Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.4, No.17, 2013

The Effect of Cost of Distribution on the Pump Price of Petroleum Products in the South East Nigeria

Ehikwe Andrew Egede Ph.D, Ngwoke, Oliver Uzonna
Department of Marketing, Faculty of F Business Administration, University of Nigeria, Enugu Campus
angrede2006@yahoo.com

Abstract
The public actors in the petroleum industries are the Ministries, Department and Agencies (MDAs) such as the Nigerian National Petroleum Corporation (NNPC), Department of Petroleum Resources (DPR), Pipelines and Products Marketing Company Ltd (PPMC), Petroleum Equalization Fund (mgt) Board (PEF), Petroleum Products Pricing Regulatory Agency (PPPRA) among others, while the private actors consist of both indigenous and expatriate firms such as independent petroleum marketers and major marketers. Both ensure that consumers got the products at the right quantity, right quality, right place and at right price. This paper aims to find out the effect of cost of distribution on the pump price of petroleum products. The only two government owned petroleum depots in the South East are located in Emene Enugu and Osisioma Aba, though moribund which compels marketers to travel very far away to source these essential commodities. Pipelines are the best and cheapest mode of distributing these products but, all have been vandalized but marketers bridge the products with trucks. The order price of products, transport freight, associations/unions levies and dues; rent, wages, salaries and allowances; spare parts, electricity, generator bills and maintenance, bank charges and interest rates and insurance premium; extortions from government officials have remain regular costs of distribution.
Keywords: Distribution, Price, Petroleum Products, South East Nigeria

Introduction

The South East region of Nigeria is made up of five states namely Anambra, Abia, Ebonyi, Enugu and Imo. Of all these states, Abia, Imo and recently Anambra belong to oil producing states of Nigeria. Irrespective of the fact that the three states in the region contribute meaningfully to the oil production in the country, no refinery was established until August 2012 when President Goodluck Jonathan commissioned the first ever privately owned petroleum refinery (Orient Petroleum) in Nigeria situated at Aguleri Otu in Anambra state which is yet to commence refining operation. Both major and independent petroleum marketers in the South East of Nigeria source these petroleum products; namely, premium motor spirit (PMS), Automotive Gas Oil (AGO) and Dual purpose Kerosene (DPK) from PortHarcourt in Rivers State, Calabar in Cross River State, Warri in Delta State all from South South. They also procure these products from Lagos State, Ibadan in Oyo State of South West and other petroleum loading depots scattered in other parts of the country.

Unfortunately, the only two depots located in Enugu and Abia states were moribund and supposed to have been servicing the demand of the South East region of Nigeria. This sorry state of the two depots was occasioned by the incessant activities of pipeline vandalism in this area. All the efforts made by the Nigeria National Petroleum Corporation (NNPC) in conjunction with security agents to restore and protect the vandalized pipeline proved abortive. This has made the petroleum marketers from this region to procure their petroleum products using petroleum tanker trucks to load from far and wide. Vandals, in attempts to get petroleum products at all cost, break pipelines, resulting in the interruption of free flow of petroleum products. This hampers products supply, expose people, the flora and fauna in the environment to destructive effects.

Petrol, kerosene, diesel, Aviation fuel and fuel oils are the more popular products associated with the Nigerian National Petroleum Corporation. There are series of intermediate and other products churned out from the corporation’s refineries and petrochemicals plants, and which aid small and medium scale industrial growth and development. For the purposes of this paper, the focus is on the distribution of Petrol, kerosene and diesel. Consequent upon the non functioning of the two NNPC petroleum depots located at the Enugu and Abia States, petroleum marketers encounter serious problems in the procurement of these products which has actually necessitated this study. Distribution is the marketing function that ensures that goods and services are made available at the points of need, for the consumers (Nwaizugbo 2004:150). While corroborating this assertion, Perrault/Cannon and McCarthy (2010:248) state that distribution also known as place is concerned with making goods and services available in the right quantities and locations, when and where on demand by customers. Distribution is the marketing variable which creates the time, place and possession utilities. It has two main components which includes: physical distribution and channel of distribution.

