

Effects of Fuel Subsidy on Transport Costs and Transport Rates in Nigeria

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Abstract

Fuel is a major factor among many others influencing transport costs and transport rates in Nigeria. It plays significant role in the production of goods and services in all sectors of the economy, that is why countries find it necessary to subsidize and ensured citizens have access to fuel which is of national importance. Fuel in Nigeria is an inelastic product both at demand and supply sides, which means that it is very difficult for consumers to find alternatives to the use of it in their daily lives. Transport costs are monetary measure of what the transport provider must pay to produce transportation services. Transport rates are the prices or fares of transport services paid by their users to the transport service provider. There are several factors influencing transport costs and rates, meanwhile fuel subsidy also influences those factors influencing transport costs and transport rates. Among other indices of attaining a diversified economy is the diversification of transport modes and energy sources. For a developing country like Nigeria, fuel subsidy is considered as major tool to enhance citizens' welfare most especially the middle and low income earners, meanwhile, the disbursement of fuel subsidy must be properly monitored to guide against corruption as shown in the past administrations. Strict policies can be set aside as punishment (such as death sentence, life imprisonment and other costly punishments) for any corrupt political office holder. Before considering subsidy removal, the recommendations in the research must have been fully achieved.

Keywords: Fuel subsidy, Fuel subsidy removal, Transport costs, Transport rates and Production costs.

1.0 Introduction

Among other major factors that influences transport costs and transport rates in Nigeria is fuel. According to Innocent, Ogbu and Job (2015), fuel plays a significant role in the production of goods and services in all sectors of the economy, that is why countries find it necessary to subsidize and ensured citizens have access to fuel which is of national importance. Onyishi, Eme and Emeh (2012) stated that government subsidize fuel to address cases of market failure-mainly poverty especially in developing countries where subsidies are given to allow the poor participate in economic activities. Also, fuel subsidy protects fragile economies from shocks in the international market.

According to Ezeh (2012), fuel in Nigeria is an inelastic product both at demand and supply sides, which means that it is very difficult for consumers to find alternatives to the use of it in their daily lives. Alternatives such as electric trains, solar heaters and cookers are non-existent in Nigeria and hydropower and dams are not dependable sources of power in Nigeria. Fuel subsidy also affects all other factors influencing transport costs and transport rates.

According to the Academics Dictionary of Economics (2006), subsidy can be defined as the cash incentive given by the government to an industry with a view to lower the price of the product of the concerned industry and to raise its competitive power. This may be given as a counter balancing measure to the imposition of the custom duty (in the nature of protection duty) by an importing country government. One important objective of subsidy is to keep its prices below the cost of production. According to World Bank (1997), fuel subsidy is any policy by the government that is aimed at reducing the price of energy consumed by citizens relative to what the price would have been in the absence of such policy. Fuel subsidy is a government programme created to reduce how much Nigerians have to pay for petroleum motor spirit (PMS), automotive Gas Oil (Diesel), and to protect the citizens from crude oil volatility on the international market.

The reality of subsidy is that as the pump price of fuel increases, invariably the cost of everything in Nigeria increases. Therefore the essence of subsidizing the cost of pump price of fuel is to make the cost of living, production and services affordable to every Nigerian and as well maintain fairly good standard of living. The booby trap in fuel resource is that in one hand, it is one of the major sources of revenue generation for the federal government and on the other hand, it is through the subsidization of the pump price that the standard of living and wellbeing of Nigerians are enhanced. In this circumstance, any slight increase in the pump price of fuel without a palliative measure in place inflicts economic hardship on Nigerians and usually generates resistance and protest from the organized labour, civil society coalition and the masses in general. The reason being that the fuel subsidy is the principal way ordinary Nigerians benefit from the country's oil wealth (Campell, 2011).

Fuel subsidy often leads to increase demand for fuel due to over use and waste arising from reduced

price of the product, creating unnecessary shortage of supply. The strength of relationship between fuel and production is weak because small proportion of fuel is used in production of most goods in Nigeria but the strength of relationship between fuel and transportation is very strong because it is used for distributional purposes which add to the final cost of goods produced.

