THE GEOGRAPHICAL LOCATION OF RETAIL OUTLETS/ SERVICE STATIONS IN THE NIGERIAN PETROLEUM INDUSTRY

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ABSTRACT

This paper examinie the channels of petroleum distribution in Nigeria from the Refineries to Depot and Retail Outlets/Service Stations where the consumers finally purchase their products. Specifically the paper considers some of the geographical factors that are influencing the location of service stations in the Nigerian Petroleum Industry.

Key words : Depots, Refineries, Retail, Location

INTRODUCTION

The distribution of Petroleum products within Nigeria is performed through a linked series of stages between the 4 refineries, 21 depots and over 7,000 retail outlets and consumers. Figure 1 show the inter-relationship, which exist within the Nigerian distribution system of petroleum products, the facilities involved in refineries, depots, retail outlets, consumers and the main routing sequences along, which petroleum products are channeled (Standen, 1968 and Ikporukpo, 1997). The retail outlets represent the second link in the distribution of petroleum products from depot to consumers. A retail outlet is defined as a mini depot capable of holding a minimum capacity of 9,000 liters and also capable of retailing conventational petroleum products, through a dispensing pump, other activities such as car service, car was and mini market are also carried out.

Before the second World Was, all petroleum products were sold in containers across the counters of the trading companies and even by the oil marketing companies when they took over marketing of the products from the trading companies. Melamid (1968) noted that until about 1956, all gasoline station were established by trading companies who usually lease them to local operators. The rapid growth or markets resulted in the building of filling stations with modern and specialized equipment, such as electronically operated pumps, air compressors, and greasing pits and hoists. Table 1 provides the original Distribution of Gasoline Stations in Nigeria by 1964. The standard size of tankage ranges between 30,000 and 45, 000 liters. Tankage capacity is determined by such factors as distance to loading point, and volume in terms of daily throughput of the retail outlets.

