International Journal of Innovative Research and Advanced Studies (IJIRAS)
Volume 6 Issue 6, June 2019

ISSN: 2394-4404

Grain Market Characteristics In Kebbi State, Nigeria

A. Aliyu

Dr. A. Gona

Prof. M.A Maikasuwa

Department of Agricultural Econimics and Extension,
Kebbi State University of Science and Technology Aliero,
Kebbi State, Nigeria

Abstract: ***Market characteristics vary between one season and another as such the variation inhibits effective marketing of grain. This paper assess grains market characteristics in 17 selected grain markets in the area using markets characteristics survey conducted in two seasons of dry and rainy within the fiscal year of 2018. The data were analyzed using descriptive statistics and t-test. The results show that there were fewer people participating in the market (about 7markets reported) during rainy season than dry season, fewer bags of grain available for sale in the market during rainy seasons than dry observed in about 10 markets, about 3 markets reported of fewer laborers available for hire to load and off-load grain in the markets during rainy season, there were noticeable flooding in some markets and or on road near markets in about 5 markets visited out of 17. The t-test result revealed that there were no significant relationship between the variable tested (number of people, grain bags, number of laborers, and cost of storage) with probability values greater than 10% critical value. Grains marketing channel depict a route/pathway of grains trading between producer-middlemen-processor-consumer, the result depict that major problems hindering effective trading are inadequate storage for grains(bigger stores, (82.35%), lack of drainages to prevent flood in the rainy season(70.58%),and banking/credit facilities as well as better road/parking space near markets(35.29%).***

Keywords: Grain, Market, characteristics,

I. INTRODUCTION

The grain sub sectors play an important role in the economic development of Nigeria. The out-put of the sub-sector constitute a larger proportion of staple food in Nigeria. between 1985 and 1995, cereals grain accounted for almost 50% of the total food supply in Nigeria when express in grain equivalent(Ismaila,2010, Dogara,2010).

While Paulino and Sarma (2000), reported that about 70% of the total food crop area harvested in Nigeria was devoted to Cereal and the remaining 30% to non cereals.

The most important cereals crop grown and marketed in Nigeria are maize, sorghum, rice, millet and wheat (Akpan,2009 and Udoh,2009). Maize, rice, wheat, millet, and sorghum are the major sources of energy staple food available and affordable in Nigeria. And are the commodities that are of considerable importance for food security, expenditure and income of house hold in Nigeria (Ismaila *et al'*2010, Maziya,2000 Dixon *et al'*2004).

According to Central Bank of Nigeria (CBN,2000), Most Nigerians depended on Cereals grains for their daily dietary needs and the price of these grains is one factor that determine the extent to which Nigerians can pay for these food commodities. Cereals grains availability and price have become a major welfare determinant for the poorest segment of the Nigerian consumers who also are least food secured (Akande, 2001)

Dixie (2000) suggests that as countries experience economic growth, their rate of urbanization tends to increase substantially. Whereas the rate of population growth, in developing countries, averages around three percent per annum, their cities and towns are increasing their populations

at about four percent per annum. In essence, this means that the number of people, in urban areas, needing to be fed by rural people, will double within sixteen years. This has clear implications for agricultural production and the marketing systems that direct that production and distribute the output to the points of its consumption. Subsistence farming is likely to diminish in importance as farmers respond to the increased opportunities that development and urbanization create; farms are likely to decrease in number whilst increasing in size; and agriculture will probably become less labour intensive and more capital intensive. He further highlights the potential contribution of Agricultural and food marketing, towards attempts to improve rural incomes in developing countries. The inequality of incomes between the rural and urban areas draws people away from Agricultural production and places great stress upon the infrastructure and social services of a country's towns and cities. In Nigeria when petroleum oil was discovered and then exploited in the 1970s. A large number of jobs were created in the urban areas and people abandoned agricultural production in large numbers. Nigeria became a net importer of many agricultural products of which it had formerly been a net exporter. For as long as the world price for petroleum remained high the economy thrived and could well afford the food import bill.

According to (Kilima, 2006) Grain market failure is one of the most challenging problems facing Nigeria. Among the problems associated with this, market failure are mainly caused by poor quality of rural road and storage infrastructure as well as access to reliable Agricultural marketing information as the case of developing countries in Africa.