The Cambridge International Dictionary of English defines cost as “that which is given, needed or lost in order to obtain something. Cost can be considered as an expense incurred in the course of any business transaction and it could also be an asset as in goods and properties purchased (Ehikwe 2002: 102). Also, cost could be seen as a

measure of expenditure which helps to illuminate the operational performance when compared with revenue proceeds from sales. Cost has a classification; it could be direct or indirect costs; it could be overhead cost, sunk costs, common and joint costs, fixed cost, variable cost, operating or service cost etc.
Distribution cost therefore, involves all the costs incurred in an attempt to make goods and services available to the target market. Essentially, price is that amount of money charged and paid for a product or service. Put simply, "price is the value on a product". To the seller it is the amount of money at which he will be willing to exchange his products with buyers. It represents an income to him. To the buyer the price is the cost of acquiring a product" (Udeagha and Okeke, 1994:123). In support of this statement, Kotler (1994:347) broadly defined price as "the sum of values that consumers exchange for the benefits of having or using the product or service. According to Lanzillotti in Onah and Thomas (2004:413), business adopts a pricing policy with the objectives of:

1. Pricing to achieve a target return on investment;
2. Stabilizing of price and margin;
3. Pricing to realize a target market share;
4. Pricing to meet or prevent competition;
5. Pricing to maximize profits.

Nigeria's economy is influenced externally by the instability of global crude oil prices and internally by incessant upward reviews of official pump prices of petroleum products by successive governments. The latter became a national issue since 1975/76 when the pump price of petrol (PMS) was hiked from 9 kobo/litre to 15kobo/litre by the Murtala/Obasanjo regime. In Nigeria, Federal government through Petroleum Products Pricing Regulatory Agency (PPPRA) fixes pump prices of petroleum products. As at today, the official pump prices of petrol (PMS) is N97.00 per litre, kerosene (DPK) stands at N50.00 per litre, while Diesel (AGO) is partially deregulated, thus, deregulation of petroleum industry means the opening up of the downstream sector of the petroleum industry to competition among all players in the industry. It means allowing every player the opportunity to refine or import and market petroleum products for use in the country in so far as the products so refined or imported meet quality specifications. It involves removal of entry barriers into the supply and distribution of petroleum products. Under the policy of deregulation, no qualified and competent person is prevented from participating.

Statement of the Problem

Both major and independent petroleum marketers in the South East region of Nigeria have had course to lament over the outrageous cost of distribution of these essential products (PMS, AGO and DPK) and its negative effect on the pump prices. The attempt to surmount these challenges has compelled marketers in utter disregard to the official pump price to strangulate the final consumer by hiking the price to highest peak.

Objectives of the Study

The objectives of this study are as follows:

1. To ascertain various costs of distribution incurred by petroleum marketers in the south east of Nigeria
2. To find out whether these costs have negative effect on the pump price of petroleum products
3. To identify how its effects on price impacts on the economy
4. To investigate ways these costs could be reduced
5. To proffer suggestions on the way forward

Research Questions

The study is guided by the following questions:

1. What are the various costs of distribution incurred by petroleum marketers in the effect on the south east of Nigeria.
2. Do these costs have negative effect on the pump price of petroleum products
3. Is there functional petroleum refinery and depots in the South East of Nigeria?
4. What modes of transportation are available for petroleum marketers in the South East?
5. What are the costs of distribution incurred by petroleum marketers?
6. Is there any means these costs could be avoided or reduced?
7. To what extent does effect of cost of distribution on price of petroleum products affect the economy?

Hypothesis

This hypothesis is postulated for the study:

Ho: There is no significant relationship between the costs of distribution and the pump price of petroleum products in South East Nigeria.

Conceptual Frame Work

The Historical Perspective of Nigeria Oil Industry.

Oil was discovered in Nigeria in 1956 at Oloibiri in the present Bayelsa state after a century of searching (Dharam, 1991). In 1958, Shell Bp started commercial production and exportation of oil at the rate of 5,000 barrels per day. This production rate sooner than later, doubled within a year. With the sole concession policy abandoned and exclusive exploration rights introduced to encourage companies of other nationalities in line with a policy of accelerating the pace of exploration. In 1961, Mobil Gulf (now Chevron), Agip, Safrap (now Total Fina Elf), Tenneco and Amoseas (now Texaco) joined in the search for oil, both onshore and offshore with considerable success.