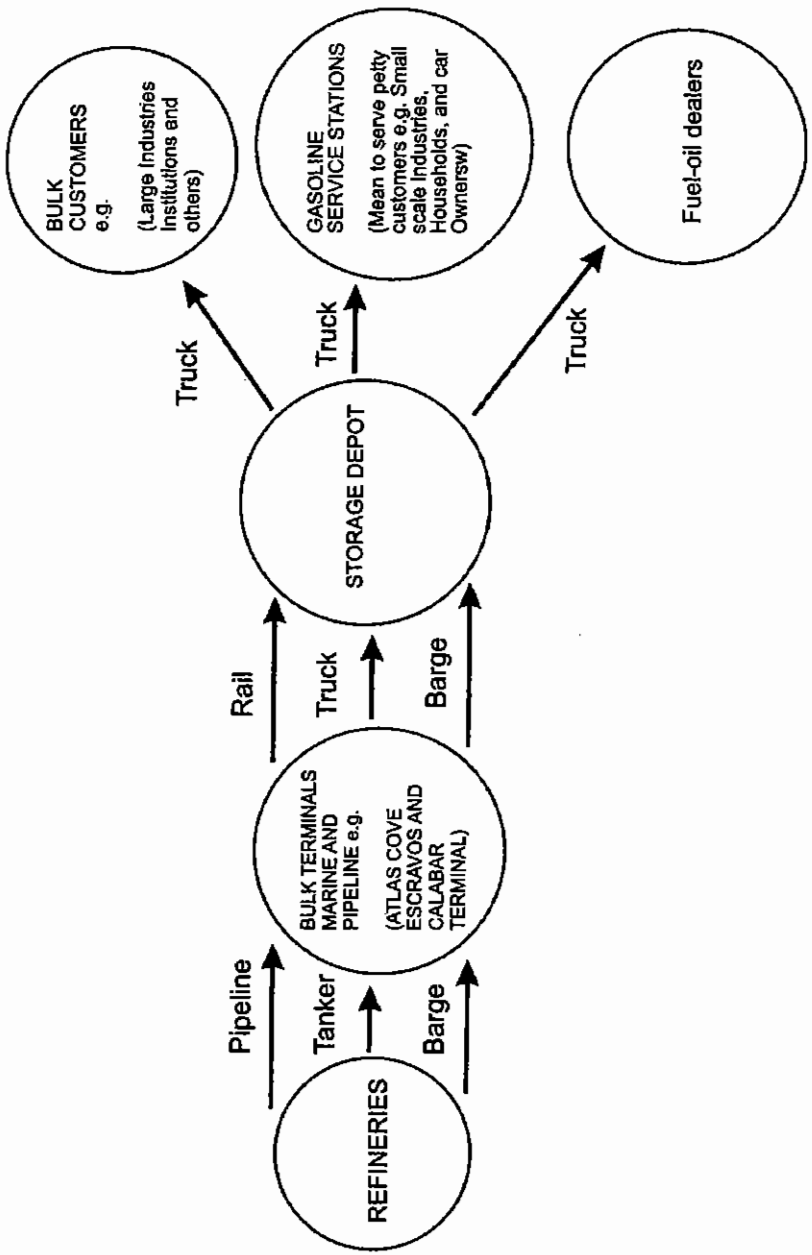

Figure 1. Channels of Petroleum Distribution in Nigeria

The growing rate of domestics demand for petroleum products, which created a big pressure on the existing domestic channel, has necessitated the expansion of the tankage capacity to about 30,000 litres. With this capacity, petroleum products would be sufficient for up to 10 days consumption before another replenishment is made. It is necessary to point out that an average retail outlet may not require such number of days, as dealers may not want to tie down his capital since his paramount objective would be to achieve high turnover. Under such circumstance, a minimum of 5 days stockpile would have been the most ideal. However, most prospective dealers would prefer the 30,000 litres tankage capacity if one million litres of petroleum products is to be distributed within 30 days when the initial costs of fabrication and installation plus other capital costs are considered. Two types of retail oulets are recognized in Nigeria:

1. Those that are built and operated by the oil companies which is often referred to as 'G' Stations and
2. Those that are built and operated by the third party (dealer), which is known as 'N' Sattions.

Table 1. Regional Distribution of Gasoline Stations in Nigeria 1964

	URBAN	RURAL	TOTAL
Lagos and Western Region	450	150	600
Eastern and Mid-Western Region	250	100	350
Nothern Region	230	70	300
Nigeria (Total)	630	320	1,250

Source : Melamid, A., (1968)

FACTOR FOR RETAIL OUTLETS LOCATION

The location of retail outlets/service stations is determined by a number of factors among, which include geographical factors, rate of traffic flow and commercial viability of the area.

Site Selection

At the pre-construction stage, a favourable site of 200 x 200 feet (61 x 61 metres) is selected and surveyed for the suitability of retail outlet location such an expanse of land is required to facilitate the free movement of vehicles of all (incoming and outgoing) and create adequate space for offloading tankers as well as other essential facilities. The pre-construction survey questionnaire for site selection takes into consideration neighbourhood population, volume of traffic pattern and the type of businesses operating in the area. Such as survey determines the probable viability of retail outlet location.

Application for Lisence Approval

The second stage involved in the location of retail outlet is to secure the necessary approval from the Nigerian National Petroleum Corporation (NNPC), which is the body that permits or allows the prospective dealers to erect or built a retail outlet in a particular neighbourhood or location. This requirement is in accordance with the 1969 Petroleum Decree No.51 (Federal Republic of Nigeria 1969) article 2 of this decree states that "No person shall import, store, sell or distribute any petroleum products without lisence". Application for license approval is also necessary so as to regulate or control the number of retail outlets that can be built within the developed and undeveloped area. The application for approval presupposes that an approval drawing and Certificate of Occupancy (C of O) has been granted.

Streaming Inspection

The third stage involves the streaming inspection of the retail outlet by the inspectorate division of the Nigerian National Petroleum Corporation. The objective of this inspection is to ascertain that the retail outlet conforms with all the laid down principles. Once the streaming inspection is completed and approved, prospective dealer can now file an application with the Nigerian National Petroleum Corporation for petroleum storage and storage license. The same sets of principles are applied when an existing petrol station are required to undergo remodeling.

Since Melamid's survey of distribution of retail outlets in Nigeria, the number of retail outlets had increased from 1,250 in 1964 to 1,351 in 1969 thus representing 81 percent increase within the five year period. The present number of petrol stations in the country has been put at over 7,000 outlets. The eight major petroleum products marketing companies such as Agip Nigeria (PlC), African Petroleum, Mobil Oil, National Oil and Chemical Marketing Company, Texaco, Unipetrol, Elf and Total are responsible for the operation of retail outlets in the country. The operation of the independent marketers in 1981 consequently increased the number of retail outlets located at various urban and rural urban areas throughout the country. By 1986, there are a total number of 4,920 retail outlets in Nigeria. The greatest number of these outlets were located in Imo State with 508 retail outlets, followed by Anambra State, which had 477 stations while Kwara State had the least number of retail outlets with 122 petrol stations.