Grain farmers are subsistence and poor depend heavily on this commodity for lively hood and as a source of income for survival. Poverty is not only caused by the use of subsistence or traditional technique for their production and marketing activities but it originates from poor quality road, storage and access to reliable Agricultural marketing information (Beffes,2005). As a result farmers are challenge in their production, selling and buying activities for grains commodity. An increase in grains production to Kebbi State is not only relevant for food security but also an increase in income generation. Grains are mainly grown and marketed in rural areas where road infrastructure and storage facilities are limited hence acting as barrier to trade.thus the main objective of this study is to assess grains market characteristics in kebbi state,Nigeria. The specific objectives are to:

- ✓ assess how grain market characteristics varies within cropping seasons
- ✓ describe the grains marketing channel in the study area
- ✓ ascertain factors limiting effective marketing of grain in the study area

II. CONCEPTUAL FRAME WORK OF MARKET CHARACTERISTICS

According to David (2013), markets can be worldwide, for example the global diamond trade. National economies can be classified, for example as developed markets or developing markets.

In mainstream economics, the concept of a market is any structure that allows buyers and sellers to exchange any type of goods, services and information. The exchange of goods or services, with or without money, is a transaction. Market participants consist of all the buyers and sellers of a good who influence its price, which is a major topic of study of economics and has given rise to several theories and models concerning the basic market forces of supply and demand. A major topic of debate is how much a given market can be considered to be a "free market", that is free from government intervention. Microeconomics traditionally focuses on the study of market structure and the efficient of market equilibrium, when the latter (if it exists) is not efficient, then economists say that a market failure has occurred. However it is not always clear how the allocation of resources can be improved since there is always the possibility of government failure (Steven, 2003).

Market is one of the many varieties of systems, institutions, procedures, social relations and infrastructures whereby parties engaged in exchange. While parties may exchange goods and services by barter, most markets rely on sellers offering their goods or services (including labor) in exchange for money from buyers. It can be said that a market is the process by which the prices of goods and services are established. Markets facilitate trade and enable the distribution and allocation of resources in society. Markets allow any trade-able item to be evaluated and priced. A market sometimes emerges more or less spontaneously but is often constructed deliberately by human interaction in order to enable the exploitive exchange of rights (ownership) of services and goods.

Markets of varying types can spontaneously arise whenever a party in a good or service that some other party can provide. Hence there can be a market for cigarettes in correctional facilities, another for chewing gum in playground, and yet another for contracts for the future delivery of a commodity. There can be black markets, where a good is exchanged illegally, for example markets for goods under a command economy despite pressure to repress them, and virtual markets, such as a bay, in which buyers and sellers do not physically interact during negotiation. A market can be organized as an auction, as a private electronic market, as a commodity wholesale market, as a shopping center, as a complex institution such as a stock market, and as an informal discussion between two individuals (Ruiz, 2012).

Markets vary in form, scale (volume and geographic reach), location, and types of participants, as well as the types of goods and services traded, nevertheless, violence and extortion are common to many markets.

Isitor (2012), studied the spatial and temporal marketing of millet in Sokoto central market. His aims was to identify problems involved in marketing of millet also assessing the market structure and conduct, a total of 80 respondent were used. Descriptive statistical tools techniques such as frequency distribution and percentage were used to analyzed the result. According to him the major problems of marketing millet in the study area are poor market price, inadequacy of storage and marketing facilities. Lack of government assistance, poor road networks and seasonality of the commodity. He concluded that price of millet are much more stable across all

ISSN: 2394-4404

the designated locations and time through which the survey was conducted. Because the result from the analysis of variance proved that there is significance difference in all the prices. Based on his findings he recommend that government should provide good transportation facilities in order to arrest the problem of higher cost of transportation incurred while transporting millet to the markets with respect to market structure and conduct government should redouble it is effort to ensure that marketing shops and storage facilities are constructed in the market for proper business as usual.

