THE IMPACT OF PHYSICAL DISTRIBUTION CHANNELS IN MARKETING OF AGRICULTURAL PRODUCE: A CASE STUDY OF PERISHABLE AGRICULTURAL PRODUCE IN BOKI L.G.A OF CROSS RIVER STATE

BY

OBUN BLESSING DAJIE

MKT/2008/111

DEPARTMENT OF MARKETING

FACULTY OF MANAGEMENT AND SOCIAL SCIENCES

CARITAS UNIVERSITY, AMORJI-NIKE,

EMENE, ENUGU

AUGUST, 2012

THE IMPACT OF PHYSICAL DISTRIBUTION CHANNELS IN MARKETING AGRICULTURAL PRODUCTS (A CASE STUDY OF PERISHABLE AGRICULTURAL PRODUCE IN BOKI LOCAL GOVERNMENT AREA OF CROSS RIVER STATE)

BY

OBUN BLESSING DAJIE
MKT/2008/111

A RESEARCH PROJECT SUBMITTED TO

THE DEPARTMENT OF MARKETING
FACULTY OF MANAGEMENT AND SOCIAL SCIENCES
CARITAS UNIVERSITY, AMORJI-NIKE, EMENE
ENUGU.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF CSIENCE (B.SC)

DEGREE IN MARKETING

CERTIFICATION

The research project written by Obun Blessing Dajie,

(mkt/2008/111) is here by certified as meeting the partial requirement for the award of Bachelor of Science of management and social sciences, caritas university Amorji-nike, Emene, Enugu.

Samuel Anyionu

…… _____

(Project supervisor) Date.

Mr. Jones Okafor

……. _____

Head: department of marketing Date,

External examiner _____

Date.

DEDICATION

This research work is especially dedicated to God almighty who has given me the strength to achieve this goal, and to my dearest parents Mr. and Mrs. Besong Bernard Obun.

ACKNOWLEDGEMENTS

I owe my in-depth thanks to the Almighty God who for his infinite mercy has given me the strength and wisdom to complete this project.

I am greatly indebted to my able and ever willing supervisor Mr. ANYIONU SAMUEL for his supervision despite pressures from other engagements, he took time to read my manuscripts between lines, making correction and offering useful suggestion where necessary thank you sir.

My profound gratitude to my H.O.D Mr. Jones Okafor, my lectures, Mr. Okenwa Eddy, Mr. Christian nwankwo, Mr. Emeka Angina Mr. Eugene Nnaji, and my course mates, God bless you all.

I will not forget my beloved parents Mr. and Mrs.Besong Bernard Obun, my elder brothers Williams, Henry, Lawrence and my little brother Jr Bernard Besong Obun.

My profound gratitude goes to my daddy's friend Mr. Agandim Eban and his dear wife, Mrs. Agandim Eban, for the moral and financial support which really energized me towards the success of this project.

I am also indebted to Sir Thomas Ochang (Registrar) for his useful advice and moral support throughout my stay in school.

Also to merit my special gratitude goes to Kelvin Ogon Etta whose words of encouragement and word of wisdom complete this work.

I will not forget my beloved friends precious, patience, lami, Angela, Monica and the host of others too numerous to mention. A special appreciation my roommates; ure Rita onyinyechi Jonson Vicky blue and Igwilo Mary.

The aforementioned people my colleagues in school have also acted in shading into my education.

ABSTRACT

Physical distribution channels has created a created a great impact by bridging the gap between the producers and the final consumers. The inability of farmers to effectively reach out to distance markets and most final consumers with their agricultural products have resulted to waste of resources in Boki local government area. The main objective of the study is to find how best to market agricultural products in the area. Primary and secondary data were collected through the use of questionnaires and documented materials respectively. The population of the study was 227,400, while the sample size was 399. Chi-square test statistics was used to test the high hypotheses. Among the findings of the study; in effective and high cost of transportation, lack of storage facilities and basic infrastructure hindered the marketing of agricultural products in the area. The researcher thus recommended the provision of basic infrastructure like accessible road, storage facilities and improved transport system among others to assist in improving the marketing of agricultural products in the area.

TABLE OF CONTENTS

Appendix……

CHAPTER

1.1 INTRODUCTION

In many marketing science, the effective management distribution of product are essential to those that determine the extent of product availability at consumption point. Channel analyses is important in evaluating marketing system because it indicates how the various market participants are organize to accomplish the movement of products from the producer to the final consumer.

Distribution channel according to Philip, Kotler and Garry Armstrong (1999:362) is viewed as an interdependent organization involved in the process of making a product or service available for use or consumption by the consumer or business user.

Channels of distribution are management tools used in moving goods from the point of production to that of consumption. This function of getting goods into the hands of consumers is often referred to as ‘’distribution‘’. Hence physical distribution involves planning, implementing and controlling the physical flow of materials, final goods

and related information from point of origin to point of consumption to meet customer requirements and satisfactorily.

Distribution channels however, play major roles in the marketing of goods and in the business sector as a whole. Williams {1984: 38} stated the following as the usefulness or the importance of distribution channels to include: firstly, it gives place utility i.e. by moving goods from one place to another. Secondly, by bringing goods to the place of consumption when needed, it adds time utility.

Also by bringing the goods to the consumer in convenient shape, unit size and packaging, it adds convenient value. Thirdly, by making it possible for consumers to obtain goods at a price he is willing to pay and under condition which brings satisfaction and ownership. Efficient and effective distribution system is particularly essential in moving perishable products from the points of production to the point of consumption due to the nature of the products.

1.1 STATEMENT OF PROBLEM

Physical distribution has impacted greatly in ensuring that goods and services are made available when and where they are desired and in safe

conditions. But due to the rise in technological development and global marketing, the process however, is not without problems as many companies and business people still lack adequate physical distribution facilities leading to the spoilage of these products before getting to their destination points.

Appropriate strategies for efficient and effective distribution of these products are required in distributing agricultural products in Boki local government area.

In Boki L.G.A lack of adequate and efficient distribution system has badly affected marketing of perishable products in the area as many of them perish on their way before getting to their consumption point.

