices and vice versa) and the distance of travel. In most cases in Nigeria, once the transport charges goes up even if the fuel prices comes down, the transport charge remains on top and when the transport prices are increased due to increase in fuel prices, the proportionate increase in transport charges is often higher. Once the transport fee for the load and passengers have been agreed and paid, any other charges on the road which usually are illegal is born by the driver of the vehicle.

Security of maize in the market – The market authority has hired guards (maigadi) for the market and any unsold maize could be left in the market till the next one at a fee of ₦20/bag. Although the market is generally safe under the maigadi, there could be theft on market days. An example of what happened during the last Ramadan fasting (September 2004) was given. A bag of cowpea was stolen from a Dillali in the market. The Dillali was asked to pay 66% (2/3) of the cost of the stolen cowpea to the owner while the owner bears 34% (1/3) loss. It was said that if the theft was done while the maize was at custody of the maigadi, the maigadi will have to pay the full cost to the owner.

Each trader pays ₦30 per stand/stall as revenue for the LGA per market and from this, the LGA supplement the salary of the maigadi.

c. The maize bulkers (yanjabali)

The yanjabali are few in numbers and are unorganized as they operate without an association. They go round the retailers to buy maize in measures at retail prices and bulk them into bag (40 tiyas = 1 bag) and then resell at wholesale in bag. However, because the bag is not weighed before sale, they turned the maize into a smaller bag that contains less number of tiyas, usually 2 – 5 tiya less and sell it as if it is a normal bag of 40 tiyas. Sometimes, they use the same bag from which they have taken some tiyas out but which has been sew neatly so that unless you are
highly experienced in the trade, you may not know. By the time they buy 2-4 bags on a market day, they would have gotten 8 - 20 tiyas extra which they now sell at retail price as their profit. Those who have money to buy more could get an extra bag to sell at whole sale price, which is often less than retail prices. The retail price was ₦95 per tiya while the wholesale price was ₦92.5 per tiya. The retailers may reduce ₦1-2 for known customers depending on the quality of maize on sale. The yanjabali are regarded as 'cheaters' because they play on the intelligence of those who do not know the market well in terms of sizes of measures used since sale is not by weights.

d. The company agents/merchants (yan kamassio)

The company agents are three types in the market. The first type is those who come from the companies during the glut periods to buy maize direct from the market and store them until the maize could be evacuated. When they get to the market, they make use of the yan kamassio to buy the maize for which they pay ₦20 commission for every bag bought. The second type of company agents are those who are contractors to companies and who get the local purchase order (LPO) to supply certain quantities of maize to the company. They are usually wholesalers of grains who also buy from the market through the yan kamissio in the same manner as company agents or sometimes, they may supply from their own production as most of them are also producers of maize.

The third type is that the yan kommassio may also act as company agents as they are approached directly by companies to make purchases for them as if they are wholesalers. In this case, they are given LPO like the wholesalers to supply the maize at an agreed price.

One of the wholesaler and company agent interviewed says he has been supplying maize to Ajala Farms, Ibadan for producing feeds over two years.

The company purchases are usually made between November and December each year. At this period, they send out their agents to go round markets in the production zones to get information supplies and prices from traders and farmers. When the LPO is given the unit price is Naira per tonne even though, the purchase is made in bags that have not been weighed at purchase in the market. The supplier therefore has to be careful of the type of maize purchased and the size of bags as not to run short when it is weighed in the company at delivery. There is no specification in terms of colour and variety for the maize supplied to companies but the hybrid variety, which is denser and the yellow coloured maize are more preferred.

The yan kamassio who are general grain dealers are resident in the market and facilitate grains buying for large buyers for a commission. They operate in four ways:

1. They buy maize for wholesalers or contractors who have LPO to supply maize to companies

2. They buy for company agents that come to the market to make direct purchase.

3. They help individuals and wholesalers who want to make large purchases to carry away or for temporary storage in the market for sale later.
4. They do get LPO from companies to supply maize sometimes.