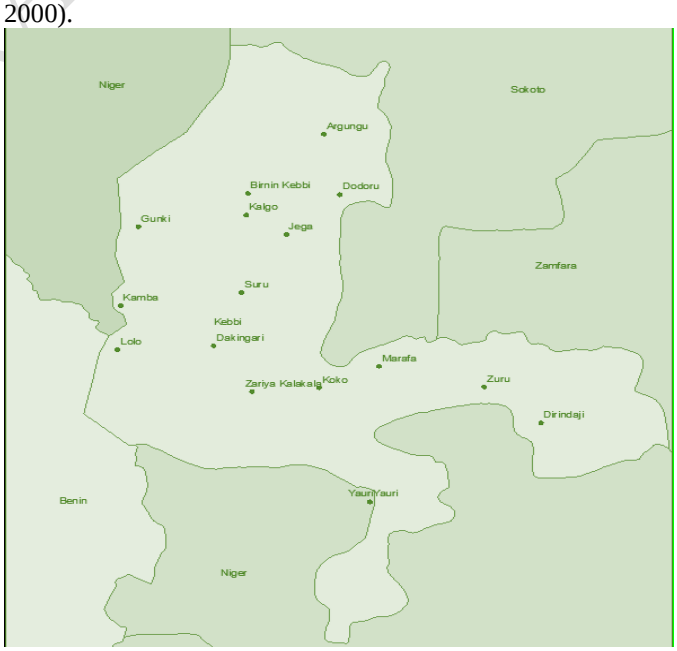
Ibitayo (1994), study the marketing of Tomatoes and Onion in Sokoto State, Wamakko local government. A total of eighty 80 respondents were sample and interviewed using structured questionnaire with the aims to identify constraints in the marketing of tomatoes and onion in the area. Descriptive statistics tools such as frequency distribution and percentage were used to analyze result. She identify major problems such as lack of storage facilities, higher cost of transportation and poor road network, lack of adequate water, inadequate capital, lack of shops or stalls. She concludes that effort to improved marketing of this perishable commodity should therefore focus on improving the middle men. She recommends that government should provide transportation facilities of Agricultural produce such as onion and tomatoes to be transported to the markets. Also provision of credit to the traders, to increase effectively marketing activities and quality of these produce stalls should be provided for the sellers of onion and tomatoes at the Sokoto market as against open space to avoid easy deterioration caused by weather condition.

Abubakar (2000), studied the onion marketing in Aleiro local government area of Kebbi state. With aims to examine the flow of onion within and outside the state. Also identify the constricting factors of onion marketing in the area. A total number of 105 respondents were sampled using simple random sampling technique and they were interviewed using structured questionnaires. The result of the research was analyzed using descriptive statistics tools such as frequency and percentage. He found that a total of about 20 trucks loaded with onion get in to the market daily during the period of higher harvest. He identified certain constricting factors which include market research, poor pricing system, long chain of distribution with further inflate delivery cost, inhibition of improve and modernized weighs and measure, and weak marketing organization.

He recommends that since onion crop is a perishable commodity and it is perish ability partly contribute to its elastic fluctuation in price. Provision of storage facilities could therefore be of immense importance in reducing over supply and thus drastically reduce price fluctuation thereby increasing buyers and farmers revenue. He recommends the private authorities to intervene in this direction. The kind of facilities required may not be too expensive as such. It will be inform of compounds with fans and well ventilated and government can charge the farmers with service rendered. Furthermore preserving the onion to reduce over supply in the market and consequently reduce price fluctuation is the issue of processing onion mechanically, in this regard he suggested that the government if not alone then in partnership with some willing and able individuals or cooperatives to established onion processing plant for preservation. This will therefore reduce the risk of massive spoilage of the onion and it is subsequent damage.

III. STUDY AREA

The study area was kebbi State. The choice of the state is based on the fact that it is one of the States that involved in the production and marketing of grain crops. The State is in the north-western part of Nigeria. Kebbi State is located between latitude 10°8´´N and 13°15´´, longitude 3°30´´E and 6°2´´E. it is bordered by Sokoto State to the north and Zamfara State to the east and to the south Niger State and shared an international border with Benin Republic to the west and North. The State is divided in to four Agricultural Zones namely Zone 1(Argungu), Zone 2 (Bunza), Zone 3 (Zuru), Zone 4 (Yauri). The State covers an estimated land area of 36,800 square kilometers with population of 3,630,931 which is projected to be increasing at an annual population growth rate of 2.38% (NPC,2006). Thus projected to be 4,938,066 people figure in 2018 (NPC,2018). The vegetation, soil and weather pattern are favorable for the production of wide spectrum of food and cash crops of various type, the crop grown in the area includes Rice, Sorghum, Maize, Cowpea, wheat, millet, Ground nut, Soya beans, Carrot, Onion, Tomatoes, Lettuce, Pepper, mangoes, Guava, Sugar cane and cashews. The amount of rainfall in the area is between 400mm to 1100mm per annum which is frequently erratic and poorly distribute with mean annual temperature of 34.90° c (Sing, 2000).