The pattern of petroleum products retail outlets in Nigeria by states revealed that the rate of change had increased from 4 percent in 1979 to 9.6 percent in 1980, 18,1 percent in 1981, with a sudden drop to 14.5 and 10 percent in 1981 and 1983 respectively. Between 1983 and 1985 however, there had been a change of 93 percent in the total number of retail outlets located throughout the country.

The rapid increase in the number of retail outlets located in the country is in part due to motivation, which marketers derived from the Federal Government. In 1981, the Federal

Government established the Price Equilibrium Fund (PEF), which encourages marketers to locate in the rural areas. The singular act of Price Equilibrium Fund makes the entire country now more profitable in the location of retail outlets, as it eliminates the negative factors of transportation and distribution of petroleum products.

Petroleum Products Pricing and Retail Pump Price

Another important feature of retail outlets that is worth mentioning in this study is the pump price attached to petroleum distribution. Before 1973, price of petroleum products were competitive amongst the various marketing oil companies. The uniform pricing system introduced by the Federal Military Government came into being in late 1973 and these process remained constant up till late 1978. By late 1978, the 5-Star grade of gasoline was introduced into market, but later phased out by 1982. In the middle of 1979, the Regular Motor Spirit (RMS) was phased out, leaving only one grade of gasoline that is the Premium Motor Spirit (PMS). Apart from the Premium Motor Spirit and the Low Pour Fuel Oil (LPOF), the price of other petroleum products have remained constant between 1978 and 30th of April, 1982. As at November, 1983 however, the selling price of Premium Motor Spirit, Dual Purpose Kerosene (DKP) and Automotive Gas Oil (AGO) to independent marketers remained at 0.17 kobo/litre, 0,75 kobo/litre respectively.

The pump price for petroleum products have nice since changed since 1991 when the Premium Motor Spirit was sold for 0.60 kobo/litre. This was increased to 0.70 Kobo/litre in 1992. Between November and December 1993, the price of PMS had risen to ₦3.25 per litre. The price remained at ₦3.25 per litre until (October – December 1994) when the price increased to N11.00 per litre and it had remained so since 1995. This was later increased to ₦20.00 per litre in 1998 for PMS. For DKP it was increased to ₦17.00, AGO ₦19.00 and LPFO ₦15.00. Table 2 shows the retail price of petroleum products from 1991 – 2002.

The price of petroleum products have continued to be on the increase in recent years. For instance, the Petroleum Products Pricing and Regulatory Agency (PPPRA) increased the pump price of the Premium Motor Spirit (PMS) and other products from their original price to new price. Table 2, shows the retail price of Petroleum Products from 1991 –2002.

Table 2. Retail price of petroleum products (1991 – 2002) in Naira per litre

Products	1991	1992	1993		1994		1995	1998	1999	2000	2001	2002
			Jan-Nov	Nov-Dec	Jan-Sept	Oct Dec.						
PMS	0.60	0.70	0.70	3.25	3.25	11.00	11.00	20.00	20.00	22.00	22.00	26.00
DKP	0.40	0.40	0.40	2.75	2.75	6.00	6.00	17.00	17.00	17.00	17.00	24.00
AGO	0.50	0.55	0.55	3.00	3.00	9.00	9.00	19.00	19.00	19.00	19.00	26.00