1.2 OBJECTIVE OF THE STUDY

The following are objectives of the study:

i. To determine the problems that affects the selection of channels of distribution for agricultural products.

ii. To identify the basic components of physical distribution of agricultural marketing used in the area.

iii. To identify physical distribution strategies necessary or applicable for perishable agricultural products

iv. To make recommendation that could help to improve the efficient and effective physical distribution of agricultural products.

1.3 RESEARCH QUESTIONS

1. Do channels of distribution have any effect in the distribution of agricultural products in Boki L.G.A?

2. Do Government policies have influence on the distribution channel to be used for agricultural products in Boki L.G.A?

3. Does Boki have enough storage facilities that will promote agricultural products?

4. To what great impact has physical distribution channel in providing agricultural products when and where they are needed?

5. Does lack of infrastructures like access roads affects the distribution of agricultural products in Boki L.G.A

6. Does inadequate processing plant affect large scale production of perishable agricultural products in Boki L.G.A?

1.4 RESEARCH HYPOTHESE

Ho: channels of distribution are not effective in the distribution of agricultural products in the area

HI: Channels of distribution are effective in the distribution of agricultural products in the area

HI: Inadequate processing plants discourage large scale production of perishable agricultural products.

HO: Inadequate processing plants encourage farmers into large scale production of perishable agricultural products.

3. HO: Lack of basic infrastructure like access roads has no significance effects on agricultural products distribution in Boki L.G.A

Hi: lack of basic infrastructure like access roads has significance effects on the distribution of agricultural products in Boki L.G.A

4 HO: Government policies do not have significance influence on agricultural products in the area.

HI: Government policies have significance influence on agricultural products distribution in the area.

1.6 SIGNIFICANCE OF THE STUDY

This research would be of great importance and will assist farmers in the management of physical distribution channel in the area. It will also help business firms and organization that are involved in physical distribution in Boki Local government area.

This study will also reveal the available distribution channels in Boki L.G.A and how to effectively utilize them. It will serve as reference materials to other researchers who may carryout similar work in the nearest

future. Furthermore the result of this study will be of tremendous importance. It will also help consumers of perishable agricultural products to have these product when and where they are needed at the time they are needed .the study will equally assist channel member to know how best to perform their marketing activities to satisfy their clients, to local government, state and federal government ministries and parastatals seeking information as regards marketing of perishable agricultural products

1.5 Scope and limitation of study

This study is based on the perishable and none-perishable agricultural products in Boki local government. Information and data about ‘’the impact of physical distribution channel in the marketing’ is given only as related to these areas. Scarcity of resources in our depressed economy made it extremely difficult to conduct the research in a wide scope and area.

The financial commitment involved in this research work can also militate against wider coverage.

1.5 DEFINITION OF TERMS

DISTRIBUTION

Distribution is that which cover abroad range of activities aim at efficient movement of finished goods from the end of the production line to the consumers (Boon & Kurtz, 2000; 390)

DISTRIBUTION CHANNELS

Distribution channels consist of a set of interdependent organization involved in the process of making a product or consumption by the consumer or business user (Philip Kotler & Gary Armstrong 1999; 362).

Etzal, walker and Stanton (2007;380) defined marketing channel as the set of people and firms involved in the transfer of title of a product as the product mores from producer to ultimate consumer or business users.

Nwokoye (200; 105) define marketing channels as ‘’the combination of institution through which a seller markets his products to the ultimate buyer’’ marketing channel are individuals or institutions that facilitates the flow the producer to the final user. Individuals and institution mentioned in this definition refer to middle men like wholesalers’ retailers, distributors and agents.

REIABILITY: The ability of an item to perform a required function under stated condition for a stated period of time (Baily and Farmer, 19: 44).

MARKETING CONCEPT: According to kinnear and Bemhardt (1990:12,), marketing concept is a decision making approach that focuses on customer needs and their societal consequences as it integrates all activities of the organization to satisfy these consumer needs in a way that is consistent with concern for broader societal consequence. The purpose is to achieve long-run objectives through the satisfaction of these customer needs, which must be balance against the needs of society as a whole.

MARKETING MIX: Mc McCarthy and Perrault, (1991: 33) defined marketing mix as those controllable variables which a firm can use to influence favorable response and stimulate profitable sales in the marking place. Nell Borden popularize the concept of marking mix

AGRICULTURE: According to Webster's Dictionary (1980) agriculture is a science or practice of farming.

CHAPTER TWO

2.0 LITERATURE REVIEW

AN OVER VIEW OF PHYSICAL DISTRIBUTION:

Much has been said both from foreign and local authors about physical distribution and logistics on agricultural produce especially perishable agricultural produce. Physical distribution is an important activity that complete the work of satisfying the target achieve.

Kotler (1996: 577) stated that physical distribution comprises of the tasks involved in planning, implementing, and control e of the physical floe of material and final goods from the point of origin to the point of use to meet the needs of consumers at a profit. He also reveals that many companies states their physical distribution objectives as getting the right goods to the right place at the right time for least and that physical distribution activities are highly interrelated. Decision must be made to achieve the objective. The starting point for designing physical distribution is to study what the competitors are offering and the needs of the customers are interrelated including the time of delivery.

In support of the above McCarthy (1994:55) stated physical distribution is the process of transporting and sorting of physical goods within the individual firm along channels system. This gives support that physical distribution involves all the activities required to physically move raw materials from point of purchase to the final users of the products. Bawerdox (1998: 575) when further to state that, physical distribution channel is two or more activities for the purpose of planning, implementing,

and controlling the efficient flow of raw materials, inventories and finished goods from point of origin to point consumption.

Robert (1991:478) in his own contribution stated that physical distribution management involves the integration of the six activities of physical distribution namely, transportation, warehousing, inventory control, material handling, order processing and protective packaging into a complete distribution strategy. Decision in transportation must be interrelated with decision in warehousing; inventory control and other physical distribution management represent a balance between product delivery capabilities and related cost. Nwokoye (1981:16) stated that logistic is concerned with the movement of raw materials from suppliers to finished goods from the end of production time to the consumers. He stated that a number of activities are involved which include warehousing and communication. In his own words McCarthy (1964) stated that physical distribution is the function of actual handling and moving of foods. Physical distribution policies according to him involve major component a company's resources policies across functional lines and organization system of a company.

