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# DISTRIBUTION CHALLENGES AND AGRICULTURAL MARKET PERFORMANCE IN NIGERIA

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**Abstract:** This examines the effect of physical distribution in marketing of agricultural products with reference Ekiti State farmer, Ado-Ekiti. The specific objectives are: to determine the problems that affects the selection of channels of distribution for agricultural products, identify the basic components of physical distribution of agricultural marketing used in the area and identify physical distribution strategies necessary or applicable for perishable agricultural products. The study utilized survey research while the population of interest is limited to the customers of Ekiti State farmer, Ado-Ekiti. The sample size of 300 was randomly selected from the population. Findings shows that lack of basic infrastructure like access roads has significant effect on agricultural products in is accepted and the null hypothesis is therefore rejected. The study 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. Recommendation shows that Provision of adequate facilities both by organized private sector, individuals and government to assist in the agricultural products all year round.

**Keywords:** Physical Distribution, Distribution Channels, Marketing, Agricultural Products, Nigeria

## INTRODUCTION

In many marketing sciences, people who decide whether a product is available at the moment of consumption depend on the efficient management of product distribution. Because it demonstrates how different market players are arranged to carry out the flow of a product from the maker to the final consumer, channel analysis is crucial when assessing a marketing system. Kotler and Armstrong (2009) define a distribution channel as the interconnected entities that work together to make a good or service available for use or consumption to customers or business users. In order to move items from the point of production to the point of consumption, distribution channels are management instruments. The process of getting products into the hands of customers is frequently referred to as "distribution". Therefore, in order to effectively meet consumer expectations, logistics entails organizing, carrying

out, and monitoring the actual physical flow of raw materials, completed items, and related information from the site of production to the place of consumption.

But in the corporate world as a whole and in the marketing of goods, distribution channels are essential. Williams (2004) noted the following when determining the value or significance of distribution channels: First, by transporting things from one area to another, distribution channels help locations. By delivering items to the site of consumption when needed, they also produce time utility. By offering their products to customers in useful forms, dimensions, and packaging, they also add practical value. Third, to guarantee that customers may obtain items at prices they are prepared to pay, in circumstances that make them feel satisfied and like they own something. Because to the nature of the goods, getting perishable foods from the point of production to the point of consumption requires an efficient and effective distribution system.

**Statement of Problem**

The availability of goods and services at the appropriate time and location, in a safe manner, is greatly dependent on logistics. Global marketing and rapidly advancing technology have not, however, eliminated all issues with this approach. Because many businesses and entrepreneurs still lack adequate logistical infrastructure, goods sometimes spoil before they get to their intended destination. In order to distribute agricultural products in Ekiti State in an efficient and effective manner, appropriate techniques must be used. Since many fresh product items perish in transit before they reach consumers, Ekiti State's marketing of fresh produce has been negatively impacted by the absence of an appropriate and effective distribution system.

**Objectives of the Study**

The study objectives is to:

i. Identify the factors that influence the distribution channel choice of agricultural produce.
ii. Determining the fundamentals of the region's agricultural produce logistics system.
iii. Determine which logistics techniques are required or appropriate for perishable produce

**LITERATURE REVIEW**

**Conceptual Review**

**Physical Distribution**

The logistics and distribution of agricultural products, particularly fresh food, have been extensively documented by both domestic and foreign writers. One of the most important tasks that helps objectives be reached is logistics. In order to meet customer needs profitably, logistics (2009) defined as the planning, executing, and regulating of the physical transportation of completed goods and raw materials from their point of origin to their site of use. Additionally, he disclosed that many businesses view the purpose of logistics as getting the right items to the right place at the right time, and that there is a close relationship between logistics-related operations. Making choices is necessary to reach the objective. Studying the pertinent interactions between rival offers and client requirements, including delivery timing, is the first step in the logistics design process. McCarthy (2004) provided evidence for the aforementioned claim by defining logistics as the process of moving and classifying tangible items within distinct businesses via a channel system. This lends credence to the idea that logistics encompasses all the tasks necessary to transport raw materials physically from the point of sale to the product's final consumer.

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According to Bawerdox (2008), a logistics channel consists of two or more actions that are coordinated to efficiently move inventory, finished items, and raw materials from the site of production to the point of consumption.
Logistics, according to Nwokoye (2001), is the process of moving raw materials from suppliers to completed goods and from the point of production to the final customer. He clarified that it includes a variety of tasks like communication and warehousing. McCarthy et al. (2004) define logistics as the process of actually handling and transporting food. According to him, the enterprise resource policy encompassing the functional domains and organizational systems of the firm includes logistics policy as a crucial component.