Sources: DIVA-GIS and Google Maps

Figure 3.0: Map of Markets Visited for Markets Characteristics Surveys

A. DATA COLLECTION

Both primary and secondary data were used for the investigation.

Primary data was collected using pre-tested questionnaire as well as interview of the markets participants during markets

characteristics survey, information collected includes number of traders participating in the markets, average number of grains bags available in the markets for sale, storage capacity as well as description of the main markets with which trade occurred. Since these variables vary at different time during a crop year, the survey was implemented twice within a physical year of 2018 (i.e dry and rainy seasons).

B. SAMPLE SIZE AND SAMPLING TECHNIQUE

A list of the major grains markets in Kebbi State was obtained from the Kebbi State Ministry of Agriculture and Rural Development as a sampling frame, simple random sampling technique was employed to select 17 markets from the list of the markets collected based on the intensity of grain marketing, 17 respondents who are chairmen of grain traders were interviewed during markets survey on the general description of the markets.

C. ANALYTICAL TECHNIQUE

Descriptive Statistics such as frequency and percentages, t-test were used in this investigation

IV. RESULTS AND DISCUSSION

A. GRAINS MARKETS CHARACTERISTICS VARIATION, KEBBI STATE, NIGERIA

Markets characteristics	Frequency	Percentage
✓fewer bags of grain available for sale in the wet season than the dry season	10 59	
✓fewer people attending the market in wet season than dry season	7 41	
✓fewer day laborers (e.g., for loading and off-loading bags) available for hire in the wet season than in the dry season	3 18	
Total	25 * 147*	

*Source: field survey, 2018 *multiple response*

Table 4.1: Changes in market conditions between the dry and wet season 2018

The markets not only varied in terms of size and existing physical infrastructure, but also the same markets had different market environments within the crop year. Table 4.1 shows the share of markets surveyed for which it was reported that conditions differed between the wet and dry seasons in terms of market participants, grain bags available for sale, day laborers available, and the presence of flooded areas. More than half of the visited markets reported having less grain available for sale in the wet than in the dry season, which is generally what is expected since the dry season follows the current crop year harvest and the wet season immediately precedes the next crop year harvest. A bit less than half of the traders interviewed reported that there were fewer people who attended the market during the wet than the dry. The availability of labor did not vary much across the seasons. In less than half of the markets it was observed or reported that substantial flooding within the market area occurred in the rainy season, which posed problems for storage and transportation of grain within and out of the market.

People participation in the markets	Seasons	1.rainy	2.dry
	Mean	606366.67	803460.00
	Std.deviation	755281.75	1079592.44
	f	1.32	
	t	-0.58	-0.58
	Df	25.00	28.00
	Sig.(2-tails)	0.57	0.57
✓**volume of grains supplied to the markets**		1.rainy	2.dry
	Mean	206693.33	216760.00
	Std.deviation	452019.88	770825.78
	f	0.08	
	t	-0.44	-0.44
	Df	22.00	28.00
	Sig.(2-tailed)	0.99	0.99
✓**number of laborer available in the markets**		1.rainy	2. dry
	Mean	173.67	356.00
	Std. deviation	194.70	168.59
	F	0.26	
	T	2.74	2.74
	Df	27.44	28.00
	Sig(2-tailed)	0.11	0.11
✓**cost of storage**		1.rainy	2.dry
	Mean	334200.00	308964.71
	Std.deviation	610441.27	844111.28
	F	0.08	
	T	0.10	0.10
	Df	32.14	29.00
	Sig(2tailed)	0.92	0.92

Source: field survey 2018

Table 4.2: t-test result on some of the grain market characteristics between dry and rainy seasons 2018, Kebbi State, Nigeria