Oil products are derived with crude oil and they include:

- Premium motor spirit (PMS or petrol)
- Automotive Gas Oil (AGO or diesel)
- Household kerosene (HHK) or Dual purpose Kerosene (DPK)
- Aviation Turbine Kerosene (ATK or Jet-AI)
- Industry Fuel
- High Pour Fuel Oil (HPFO)
- Low Pour Fuel Oil (LPFO)
- Liquified Petroleum Gas (LPG)
- Bitumen
- Base oil

Oil products are basically used in industries for production of goods and services and they are also used domestically for personal consumption in which the greater percentage of it comes from developing countries. Arinze (2011), asserted that the oil industry is very important to the Nigerian economy, as it provides among other things the greatest part of the foreign exchange earnings and total revenue needed for socio-economic and political development of Nigeria.

In support of this statement, Adeleja (2006), stated that oil occupies an important place and, plays a pivotal role in the Nigerian political economy. According to Obi (1997), oil accounts for 95% of export earnings and over 80% of national revenue. In the last three decades ,the petroleum industry has been of strategic importance in the Nigerian economy accounting for as high as 78 percent of gross domestic product and up to 90 percent of the country's total foreign exchange earnings (Ehinomen and Adeleke, 2012).

The petroleum industry can be classified by type of actors. The actors in the Nigerian oil industry are made up of both private and public organizations. The public actors are the ministries, Departments and Agencies (MDAs) such as the Nigerian National Petroleum Corporation (NNPC), and its subsidiaries, the Department of Petroleum Resources (DPR), the Petroleum Products Pricing Regulatory Agency (PPPRA), Petroleum Equalization Fund (Mgt) Board (PEF) among others. The private actors consists of both indigenous and expatriate firms.

The indigenous actors comprises of private independent marketers. The concept of independent petroleum products marketing was introduced in 1978 with a view to giving indigenous independent marketers opportunity to operate in the oil industry. According to Edoreh (1997), in 1979 a year after the scheme of independent marketers was introduced, there were not more than 20 "independent marketers". By 1983, the number had risen to 1000. As at today, the number of indigenous independent marketers are well over 7,948 (according to the petroleum product pricing regulatory Agency (PPPRA), 2010). Independent petroleum marketers control about 40% of the market.

The foreign actors which are multinational otherwise referred to as the major oil marketers consists of the following:

- African Petroleum PLC
- Mobil Oil Nigeria PLC
- MRS Nigeria PLC
- Con oil plc
- Oando Nigeria Plc
- Total Nigeria plc

Table 1. Nationwide retail outlets 2009 census-summary distributed by zone

Geo-Political Zone	Marketer type Major	Marketer type Independent	Total No of Outlets
North central	355	1318	1673
North East	163	726	889
North West	265	1023	1288
South East	194	1227	1421
South South	224	1519	1743
South West	1017	2135	3152
TOTAL	2218	7948	10166

Source: Petroleum Products Pricing Regulatory Authority Available at www.pppra-nigeria.org

These were formerly known and referred to as big 8 until recently due to acquisition and merger, has now become only 6. The six major marketers control about 60% of the market. NNPC has 18 mega stations nationwide as at June 2010 while the major marketers have 2218 outlets. There are two major classification of petroleum industry by sector. They are the "upstream" and downstream sectors. Activities in the upstream sector consist of the following:

- Exploration and production
- Crude oil transportation and storage
- Geodetic survey
- Geological activities
- Drilling operations
- Seismic data acquisition
- Civic works such as site surveys and preparation of drilling locations

Activities in the Downstream sector include:

- Crude oil and gas conversion into refined and petrochemical product
- Gas treatment
- Transportation and distribution of refined products

In view of the strategic importance of the industry in the economy, in 1999, the federal government formulated strategic objectives for the effectiveness of the industry (Nigerian National Petroleum Corporation (NNPC), Statistical Bulletin, 2006) as follows:

- Maintaining self sufficiency in refining
- Ensuring regular and uninterrupted domestic supply of petroleum products at reasonable price
- Establishing facilities and infrastructure for the production of refined product targeted at the export market and support domestic petrochemicals
- Providing gainful employment and enabling Nigerians to acquire technical known-how in refining and distribution business.