The importance of transport in any region cannot be overemphasized. Transportation refers to the process of conveying or moving of goods and people from place to place (Anyanwu et al., 1997). According to Good and Jebbin (2015) transportation is a system for carrying passengers, raw materials and goods from one place to the other both internally and internationally, often through power driven machines. It is commonly said to refer to movement of people and goods from one place to another (Okeafor, 1998). Transportation service is the part of physical distribution activity which is concerned with the actual movement of goods to their various consumers (Good and Jebbin, 2015). Without transportation, production cannot be achieved, meanwhile, production is said to be achieved if goods get to the final consumers.

Transport systems face requirements to increase their capacity and to reduce the costs of movements. All users (e.g. individuals, enterprises, institutions, governments, etc.) have to negotiate or bid for the transfer of goods, people, information and capital because supplies, distribution systems, tariffs, salaries, locations, marketing techniques as well as fuel costs are changing constantly (Jean, Claude and Brian, 2006).

Moreover, Jean, Claude and Brian (2006) stated that the choice of a transportation mode to route people and freight within origins and destinations becomes important and depends on a number of factors such as the nature of the goods, the available infrastructures, origins and destinations, technology, and particularly their respective distances jointly define transportation costs.

Transport costs are monetary measure of what the transport provider must pay to produce transportation services. Transportation cost covers cost on infrastructures which are fixed in nature and operating costs which are inform of variable (not fixed). Transport cost depends on a variety of conditions related to geography, infrastructure, administrative barriers, energy, and on how passengers and freight are carried.

Also, transport rates are the price or fare of transport services paid by their users to the transport service provider. Transport rates are also inform of monetary measure, hence, before such price or fare are being paid, transport users will negotiate the monetary cost with the transport service provider based on distance to be covered when moving a passenger or a unit of freight between a specific origin and destination. They may not necessarily express the real transport costs.

1.1 Statement of problem

Subsidies are susceptible to corruption and the ever-present risk of fraud, especially when allocating subsidy payments. For instance, the delay in the reimbursement of subsidies to importers of fuel has created incentives for the importers to induce payment. There are several reports of high-profit rackets and “round tripping” of imported fuel and fuel produced by local refineries.

The impact of removing fuel subsidy in the short-run is increase in transportation cost and transportation rate which directly and indirectly affect the cost of physical distribution, material handling, marketing, logistics and overall production. In the middle-run, the citizenry struggles to adjust for the market competition to surface and in the long-run, market competition is expected to fall the price of fuel. But it is quite obvious that fuel subsidy was totally removed in the current administration without provision of efficient infrastructures and other forms of energy which can all serve as close substitutes to fuel and make life comfortable. The government thought that sudden removal of fuel subsidy is the way out for a better Nigeria but the negative effect of fuel subsidy removal is highly severe on the citizens.

Although, subsidy removal is a policy on its own that is analytically based, economically sound, politically acceptable but it is not socially credible and the sustainability will pose life threat on the citizens because of the unprepared atmosphere and the peculiarity of political office holders in Nigeria. It should be noted that under the umbrella of government that knows what to do and how to do it, the political office holders will not have their ways of maneuvering the policy, with time, it is expected to be socially credible, environmentally suitable and sustainable, but some measures should be put in place to assist the poor and the citizens in the rural areas.

The aim of this paper is to examine the effect of fuel subsidy and its removal on transportation costs and transportation rates in Nigeria. The objectives of the study were guided by the following research questions which will be answered in the body of the work:

1. What are the effects of fuel subsidy and its removal on transportation cost and transport rates in Nigeria?
2. What are the results of fuel subsidy and its removal on production cost in Nigeria?
3. What are the effects of subsidy removal on mobility?
4. What is the percentage fuel price increase from year 1973 to year 2016?

2.0 Literature Review

2.1 Fuel subsidy

According to the Academics Dictionary of Economics (2006), subsidy can be defined as the cash incentive given by the government to an industry with a view to lower the price of the product of the concerned industry and to raise its competitive power. This may be given as a counter balancing measure to the imposition of the custom duty (In the nature of protection duty) by an importing country government. One important objective of subsidy is to keep its prices below the cost of production.