**Distribution Channel for Consumer Products**

The final customer receives things via a multitude of intermediary networks and alternate pathways. Aworden (2000) lists the following as the primary categories of distribution channels:

a. Direct supply,
b. Mechanical supply,
c. Short channel,
d. long canal, and so on

a. Direct distribution: From the producer to the customer. Through this sales channel, the manufacturer provides products directly to the end user. In the market for industrial products, direct marketing frequently uses this kind of channel. Using representatives or merchants under the ownership and control of the manufacturer is another avenue.
b. Provide through dealers: In this scenario, the producer provides the product to the consumer via dealers who function as resellers (producer-dealer-wholesaler-consumer). Industrial products are also distributed through this channel. It is frequently employed since it saves money for manufacturers. In the consumer products market, producers supply consumers through retailers that serve as intermediates or resellers (i.e., producer-retailer-consumer). Despite the lack of a direct contract between producers and consumers, the producer's power and influence over the retail middlemen is reduced through this channel.
c. To start, it exposes suppliers to the buying power of big-box stores, who have the power to arbitrarily alter the prices they offer, requiring significant trade discounts and interfering with the efficient operation of the business.
d. Second, by using producers, sellers, and consumers as two middlemen, it increases the danger of default and bad debts in the consumer products market. Manufacturers sell their products in large numbers to wholesalers, who then break down these orders into smaller orders and ship them to retailers, who finally distribute the products to customers.

**Objectives of Channel of Distribution**

Manufacturers typically choose their distribution channels based on specific marketing goals they hope to accomplish. As per Modern's (2007) report, among these goals are:

a. Sufficient and Adequate Distribution: Producers employ their channels of distribution to reach product distribution levels in line with their objectives for market share, competitive position, and market penetration.
b. The channel's target segments and demographic areas should be accessible through the distribution methods that are being used.

c. Relatively low access and transaction volume costs. When weighing the benefits and drawbacks of a distribution channel, producers aim to choose the one that provides a net advantage or disadvantage. The objective is to optimize the gains made at a specific cost or disadvantage.

d. Expense-effectiveness of customer service: Manufacturers need to strike a balance between the marketing and competitive edge that come from offering an approachable and effective degree of customer service, and the expense of delivering that level of care within their distribution networks.

e. Encouraging resellers: This entails figuring out how to inspire salespeople to make steady, productive sales.

**Limitations in distribution of agricultural products**

One issue with agricultural product distribution is the amount of middlemen that exist between producers and consumers, which lowers the producer's profit margin (John, Oral, Parr, & Richard, 2010). Another issue is incorrect handling and packaging, which exposes the goods to serious physical harm and quality degradation. This lowers the quantity of goods available to customers and raises the cost of the goods that are still available. Additionally, there are insufficient facilities for storing food, particularly perishable items like fish, meat, milk, and vegetables. The product may become unfit for human consumption as a result of physical harm from pest and rodent infestation, as well as a decline in quality, discoloration, and offensive odors.

**Theoretical Framework**

**Theory of Constraints**

Goldratt M. Eliyahu introduced the concept of constraint theory in 1997. This theory's central tenet is that there must be at least one bottleneck in every organization. This idea states that bottlenecks can occur in a variety of locations, depending on the environment of the organization. These locations can be internal (production, warehousing, purchasing, policies, etc.) or external (market). According to this hypothesis, bottlenecks may have an impact on management, marketing, production, etc.

The study is significantly impacted by the theory of constraints (TOC) since the production and distribution of agricultural products are subject to certain limitations. A portion of these distributional restrictions on agricultural products may result from the market's lackluster demand. The lack of space in warehouses or the distance may cause other problems. Certain limitations could result from the mode of transportation selected for the actual produce transportation, whereas other constraints might stem from unfavorable agricultural policies implemented by the government (also known as environmental issues). The distribution of agricultural products will be negatively impacted by any malfunction in these locations.

**Empirical Review**

Ukwueze (2007) carried out an investigation to assess the distribution tactics employed by businesses in the state of Enugu. The primary aim of the research was to assess the manufacturing company's sales tactics. 875 people, including managers, workers, and patrons of Nigerian Bottling Company (NBC) Plc Enugu, took part in the study. In this study, a survey research design was employed. The study's primary conclusion was that NBC's logistics practices promote consumer purchases. The study also discovered that customers' propensity to purchase is influenced by the physical sales channel they select. Given that both studies assess the companies' sales methods, this one is pertinent to the current one. Since survey methodology is used in both research to acquire data, this is equally pertinent to the current investigation. However, the two studies had different goals for sales; the current study focuses on agricultural products, whereas the prior study examined the sales methods of manufacturing enterprises. The study's scope varies amongst them. Whereas the first study was carried out among manufacturing enterprises in Enugu State, this one was performed among farmers in Taraba State.

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A study on the effect of palm product distribution on customer demand in the Nsukka region was carried out by Okeudo (2013). The study's primary goals were to evaluate the effects of shipping palm products to both urban and rural areas and to ascertain the connection between improper product storage and sales and consumption. There were 1,378,408 male and female Nsukka residents in the research population. A survey research design was used in the study. The study's primary conclusions were that the lack of money for producers and middlemen to offer suitable warehousing and storage facilities for palm products has an impact on the quality of those products. It was also shown that middlemen, or sellers, of palm products have difficulty breaking into larger markets in rural areas due to inadequate road and rail infrastructure. This study and the current one are similar since they both looked into how storage facilities and transportation infrastructure, such as roads and trains, affect marketing and consumption. Because it used a similar survey research design, the earlier work is pertinent to the current investigation. They diverge, nevertheless, in two important respects: the prior study examined the effects of product distribution, whereas the current study addresses distribution restrictions. While the research objectives are similar, the research areas are not; Taraba State is the current study area, while the Nsukka region was the site of the original study.