It is for effectiveness of the industry that the above listed strategy was made as the guiding principles according to Ehinomen et al (2012). In spite of the efforts of government, the industry was still characterized by series of problems. The problems include the following:

- Scarcity of petroleum products leading to long queues at the service station in some states and town of the country at regular intervals;
- Low capacity utilization and refining activities at the nation's refineries;
- Rampart fire incidents as a result of mishandling of products;
- Pipelines vandalisation.
- Large scale smuggling due to unfavourable economic product at home and higher boarders prices with the neighbouring countries; and
- Low investment opportunities in the sector

As highlighted in the NNPC bulletin (2006), the responsibilities of the oil marketing companies are as follows:

- To contract for petroleum products supply from refineries in line with prescribed regulations.
- To import, supply and market petroleum products throughout the country
- To contract for capacities from logistics companies (jetties, pipelines, depots) in line with regulations and pay prescribed tariffs
- Ensure that marine tanker vessel size, quantity of products and conditions of vessel meet prescribed regulations
- Ensure the onward delivery of petroleum products from regional depots to retail stations
- Ensuring that road tankers comply with stipulated regulations

- Ensuring holding of strategic petroleum stocks in regional depots, refinery tank farms or company owned depots in line with regulations.

In discharging these responsibilities, marketers will be able to distribute the products effectively, and still make the normal profit.

Distribution Defined

This is the marketing function that ensures that goods and services are made available at the points of need, for the consumer (Nwaizugbo 2004:150). According to Onah et al (2004), distribution is the actual movement of goods and services from the source of supply to the ultimate consumer. Distribution makes the time, place and possession of utilities possible, and this goes to support the statement that production is not complete until the goods produced gets to the final consumer. Apart from the cost of raw materials, the cost of distribution is a very significant item in the final price of any product. Distribution system has two main components as follows: Chanel of distribution and physical distribution.

Private Petroleum Depots in Nigeria

There are at least 40 petroleum private depots located along the coastal line of Lagos, Delta, Rivers and Cross River States of Nigeria. There exist several tank farms for storage of these petroleum products which supplement the short supply from 21 NNPC Depots. The concentration of the depots in these areas were informed by their closeness to the high sea (Atlantic Ocean).

Most of these depots get their products from PPMC who buys from the licensed importers of petroleum products or locally refined from NNPC. For a product like A.G.O that has been fully deregulated, these marketers import directly because there is no subsidy attached.

In Lagos State, there exist the following depots:

1. Nipco Plc
2. MRS Plc
3. Capital Oil
4. Falawiyo
5. Oando
6. Zenon
7. Eterna
8. Total Plc
9. A Z Oil
10. Mobil Plc
11. Orbat
12. Honeywell
13. African Petroleum (Ap)
14. Con Oil
15. Heyden Oil

Private depots in Delta State

1. Matrix located at Warri
2. Rain Oil located at Oghara
3. Cybernatics International located at Oghara
4. Moraga Mortain located at Sapele

Private Depots in Calabar (EPZ Area)

1. North West
2. Ontario oil and gas
3. Grand petroleum
4. Ibafonoil and gas
5. Kings crown
6. Tempogate
7. Ever oil
8. Phonies oil
9. Honeywell oil

The following depots operate in River State:

1. Shorelink
2. Sigmund
3. Con oil plc
4. Oando plc

5. Masters Energy

Channel of Distribution of Petroleum Products

According to Nwaizugbo (2004:150), channel of distribution or distribution channel is the path a product takes as it moves from the producer to the ultimate consumer. These are made up of individuals and organizations, which perform one activity or the other that would ensure movement of the product and exchange of its title from the production to the final consumer. Distribution channel is the route or course taken in transferring the title to a product (manufactured or otherwise) from its producer or first owner to its last owner, an industrial user or the ultimate consumer.

Petroleum products could be regarded as consumer or industrial products. It all depends on the intention of the buyer. If the petroleum product is meant for someone's personal car or for domestic use like kerosene then it is classified as consumer product. But if it is for industrial purchaser with the purposes of industrial machines or commercial vehicles, then it could be seen as an industrial product. This analysis becomes necessary to help us appreciate the number of channel levels or members involved in the distribution.

