



Poor Natural Resource Utilization as the Bane of Industrialization in Nigeria: Evidence from National Bureau of Statistics Petrol Price Watch

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ABSTRACT

Industrializing Nigeria requires steady and affordable energy supply and distribution. Hence, this paper examined Nigeria's petrol market for evidence of consumers paying above the government approved prices and for evidence of asymmetric response of retail petrol prices to changes in oil price. National Bureau of Statistics' Petrol Price Watch data was used together with descriptive analysis and an ARDL-ECM model. Overall, we find that even when the product is subsidized, consumers in most states pay above the government approved prices. In addition, we find that both in the short-run and long-run, retail petrol prices in Nigeria respond asymmetrically to changes in oil price. These findings are contrary to Nigeria's status as an oil-rich country, thereby capturing the stark reality of poor utilization of the country's oil resources to improve its industrial competitiveness.

Keywords: Natural Resource, Petrol Pricing, Industrialization, Nigeria

JEL Classifications: Q31, R32, L11, N17

1. INTRODUCTION

Attainment of sustainable industrial and technological advancement in Nigeria, underpinned by rapid and continuous job creation in the real sectors of the economy, has been identified as a major means of achieving and sustaining the country's goal of inclusive growth and development (Audi and Mohammed, 2014; Mba, 2015). However, this dream of industrializing Nigeria cannot be realized without steady and affordable energy supply and distribution, which is the life blood of modern industrialization and civilization (Borenstein et al., 1997; Greenwood-Nimmo and Shin, 2013). Stern and Kander (2012) show that the expansion of energy services is a major factor in explaining economic growth, but when energy services are scarce they strongly constrain output growth.

Similarly, United Nations Industrial Development Organization, (UNIDO) (2015) explained that industrial energy use is a key lever for sustainable industrial development since the availability and cost of energy supplies have major influence on industrial

development. UNIDO (2015) further emphasized that the size and structure of the industrial sector determines the amount and type of energy needed. This means that the relationship between the energy sector and the industrial sector is bidirectional so that developments in the energy sector affect industry while industry is a major market for energy. In other words, the interdependence between the energy sector and the industrial sector should be of major concern to the Nigerian government in formulating both energy and industrial policies.

Furthermore, Sendich (2014) identified the industrial sector, which mainly consists of manufacturing, construction, agriculture, and mining industries, as one of the largest consumers of energy. Indeed, the importance of energy in every sphere of our lives cannot be over stressed.

Typically, Nigerians and many other developing countries use energy in different spheres of human activity such as in industries, for mining, milling, smelting, forging of primary metals, electricity

generation, raw material transformation (into plastic, fertilizers, solvents, lubricants, and other chemicals for commercial uses), manufacture (of cement, glass, tiles, paper, bricks), processing of food etc.; in agriculture for powering of machines and equipment as well as for storage; in construction, for powering of machines and equipment; in residential and commercial buildings, for heating, air conditioning, lighting, powering of electronic equipment (such as computers, copy machines, television, radios, etc.), refrigerating, etc.; in transportation of humans, goods and services; in schools, for powering of electronic boards and conducting of research; and in hospitals, for powering of electrical and electronic equipment used for medical examination (Mbalisi and Ofor, 2015).

The foregoing paragraphs indicate that the role of energy in Nigeria's journey to industrialization is quite critical. However, the important question that motivated this study is how can energy play a major role in Nigeria's industrial revolution yet occupy a small share of the costs of production? This question became absolutely necessary following the realization that even though Nigeria is an oil-rich country, it has nonetheless witnessed persistent energy shortage over the years, especially in the retail petrol market where consumers appear to have been paying more than the official price per litre of product consumed (Onifade and Ojukwu, 2010; Akpan and Nnamseh, 2014). Indeed, there cannot be any question that such persistent energy shortage imposes hardship on businesses and households, and renders the overall Nigerian business and industrial environment relatively uncompetitive to both foreign and local investors (Ocheni, 2015; Akpan and Nnamseh, 2014). Quite recently, Sadik (2015), Olaoye et al. (2016) and Ogunlowo et al. (2017) highlighted the sad reality that despite its large oil and natural reserves, Nigeria's electrification rate is <50% of the population, showing that Nigeria suffers from extreme energy shortage. They also stated that Nigeria is endowed with oil and natural resources but the country cannot be said to have ever had adequate supply of electricity in the history of its electricity generation. All in all, it can be seen that industrial and economic development in Nigeria will be crawling perpetually without affordable and reliable energy.