Moreover, subsidy can also be defined as any measure that keeps prices consumers pay for a goods or products below market levels for consumers or for producers above market. Subsidies take different forms. Some subsidies have a direct impact on price. These include grants, tax reductions and exemptions or price controls. Others affect prices or costs indirectly, such as regulations that skew the market in favor of a particular fuel, government sponsoring technology, or research and development. Thus, there are two major classes of subsidies

1. Production subsidies: These form is associated with developed countries and;
2. Consumer subsidies: This is found mainly in developing countries like Nigeria.

A subsidy is a reverse tax. It is a deliberate attempt by government to support a chosen economic agent a consumer and a producer and it can be applied in any market that involves the buying and selling of products and or services.

Furthermore, according to OECD, subsidy is basically government action that decreases the consumption price of the consumer and or increases the selling price of the producer. Subsidies enjoy widespread use in several countries and several commodities such as petroleum products, food or farm inputs liker fertilizer and machinery (UNEP, 2002). Fuel subsidy is a government programme created to reduce how much Nigerians have to pay for petroleum motor spirit (PMS), automotive Gas Oil (Diesel), and to protect the citizens from crude oil volatility on the international market.

Fuel subsidy can also be referred to the effort by the government to pay for the difference between the price of fuel in the pump and the actual cost of the product. So by paying the difference, the government enables fuel to be sold at a lower price so that it will help alleviate the burden on its people especially the lower income group. Fuel subsidy in Nigeria was before the coming of the Buhari's administration, it is a policy of federal government meant to assist the people of Nigeria to cushion the effects of their economic hardship. Conceptually, fuel subsidy seeks to enhance financial capacity but also to accept the implied financial losses by it in the sprint of its national responsibility to ensure the well being of the populace (Emeh, 2012).

2.2 Historical overview of fuel subsidy removal in Nigeria

According to the Centre for Public Policy Alternatives (2011), the executive arm of the Federal Government has taken the view that subsidy removal is an important element in the larger scheme to accelerate Nigeria economic development. The history of fuel subsidy removal in Nigeria is rather a long one particularly with the negative effects it has on the polity. Specifically the story of subsidy removal dates back to 1978 when the then military government of Gen. Olusegun Obasanjo reviewed upward the pump price of fuel which was at 8.4 kobo to 15.37 kobo. The concern was for government to generate enough money to run the administration particularly when it was preparing for the 1979 democratic elections and also to carter for the social needs of Nigerians (Ering and Akpan, 2012).

Moreover, Gen. Olusegun Obasanjo second coming as a civilian president did not help matters as he unleashed a reign of terror on Nigerians. In his eight years reign, the nation witnessed several rounds of fuel price increases. The first started on 1st June, 2000, where the petrol price per litre was raised to ₦30.00 but only to be reduced to ₦25 one week after due to massive protests by organized labour, civil society organizations and the ordinary Nigerians. Five days later, on 13th June, 2000, the pump price was further adjusted to ₦22.00 per litre (George et al., 2014). On 1st January, 2002, Obasanjo regime increased the price from ₦22.00 to ₦26.00 and to ₦40.00 on 23rd June, 2003 just one year after. In June, 2007, also the same regime raised the price of fuel per litre to ₦70, and later to over ₦100 per liter.

In a statement delivered by Dr. Kachikwu, on May, 2016, it is on record that when the late President Umaru Musa Yar'Adua assumed office in May 2007, the Nigeria Labour Congress (NLC) resisted the increase and forced him to revert to ₦65 per litre. In January, 2012, the government of former President Goodluck Jonathan attempted to remove the acclaimed subsidy but this was stoutly resisted and the commodity which was billed to sell for ₦97 per litre was later pegged to ₦87 per litre (Vanguard News, 25th May, 2016).

The statement further stated that during President Buhari's administration in 2015 to present, Nigerians have been asked to buy the product at a peak price of ₦145 per litre. Government said it decision in this regard is informed by the fact that despite the decline in the price of crude oil in the international market, marketers are finding it increasingly difficult importing refined petroleum products due to scarcity of foreign exchange (Vanguard News, 25th May, 2016).

