

Socio-Economic Implications of Essential Commodities' Price Differentials in Riverine and Hinterland Areas of Nigeria

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Abstract

The study was a critical evaluation of the handicaps in transporting and distributing manufactured food products in riverine areas of Nigeria. It is occasioned by the incessant media reports of high costs of manufactured items and services or even outright shortages of same in riverine communities in Nigeria, which often fuel the Niger-Delta social crisis. The objectives included to: determine the state of transportation in the riverine areas of Nigeria; ascertain the effect of the transportation modes used for effectively distributing manufactured goods in the riverine areas and determine the factors inhibiting the transportation system from effective distribution in the area. Data were analyzed with Likert's 5-points scale and measure of central tendency (Mean). Results obtained show that water transportation in the riverine areas of Nigeria is still largely undeveloped, not effective, not easily accessible and affordable, not attractive to private investors, making costs of food items high. It was then recommended that incentives be provided by government to develop and boost water transportation in riverine areas of the country.

Keywords: Water Transportation, Distribution, Manufactured Products, Riverine Areas, Nigeria.

1. Background to the Study

Transportation in the riverine areas of Nigeria has been anything but satisfactory. Traditionally, the people over the years have had to depend on local boats most atimes rowed by women with babies strapped at their backs to the local markets to sell their farm produce and purchase manufactured products for consumption and resale back at home. Those who can afford it ply to and fro the dangerous waterways by engine-powered flying boats, to the sea shores and or offshore markets to purchase manufactured goods that came in from the big cities. According to media reports, all these lead to escalated costs of manufactured goods and services, in comparative terms, to prevailing prices in the cities and hinterland. For instance, when petroleum fuel price was selling at an official price of N65 per litre in hinterland areas of Nigeria, people in the Niger Delta areas were buying same at N220 per litre, notwithstanding that the product is extracted from their backyards. Today that petrol is selling at an official price of N145 in the country, it is sold at almost N450 in some riverine areas. Christopher (1997:2) argued that in today's turbulent market place, it is no longer sufficient to have attractive products, competitively priced and creatively advertised, it must be effectively distributed through the help of transportation. Effective transportation planning offers opportunities for manufacturing firms to minimize purchasing and other costs in an organization, which in turn help to reduce the prices of their goods and services. Transportation is also known to play a key role in effective distribution of manufactured goods. Efficient transportation planning and management also contributes significantly to organizational profitability and growth (Ehikwe, 2002).

How does this problem hold sway in the manufactured food industries sector in Nigeria? Do the key players find it easy transporting and distributing their products and services in the riverine areas of Nigeria? Are the transportation modes employed in their distribution system effective in reaching a larger proportion of the target consumers? Are there socio-cultural or technological factors inhibiting effective transportation and distribution in the area? Its distribution depots and dealers are spread all over major cities in the country. How far are the riverine areas covered in its transportation and distribution system? This study will try to find out.

Meanwhile, Gil and Allerheiligen (1996) assert that channels of distribution vary in their degree of organization from loosely organized channels which routinely process goods, as might be expected with channels for convenience goods (conventional channels), through consensus systems, which are organized by the co-operation of channel members, to highly organized systems typified by vertically integrated channels (corporate systems), or those formalized by contractual agreements (contractual systems). The success of a channel's marketing effort, however, depends on the continued co-operation of the channel members (Gil and Allerheiligen, 1996). Bowersox et al (1981:114) noted that co-operation among channel members is a necessary and vital behaviour. Sustained co-operation is required so that the channel will operate efficiently and all channel members will achieve their goals.

2. Statement of the Problem

Incessant complaints and sometimes protests have been recorded from the riverine populace of Nigeria, over what they alleged as astronomical costs of manufactured goods like kerosene, fuel, diesel, milk, refined sugar, beverages, rice, beans and other food products, in comparison to their prices in the hinterland. Some manufacturers defended that the costs of transporting goods through the waterways is quite high compared to what obtains in the hinterland. But Steve (2008) argues that this is rather due to the non-development of water transportation modes in Nigeria, because water transportation, according to him, is still one of the cheapest source of transportation in the world. Is the reverse the case in Nigeria and how have food manufacturing firms fared in reaching out to its riverine populace? That was the major focus of this study.