In the first and second cases, the yan kammasio would be approached to help buy some specified quantity of maize for the wholesaler or contractor. The buyer may or may not be physically present in the market during purchase. The buyer if present will pay the full cost of the grain plus the cost of transportation to the destination. If the owner is not physically present, he would deposit 50% of the transport money and pay the balance on delivery. The arrangement for the conveyance of the maize is done by the yan komassio if the buyer did not come with his own vehicle. The risk of given load to an unknown vehicle is given below in the box.

| An Igala man paid for 5 trailer loads of cowpea to be delivered in Lagos. He paid the advance of 50% of the transport cost to the yan komassio. But only 4 of the trailers reached destination as one driven by a Ghanaian disappeared with the transport deposit and the cowpea. The yan komassio was made to pay for the cowpea diverted and the transport fee to the owner when the case was reported back at Giwa market through the association. |

After this incident, the yan komassio no longer use vehicle they don’t know the owner or driver or they have to send an escort with to follow the driver to the destination.

The yan-kamassio received N20/bag of maize purchased. In the 3rd case where the buyer is on the ground and the maize is to be conveyed away, the same process for the 1st and 2nd cases are followed. If however, the maize is to be bought and stored in the market, the yan komassio would buy the maize based on the amount brought, rent a store in the market and store them until the buyer wants to sell or carry them away. If the sale is to be done in the market, the yan komassio would do the selling either in the presence or absence of the owner and his money is returned to him. The yan komassio would take N20 per bag of maize sold again. In the fourth case, the yan komassio would buy and supply the company as required in the LPO and get his pay on delivery.

Road charges

Road charges are paid by drivers out of the loading fee paid by the owner of the maize. If there is an accident or break down of vehicle, the driver takes care of the expenses on his vehicle but the owner of the maize or his escort would have to arrange for another vehicle to finish the journey at his or her own expenses. There is no insurance for the maize in transit as the owner would bear the losses arising from damages to the maize as a result of motor accident.

e. The commission agents (Dillalai)

The commission agents were all Hausas by tribe and were more than other participants in the market (up to 60% of all participants/actors) in the market. Their major work is to sell maize for those that bring maize to the market for sale at
wholesale (bags) and get a commission of ₦20 per bag of maize sold or 0.55% of the cost of the bag which was ₦3700 at the time. The commission is deducted from the money paid by the buyer. The Dellalai were all males and also Moslems which suggests that it is a male affair in the north and it is often done by the natives of the market area although sometimes, other tribes may be found. The commission received is more or less fixed by the Dellalai association in the market but most times, it is the same amount for all the markets in the zone at that time. There could be increase in the commission if the general prices of grains increased. Sometimes however, the seller may give some token amount of money to the Dellalai over and above the commission received from the buyer as a show of appreciation.

**Membership of association** – They all belonged to an association and have membership cards for the association which they carry. The role of the association is to help solve conflict whenever it arises either between members or between members and customers. The registration fee is ₦1000 per member and the payment is once and at registration. However, some Dellalai operate without being a member of the association. The un-registered dellalai are said to be dangerous to deal with by the public as some of them may be thieves and dupes. Beside this, the association does not provide the type of social security such as settling dispute between them and their customers and financial support in time of needs. It is interesting to know that the dellalai does not force sellers to bring the maize to them but it is an accepted practice among the Hausa people, which overtime has become the norm so every one complies. However, a seller who wants to sell by himself might face frustration from the members of the association by ensuring that the customers are possibly lured away.

**Credit**

The commission agents say that they do not give credit to either the farmer for production or to the rural assemblers to make purchase. This means that they have no investment of their own fund in the business apart from the sampling tool which the buy and market stand rate which they pay.

**Price determination**

The price of maize in the market is not fixed but determined by the forces of supply and demand in the market on that day. The reference price however, is determined by the price of maize in the last nearest market, which the itinerant traders and the dellalai always know. The prices also depend on whether it is morning, afternoon or evening on a market day. The afternoon prices tend to be higher while evening ones are generally lower. However, through bargaining, some few Naira may be reduced from the prevailing market price for a buyer depending on his/her bargaining ability.