Table 2.1: In-depth qualitative analysis of different petrol adjustments and different pump prices by the different administrations from 1973 to 2012 in Nigeria

S/N	DATE	ADMINISTRATION	PRICE	PRICE INCREASE	PERCENTAGE INCREASE
1	1973	Gen. Yakubu Gowon	6k to 8.45k	0.408	40.8
2	1976	Gen. Murtala Muhammed	8.45 to 9k	0.065	6.5
3	1 st Oct, 1978	Gen. Olusegun Obasanjo (as Military)	9k to 15.3k	0.7	70
4	20th April, 1982	Alh. Shehu Shagari	15.3k to 20k	0.307	30.7
5	31st March, 1986	Gen. Ibrahim Babangida	20k to 39.4k	0.97	97
6	10th April, 1988	Gen. Ibrahim Babangida	39.5k to 42k	0.063	6.3
7	1st January, 1989	Gen. Ibrahim Babangida	42k to 60k	0.43	43
8	Dec. 1989	Gen. Ibrahim Babangida	60k	0	0
9	6th March, 1991	Gen. Ibrahim Babangida	60k to 70k	0.167	16.7
10	8th Nov, 1993	Chief Ernest Shonekan	70k to ₦5.00k	6.143	614.3
11	22nd Nov, 1993	Gen. Sani Abacha	₦5.00k to ₦3.25k	-0.35	-35
12	2nd Oct, 1994	Gen. Sani Abacha	₦3.25k to ₦15.00k	3.616	361.6
13	4th Oct, 1994	Gen. Sani Abacha	₦15.00k to ₦11.00k	-0.267	-26.7
14	20th Dec, 1998	Gen. Abdusalam Abubakar	₦11.00k to ₦25.00k	1.273	127.3
15	6th Jan 1999	Gen. Abdusalam Abubakar	₦25.00k to ₦20.00k	-0.2	-20
16	1st June , 2000	Olusegun Obasanjo (as Civilian Ruler)	₦20.00k to ₦30.00k	0.5	50
17	1st Jan,2000	Olusegun Obasanjo (as Civilian Ruler)	₦30.00k to ₦22.00k	-0.267	-26.7
18	1st Jan, 2002	Olusegun Obasanjo (as Civilian Ruler)	₦22.00k to ₦26.00k	0.182	18.2
19	June to Oct, 2003	Olusegun Obasanjo (as Civilian Ruler)	₦26.00k to ₦42.00k	0.615	61.5
20	29th May, 2004	Olusegun Obasanjo (as Civilian Ruler)	₦42.00k to ₦50.00k	0.191	19.1
21	25th August, 2004	Olusegun Obasanjo (as Civilian Ruler)	₦50.00k to ₦65.00k	0.3	30
22	27th May, 2007	Olusegun Obasanjo (as Civilian Ruler)	₦65.00k to ₦100.00k	0.539	53.9
23	June 2007	Alh. Umaru Shehu Yardua	₦100.00k to ₦65.00k	-0.35	-35
24	1st Jan, 2012	Dr. Goodluck Jonathon	₦65.00k to ₦97.00k	0.492	49.2
25	Jan, 2015	Dr. Goodluck Jonathon	₦97.00k to ₦87.00k	-0.103	-10.3
26	May, 2016	President Buhari	₦87.00k to ₦145.00k	0.667	66.7

Sources: Authors' compilation in Ering and Akpan (2012), Egiuche (2012), George et al. (2014) and Vanguard (2016).

The above table can be analyzed in the figure below;