Johnson and Wood (1982) on their own view said that all activities involved in getting goods to the right place, at the right time, right price and quantity can be described under the term distribution. Meaning that physical distribution is the physical flow of the goods to the right location at the right time so as to achieve maximum satisfaction. BUSH and Huston (1988) defined distribution as the movement of raw materials from suppliers to manufacture and storage facilities.

Bowerdox (1989:12) still went on to say that physical distribution is concerned with the identification of movement required and the establishment of plans to integrate over all logistics operations to customer's satisfaction. on the other hand, Nwokoye (2000:186) defined physical distribution as a set of activities including order processing material handling, inventory management, warehousing and transportation used in the movement of products to consumers as the end users. An effective and efficient physical distribution system should be in place to deliver the right quantity of goods at the right place and time with the right support services to the customers. Warehousing is primarily concerned with making commodities available at desired time. it requires holding large quantity of

raw material until they are needed. Thus the importance of storage cannot be overemphasized owing to the hazards of storing agricultural products, fluctuation in price and high depreciation of perishable items where it occurs. Therefore it is necessary to encourage farmers to store their produce in barns and silos in Boki L.G.A. transportation function is primarily concerned with making goods available at the proper time. Adequate performance of this function requires the weighting of alternative routes and types of transportation as they might affect transport cost. (Jobber1998:22)

2.2 NATURE AND IMPORTANCE OF PHYSICAL DISTRIBUTION

Distribution deals with how to move product from manufacture to the buyer. This flow is accomplished through established channels of distribution. Nwokoye (2000:105) defined marketing channels of distribution as'' the combination of institutions through which a seller, market his product to the ultimate users. Individuals and institution involve in this definition is refer to as middlemen, retailers, distributors and agents etc. Stanton etal and blaker(1991:305) opined that distribution channel consist of the flow of people and firms involved in the flow of title to a product as it moves from producer to ultimate consumer or business user.

Marketing channel can be viewed as a set of interdependent organization involved in the process of making a product or service available for consumption or use (Stern, El, Asary and Conghain 1999:1).

To some managers physical distribution means, only trucks and warehouses. But modern logistics is much more than this physical distribution or marketing is a set of activities including order processing, materials handling, inventory management, warehousing and transportation used in the movement of products from produces and end users.

It offers to the customers from, time, place, and possession utilities. All members of marketing channel are involved in physical distribution to some extent, but whoever controls the cannel has a major responsibility. Today the concept of total physical distribution is paramount. It emphasizes that all management functions relating to moving products to buyers must be fully integrated so as to minimize costs and maximize customer's service. In order to meet the above aims, it sometimes pays to allow cost to go up in one business area and to bring down cost on others.

However, marketers today prefer market logistics which starts with the market place and works backwards to the factory. Thus the logistics manager s task is to co-ordinate the whole cannel of physical distribution system, the activities of suppliers, purchasing agents, marketing channel members and customers.

2.3 DISTRIBUTION CHANNEL FOR CONSUMER PRODUCTS

There are a number of alternative routes or networks of intermediaries through which products can get to the final users. According to Aworden (1990:37) these are main types of channel of distribution.

a. Direct supply
b. Mechanical supply
c. Short channel
d. Long channel

a. Direct supply: producers to ultimate consumer.

In this channel of distribution the producer supplies directly to the customer. This type of channel is common in industrial goods market direct marketing, the other is the use of agencies or retail outlets owned and controlled by the producer.

b. Merchant supply.

The producer in this case supplies to the customer through a merchant who acts as the reseller thus, producer-merchant – wholesaler – consumers. This channel is also used in the distribution of industrial goods. It is widely used because it is cost effective for the producer

c. The producer supplies the consumers with a consumer goods market through a retailer who acts as the reseller or intermediary, thus producer – retailer – consumer. Though the producer is not in direct contract with the customer, this channel minimizes the producers influence and control over the retail intermediary.

d. First it exposes the supplier to the bulk buying power of large-scale retailers. Such retailers will demand large trade discounts and disrupt the smooth floe of production by arbitrary changes in the rate at which they offer.

Secondly, the supplier will be maximizing the risk of payment default and bad debt customer with a consumer goods market through a set of two intermediaries. Thus, producer- retailer- consumer. The producer sells his merchandize on a bulk basic to the wholesaler, who in turn breaks these bulk orders down and supplies them in small quantities to retailer. From retailer, it finally gets to the consumer.

2.4 OBJECTIVES OF CHANNEL OF DISTRIBUTION

The producer normally has clear marketing objectives that he will wan the chosen channel of distribution to achieve. Some of these objectives as listed by modern (1990:93) are as follows

a. Appropriate and adequate distribution
The producer will use his channel of distribution to achieve the level of product distribution that meets his objective for market penetration, market share and competitive position.

b. The distribution channel used must be capable of giving access to the target segments the channels demographic areas.

c. Relative cost effectiveness in access and transaction value.
The producer will attempt to use a channel of distribution which yields some net benefit or disadvantage relative to the cost or disadvantage incurred in employing it. The objective will be to maximize the benefits to be obtained given any particular level of cost or disadvantage incurred.

d. Cost effectiveness of customer service

The producer will have to balance the cost of providing necessary level of service to the customer within his channel of distribution against the marketing and competitive benefit to be gained by offering an accessible and efficient standard of customer service.

e. Reseller motivation

This involves determining how the distribution is to be motivated into achieving consistent and effective sales.

2.5 FUNCTIONS OF DISTRIBUTION CHANNELS

Members of the channel perform a number of key functions. They include

1. **Research:** the gathering of information necessary for planning and facilitating exchange.
2. **Promotion**: the development dissemination of aversive communications about the offering.
3. **Contact:** the searching for and communicating with prospective buyers.
4. **Marching:** the shaping and fitting of the offer to the buyer requirement. This includes such activities as manufacturing, grading assembling, packaging and sorting.
5. **Negotiation:** the attempt to reach final agreement on price and other terms offer so that transfer or ownership or possession could be effective.
6. **Financing:** the acquisition and disposal of funds to cover the costs of the channel work.
7. **Risk taking:** the assumption of taking risk in connection with carrying out the channel work.