**Selling measures** – The Dellalai sells in bags as are brought by owners. According to the Dellalai, even though the sizes of bags are different, it is the business of buyers to know which size is smaller or bigger and that is why buyers may need the services of the yan komassio for buying because they know what should be the big or small bag, have idea of what the price should be and arrange for the transportation.
Customer relationship

Dellalai-seller relationship is built over time on mutual trust. Usually it start from a maize seller been personally known to the dellalai (family relations, in-laws or friends) or he was introduced to the new customer by an old customer who has previously sold through him. As the trade interactions continues over time (possibly after 2-3 transactions), the trust is built a round themselves to the extent that the seller can freely bring his maize for sell and don’t have to be present when it is being sold and the dellali can hand over the sale money to the owner without any argument or doubt from the seller. The length of interactions between a new customer (seller) and the dellali is a function of the extent of this trust because when doubts and arguments over quantity brought and the amount remitted to owner start arising, then the trust has broken down and the seller would look for a new dellali for his future transactions.

5.1 Transportation system

Three wheel-barrow boys, two drivers, and two dealers were interviewed on the transportation system.

a. Wheelbarrow transportation

The boys are young and are between 13 – 15 years old. One of the boys was a Hausa, one a Fulani and the other a Kanuri. They were all Moslems and were in Koranic (Islamiya) schools. Their main role is to carry loads for who need their services. They were found in both the wholesale and retail sections of the market. They carry loads into the market from one section to another, from and into Gwa town and to the motor pack. They wheel-barrow can carry up to 4 bags of maize at a time depending on the strength of the pusher.

The wheel-barrow charges ₦10 – ₦30 per bag of maize depending on the distant covered. The charge is paid for after the maize has been delivered at the destination. The wheel-barrow pushers have no association and indeed, most of the wheel-barrows being pushed are rented from people who themselves don’t push wheel-barrow but are engaged in other businesses. The wheel-barrows are hired at ₦50/day (market). The wheel barrow pusher pays a market rate of ₦10 and could earn between ₦150 – ₦200 per market day while spending about ₦55 for feeding.

When the wheel-barrow pushers were asked who bear the loss if the maize got damaged or stolen in transit, the wheelbarrow pushers said they bear the loss as they are sometimes asked to pay for damaged grains where the bag burst in motion.

Motor drivers

The vehicles being used for conveying grains differs in their load carrying capacities. For instance, a 911 truck carries 250 bags of maize, a Canter carries 30 bags, a pick-up carries 10 bags while a trailer carries 300 bags at a time.

The tribe of the drivers varies as they come from different parts of the country and sometimes non Nigerian drivers from the Republics of Niger and Ghana have patronized the market. However, Hausa is the dominant transport owners/drivers in the market. The drivers are mainly Moslem, although Christians are also found while
they are of different age brackets but adults. In terms of distance covered, it depends on the direction of traders the drivers meet in the market. Some of the vehicles have defined routes but they can easily change route to follow where there are loads to carry to.

Contact is usually made with the drivers in the market or it could be pre arranged outside the market by the yan komassio or owners of the grains to be carried. They bring loads to the market and from the market they get customers. One of the drivers interviewed was going to Katsina, a distance of 250km away from the market. And has a 911 Mercedes lorry that can carry 200 bags of maize at a time.

The loading fee from Giwa market to Katsina was \( \text{₦} 150 \) per bag and for the 200 bags; he makes a total of \( \text{₦} 30000 \). Out of this amount, the driver pays to the LGA produce revenue of \( \text{₦} 700 \) per lorry load carried, pays \( \text{₦} 200 \) to the Road Transport Workers Union (NURTW) as his union dues in the market and also pay \( \text{₦} 10 \) per bag to load the 200 bags. However, the driver does not have to be a member of the union to load in the market but he must pay to \( \text{₦} 200 \) for the union before he could load.