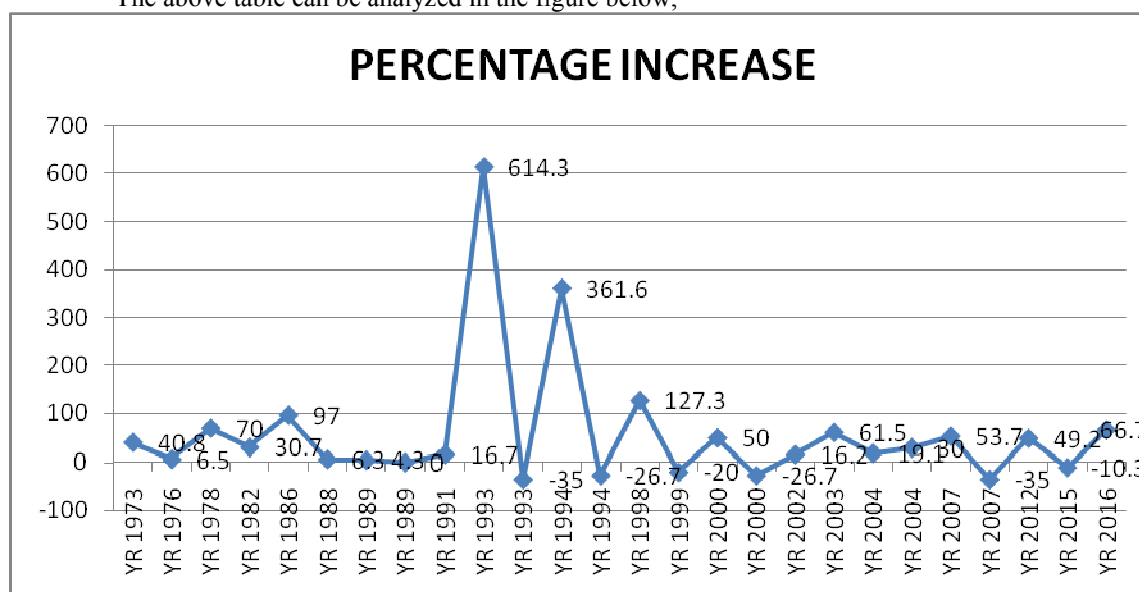


Figure 2.1: Graphical representation of table 2.1 (Percentage increase as y axis and Year as x axis).

Source: Authors' work.

During Chief Ernest Shonekan's administration, the peak on the line graph is in Year 1993 and the

percentage fuel increase is shown as 614.3%. Also, during Gen. Sani Abacha's regime in the year 1993 and Alh. Umaru Shehu Yar'adua in the year 2007, the percentage decrease was -35% each respectively. It was clearly obvious that Yar'adua's administration was targeted towards citizen's welfare.

2.3 Transportation

According to Oxford English Dictionary, transport was derived from two Latin words 'trans' which mean 'across' and 'portare' which mean 'carry'. Transportation is the movement of people and goods from one location to another (Microsoft Encarta, 2009). According to Merriam Webster Dictionary, transportation is an act, process, or instance of transporting or being transported. The same dictionary also defines it as a means of conveyance or travel from one place to another or a public conveyance of passengers or goods especially as a commercial enterprise. Longman Dictionary of Contemporary English (2003) defines transportation as a process or business of taking goods from one place to another or a system for carrying passengers or goods from one place to another.

Transportation refers to the process of conveying or moving of goods and people from place to place (Anyanwu et al 1997). According to Good and Jebbin (2015) transportation is a system for carrying passengers, raw materials and goods from one place to another both internally and internationally, often through power driven machines. It is commonly said to refer to movement of people and goods from one place to another (Okefor, 1998). Transportation service is the part of physical distribution activity which is concerned with the actual movement of goods to their various consumers (Good and Jebbin, 2015). This service enhances the fulfillment of production because production is said to be achieved if and only if goods get to the final consumers.

Transportation system has several elements or essentials without which it cannot function, the elements are;

1. Infrastructure, which includes the transportation network (i.e. roads, railways, airways, canals, pipelines, etc);
2. Vehicles, such as automobiles, trains, airplanes etc. This generally moves on the networks;
3. Operations, which deal with the control of the system such as traffic, signal and ramp meters, rail-road switches, air traffic control, etc, as well as policies, such as how to finance the system, for instance, use of tolls or gasoline taxes in the case of highway transport;
4. Nodes or terminals (such as airports, railway stations, bus stations and seaports), they are points where there is an access to any specialized form of way (infrastructure) (Adeniran & Yusuf, 2016).

Transportation systems are composed of a complex set of relationships between the demand, the locations they service and the networks that support movements. They are mainly dependent on the commercial environment from which are derived operational attributes such as transportation costs, capacity, efficiency, reliability and speed. Such conditions are closely related to the development of transportation networks, both in capacity and in spatial extent. Transportation systems are also evolving within a complex set of relationships between transport supply, mainly the operational capacity of the network, and transport demand, the mobility requirements of a territory (Jean, Claude and Brian, 2006).

2.4 Transport costs and transport rates

Transport costs are a monetary measure of what the transport provider must pay to produce transportation services. They come as fixed (infrastructure) and variable (operating) costs, depending on a variety of conditions related to geography, infrastructure, administrative barriers, energy, and on how passengers and freight are carried. Three major components, related to transactions, shipments and the friction of distance impact on transport costs (Jean, Claude and Brian, 2006).