3. Objectives of the Study

The study sought to:

- (i) Determine the current state of transportation in the riverine areas of Nigeria.
- (ii) Ascertain the effect of the transportation system used by companies in distributing goods and services to a significant percentage of the riverine populace (consumers).
- (iii) Determine the factors inhibiting the development of modern transportation system for effective distribution in the riverine areas of Nigeria.

4. Review of Related Literature

4.1 Theoretical Framework

The theoretical underpinning for this study hinges on the economies of low cost transportation as a basis for efficient and effective distribution in difficult terrains like the rural and riverine areas of Nigeria.

4.1.2 The Economies of Low Cost Transportation

The principles of transportation economies holds that it is less expensive per unit of weight to move a large shipment than it is to move a small shipment and it is less expensive per unit of distance to move a shipment a long distance than a short distance (Gil and Allerheiligen, 1996). It is less expensive per unit of weight to move a large shipment than it is to move a small shipment and it is less expensive per unit of distance to move a shipment a long distance than a short distance. Large shipments generally move at lower rates than do small shipments. That is because a large shipment tends to utilize the capacity of vehicles more completely, requires less frequent handling or terminal operations and requires no more paperwork than a small shipment. Shipments moving long distances generally move at a lower cost per mile than shipments moving short distances. That is because the costs associated with making up and originating shipments and receiving and handling out shipments in terminals (terminal costs) are independent of costs related to distance (line haul costs). When products are shipped longer distances, terminal costs which are fixed in nature are spread over a greater number of mileage units which are variable in nature, and the average cost, on a per mile basis, will be less than for a shorter move. The result of these transportation cost functions is that it is of obvious benefit for channel members to consolidate co-operatively smaller shipments into larger, more economic shipments or otherwise move products in large versus small lots. Similarly, it is economically beneficial to move products in fewer, longer distance moves. Since most manufacturing companies in Nigeria complain of high costs of shipment of their goods in the riverine areas of the country in comparative terms to the hinterland areas, the aforementioned transportation strategies could definitely help them in containing the problem.

4.3 Distribution and Consumers: The Nexus

According to Nariu (2008), consumers gather information about quality either by prepurchase investigation—search, or by actual trial consumption—experience. Consumers' information-gathering behavior determines to some degree the appropriate physical distribution paths and methods of sales promotion. Nelson (1970) agrees that there are two ways of gathering information: search and experience. Here, search is defined as making inquiry about goods before purchase, and experience means gathering information by consuming goods. In their own study, Bucklin et al (2008) found out that from the individual buyer's perspective, an increase in distribution intensity implies that he or she may find an outlet for the brand closer to his or her location and may find the brand available from more outlets within a given radius from his or her location. This led Bucklin et al (2008) to propose a multi-attribute conceptualization of distribution intensity as captured from a buyer-centric standpoint. The first attribute pertains to locational convenience, or accessibility; the second attribute pertains to the concentration of outlets near the buyer; and the third attribute pertains to the spread of those outlets from the buyer's perspective. Nigerian organizations can copy this model for effective distribution in the country's riverine areas. Even the Arab countries of the world are not immune from this distribution style. For instance, Boyd et al (1961) observed that some 80 to 90 per cent of the total expenditure of rural families is for food, and the remaining 10 to 20 per cent is spent for tobacco, tea, coffee, kerosene, and basic clothing.

4.4 Supply Chain Management (SCM)

Baofeng (2012), said that supply chain management (SCM) is the systematic and strategic coordination of traditional business functions. In addition, SCM represents the flow of materials, products, information and money within a particular company, as well as across businesses from suppliers to manufacturers to customers in the supply chain (SC) to improve the long-term performance of the companies and the SC as a whole. Supply chain integration (SCI) is one of the most important aspects of SCM. For effective SCM, internal integration improves external integration and internal and external integration directly and indirectly enhance company performance (Baofeng, 2012).