The driver is responsible for paying road charges (un-official charges) which include, police check points, highway patrols, road safety, and vehicle inspection officers (VIOs) who mounts all such of securities and checks along the way. The driver estimated the costs to be about \( \text{₦} 500 \) for the distance of 250km.

The owners of the grains may or may not follow his load to the destination. In fact, instances were given where owners of the grains joins taxi to go ahead of or behind the lorry. To avoid the risk of diversion of the grains on the way, some owners only use the vehicle whose driver is known to them while others ask their agent/boy to follow the vehicle as escort. The escorts normally carry the way bill for the grain.

The driver is responsible for any repair on his vehicle while the owner of the grain takes care of damages to his grain such as burst bags due to accident of the vehicle.

Where a trader does not have enough maize to take a full lorry, he may be joined with one or more traders going the same direction and they will share the full cost based on the number of bags for each person in the lorry. This arrangement is made between the driver and load owners or their yan komassio.

The yan-kamassio deals with maize buyers from all parts of Niegria- Southwest areas like Edo, Lagos, Sapele; northwest Sokoto, Katsina, Zamfara and northeast areas like yobe and Maiduguri and country like Niger Republic.

The linkages between other markets and the vehicle drivers are that the vehicles patronize several markets. Indeed, since the market days for different towns are different, they carry their vehicles to every major market based on their days. Some may go to 5 or more markets in a week.

In most cases, the driver does not own the motor they drive. The owners are in their homes while the drivers carry the motor out in search of businesses and from time to time, the drivers brings return from their trips to the owners. The typical case of driver/ motor relationship is illustrated in the box below.
A typical breakdown of a trip was illustrated as follows for the driver who carried 200 bags of maize from Giwa market to Katsina town.

Income  = N150 per bag x 200  = N30000

Less expense:
- Union fee in the market  = N200
- LGA produce loading revenue  = N700
- Loading N10 x 200  = N2,000
- Way charges  = N500
- Gas/Diesel  = N16,000

Total expenses  = N19,400

Net income  = N10,600

The driver makes a return of N10600 less the money he spent on feeding and any repairs. Out of the balance returned, the owner of the vehicle sometimes takes ? of leaves ? for the driver but at times the driver may not be given anything particularly if he has not return any money for a long time.

5.2. The Sustenance of the marketing intermediaries and the transportation systems in maize marketing chain in Nigeria.

The institution of market intermediaries in agricultural produce marketing in Nigeria has a historical perspective particularly in the northern parts of the country where there were early trade contacts with the Arabs. The Arabs used the intermediaries to facilitate trade with the local people and that tradition is followed till today.

Each category of middlemen has a structure built around it – an association with a chosen leader to whom all members respect and goes for arbitration in time of conflict. The various association members rally round one another in times of needs which may be social or financial that may or may not be related to the actual businesses. For instance, in the social circle, when a member is marrying or having
naming ceremony or is bereaved, members will be present on such occasion and would likely present gifts which may be in kind or cash. As a business security, members rally financial resources to members who are in financial distress or runs into business trouble to bail him out. Thus, there is some kind of social insurance for members whom, the formal insurance system do not provide for particularly as they intermediaries have in most cases no formal education and may not be that rich to afford formal insurance. Indeed, most of the actors like dellalai and yan komassio have little or no capital of their own. The roles of the different categories of intermediaries have been mentioned where they were described but it is suffice to mention the innovations that have been introduced to sustain the system apart from the insurance for members.

For the Yan Komassio, the introduction of waybill and escort for hired vehicle to deliver the grains at destination has made it easier for delivery to be made anywhere in the country and even to other countries without the owner of the grains accompanying the vehicle.

The role of storage being performed by some of the intermediaries like wholesalers, some civil servants that speculative by buying and storing until prices are high enough for them to sell continued to make the grains available through the year, which otherwise would have been impossible as farmers mostly do not store for up till 3 months before selling.

The development in the communication systems where both land and cellular phones are used for transacting businesses have made it easier. Market information on sources of supply and demands and also prices are freely discussed on phones which before now, means one has to be physically there.