Table 4.2 revealed result of the changes in markets condition between dry and rainy seasons, majority of the markets visited during the survey period (dry and rainy seasons) had different environment within the crop year, the result reported that, the markets condition differed between the wet and dry seasons in term of markets participants, grains bags available for sale, day laborers available to hire for loading and off loading of grain, cost of grain storage as well as noticeable flooding in some markets during dry season. The

result revealed that, the differences of these variables is significant since the p-value (sig 2tailed) is greater than critical points at 1%, 5%, and 10%. This finding is in agreement with the finding of Abubakra (2000), who reported that majority of the onion traders do not participated in the markets during rainy season because they are busy on their farms activities.

B. GRAINS MARKETING CHANNEL

Marketing channel represent the route or pathway through which grain passes from the producer to the final consumer. The grains marketing channel shows how grains flow in and out of the markets. There are four categories of traders observed during the survey these includes producers (Farmers),who produces grains, Assemblers those who purchases grains from farmers and other vendors, and those who also purchases grains in bulk and sell to retailers(whole sellers),processor(off-takers) both retailers, assemblers, as well as whole sellers sell grains to processors(off takers) and consumers. Sometimes speculators or assemblers buy and store grains until the prices have appreciated and sell out to maximize profit. During the survey in the surveyed markets, wholesalers and retailers were found to be the predominant categories of the grain marketing system in the study area. This finding is in agreement with the finding of J.I Onnu (2008) who found that the predominant Agents in grains marketing are whole sellers and retailers in Yola area of Adamawa State, Nigeria. In this study there are instance where farmers sell directly to the whole sellers as well as assemblers or speculators. In this study we observed that majority of the grains traders obtained their commodity from other markets where there is supply glut as such price is low, these area are assumed to have more producers as well as suitable weather condition for grains production moreover some whole sellers also retrial grains to maximize profit. This process can be presented schematically as follows.

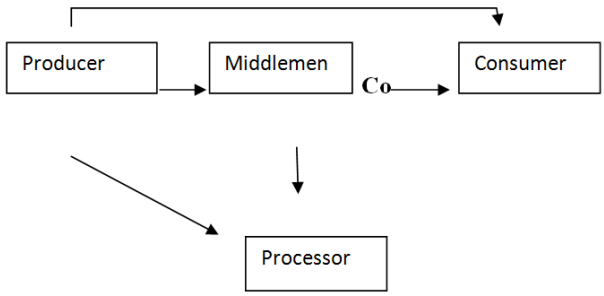


Figure 4.4: Grain marketing channel

C. FACTORS LIMITING EFFECTIVE MARKETING OF GRAINS

Problems	Frequency	Percentage
✓inadequate storage facilities(larger stores)	14.00	82.35
✓lack of drainages in the market to prevent flooding	12.00	70.58
✓grains damage(pests and diseases in the storage)	7.00	41.17
✓banking facilities	6.00	35.29
✓credit facilities	6.00	35.29
✓better roads /parking space near market	6.00	35.29
✓lack of trees and market shade to prevent marketers from sun and rain	5.00	29.41
✓larger land areas for market expansion	5.00	29.41
✓Flooding in the markets during rainy season	5.00	29.41
✓in adequate security	3.00	17.65
✓more hermetic storage (pics bags)	2.00	11.76
✓better mobile network to facilitate communication and trade	2.00	11.76
Total	73.00 *	429.37*

*Source: field survey, 2018 * Multiple response*

Table 4.3: problems faced by grains traders in Kebbi State, Nigeria

Table 4.5 Above revealed the result of factors limiting effective marketing of grains in Kebbi State, the result shows that majority of the markets visited during the survey period had problems of inadequate storage facilities for their grains (82.35%), market expansion to reduce congestion (15.8%) and lack of drainages to prevent flood during rainy seasons (70.58%), this is translate in to substantial flooding within the markets areas which occurred in the rainy season this posed problem of storage and transportation of grains within and out of the markets areas, the problem of drainage responded by some traders is as a result of lack of drainages in those markets while some complained on grains damage caused by insects and rodents (41.17%),markets reporting need of market shades and trees is about (29.41%) to prevent them from sun so as to conduct their business comfortably, moreover some markets complains of the need for banking and credit facilities (35.29%), and lastly some complains of inadequate securities (17.65%), better roads and parking space near the markets(35.29%) and better mobile network to(11.76%). From the above result we can understand that missing some of the market amenities such as banking, credit facilities and security. The absence of these amenities make it not only difficult to operate a trading business but also raises marketing cost and risk, this means that traders most hire more employees than they would otherwise to carry, store and secure substantial amount of cash within and outside the markets. This is not only risky in that the cash obtained from sales could easily be lost or stolen but it also raises expenditures on wages while there are some cash management alternatives that could be used, such as mobile banking, this technologies are unlikely to replace standard cash transaction particularly in rural markets as can be seeing in the result some market had or no better mobile network.