Sussams (1991), observed that logistics is a holistic science. It does not look at the individual parts of a system in isolation; it looks at the ways in which the parts are connected and suggests better connections. It aims to control the total flow as efficiently as possible, that is, with the least possible consumption of energy consistent with the objectives of the system.

5. Methodology:

For the methodology, a combination of primary and secondary data is used. The primary data were analyzed with Likert's 5-points scale and measure of central tendency (Mean). The area of study is seven typically core riverine communities in Nigeria (Bonny, Brass, Buguma, Nembe, Ogoni, Ijaw and Oron) from 4 States: Rivers, Bayelsa, Delta and Akwa-Ibom respectively. The population of study were adult male and female consumers in the 7 riverine communities, estimated at 1.3million people. The sample frame included traditional rulers, market women, fishermen, traders and students in the 7 riverine communities. Instrument for primary data collection was questionnaire and this was hand-delivered and hand-collected through students' research-assistants from the affected riverine communities. From the working population, a sample size of 400 was arrived at, using the Taro Yamane's formular at 5% margin of error and 95% level of confidence.

6. Data Analysis

6.1: Respondents' Demographic Data

The respondents' demographic data show that 61.25% were male, while 38.75% were female. 31.25 % were in the age bracket of 21 to 30 years, another 31.25% in the age range of 31 to 40 years. 25 % were between 41 to 50 years, while the remaining 12.50% were either 50 years or above.

6.2 Data Presentation and Analysis Based on 5-points Likert Scale

Table 1: Test of Objective 1: To determine the current state of transportation in the riverine areas of Nigeria.

S/N	Questions	SA	A	UD	D	SD	Mean	Decision
1	Transportation systems in the riverine areas of Nigeria are quite effective	12 (60)	15 (60)	33 (99)	120 (240)	140 (140)	1.872	Disagree
2	People travel quite easily in and around the riverine areas of Nigeria	13 (65)	17 (68)	120 (240)	127 (254)	132 (132)	1.9125	Disagree
3	Costs of transporting goods, services and people around the riverine areas are quite affordable	11 (55)	14 (56)	27 (81)	130 (260)	138 (138)	1.84	Disagree
	Grand Mean =						1.875	Disagree

Source: Field Survey, 2016

Test Statistics = Measure of Central Tendency (Mean)

DECISION RULE:

If Mean < 2.5, the Respondents Disagree

If 3.5 < Mean ≤ 2.5, the Respondents are Undecided

If Mean ≥ 3.5, the Respondents Agree

Result Interpretation

With a Grand Mean of 1.875, the result indicates that transportation in the riverine areas of Nigeria are not effective, difficult and not quite affordable.

Table 2: Test of Objective 2: To ascertain the effect of the transportation system used by companies in distributing goods and services to riverine consumers in Nigeria.

S/N	Questions	SA	A	UD	D	SD	Mean	Decision
4	Essential commodities like manufactured food items are easily found in my community	41 (205)	47 (188)	53 (159)	80 (160)	99 (99)	2.53	Not Certain
5	I travel long distances to purchase essential commodities like manufactured food items in number 4 above and others.	45 (225)	47 (188)	58 (174)	100 (200)	70 (70)	2.68	Undecided
6	I buy essential commodities like manufactured food items at prices affordable and close to their prices in the cities/hinterland areas of Nigeria	51 (225)	84 (336)	56 (168)	39 (78)	90 (90)	2.90	Not Certain
	GRAND MEAN =						2.70	Indeterminate

Source: Field Survey, 2016.

Test Statistics = Measure of Central Tendency (Mean)

DECISION RULE:

If Mean < 2.5, the Respondents Disagree
 If 3.5 < Mean ≤ 2.5, the Respondents are Undecided
 If Mean ≥ 3.5, the Respondents Agree

Result Interpretation

With a Grand Mean of 2.70, the result indicates that respondents did not agree that the transportation system used by companies in distributing goods and services to riverine consumers in Nigeria is not yet effective.