A major consequence of the energy supply challenges in Nigeria has been aptly identified by Iwayemi (2008), who stated that the Nigerian energy industry is probably one of the most inefficient in meeting the needs of its customers globally. Iwayemi (2008) pointed out that the inefficiency of Nigeria's energy sector is most evident in the persistent disequilibrium in the markets for petroleum products and electricity, especially petrol, kerosene and diesel markets. The study further observed that the dismal energy service provision in Nigeria has adversely affected living standards of the population and exacerbated income and energy poverty in an economy where the majority of the people live on <\$2 a day. Yet, energy and income poor Nigeria is energy resource rich and the sixth largest exporter of crude oil in the world. Nigeria's persistent energy crisis has weakened the industrialization process, and significantly undermined the effort to achieve sustained economic growth, employment generation and increased industrial competitiveness (Iwayemi, 2008).

The Nigerian experience as detailed above is indicative of poor natural resource utilization, which is such that even when the price

of petrol is subsidized by the government, the product hardly gets to the consumers at the government control prices due to irregular behaviors by retailers that are detrimental to the overall social welfare (Akov, 2015; Majekodunmi, 2013; Ezeh, 2012). This suggests that: (i) Consumers may be paying above the government approved prices in most states of the federation; and (ii) retail petrol prices in Nigeria may be responding asymmetrically (inversely) to crude oil price changes. Obviously, these are challenges that should be addressed through evidence-based policies so that Nigeria's journey to industrialization can proceed seamlessly. Against this background, this paper uses the Petrol Price Watch data published monthly by the National Bureau of Statistics (NBS) to investigate Nigeria's petrol market for evidence of consumers paying above the regulated prices and for asymmetric price adjustment following oil price changes. In addition, the paper makes recommendations on how any undesirable pattern of asymmetry observed in the market can be avoided. Overall, the motivation behind this paper is that a key bottleneck in Nigeria's journey to industrialization can be dismantled by ensuring affordable and steady supply of petrol to both businesses and households.

2. SOME DESCRIPTIVE EVIDENCE FROM NBS PETROL PRICE WATCH

Notwithstanding that Nigeria is the largest producer of crude oil in Africa, the Nigerian retail petrol market has been witnessing prolonged periods of product scarcity, uncompetitive pricing, product hoarding and other practices that are detrimental to consumers' welfare (Akov, 2015). Indeed, these unwholesome practices have not only driven many Nigerians into poverty but have also led to the death of many small scale enterprises, thereby worsening the nation's unemployment status, income generation ability, and overall business environment. In what follows, some stylized facts about the retail petrol market in Nigeria are presented based on data from the NBS, Abuja. This is with a view to establishing whether consumers have been paying above the regulated prices or otherwise.

Figure 1 shows the number of States in Nigeria (including the Federal Capital Territory, Abuja), where petrol sold for prices above the government approved retail prices. Panel A reports for states that sold above N87/L while Panel B reports for states that sold above N145/L. Let us focus on Panel A. we find that a number of stylized facts are discernible from this figure, and these facts can be summarized as follows. One, from February to July 2015, most States in Nigeria persistently sold petrol above the government approved pump price. Two, in the months of April, June and July 2015; all the States and Abuja sold petrol above the official price. Three, only one state (i.e., Adamawa State) sold petrol at pump at the government approved price of N87/L in March 2015. These facts indeed buttress the widely held concerns that the Nigerian retail petrol market may have been witnessing prolonged periods of uncompetitive pricing and other irregular behaviors that are detrimental to the nation's journey to industrialization and the survival of the overall economy. These facts identified for Panel A are qualitatively similar to the patterns in Panel B. The graph in Panel B specifically shows that between January 2015 and