V. CONCLUSION AND RECOMMENDATION

Based on the investigation of the study grain market characteristics variation results revealed that there were differences in the participation of people, number of laborers available for loading and off-loading grain, grain bags available for sale in the markets, as well as cost of storage between the two seasons (dry and rainy) during the period of 2018, in some markets there is noticeable change in the markets environment in terms of flooding within and on the roads near the markets, the t-test result shows that there were no significant relationship between the variable tested with probability value greater than 10% critical value. Based on this findings there is need for government or investors to build bigger stores for grain to be store in the markets, construct better road and drainage for easy transporting grain in and out of the markets, Grains marketing channel depict a route/pathway of grains trading between producer-middlemen-processor-consumer, the result depict that major problems hindering effective trading are inadequate storage for grains(bigger stores, 82.35%), lack of drainages to prevent flood in the rainy season(70.58%),and banking/credit facilities as well as better road/parking space near markets(35.29%).

REFERENCES

[1] Akpan, S.B., and Udoh,E,J. (2009)., Estemating Grains relative price variability Andinflation Rate movement in different Agricultural regimes in Nigeria. Humanity and social science journal, 4(2),107-113.
[2] Abubakar, M.A, (2000), The Onion Trade in Aliero local Government, Unpublished Bsc. Geography, Faculty of Art and Social Science, Usmanu Danfodiyo University, Sokoto, Nigeria. Pp 1- 59
[3] Akande,T.(2001). An overview of the Nigerian rice economy, a pilot project report, the Rice Economy in competitive world: constraints and opportunities and strategic Choice,WARDA,11p
[4] Baffes J., A. M. I.(2001). ‘’Identifying price Linkages: a review of the literature and an Application to the world market of cotton’’ Applied economics.33. Central bank of Nigeria,(2008) Central Bank statistics bulletin and annual report,2008
[5] Dixie, G. (1989), Horticultural marketing: A resource and Training manual for Extension Officers, FAO Agricultural Services Bulletin, food and Agricultural Organization of United Nations.Rome, Pp 1-5
[6] David C. (2013), microeconomics 9th edition, New York: McGraw Hill and Frank, Roberty and Ben Benanke. 2013. Principle of microeconomics, 5th edition. New York:McGraw Hill.
[7] Diaze Ruiz, C. A. (2012). ‘’theories of markets: insight from marketing and the sociology of Market review.12 (1):6177.Doi:10.1362/146
[8] Ismaila,U., and Dogara, D (2010)., cereal production in Nigeria problems, constraints and Opportunities for betterment, African journal of Agricultural Research, 5(12).1341-1350
[9] Isitor S.U and J.O Olukosi (2006), introduction to Agricultural marketing and Price, Principle and Applications Pp 15-27. Living book series, G, Publisher, Abuja.
[10] N.P.C(2006)Nigeria,Available,htpp//www.nigeriastat.gov .ng/nationalbureauofstatistics/Officia azzette(fng71/52007/25000(24)pdfretrieve may(2008).
[11] Onnu J.I (2008)., An economic analysis of grain market in adamawa state, Nigeria, world journal of Agricultural science 4(5):617-622, ISSN 1817-3017.
[12] Steven C.A ‘Variance Component of approach to food grain market integration in northern Nigeria, American journal of Agricultural economics, vol.68,(2003) Pp 970-979
[13] Sing B.R (2000). Quality of irrigation water in fadama land of north-west Nigeria,ii tubewell Water Zamfara and Kebbi State, Nigerian journal of basic and applied sciences.9:191-202