Transport rates are the price of transportation services paid by their users. They are the negotiated monetary cost of moving a passenger or a unit of freight between a specific origin and destination. Transport rates are often visible to the consumers since transport providers must provide this information to secure transactions. They may not necessarily express the real transport costs. The difference between transport costs and transport rates results in either a loss or a deficit from the transport service provider (Jean, Claude and Brian, 2006).

Transport systems face requirements to increase their capacity and to reduce the costs of movements. All users (e.g. individuals, enterprises, institutions, governments, etc.) have to negotiate or bid for the transfer of goods, people, information and capital because supplies, distribution systems, tariffs, salaries, locations, marketing techniques as well as fuel costs are changing constantly. There are also costs involved in gathering information, negotiating, and enforcing contracts and transactions, which are often referred as the cost of doing business. Trade involves transaction costs that all agents attempt to reduce since transaction costs account for a growing share of the resources consumed by the economy (Jean, Claude and Brian, 2006).

Frequently, enterprises and individuals must take decisions about how to route passengers or freight

through the transport system. This choice has been considerably expanded in the context of the production of lighter and high value consumer goods, such as electronics, and less bulky production techniques. It is not uncommon for transport costs to account for 20 percent of the total cost of a product. Thus, the choice of a transportation mode to route people and freight within origins and destinations becomes important and depends on a number of factors such as the nature of the goods, the available infrastructures, origins and destinations, technology, and particularly their respective distances. Jointly, they define transportation costs (Jean, Claude and Brian, 2006).

2.5 Impacts of fuel subsidy on the factors affecting transport costs and transport rates

It is quite obvious that fuel subsidy impact the major factors affecting transport costs and transport rates. Since transport costs are mostly fixed amount, the factors are mostly associated with transport rates meanwhile, the factors affecting transport costs and transport rates and how fuel subsidy impact them are listed below:

1. Geography: Its impacts mainly involve distance and accessibility. Distance is commonly the most basic condition affecting transport costs. The more difficult it is to trade space for a cost, the more important is the friction of distance. The friction of distance can be expressed in terms of length, time, economic costs or the amount of energy used. It varies greatly according to the type of transportation mode involved and the efficiency of specific transport routes. Landlocked countries tend to have higher transport costs, often twice as much, as they do not have direct access to maritime transportation (Jean, Claude and Brian, 2006). Fuel subsidy will tend to reduce the overall transport costs and transport rates incurred on distance and accessibility, also, the removal of fuel subsidy will add more or increase the overall transport cost and transport rates incurred on distance and accessibility;
2. Type of product: Many products require packaging, special handling, are bulky or perishable. Coal is obviously a commodity that is easier to transport than fresh flowers as it requires rudimentary storage facilities and can be transshipped using rudimentary equipment. Insurance costs are also to be considered and are commonly a function of the value to weight ratio and the risk associated with the movement. As such, different economic sectors incur different transport costs as they each have their own transport intensity. For passengers, comfort and amenities must be provided, especially if long distance travel is involved (Jean, Claude and Brian, 2006). Fuel subsidy will tend to reduce the overall transport costs and transport rates incurred on product packaging, special handling, bulky or perishable products also, the removal of fuel subsidy will add more or increase the overall transport cost and transport rates incurred on product packaging, special handling, bulky or perishable products;
3. Economies of scale: Another condition affecting transport costs is related to economies of scale or the possibilities to apply them as the larger the quantities transported, the lower the unit cost. Bulk commodities such as energy (coal, oil), minerals and grains are highly suitable to obtain lower unit transport costs if they are transported in large quantities. A similar trend also applies to container shipping with larger containerships involving lower unit costs (Jean, Claude and Brian, 2006). If goods are transported in large quantity, more fuel will be required. Therefore, the advantage incurred on transporting large volumes of goods is a disadvantage to the amount of fuel to be consumed. If fuel is subsidized, the cost of fuel to be consumed when transporting large volumes of goods will be minimal but in the case of subsidy removal, the cost of fuel to be consumed will be at a very high rate and transport service provider must be critical and analytical in taking decisions of cost;
4. Energy: Transport activities are large consumers of energy, especially oil. About 60 percent of all the global oil consumption is attributed to transport activities. Transport typically accounts for about 25 percent of all the energy consumption of an economy. The costs of several energy intensive transport modes, such as air transport, are particularly susceptible to fluctuations in energy prices (Jean, Claude and Brian, 2006). According to Ezech (2012), fuel in Nigeria is an inelastic product both at demand and supply sides, which means that it is very difficult for consumers to find alternatives to the use of it in their daily lives. Alternatives such as electric trains, solar heaters and cookers are non-existent in Nigeria and hydropower and dams are not dependable sources of power in Nigeria. In a nation with single means of fuelling transport vehicle, fuel subsidy is mostly preferable and will results into reduced transport costs and rates but in the case of fuel subsidy removal, transport costs and rates will increase. It is quite better that before subsidy removal, other sources of energy or fuel or other sources of energy powered vehicle such as hydrogen gas, electric, solar and others should be made readily available, for it will normalize the high effects on transport cost and overall production cost because of the available close substitutes which will be influenced as a result of competition;
5. Trade imbalances: Imbalances between imports and exports have impacts on transport costs. This is especially the case for container transportation since trade imbalances imply the repositioning of empty containers that have to be taken into account in the total transport costs. Consequently, if a trade balance is strongly negative (more imports than exports), transport costs for imports tend to be higher than for