The improvement on the availability of petroleum products following deregulation of the petroleum sector and agricultural produce marketing in Nigeria have also contributed significantly to the sustenance of the maize marketing chain. There is no much scarcity of motor fuel as before and also, the prices are fairly stable, which makes load costing easier than before. The free trade also allow producers and traders to explore the efficiency of the marketing system by going to the market of their choice and selling to whom they wish to sell. This is good for consumers and producers as they will get competitive prices.

The implication of these findings are that even though the maize marketing chain has improved there is need to improve access for both rural poor farmers and consumers who for lack of market knowledge on measures and prices may not compete well in the market. This may also be true of other buyers who, did not make use of the services of the market appropriate intermediaries.

5.3. Comparison of the findings with other studies

In terms of market participants, Ahmed and Omolehin (1998) reported that participants to the maize markets comes from near and far with 26% coming from the locality, 58% from distant market places and 16% being merchants of agents of companies in the markets. For the sex of traders, 86% were male which compares with the almost all male affairs in Giwa market. Most of the female participants at Giwa markets are urban retailers at Zaria and Samaru. Meagher et al., (1996 p.46)
also show that 71% of maize traded in their study was by Hausa traders and the sources of maize from northern guinea savannah ecology were from Kaduna and Katsina states. In terms of importance of maize in the maize trade, 84% of traded grains were maize 81% millet and 71% sorghum (Meagher et al., 1996 p.47). Ahmed and Omolehin further showed that trade in maize was dominated by Hausas (67%). only 13% and 7% were Yorubas and Ibos respectively. The Northern bulking markets which Giwa market is one, supplies the bulk of maize to southwest Nigeria (Meagher et al., 1996).

In terms of entry and exit conditions for market, previous studies also showed that, there was no restriction except that buyers and sellers in most cases had to go through commission agents to facilitate their buying and selling of maize (Ahmed and Omolehin, p. 8).

The services provided by the commission agents as identified by Ahmed and Omolehin (1998 p.13) included the selling, off loading and sometimes storage of maize for their client. This study found similar functions as described under the various actors. In addition, the Yan komassio were found to also act as investors for some people who may not be present in but use their money to buy and store until much later for owners and later sell to make profit. The provision of security for maize in transit through provision of escort for vehicles going to companies/buyers at distant places is another function for the yan komassio.

The transport system remains essentially the same as in the previous studies. Maize grain can be delivered anywhere in or outside the country with or without being accompanied by the buyers. The driver/owner of the vehicle pays for the fuelling and maintenance of his vehicle and also road charges which are not fixed (Ahmed and Raphael, 1998 p.14) while the owners pays for the load but they have to find another vehicle to convey the load should the initial vehicle break down on the way.

The market is efficient as shown by the high number of participants and also the fact that forces of supply and demand determine prices by the quality of the maize. A previous study show that producers received 86% of the consumer price, commission agents receive 1.2% wholesalers receive 6.9% while the profit margin from maize marketing was 5.5% (Ahmed and Omolehin, 1998 p.15). In this study, the market margins have not been determined perse but the dellali’s commission was estimated to be 0.55% of the producer prices while the rural assembler’s profit was 6.2%. These suggest that the markets are fairly competitive.

Traders were found to be dealing with other grains at a time as they claimed that they cannot sell only one type of grain because of seasonality of the crops and because of the risk of price fall in particular maize. A previous study showed that 52% of the traders sell other grains. The major other grains traded with maize were sorghum (33%), rice (7.4%) and cowpea (3.7%). However, other crops like groundnut, soybean and millet are also traded with maize (Ahmed and Omolehin, 1998 p.7).