2.6 SELECTING THE TYPE OF CHANNEL

After establishing the distribution role in the overall marketing programmed the most suitable of channels for a product must be determined. At this point, it will also be decided whether middlemen will be used in its channel. Firms may rely on existing channel or they may use new channel to better serve existing customer, reach over competitors. Most distribution channels include middlemen while some do not. A channel consisting only of producer and final consumer with no middlemen providing assistance is called direct distribution. In contrast, a channel that is made up of producer and final customer is direct channel while the channel that has at least one level of middlemen represent in direct distribution.

Most times direct distribution calls for selection. A producer must determine the type(s) of middlemen that will best serve its needs, affect the participation of one channel. Also, the inclusion of one support another will put behind the manufactures product. These decisions are based on different factors which are discussed below. The nature of the market is the key influence in management choice. There are a lot of other factors that affects this choice. Some of them are, market product, middlemen and company consideration.

a. **Types of market**: Since the buying behavior of ultimate consumer ordinarily is different from that of business users, separate distribution arrangements must be made to reach the different markets?
b. **Nature of potential customers**

A producer with relatively few potential customers may use his own sales force to sell directly to customers, the producer would likely use middlemen.

c. Product consideration

While there are numerous product related factors to consider, the following will be discussed;

i. **Unit value**: the price attached to each of a product affects the amount of funds available for distribution. Products with low unit values usually are distributed through long channels. There are exceptions however, for instance if order size is large because the customer buys many products at same time from the company, then a direct channel may economically feasible.

ii. **Perish ability**:

Some goods including many agricultural products determine quickly. Therefore, perishable products require direct or very short channels.

a. Middlemen consideration

i. **Availability** of **desired middlemen**

It is necessary to choose the desired middlemen though sometimes the middlemen preferred by a producer may not be available. They may be carrying competitive products and may not want to add another line. This definitely affects the ones the producer will end up using.

ii. **Attitude of middlemen towards producers policies**

Sometimes producers' choice of channel is limited because their marketing policies are not acceptable to middlemen. Some retailers or wholesalers, for example are interested in carrying a line only if they received assurance that competing firms will carry the same line in that territory

b. Company consideration

Before choosing a distribution channel for a product, a

Company considers relevant factors in its own situation.

i. **Desire of channel control**

Some producers establish short channel simply because they want to control the distribution of their products, even though the cost of the more direct channel may be higher than that of an individual channel. By controlling the channel, producers can achieve more aggressive promotion and can better control both the freshness of merchandize stock and retail prices of their products.

ii. **Ability of management**

The marketing experience and ability of the firm's management affects channel decisions, many companies lacking marketing technical know-how prefer to turn the distribution job over to middlemen.

2.7 DISTRIBUTION OF AGRICULTURAL PRODUCE IN NIGERIA

Different countries have different primary products and in most developing countries, agricultural commodities and animal resources (oil mineral or petroleum products, copper, gold and silver) among other constitute their primary commodities. These commodities are natural as they are directly got from the land (earth surface above it or below). These agricultural products, man did little or nothing to bring them into existence but contributed in changing their form from one stage to the other during manufacturing or processing stage. Examples of these products are commodities such as palm oil, cocoa, rubber, timber, and groundnut and cotton among others.

The prime objective of production is for consumption. The movement of product from producer to consumer s is an important function it is the obligation of the producer to make goods available at the right place, the price and quality. The process of making goods available to the consumers needs effective channel of distribution. Therefore, the part taken by the goods in their movement is termed channel of distribution. The goods may be sold to the consumer directly or through middlemen (Anyanwu, 2011:10).

2.8 IMPACT OF AGRICULTURAL MARKETING IN NIGERIA

Agricultural marketing is a specialized marketing area and present unique challenges to marketers mainly because of the nature of the agricultural product, products and markets. In our environment, persistent emphasis on traditional ways of doing things and the regulation of agricultural pursuit to the background following discovery of oil in the country, have made meaningful progress the belief that the modernization of agricultural production in the country.

This chapter examines the inter-relationship of agricultural production and marketing among other issues. Adrika (117:11)

2.9 FACTORS THAT AFFECT AGRCULTURAL MARKETING IN NIGERIA

It is important to understand the nature of agricultural production because it dictates the very nature of marketing in the very vital sector of the economy. Agricultural products come in the form of fruits and vegetable

grains, livestock, natural fibers, forest products and marine products. Such characteristic of agricultural product that affects marketing includes.

1. Scale of operation
2. Location of producing units away from demand centers
3. Market atomization
4. Slow reaction of supply to charges in demand
5. Limited control of product quality and quality
6. Seasonality of production
7. Product homogeneity.

- **Scale of operation:** the scale of operation describes the capacity of an average supply unit. This is comparatively smaller, even where the units operation is specialized than the scale of operation means total small output per unit. This can be attributed to the high labor. Content of agricultural production of labor is expensive in the highly merchandized production system in the developing countries where traditional farming practices for investment in machinery and equipment to increase production. Ignorance on the part of the local farmers, and the unavailability and very high cost of farm inputs also makes for poor yield in agricultural production.

  In the southern part of Nigeria, the society of available farm land, and the pattern of land ownership also operation scale of an average farmer.

- **Location of producing units**

In agricultural production the producing units are far removed from the major centers of demand in the urban areas and the adjourning district, these centers of demand are the market made up of household consumers and industrial users. In countries with varying climatic and vegetation conditions, the distant location of production unit is exacerbated by regional specialization of those units. For instance, in Nigeria, the savanna regions in the northern part of the country yield various grains products while the tropical rainforest in the south is for cash crops. Thus these products are even further removed from the consumers to the non-indigenous regions. The location of producing into away major centers of demand has its marketing implications distribution and pricing of agricultural products.