Kotler (1994:396), listed the following marketing functions that are performed by the members of the channel.

a. **Information**: Gathering and distributing marketing research and intelligence information about actors and forces in the marketing environment needed for planning and aiding exchange.
b. **Promotion**: Developing and spreading persuasive communications about an offer.
c. **Contact**: Finding and communicating with prospective buyers
d. **Matching**: Shaping and fitting the offer to the buyer's needs, including such activities as manufacturing, grading, assembling, and packaging.
e. **Negotiation**: Reaching an agreement on price and other terms of the offer so that ownership or possession can be transferred.
f. **Physical distribution**: transporting and storing goods
g. **Financing:** acquiring and using funds to cover the costs of the channel work.
h. **Risk taking**: assuming the risks of carrying out the channel work.

The companies that add value to a product that is eventually bought by an individual or an organization comprise a value chain. "A middleman is a business firm that renders services related directly to the sale and/or purchase of a product as it flows from producer to consumer (Etzel, Walker and Stanton (2007:378). In business, middleman could be referred to as a man or woman. A middleman either owns the product at some point or actively aids in the transfer of ownership. The basis through which middlemen are classified concerns the takin or not of title to the products being distributed. The merchant middlemen are grouped into two: wholesalers and retailers. Agent middlemen never own the products, but they do arrange the transfer of title or ownership.

Etzel et al (2007:380), define a distribution channel as "consisting of the set of people and firms involved in the transfer of title to a product as the product moves from producer to ultimate consumer or business user. A channel of distribution always includes both the producer and the final consumer for the product in its present form as well as any middlemen such as retailers and wholesalers. The channel for a product extends only to the last person or organization that buys it without making any significant change in its form. When its form is altered and another product emerges, then a new channel is started.

Once the refined petroleum products leave the refinery, they reach consumers through one or more marketing channels. Brooks, Dallas, Kelly, and Sumeet, (2007), assert that the final step in the supply of refined petroleum products includes two components: wholesale distribution (from product terminals to retail outlets) and retail distribution (to final consumers).

Brooks et al (2007) further stated that there are four primary gasoline marketing channels for wholesale distribution. Three of these constitute direct distribution of product including:

- Refiner – operated retail outlet: Refiners directly distribute gasoline to their own retail outlets.
- Lessee dealer: Retail outlets are owned by the wholesale distributors but leased to a gasoline dealer.
- Independent retailer: Retail outlets are owned and operated by independent "open" dealers.

The fourth channel comprises indirect distribution of product:

- Jobber: Distributors purchase directly from refiners or importers and then sell products to retail outlets.

Methodology

This study is limited to the major and independent petroleum marketers in the South East geopolitical zone of Nigeria. It therefore excludes the NNPC retail outlets. This is basically because the NNPC retail outlets dealers enjoy some privileges along the channel movement, which exempts them from incurring certain costs.

1200 petroleum marketers were sampled across the five states of south east, using questionnaires. Some transporters were also interacted with. Copies of the questionnaires were distributed equally and simultaneously, to minimize a sampling bias that might arise.

Chi-square was utilized in the test of our hypothesis

Analysis and Test of Hypothesis

Analysis of Responses

1123 of the 1200 copies distributed across the five states (Abia, Anambra, Ebonyi, Enugu and Imo), were retrieved. These questionnaires were distributed to 700 independent petroleum marketers which operate at NNPC Depot Emene under the aegis of IPMAN, during their monthly general meeting at Emene Enugu which covers Enugu, Anambra and Ebonyi States. Again questionnaires were distributed to 300 independent petroleum marketers operating at NNPC Depot Osisioma Abia that covers Abia and Imo States respectively in their meeting at Aba. Then, 200 questionnaire were distributed to major petroleum marketers during their zonal meeting under the umbrella of Petroleum Dealers Association of Nigeria (PEDAN) at Enugu.