Trade capital is usually from personal savings and from relations among the traders. In this study, none of the market intermediaries used formal loans to pursue their business which agreed with other studies in the zone. For instance, Ariyo et al.,
(2001 p.21) showed that 23 out of 30 traders relied on loan from friends and family members which carry no interest charge while Ahmed and Omolehin (1998 p.15) shows that self financing which include money from self and relation accounts for 50.4% of capital used in the trade. In another study, Meagher et al., (1996, p.48) showed that 81% of the Hausa traders used self-financing. The reliance on credit from family members and friends by traders is traced to the difficulties associated with getting formal credit and with repayments when there is a problem that cause default. In the informal credit, there is no repeated visits and filling of forms and where there is default; there may be no seizure of property but re-scheduled. Further more, the credit may be a seed capital to purchase grains for the merchant relation at an agreed price and whatever the person can save from it becomes his own capital. This is very common among grain merchants who have boys or agents in the field. They go to the bush markets to buy at cheaper prices and from the difference in prices can make substantial money over time to start their own business.

6. **Policy implication of the findings**

The policy implications of the study are as follows:

1. The retailers and rural assemblers will continue to play major roles in maize marketing chain because they are the direct link with the producers and also with the rural consumers and sometimes, urban retailers. Their conduct in efficiently determining the prices and using correct measures determines to some extent how much income is earned by the farmers and the access of both rural and urban consumers to the maize market. If the prices are fair at this stage, more rural poor and urban poor will be able to buy before the other intermediaries build up the price.

2. Maize is one of the cereal grains and it is hardly traded alone by the major actors in the chain. As mentioned earlier, sorghum, millet, cowpea are traded with it which suggest that the grains market is an integrated market. Indeed, the prices for sorghum and maize goes together in the market.

3. The roles of the commission agents (dellalai) to facilitate selling of grains for the owners using their familiar knowledge of the market in terms of ability to negotiate prices with customers and read market forces.

4. The Yan kamassio’s role in facilitating buying for buyers particularly, for those not familiar with the market in terms of pricing mechanism, size of bags and quality of maize makes the marketing process more efficient and beneficial to buyers. They play the direct opposite role to dellalai.

5. The market transactions could be made on behalf of the buyers (yan komassio) and sellers (dellali) without their being physically present at the time reduces the cost of marketing and allows for other businesses.

6. The transportation system has greatly improved and one could get any form of transport to deliver maize anywhere within the country and even to the neighboring countries with or without being accompanied by the owners.
Although, it requires transparency and mutual trust to be able to do this successfully. The implication of this is that regional and international trades can be conducted enhanced once the rules are properly set and there is transparency in the system.

7. The markets are well integrated as information on prices, supply and demand in one market are transmitted almost simultaneously to other markets because of the movement of traders from one market to another and also the improved present communication systems in which cellular phones and line phones have become popular with traders particularly; dellalai, yan komassio and wholesalers in the markets and on the roads.

8. There are some restrictions of access to the maize market. The females are almost absent based on Islam religion but Christian females from other pats of the country do come to market to make purchase. Based on ethnicity of the area, most of the actors are Hausa and Fulani by tribe although other tribes are also present in the buying business. Restriction based on membership of the relevant association exists. Members of an association among the market participants ensure safety of the business and confidence based on mutual trusts. Although there is free access to membership, there are screening which involves putting someone on probation to study the character before full acceptance and essentially, of being of the same religion as a Moslem. Leadership is built round the associations, local authority that owns the market represented by the market chief (Sarki Kasuwa).

7. Recommendations for improving the maize marketing chain

The recommendations emanating from this study includes:

1. The maize market chain can be further improved by using standard weights and measures that is accepted by all.

2. The maize sellers in the market should be free to sell directly to the buyers without being forced to sell through commission agents.

3. The ₦20 per 100kg bag commission being received by agents for selling for owners and by dealers for buying for clients is rather too high for the services provided.

4. The number of participants in the chain is too many thereby making the chain rather long. The formation of producer associations that can have direct trading relationship with processors and/or maize trader associations in markets will reduce the cost of marketing and improve access of urban consumers to maize.
Maize Marketing Channel

- **Very important channel**
- **Important channel**
- **Less important channel**

**Figure 1:** Marketing channel for Maize in Northern Nigeria.
References