- **Atomize market:** the majority of consumers of agricultural produce are households this is much more so in a developing country like Nigeria where the food processing industry is highly under developed. This scenario increases the problem far away from the center of demand to sell to a highly concentrated consumer market.
- **Slow reaction of supply to changing demand situation**
  Agricultural production has a long gestation period and so supply cannot be increased on a hurry in a situation of increased demand for whatever reason on the other hand, supply cannot be adjusted downwards with a decline in demand for any given production period. The later condition arises from storage facilities or for loss of value of product in storage for products that have season's consumption. The situation described above has grave pricing implications. It constitutes considerable financial risk to the agricultural producers.

- **Inability to control products quality and quantity**:
  There is considerable availability in product quality, however, defined because of the varies in nature which operates even on the most scientifically designed and controlled agricultural production situation. In developing economics faced with gross under production of food, product quality is often a luxury, especially among the major group of the agricultural product market, household consumers. All that is needed to confirm this assertion is to walk into our markets any day, to observe the pest infested, shield beans sold to indifferent consumers, especially , however, some quality standards have to be met to facilitate processing of the agricultural products.

- **Production homogeneity**
  Agricultural produce can be characterized by size, weight, freshness, color, taste or any other relevant description within each variable that can be categorized, however the product is homogenous. For instance, were the size alone of a fruit, like orange, is considered in establishing quality for that of fruit all oranges of the same size cannot be differentiated although they may come from different producers. This can be the case in a farmer co-operation. The reality of an individual farmer producing a heterogeneous product for a given product characteristics (pre-grading) which becomes homogenous, post grading has implications for the promotion element of the marketing mix in marketing product.
- **Seasonality of product**

Agriculture is seasonal that means that supply is not continuous throughout the demand period while the demand is steady

through the year. This had implication for physical distribution management directed towards bridging the gap between supply and demand by extending the available supply over the period of non-production through effective storage (Andrika 1997:11)

CHAPTER THREE

RESEACH MOTHODOLOGY

3.1 SOURCES OF DATA COLLECTION

The researcher used both primary and secondary data methods to obtain the relevant data necessary for the study

3.1.1 PRIMARY DATA

These are data that are obtained directly from the respondents. The data collection method includes the use of questionnaire and oral interview as well as personal observation.

3.1.2 Secondary data

These are data that are obtained from document sources such as textbooks, magazines, news papers, seminar paper, journals, and publication from private, public professional and academic libraries.

3.2 POPULATION OF THE STUDY

The population of the study was made up of the two major tribes of Boki L.G.A which include eastern Boki and Boki central with a total population of 227,400 people (national population commission).

3.3 SAMPLE SIZE DETERMINATION

The researcher used yarrow Yamane formula to determine the sample size from the population of the study.

Yarrow Yamane formula

The formula is given as

$$\mathbf{N = \frac{N}{1+N\,(e)^{2}}}$$

Where n = sample size

n = population of the study

e =

1 = constant

Substituting from the formula

$$n = \frac{227,400}{1+ 22,400(0.05)2}$$

$$= \frac{227,400}{569.5}$$

3.4 SAMPLING TECHNIQUE

The researcher used cluster sampling method to select the respondent. This is because two major tribes under investigation or study line in a clustered communities. The made the researcher to have easy access to the respondent

3.5 VALIDITY AND RELIABILITY OF THE INSTRUMENT

The researcher used the survey method which the questionnaire is one of its major tools. The researcher prepare a questionnaire which consist of open and closed ended questions with multiple answers options and

presented it to the supervisor who gave necessary corrections and made approval for its administration to the respondents.

3.6 METHOD OF DATA ANALYSIS

The data obtained were presented in tables and expressed in simple percentage the researcher used chi-square (X2) test statistics to validate the stated hypothesis at 5% level of significance.

CHAPTER FOUR

4.0 PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.1 INTRODUCTION

The purpose of this chapter is to analyze and interpret the data collected from respondents through the administration of questionnaire.

Table 4.0.1

Distribution and returned of questionnaire

Option	**Frequency**	**%**
Number valid	249	64.41
Number discarded	62	15.54
Number not returned	88	20.05
Total	**399**	**100**

Source: Field survey 2012

Table 4.0.1 above reveals that out of 399 questionnaires distribution, 249 or 64.41% were correctly completed and not properly completed and returned in good order, 62 or 15.54% were not properly completed and were discarded while 88 or 20.05% were not returned.

Thus, 249 or 64% of the returned were valid and 62 or 15.445 of the questionnaire were not invalid for study. The high level of success of returned questionnaire was due to the researcher's regular visit and patience

with the respondents who were mostly farmers. The invalid number was due to high level of illiteracy among the respondents.

4.1 DATA ANALYSIS

Table 4.1.1; Sex

Option	**Frequency**	%
Male		22.1
Female		77.9
Total	**249**	**100**

Source: Field survey 2012

Table 4.1.1 above reveals that out of 249 respondents, 55 or 22.15 were male, while 194 or 77.9% are female are the major players in the selected markets in the area.

Table 4.1.2 marital status

Option	**frequency**	**%**

Married	155	62.2
Single	94	37.8
Total	**249**	**100**

Source: field survey 2012

Table 4.1.2 above reveals that out of 249 respondents, 155 or 62.2% of the respondents were married while 94 or 37.8% of the respondents were single. This entails that, the married people are the major players in the selected markets.

Table 4.1.3 what is your academic qualification

Option	**Frequency**	%
FSCL,WASC/GCE/SSCE		77.9
OND, NCE		18.0

Higher degree		3.2
Total	**249**	**100**

Sourced: field survey 2012

Table 4.1.3 above shows that out of 249 respondents, 194 or 77.95 of the respondents. Were FSLC and SSCE holders, 47 or 18.9% of the respondents were OND/NCE holders while 8 or 3.32 of the respondents are higher degree holders. This shows that, the first school leaving certificate holders in the selected markets

Table 4.1.4 Age distribution of respondents.

Option	**Frequency**	**%**
18-25	34	13.6
26-35	42	16.9
36-45	105	42.2
46-55	62	24.9

55 and above	6	2.4
Total	**249**	**100**

Source: field survey 2012

Table 4.1.4 above shows that out of 249 respondents 34 or 13.6% of the respondents were between 18-25 years of age, 42 or 16.9% of the respondents were between the age bracket of 26-35, 105 or 42.25 of the respondents were between the age bracket of 46-55, while 6 or 2.4% of the respondents were between the age bracket of 55 and above it is quit clear that those within the age bracket of 36-45 are the major actors in the market understudy.