**METHODOLOGY**

In this investigation, a questionnaire survey was employed. Only farm consumers in Ekiti State are included in the target population. 300 people were chosen at random from the population to make up the sample. In addition to personal observation, questionnaires and oral interviews are used as data collection techniques. The acquired data was expressed as straightforward percentages and displayed in tables. At a significance level of 5%, the researcher tested the proposed hypotheses using the Chi-square test statistic (X2).

**DATA ANALYSIS**

**Table 1: Demographic Distribution**

| Option | Frequency | Percentage (%) |
|---|---|---|
| Male | 55 | 22.1 |
| Female | 194 | 77.9 |
| **Total** | **249** | **100** |
| Married | 155 | 62.2 |
| Single | 94 | 37.8 |
| **Total** | **249** | **100** |
| FSCL,WASC/GCE/SSCE | 194 | 77.9 |
| OND, NCE | 47 | 18.0 |
| Higher degree | 8 | 3.2 |
| **Total** | **249** | **100** |
| 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, 2024

Table 4.1 above reveals that 194 (77.9%) are women and 55 (22.1%) are men. These are the leading companies in the market that has been chosen in this area. 155 (62.2%) of the 249 respondents are married, and 94 (37.8%) are not. 194 (77.9%) and SSCE (47.9%) of the 249 responders have OND/NCE, whereas 8 (3.2%) have advanced

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degrees. 249 people replied. Of the respondents, 34 (13.6%) belonged to the 18–25 age group, 42 (16.9%) to the 26–35 age group, and 105 (42.25) to the 46–55 age group. Two percent, or six responders, were older than 55. It is clear that the majority of participants in the market under study are between the ages of 36 and 45.

**Hypothesis One**

$H_0$: Channels of distribution are not effective in the distribution of agricultural products in the area.

| **Option** | **Frequency** | **Percentage (%)** |
|---|---|---|
| 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

| $F_o$ | $F_e$ | $F_o$-$f_e$ | $(f_o-f_e)^2$ | $(o-e)^2/_e$ |
|---|---|---|---|---|
| 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

7.81 is the critical value, which may be found by examining the df at 3 under 0.05.

**Decision**

The null hypothesis is rejected since the computed X2 is 34.07, which is higher than the critical value of 7.81. As a result, we accept the alternative hypothesis, which describes the routes of agricultural product distribution in the region.

**Hypothesis Two**

$H_0$: Inadequate processing plants encourage farmers into large scale production of perishable agricultural products.

| **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

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| $F_o$ | $F_e$ | $F_o-F_e$ | $(f_o-f_e)^2$ | $(f_o-f_e)^2/f_e$ |
|---|---|---|---|---|
| 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

7.81 is the critical value that was determined by examining the df at 3 under 0.05.

**Decision**

We accept the alternative hypotheses, which contend that there is a significant association between storage facilities and agricultural goods in the area and that the null is hence rejected, since the estimated $X^2$ is 28.6384 and more than the critical value of 7.81.

**Hypotheses Three**

$H_0$: Lack of basic infrastructure like access roads has no significance effects on agricultural products distribution

| **Option** | **Frequency** | **Percentage (%)** |
|---|---|---|
| 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

| $F_o$ | $F_e$ | $(F_o-f_e)$ | $(f_o-f_e)^2$ | $(f-f)^2/f_e$ |
|---|---|---|---|---|
| 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

7.81 is the critical value that may be obtained by examining the df at 3 under 0.5.

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**Decision**

The alternative hypothesis, which contends that the absence of essential infrastructure, such as access roads, has a substantial impact on agricultural output, is accepted and the null hypothesis is rejected since the computed $X^2$ of 22.4829 is higher than the crucial or table value of 7.81.

**CONCLUSION**

The study comes to the conclusion that one of the key components of the marketing mix, logistics, is essential to the region's agricultural output marketing. Because agricultural produce is needed by consumers and customers worldwide as raw materials, semi-finished products, or finished commodities for production, farmers' labor must be encouraged. Produced items should not be wasted.

**RECOMMENDATIONS**

1. The researcher recommended the following actions to motivate farmers to boost output, supply enough food for the expanding population, and give consumers and producers access to raw materials: Governments, the commercial sector, and people all need to band together to promote the year-round production of agricultural goods.
2. To facilitate the transportation of goods by farmers and intermediaries from production and harvesting areas to nearby and far-off markets, the government should build highways and provide contemporary motorboats.
3. The government needs to create sensible measures to support farmers and channel members. To entice channel members, local government authorities could do this by lowering transportation fees. Farmers will be encouraged when channel members are encouraged.
4. Equal distribution of agricultural inputs, such as pesticides, fertilizers, and other products that boost output, should be guaranteed by governments.
5. All levels of government should collaborate to build access roads so that farmers and middlemen may move their goods to different markets. Farmers will be greatly encouraged by this.

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