Table 4: Costs Incurred During Distribution

Factors	Frequency	Percentage
Order price of product	393	35.0
Transport freight	314	28.0
Associations/unions levies and dues	158	14.1
Rent, wages, salaries and allowances	17	1.5
Spare parts, electricity, generator bills and maintenance	106	9.4
Bank charges and interests, and insurance premium	129	11.5
Extortions from government officials	6	0.5
Total	1123	100

Source: Field Survey, 2012

Test of Hypothesis

The hypothesis was tested, using chi-square

H_i: There is no significant relationship between the cost of distribution and pump price of petroleum products in South East.

Using chi-square (x^2) test (please see workings below), the calculated x^2 (784.85) is greater than the x^2 critical value (12.6) at $\alpha = 0.05$ level of significance, and degree of freedom of 6.

The null hypothesis above is therefore rejected, signifying that a significant association truly exits between the cost of distribution and pump price of petroleum products.

Workings for the Hypothesis

Chi-square (Kinnear and Taylor 1991) is used, as well as outcome in Table 1, thus: $x^2 = \frac{\sum_1 (O_i - Ei)^2}{E_i}$

Table 5. Workings for H_o

Factors	**Frequency (O_I)**	**Stipulated (E_i)**	**($O_i - E_i$)**	**$(O_i - E_i)^2$**	**$\frac{(O_i - E_i)^2}{E_i}$**
Order price of product	393	160.4	232.6	54102.76	337.30
Transport freight	314	160.4	153.6	23592.96	147.09
Associations/unions levies and dues	158	160.4	-2.4	5.76	0.036
Rent, wages, salaries and allowances	17	160.4	-143.4	20563.56	128.20
Spare parts, electricity, generator, bills, and maintenance	106	160.4	-54.4	2959.36	18.45
Bank charges and interest rate, insurance premium	129	160.4	-31.4	985.96	6.15
Extortions from government officials	6	160.4	-154.4	23839.36	148.62
Total	1123	-	-	-	785.85

$X^2 = 785.85$ and critical $x^2 = 12.6$ at $\alpha = 0.05$ level of significance and df (7-1) = 6.

Discussion of Findings

From the foregoing analysis and tests, the following findings were discernible, among others: Whenever the cost of distribution of petroleum products increases, the price of petroleum also increases.

It could be recalled that the pricing of oil products has always been controlled by the government at all level in the industry, depending on the international price of crude oil which is set by the Organization of Petroleum Exporting Countries (OPEC). This means that domestic prices of oil products are based on international prices of crude oil. The government regulates the transfer prices paid within NNPC and sets products prices at wholesale and retail levels. However, it was discovered that only NNPC mega stations sells at control price while private marketers sell above approved pump prices due to cost of distribution and other variables.

The cost of buying a litre of petroleum product of the same type varies from depot to depot. The order price at NNPC depots is cheaper when compared with private depots. Marketers of petroleum products from time to time incur cost emanating from truck accident which most of the time leads to fire outbreak. Also rogues who hide under various unions and association like Petrol Tanker Drivers (PTD) branch of NUPENG, Independent Petroleum Marketers Association of Nigeria (IPMAN), Petroleum Dealers Association of Nigeria (PEDAN), National Association of Road Transport Owners (NARTO), only to mention but a few, extort huge sums of money from marketers of these petroleum products.

Equally, transport freight, insurance premium, spare parts and maintenance costs also affect the distribution price. Other charges such as taxes, electricity bills, bank charges/interest rates, salaries, wages and allowances of workers, rent and other unofficial payments along the route to retail outlets add to the volume of cost of distribution of these products which in turn increases pump price.

Conclusiins and Recommendations

There are varying degrees or scope for reducing the cost of distributing petroleum products in the South East geopolitical zone of Nigeria, including the following:

1. Effective use of domestic refineries in the country instead of importation of refined products
2. Pipelines are most cost-effective. Therefore adequate attention should be given towards repair and protection of pipelines that cut across South-East to Enugu and Aba depots.
3. Greater use can be made of rail to reduce costs which, in some cases, require rehabilitation and expansion of existing lines.
4. Longer and more fuel-efficient modern trucks capable of carrying as much as 60 tonnes, used in Europe and elsewhere, should be introduced in Nigeria but it requires much better road surfaces.
5. Embargo should be placed on the high levies and dues being charged by various Trade Unions and associations in the industry
6. There should be downward review of bank charges and interest rates paid by petroleum marketers to bank for loans and overdrafts offered to them,
7. Adequate and steady supply of electricity by Power Holding Company of Nigeria (PHCN) would greatly reduce the amount of diesel consumed by electricity generators at the retail outlets.
8. Petroleum equalization fund (PEF) management board should rise to the challenge of prompt payment of bridging claims to petroleum marketers which will subsidize the cost of freight.
9. All the illegal road blocks mounted by security agencies, unions and associations that extort money from petroleum marketers should be dismantled forthwith.