Source : Department of Petroleum Resources (DPR) various Issues

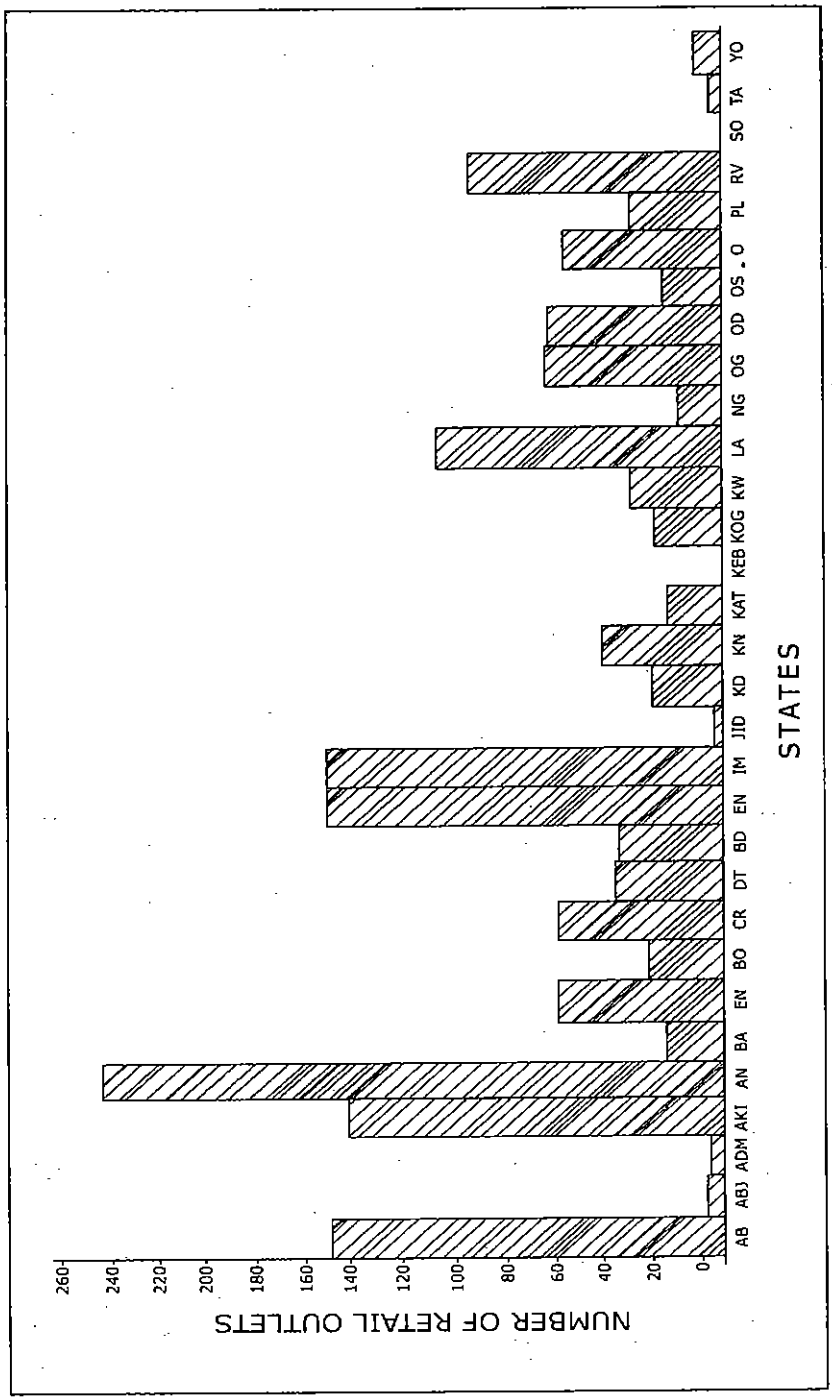

Figure 2. Breakdown of Registered / Renewed Outlets by States Between Jan. 1 and Dec. 31 1994