4.1.5: Respondents opinion on how long they have worked and lived in Boki

Option	**Frequency**	**%**

1 year	12	4.8
1-5 years	47	18.9
6-10 years	70	28.1
10 and above	120	48.2
Total	**249**	**100**

Source: field survey 2012

Table 4.1.5 above shows that out of 249 respondents, 12 or 4.8%of the respondents have worked and lived in the area for 1 year, 4 or 18.9% of the respondents have stayed in the area for two to five years, 70 or 28.1% of the respondents have stayed in the area for six to ten years, while 120 or 48.2% of the respondents have stayed in the area for more than 10 years and above. From the above analysis, it can be conducted that, those who have stayed in the area for more than ten years are the major players in the three selected markets.

4.1.8: Respondents opinion on how products are moved from farmers to consumers market.

Option	Frequency	%
Strongly agree	180	72.3
Agree	45	18.1
Strongly disagree	10	4.0
Disagree	14	3.6
Total	**249**	**100**

Source: field survey 2012

Table 4.1.7 above reveals that out of 249 respondents, 180 or 72.3% of the respondents strongly agree that farmers move their farm produce from the farm to consumers markets, 45 or 18.1% of the respondents agree that farmers move their farm produce from the farm to consumers markets, 10 or 4.0% of the respondents strongly disagree that farmers move their farm produce from the farm to the consumers markets.

Table 4.1.7 Opinion of the respondents to find whether distribution channel to be selected poses a problem to the farmers.

Option	Frequency	%

Strongly agree	100	40.2
Agree	60	24.1
Strongly disagree	50	20.1
Disagree	39	15.6
Total	**249**	**100**

Source: field survey 2012

Table 4.1.7 above shows that out of 249 respondents, 100 or 40.25 of the respondents strongly agree that distribution channels do hinder farmers to convey agricultural products to access markets, 60 or 24.1% of the respondents agree that distribution channels do not hinder farmers to convey agricultural products to access markets, 50 or 20.1% of the respondents strongly disagree that distribution channels do not hinder farmers to convey agricultural products to accessible markets, while 39 or 15.6% of the respondents disagree that distribution channels do not hinder farmers to convey agricultural products to access markets.

Table 4.1.8: opinion of the respondents to determine the factors that influence selection of distribution channels

Option	**Frequency**	**%**
Cost of transportation	60	24.1
Type of product	90	36.1
Customers/target markets	54	21.7
All of the above	45	18.1
Total	**249**	**100**

Source: **Field survey 2012**

Table 4.1.8 above shows that out of 249 respondents, 60 or 24.1% of the respondent says that the cost of transportation influence selection of distribution channels, 90 or 36.1% of the respondents are of the view that the type of product influence selection of distribution channels, 54or 21, 7%of the respondents says that the customers/ target market influence selection of distribution channel.

While 45 or 18.15 of the respondents were of the view that the above factors cost of transportation type of product and customer/target market influence selection of distribution channels.

Table 4.1.0: opinion of respondents on whether lack of storage facilities hinders preservation of agricultural product

Option	**frequency**	**%**
Strongly agree	91	36.5
Agree	73	29.3
Strongly disagree	48	19.3
Disagree	37	14.9
Total	249	100

Source: Field survey 2012

Table 4.1.0 above shows that out of 249 respondents, 91 or 36-55 of the respondents strongly agree that lack of storage facilities hinders the preservation of agricultural produce, 73 or 29.35 of the respondents agree

that lack of storage facilities hinders the preservation of agricultural produce, 48 or 19.2% of the respondents strongly agree that lack of storage facilities hinder preservation of agricultural produce, while 37 or 14.9% of the respondents disagree that lack of storage facilities hinder preservation of agricultural produce.

Table 4.1.1: opinion of respondents on whether bad road affects their output

Option	**frequency**	**%**
Strongly agree	83	33.3
Agree	79	31.7
Strongly disagree	49	18.5
Disagree	4	16.5
Total	**`249**	**100**

Source: Field survey 2012

Table 4.1.1 above shows that out of 249 respondents 83, 33.3% of the respondents strongly agree that bad road affects their output more due to poor means of conveying farm produce to other areas, 79 or 31.75 of the respondents agree that bad road affects farm produce more due to poor means to convey farm produce to other areas 46 or 18.5 of the respondents strongly disagree that bad road do not affect farmers to produce more due to poor means to convey farm products to other areas.

Thus, most the farm products produced in the area are over flooded in the local market and the farmers receive low prices of their products and as such cannot encourage producing more.

Table 4,1,12: **opinion of respondents on whether the policies made by the government regulating agencies do affect agricultural production in the area**.

Option	**Frequency**	**%**
Strongly agree	95	38.2

Agree	75	30.1
Strongly disagree	34	13.7
Disagree	45	18
Total	**249**	**100**

Source: field survey 2012

Table 4.1.12 above shows that out of 249 respondents, 95 or 38.25of the respondents strongly agree that policies made by the government regulating agencies do affect agriculture in the area, 75 or 30.1% of the respondents agree that policies made by the government regulating agencies do affect agriculture in the area, 34 or 13.7%of the respondents strongly disagree that policies made by the government regulating agencies do affect agriculture in the area, while 45 or 18% of the respondents disagree that policies made by the government regulating agencies do affect agriculture in the area.

4.2 TEST OF HYPOTHESES

The test of hypotheses is a procedure for deciding whether to accept or reject the hypotheses. Each hypotheses was stated as Null (Ho) and it is the null hypotheses that will be tested.