Test of Objective 3: To determine the factors militating against development of the modern transportation modes for effective distribution in the riverine areas of Nigeria.

S/N	Questions	SA	A	UD	D	SD	Mean	Decision
7	Government negligence is responsible for the state of undeveloped transportation modes in the riverine areas of Nigeria	97 (485)	101 (404)	53 (159)	20 (40)	49 (49)	3.55	Agree
8	Inadequate private sector participation and their lack of interest is behind the problem	98 (490)	103 (412)	50 (150)	20 (40)	49 (49)	3.57	Agree
9	High technological costs and unavailability of the venture in riverine areas is responsible	95 (475)	107 (428)	51 (153)	37 (74)	30 (30)	3.63	Agree
	GRAND MEAN =						3.58	Agree.

Source: Field Survey, 2016

Test Statistics = Measure of Central Tendency (Mean)

DECISION RULE:

If Mean < 2.5, the Respondents Disagree
 If 3.5 < Mean ≤ 2.5, the Respondents are Undecided
 If Mean ≥ 3.5, the Respondents Agree

Result Interpretation

With a Grand Mean of 3.58 there is agreement that major factors responsible for the under-developed transportation system in the riverine areas of Nigeria include; government negligence, inadequate private sector participation accruing from the high technological costs involved and the fears of unviability of water transportation business in the area.

7. Summary of Results

A summary of the analysis of data in this study shows that:

- (1) Transportation in the riverine areas of Nigeria is not currently effective.
- (2) That the transportation system used by companies in distributing goods and services to riverine consumers in Nigeria is not yet effective. People still travel long distances to do their purchases and do not travel easily around the areas to source for manufactured goods that usually come in from the big cities.
- (3) Costs of transporting goods, services and people around the areas are near-prohibitive.
- (4) Hence, essential commodities like salt, soap, beverages, clothing, cosmetics, and many more are not easily found in riverine areas of Nigeria.
- (5) People travel long distances by sea to source for the essential commodities and buy such products at prices higher than what obtain in the hinterlands.
- (6) Major factors responsible for the under-developed transportation system in the riverine areas of Nigeria include; government negligence, inadequate private sector participation accruing from the high technological costs involved and the fears of un-viability of water transportation business in the area.

8. Discussion

Efficient transportation system is a sine qua non for effective transportation and distribution of manufactured essential food items in any society. The cries of riverine communities' citizens of Nigeria over high costs of commodities in their markets could be addressed through efficient transportation and distribution. This is possible because water transportation is still one of the cheapest transportation modes in the world. Nigerian manufacturing firms, especially those in the food and essential commodities sub-sector must discover how their counterparts in other parts of the world achieved success in this area and try to align to that.

This study reveals that collaboration in distribution and outsourcing of transportation contracts and even distribution are some of the result-oriented measures for addressing the problem. But that notwithstanding, there is need for a modernization of water transportation in Nigeria, so as to make it attractive both to the users and private investors.

9. Conclusion

Availability and accessibility of food items (both manufactured and non-manufactured) is the right of the citizens of every country. Nigerian riverine populace deserves no lesser treatment. Hence, factors that make manufactured

food items to be costlier in their markets than in the hinterland, need to be addressed in order to arrest incessant conflicts/crises induced by socio-economic problems in the area.

10. Recommendations

Based on the findings of this study the following recommendations are proffered:

- (i) The Nigerian waterways need to be developed and maintained for easy transportation flow in the riverine areas of the country.
- (ii) More water transportation facilities like engine boats, flying boats, ferries and other smaller ships should be provided by the government in riverine areas of the country to private sector transporters.
- (iii) Soft loans and other credit incentives should be given to investors wishing to go into water transportation business in Nigeria.
- (iv) Manufacturing companies that distribute their items in the riverine areas of the country should find ways of going into collaboration arrangements in their transportation and distribution functions in order to take advantage of economies of large scale transportation/distribution.
- (v) The manufacturing companies should also explore the opportunities inherent in the outsourcing of the transportation and distribution of their goods in the riverine areas to specialists in those areas.

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