exports. The same condition applies at the national and local levels where freight flows are often unidirectional, implying empty movements (Jean, Claude and Brian, 2006). In Nigeria, transport import is more than export and this implies that number of cargo discharged is more than the number of cargo loaded, therefore there is no balance between filled containers and empty containers. If fuel is subsidized, the import costs will be minimized but if fuel subsidy is removed, import cost will be very high and this will significantly increase the cost of the products and consumables. If Nigeria will rely on importation, then there is need for fuel subsidy. The present shifting in the diversification of the economy should also results into shifting from fuel subsidy to fuel subsidy removal. This will also improve the development of Nigeria economy;

6. Infrastructures: The efficiency and capacity of transport modes and terminals has a direct impact on transport costs. Poor infrastructures imply higher transport costs, delays and negative economic consequences. More developed transport systems tend to have lower transport costs since they are more reliable and can handle more movements (Jean, Claude and Brian, 2006). Efficient transport infrastructures results into low fuel consumption and the better if fuel subsidy removed. Also, poor transport infrastructures results into high fuel consumption and fuel subsidy is needed. Hence, fuel subsidy removal should be better considered if the government must have provided a smooth transport network for easy accessibility.

Mobility can be predisposed to be influenced by transport costs, meanwhile transport costs tend to be influenced by fuel subsidy and fuel subsidy removal. Analytical facts revealed that the use of passenger vehicle highlights the relationship between annual vehicle mileage and fuel costs. In the case of fuel subsidy, it implies lower fuel costs and hence, the higher the mileage. Also, in the case of fuel subsidy removal, it implies higher fuel costs and hence, the lower the mileage. This is in accordance with the view of to Jean, Claude and Brian, (2006) “the more affordable mobility is, the more frequent the movements and the more likely they will take place over longer distances”.

Everybody appreciates the fact that when motorists pay more for fuel, the transport fare increases. This has been the case even when the increase is only marginal. In the particular case where the cost of fuel is expected to double, the increase in transport fare will be astronomical. This will in turn affect everything else – school fees, house rent, just name it (Stephen, 2015).

3.0 Discussion of findings

The perspective of the Researcher about subsidy is in-line with the perspective of various researchers;

According to Afolabi (1999), it has been shown in the past, that any significant increase in the fuel price often cause economic recession, such as witnessed in year 1973, year 1979 and year 2016. One way in which the government had made fuel sufficiently available and affordable to the low income earner is through subsidy. The introduction of subsidy indirectly promotes economic growth and development as a result of the affordability of the price of goods which provides an enabling point for the middle class citizen to contribute significantly to the economy. He also stated that lesson derived from China shows how subsidy had contributed significantly to economic growth and development. The success could be attributed to the affordability of energy and hence an increase in its demand.

Furthermore, in the perspective of Nwosu (2009), subsidy removal though will play significant role in nation building it is not the absolute resort to improve the economy. While it looks significantly important, there are other measures that could be adopted even without subsidy removal which would improve the economy significantly. And the presence of subsidy will play a pivotal role to the accomplishment of this measure as is being witnessed in china.