Chi-square (X2) will be used to test the hypotheses at 5% level of significance. According to Hamburg (1979:298), the formula for chi-square test is,

$$X^2 = \frac{\Sigma (f_o - f_e)^2}{f_e}$$

Where X2 = chi-square

Foy= observed frequency

Fe= expected frequency

Σ = summation sign

Comparison will be made between the calculatedX2 value and the table or significance

DECISION RULE

Accept the null hypotheses (Ho) if the calculated X2 value is less than the critical or table value otherwise reject

TEST OF HYPOTHESES ONE

Ho: channel of distribution are not effective in the distribution agricultural products in the area.

Data is obtained from table 4.1.7

Option	**Frequency**	**%**
Strongly agree	100	40.2
Agree	60	24.1
Strongly disagree	50	20.1
Disagree	39	15.6
Total	**249**	**100**

Fe = 249

4 = 62.25

Chi-square calculate

F_o	F□	F_o-f□	(f_o-f□)²	(o-e)²⁄□
100	62.25	37.75	1425.0625	22.8926
60	62.25	-2.25	5.0625	0.0813
50	62.25	-12.25	150.0625	2.4106
39	62.25	-23.25	540.5625	8.6837
Total				**34.0682**

Calculated $X^2 = 34.1$

Degree of freedom = (r-1) (c-1)

= (4-1)

= 4-1

Therefore degree of freedom =3

The critical value is obtained by checking the df at 3 under 0.05 and is 7.81.

DECISION

Since the X^2 calculated is 34.07 and is greater than the critical value of 7.81, we accept the alternative hypotheses which states that channels of distribution of agricultural products in the area and the null hypotheses is therefore rejected.

TEST OF HYPOTHESES TWO (2)

H_o: Inadequate processing plants discourage farmers into large scale production of agricultural products in the area.

Data is obtained from table 4.1.8

Option	**Frequency**	**%**
Strongly agree	91	136.5
Agree	73	9.3
Strongly disagree	48	19.3
Disagree	48	14.9
Total	**249**	**100**

Fe = 249

4 =62.25

Chi-square calculated

F_o	$F_□$	$F_o-F_□$	$(f_o-f_□)^2$	$(f_o-f_□)^2/f_□$
91	62.25	28.75	825.5625	13.2781
73	62.25	10.75	115.5625	1.8564
43	62.25	14.25	03.0625	3.2620

37	62.25	-25.25	637.5625	10.2419
Total				28.6384

Calculated X^2 = 28.7

Degree of freedom = r - 1

= 4 – 1

= 3

The critical value obtained by checking the df at 3 under 0.05 and is 7.81.

DECISION

Since the X^2 calculated is 28.6384 and is greater than critical value of 7.81, we accept the alternate hypotheses which state that there is a significance relationship between storage facilities and agricultural products in the area and the null is therefore rejected.

TEST OF HYPOTHESES THREE

H_o: Lack of basic infrastructure like access roads has no significant effect on agricultural products in Boki local government area.

Data is obtained from table 4.1.12

Option	**Frequency**	**%**
Strongly agree	83	33.3
Agree	79	31.7
Strongly disagree	19	18.5
Disagree	41	16.5
Total	**249**	**100**

$$Fe = \frac{249}{4} = 62.25$$

Chi-square calculated

F_o	F□	(F_o-f□)	(f_o-f□)²	(f-f)²⁄f□
83	62.25	20.75	430.5625	6.9167

79	16.75	16.75	280.5625	4.0703
49	62.25	-16.25	264.0625	4.2419
41	62.25	-21.25	451.5625	7.2540
Total				22.4829

Calculated X^2 = 22.4829

Degree of freedom = r – 1

= 4-1

= 3

The critical value obtained by checking the df at 3 under 0.5 and is 7.81.

DECISION

Since the calculated $X^2$of 22.4829 is greater than the critical or table value of 7.81,the alternate hypotheses (H□□□i) which states that lack of basic infrastructure like access roads has significant effect on agricultural products in Boki L.G.A A is accepted and the null hypotheses is therefore rejected.

TASTE OF HYPOTHESES FOUR

H_o: Government policies do not have significant influence on agricultural products distribution in the area.

H□□: Government policies have significance influence on agricultural products distribution in the area.

Data is obtained from table 4.1.11

Option	**Frequency**	**%**
Strongly agree	95	38.2
Agree	75	30.1
Strongly disagree	34	13.7
Disagree	45	1.8
Total	**249**	**100**

Fe = 249

4 =62.25

Chi-square calculation

F_o	Fe	F_o-Fe	$(F_o-f□)^2$	$(F-f)^2/f□$
95	62.25	32.75	1072.6	17.2
75	62.25	12.75	162.6	2.6
34	62.25	-28.25	798.6	12.8
45	62.25	-17.25	297.6	4.8
Total				**37.4**

Calculated X^2 = 37.4

Degree of freedom = r - 1

= 4 - 1

= 3

The critical value is obtained by checking the df at 3 under 0.05 and is 7.81

DECISION

Since the calculated X^2 of 27.4 is greater than the critical or table value of 7.81, the alternate hypotheses (H□) is accepted which states that government policies have significance influence on the production of agricultural products distribution in the area and the null hypotheses is therefore rejected.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSSION AND RECOMMENDATIONS

5.1 SUMMARY OF FINDINGS

The researcher after a careful study on the impact of physical distribution of agricultural products in Boki local government area came up with the following findings,

1) That most agricultural produce in the area are perishable items.

2) That selection of transportation mode depends on the nature of agricultural product.

3) That the transportation of most of these agricultural products is carried by land characterized by bad road network. As well as canoe and engine boats.

4). that agricultural produce are convey to the local markets due to the use of the above alternative means.

5). that lack of storage facilities affects the storage and preservation of perishable agricultural products during harvesting season.

6). that government policies have no significance impact to play in influencing agricultural product distribution in the area.

5.2 CONCLUSSION

From the aforementioned findings and empirically test of hypothesis, the researcher concludes that physical distribution as one of the major components of the marketing mix has a vital role to play in the marketing of agricultural products in the area.

This is because the goods produced must not be wasted, the farmers' labor must be encouraged as the consumers and customers at different places need these agricultural produce either as raw materials, semi finished or finished products for production.

5.3 RECOMMENDATIONS

For the farmers to be encouraged and produce more to make available food for the growing population adequately, as well as consumers and the manufactures to have access to raw materials the researcher came up with the following recommendation which include:

1) Provision of adequate facilities both by organized private sector, individuals and government to assist in the agricultural products all year round.