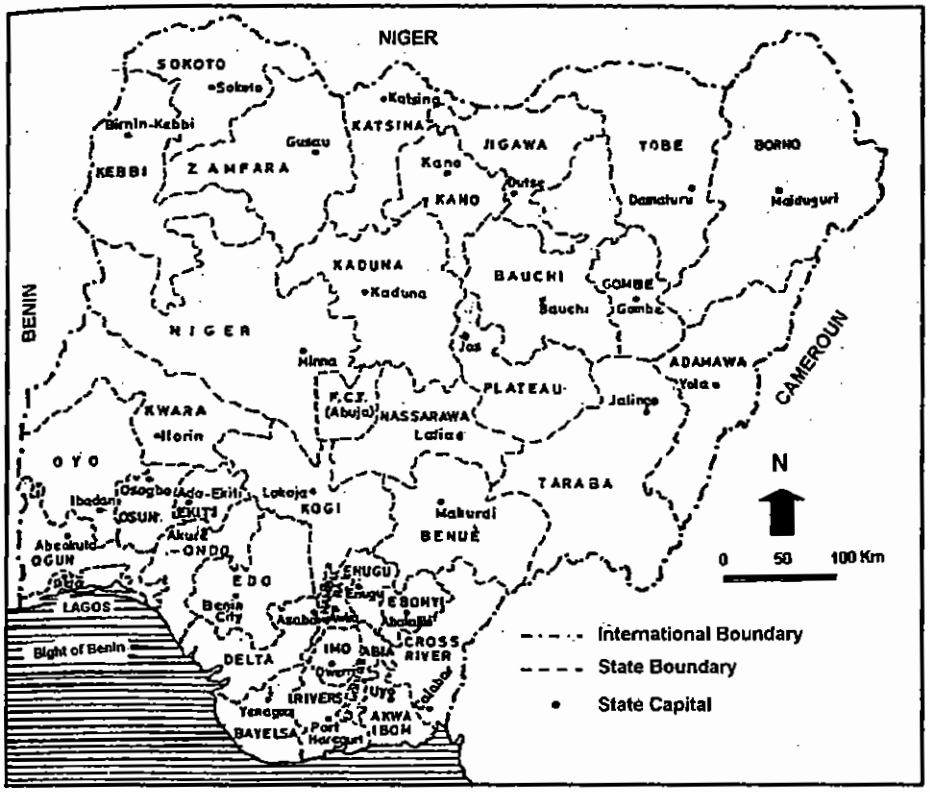

Figure 3. Map of Nigeria Showing the Thirty Six States

In the middle of 2002, the pump price of Premium Motor Spirit (PMS) was increased from ₦26.00 to ₦34.50k per litre showing a percentage increase 0f 32.7%. The price of Dual Purpose Kerosene (DPK) increased from ₦24.00 to 32.00 showing a percentage increase of 34.6%. In the year 2003, the pump price of PMS increased from ₦34.50k in 2002 to ₦40.50k in 2003 representing a percentage increase of 17.4%. The pump price of DKP increased from ₦32.00 in 2002 to ₦44.00 per litre representing a percentage increase of 37.5% while that of AGO increased from ₦35.00 in 2002 to ₦39.00 in 2003 representing a percentage increase of 11.4%

In 2004, the pump price of PMS increased from ₦40.50k in 2003 to ₦49.00 per litre representing a percentage increase of 21%. The pump price of DPK increased from its original price of ₦44.00 in 2003 to ₦62.00 representing a percentage increased of 40.9%. The pump price of AGO also increased from ₦39.00 in 2003 to ₦69.00 in 2004 per litre representing a percentage increased of 76.9%.

Figure 2 shows the graphical illustration of the breakdown of registered/reneved retail outlets by states in Nigeria between 1 Januari – 31 December, 1994. Ananbra State has the highest number of retail outlet while states like Kebbi and Sokoto are insignificant as were no record of retail outlets in these states. Perhaps the reason for this might be due to their annual non-reneval. This is in no way to say that they do not have certain number of retail outlets. States like Jigawa, Taraba and Adamawa have 2,3 and 5 retail outlets respectively. The case of the Abuja is quite different, as it is not regarded as a State but rather as the Capital of the Federal Republic of Nigeria. The demand for petroleum products especially (PMS) is high in states like Anambra, Enugu, Imo, Akwa-Ibom and Abia and Lagos hence, there are high number of retail outlets. In other words, there is a significance relationship between the number of retail outlets and consumption pattern or the number of motor vehicle population.

It is essential to mention here that at the moment, Nigeria is devided into 36 states (Figure 3). However, this study is based on the available statistics of 30 states including Abuja. Data on the basis of 36 states are not readily available.

CONCLUSION

Nigeria is the sixth largest producer of oil in the world. Despite this fact, Nigerian had been faced with the problems of incessant shortages of petroleum products within the country to the extent that she had to resort to importation of products especially the (Premium Motor Spirit).

This shortage was so critical at least within the last two and half years until very recently when the situations of things have been normalized. The reasons for this shortage are varied ranging from hoarding of petroleum products, smuggling to poor distribution network. With about 7,000 retail outlets located within the century, 21 depots and 4 refineries have been refining at a low capacity and had to undergo Turn Around Maintenance (TAM). The 4 refineries have an installed refinery capacity of 445,000 barrels per day but they are refining below this capacity.

The pump prices for the petroleum products have not made things easier for the consumers as they have to pay more per litre. In 1992, it used to cost 0.70 kobo/litre but now in 1998 it has increased to ₦20.00 per litre showing an increase of about 2,757%. The PMS increased from 0.70 kobo litre in 1992 to ₦26.00 per litre in 2002 showing an increase of 3,614%.

Similarly, DPK increased from 0.40 kobo/litre in 1992 to ₦26.00 per litre in 2002 showing a percentage increase of 5,900%. Also, AGO that used to cost 0.50 kobo/litre in 1992 was increased to 26.00 per litre 2002 representing a percentage increase of 4,627%. It is ironical that for a country like Nigeria that produces oil is still paying through her nose to purchase a litre of petrol. It is not only the price of PMS that have gone up as other products like Dual Purpose Kerosene (DPK), Automotive Gas Oil (AGO), High Pour Fuel Oil (HPFO) and low Pour Fuel Oil (LPFO) also more rose up dramatically. This is illustrated in Table 2.

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