Moreover, in the perspective of Onwioduokitanda and Adenuga (2012), removing fuel subsidy at the same time devaluing Naira would result into increasing cost of production for the few companies that are still in existence. This would results into more job losses (as the companies would be forced to down-size in order to survive) in addition to the unavoidable increase in the cost of the companies’ products is the increase in the cost of providing services.

Additionally, Ering and Akpan (2012) stated that increasing fuel costs as a result of fuel subsidy removal force people to rethink on their life style and mode of transportation as a strategy for surviving the hard times. For instance, people now ride on horse powered taxis, some choose cow-powered land cruisers and even do motorcycle powered tourist wagon, all in an attempt to avoid the use of petrol and its cost. Increases in transportation costs always have ripple effects on other social issues. The prices of food stuff also went up. The result of fuel price increase results into increase transportation costs, increase production cost and marketers had to factor in the increment in order to make marginal gain.

In addition to the above discussions of findings from various researchers, the researcher will also add and recommend the following as contribution to knowledge:

1. Fuel subsidy will reduce the overall transport costs and rates incurred on transport distance and

- accessibility, also, the removal of fuel subsidy will increase the overall transport cost and rates incurred on transport distance and accessibility;
2. Fuel subsidy will reduce the overall transport costs and rates incurred on product packaging, special handling, bulky or perishable products also, the removal of fuel subsidy will increase the overall transport cost and rates incurred on product packaging, special handling, bulky or perishable products;
 3. If goods are transported in large quantity, more fuel will be required; therefore, the advantage incurred on transporting large volumes of goods is a disadvantage to the amount of fuel to be consumed. If fuel is subsidized, the cost of fuel to be consumed when transporting large volumes of goods will be minimized but in the case of subsidy removal, the cost of fuel to be consumed will be at a very high rate and transport service provider must be critical and analytical in taking decisions of cost;
 4. In a nation that has no close substitutes to vehicle fuel or energy, fuel subsidy is mostly preferable and will result into reduced transport costs and rates but in the case of fuel subsidy removal, transport costs and rates will increase. It is quite better that before subsidy removal, other sources of energy or fuel to power a vehicle such as hydrogen gas, electric, solar and others should be made readily available, for it will normalize the high effects on transport cost and overall production cost;
 5. If fuel is subsidized, the import costs will be minimized but if fuel subsidy is removed, import cost will be very high and this will significantly increase the cost of the products and consumables. If Nigeria will rely on importation, there is need for fuel subsidy. The present shifting in the diversification of the economy should also result into shifting from fuel subsidy to fuel subsidy removal. This will also improve the development of Nigeria economy;
 6. Efficient transport infrastructures result into low fuel consumption and the better if fuel subsidy is removed. Also, poor transport infrastructures result into high fuel consumption and fuel subsidy is needed. Hence, fuel subsidy removal should be better considered if the government must have provided a smooth transport network for easy accessibility; and
 7. In the case of fuel subsidy, it implies lower fuel costs and hence, the higher the mileage. Also, in the case of fuel subsidy removal, it implies higher fuel costs and hence, the lower the mileage

4.0 Conclusion

Among other indices of attaining a diversified economy is the diversification of transport infrastructures and energy sources. Hence, it is expedient for a country or nation to embark on developing diversified modes of transport and fuel (energy) sources before such country will boast to have achieved a diversified economy and a sustainable development.

Finally, the effect of fuel subsidy removal on transport costs, transport rates and production costs is quite complex, cost of procurement will increase, households will be meticulous about spending to compensate extra spending on fuel, unnecessary trips will be cancelled and reduction in motorization. Fuel subsidy removal will also reduce indiscriminate fuel consumption and result to reduction in carbon emission.

For a developing country like Nigeria, fuel subsidy is considered as major tool to enhance citizens' welfare most especially the middle and low income earners, meanwhile, the disbursement of fuel subsidy must be properly monitored to guard against corruption as shown in the past administrations. Strict policies can be set aside as punishment (such as death sentence, life imprisonment and other costly punishments) for any corrupt political office holder. Before considering subsidy removal, the above seven recommendations must have been fully achieved.

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