2) Governments should access road and provide modern engine boats to enable farmers and middlemen covey their goods to local and distance markets from the point of production or harvesting.

3) Government should come up with good policies that will encourage the distribution channel members and the farmers. This could be in terms of low charges on haulage by local government official to encourage channel members.

When channel members are encouraged, farmers are equally encouraged.

4) The government should ensure even distribution of agricultural materials like fertilizers, chemicals, and other facilities that will enhance production

5) Government at all levels should partner to provide access roads to enable farmers and middlemen to carry out their products to different market. This will greatly encourage the farmers.

BIBLIOGRAPHY

Adirika, Ebue, B, Nnolim, D. O. (1997). *Principles and practice*

Marketing; Enugu: John Jacob classic publishers Limited.

Aham, A; Max, A. & chinedu N. (2011). *Agricultural*

Marketing in Nigeria; Principles & practices, Owerri*:* Alan

Global publication*.*

Buell, P. (1999). *Marketing Management*; *A Strategic Planning*

Approach, New York: McGraw-Hill Company.

Cash, H. C and Crissy W. J. E (1998).*The sales man's Role in*

Marketing Psychology vol, 12. 5th Edition, London: Long group Publishers.

Downey, W. & Erikson, S. (1997). *Agric business management*,

London: McGraw-Hill Limited.

Ebitu, T. (2006). *Distribution and Logistics Management* Calaber*:*

Eddynoll Publishers Limited.

Elz, L. (1998). *Agricultural Marketing strategy & pricing policy*;

Washington D. C: World Band Publications.

Harmburg, M. (1979). *Basic Statistics a Modern Approach*. New

York, Harcourt Brace Jorvanovich.

Ifezue, K. N (1999). *Principles of Marketing*, Enugu: Aic

Publishers. Journals Marketing No: 1. vol, 1 page:352.

Johnis, R. & Joseph, N. (1980). *Marketing of Agricultural products*, New York: Macmillian Publishing Co.Inc.

Jekins, F. (1987). *Introduction to Marketing*, London: Macmillan

Publishers.

Kotler, P. (2009). *Marketing Management;* New Jersey*:* Prentice Hall *Inc.*

Kotler, P. (2009). Principles of Marketing; New Jersey: Prentice Hill Inc. Macmillian Publishers.

Offiongdon, A. (1991). *Marketing, Elements, Approach & Dynamics,* Enugu*: Jacobs* classic publication Limited.

Morden, A. (1997). *Elements of Marketing; U.S.A: D. P.* Publication Limited.

Mccarthy, J. & Williams, D. (1990). *Basic Marketing;* U.S.A: Richard Irwin Inc.

Wilmstrurts, J. (1994). *The Fundamentals & Practice of Marketing;* London*:* Harriman Publication Inc.

Schewe,C. (1990). *Marketing concepts and Applications*, U.S.A:

McGraw-Hill.

Department of marketing,
Faculty of Magt Sciences
Caritas university,
Amorji-Nike, Emene,
Enugu.

20th July 2012

Dear Sir,

COMPLETION OF QUESTIONNAIRES

I' am a final year student of the department of marketing, Caritas University. I am conducting a research on the "impact of physical distribution channel in marketing of agricultural produce in Boki L.G.A

I would be grateful if you could assist me by completing the attach questionnaire to enable me draw a valid inference on the said topic. I wish to sate that the study is purely an academic exercise and any information received from you in this regard will be treated with the utmost confidence and will be only for purpose of this study.

Thanks for your co-operation.

Yours sincerely,

Obun Blessing.

QUUESTIONNAIERS

Please answer the following by ticking the options that best suit your choice and fill the blank spaces where necessary.

1) Sex (a) (male) (female) **[ ]**

2) Marital status (a) married **[ ]** (b) single **[ ]**

3) What is your academic qualification?

(a) FSLC, WASC/ GCE/ SSCE **[ ]**

(b) OND, NCE **[ ]**

(c) Higher degree **[ ]**

4) What is your age

a) 18-15 **[ ]**

b) 21-35 **[ ]**

c) 36-45 **[ ]**

d) 46-55 **[ ]**

e) 55 and above **[ ]**

5) How long have you worked and leave in Boki

a) 1 year [ ]

b) Less than 5 years [ ]

c) Less than 10 years [ ]

d) More than 10 years [ ]

6) Farmers convey their products directly to the manufactures?

a) Strongly agree **[ ]**

b) Agree **[ ]**

c) Strongly disagree **[ ]**

d) disagree **[ ]**

7) channels of do not hinder farmers to convey their agricultural oroduce to accessible markets

a) strongly **[ ]**

b) agree **[ ]**

c) strongly disagree **[ ]**

d) disagree **[ ]**

8) What would you consider as the major barrier to the effectiveness of the chosen channel of distribution……

9) the factors that influence the selection of your distribution channel include"

a) cost of transportation **[ ]**

b) type of product **[ ]**

c) customer/target market **[ ]**

d) all of the above **[ ]**

10) Lack of storage facilities of agricultural produce in the area does not hinder preservation of food during harvest period.

a) Strongly agree **[ ]**

b) Agree **[ ]**

c) Strongly disagree **[ ]**

d) Disagree **[ ]**

11) What recommendations would you state as an aid to improve channel ……

12) Bad road network do not encourage farmers to produce more due to poor means to convey food stuffs to others area

a) Strongly agree [ ]

b) Agree [ ]

c) Strongly disagree [ ]

d) Disagree [ ]

13) Policies made by the government regulating agencies do affect agriculture in that area.

a) Strongly agree [ ]

b) Agree [ ]

c) Strongly disagree [ ]

d) Disagree [ ]

14) There many distribution channels in the area for farmers to convey their produce.

a) Strongly agree [ ]

b) Agree [ ]

c) strongly disagree [ ]

d) disagree [ ]

15) Farmers in the area have facilities to package their produce

a) strongly agree [ ]

b) agree [ ]

c) strongly disagree [ ]

d) disagree [ ]