It is obvious that as the cost of distribution rises, the price of petroleum product increases at the retail outlet. This could result to long queue, hoarding, and scarcity which promotes black market transactions, if government agencies try to enforce pump price.

References

Adeleja O.O. (2006), Oil and Sustainable Development in Nigeria: A case study of the Niger Delta

Arinze, P.E. (2011), "The Impact of Oil Price on the Nigerian Economy." www.transcampus.org/journals.

Brooks, D, Dallas, W, Kelly, J, and Sumeet, P (2007), "Economic Impact Analysis for the Gasoline Distribution Industry." RTI International Health, Social and Economic Research, Research Triangle Park, NC 27709.

Dharam, P.G. (1991), "The Political Economy of Oil Gas in Africa. The case of Nigeria," Lagos, Nigeria: Taylor and Francis Publishers.

Edoreh, A. (1997), Future of Nigerian Petroleum Industry. Lagos: Academy Press.

Ehikwe, A.E. (2002), Transportation and Distribution Management. Enugu: Precision Publishers Limited.

Ehinomen, C and Adepoju, A (2012), "An Assessment of the Distribution of Petroleum Products in Nigeria." http://www.e3journals.org

Etzel, M.J, Walker, B.J and Stanton, W.J. (2007), Marketing. 14Ed. New York: McGraw-Hill/Irwin

Ezeokafor, U.B. (2005), "Diversion of Petroleum Products and Petroleum Product Pipeline Vandalisation: Their Adverse Effects on the Nigeria Economy", *Marketing Hallmark, Journal of Marketing* (3)1.

Ikezue, C.N. (2006), "Physical Distribution Concept and Its Application in Petroleum Products Distribution in Anambra State", *Marketing Hallmark, Journal of Marketing, NIMN* Anambra State Chapter, (4) 1

Kotler, P (2002), Marketing Management, 11th Ed. New Delhi: Prentice-Hall of India Private Limited.
Kotler, P and Armstrong, G. (1994), Principles of Marketing 6th Ed. London: Prentice-Hall International (UK) Limited.
Koutsoyiannis, A (2003), Modern Microeconomics 2nd Ed. London: Macmillan Press Ltd, Houndmills, Basingstoke, Hampshire RG 21 6XS.
Kupolokun, F (2006), "Downstream Deregulation: Achievements and Emerging Challenges." www.pppra-nigeria.org.
Masami, K, William, M, and Fred, S (2009), "Factors Affecting Costs of Supplying Petroleum Products," ESMAP, *The World Bank Oil, Gas, and Mining Policy Division Working paper.*
Mojekeh, M.O, (2010), Industrial Marketing Management: Principles, Perceptive and Practices. Awka: First Foundation Printing and publishers Co.
NNPC (2006), "NNPC Statistical Bulletin Abuja various Issues" http://www.nnpcgroup.com.
Nwaizugbo, C. (2004), Principles of Marketing. Enugu: New Generation Ventures Limited.
Obi C. (1997), "Globalization and Local Resistance: The Case of Ogoni Versus Shell," New Political Economy, 1(1):137-148.
Onah, J.O. and Thomas M.J. (2004), Marketing Management: Strategies and Cases. Enugu: Institute for Development Studies UNEC.
Perreault, W.D, Cannon, J.P. and McCarthy E.J. (2010), Essentials of Marketing: A Marketing Strategy Planning Approach. 12th Edition. New York: McGraw-Hill/Irwin.
The Cambridge International Dictionary of English.
Udeagha, A.O. and Okeke, C.I. (1993), Principles of Marketing. Enugu: New Generation Books.