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### Effect of Petroleum Subsidy Removal on Poverty Level in Kogi State, Nigeria

Oluwoyo J. Temidayo<sup>1\*</sup>, Audu Peter<sup>2</sup> and Enemali Onuche<sup>1</sup>

<sup>1</sup>Department of Economics, Kogi State University, Anyigba, Kogi State, Nigeria. <sup>2</sup>Department of Business Administration, Kogi State University, Anyigba, Kogi State, Nigeria.

#### Authors' contributions

This work was carried out in collaboration between all authors. Author AP designed the study, wrote the protocol and wrote the first draft of the manuscript. Author EO managed the literature searches. Author OJT did the analyses of the study and performed the spectroscopy analysis. All authors read and approved the final manuscript.

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#### **ABSTRACT**

In every economy, government policy interventions are aimed at among other objectives, improving the welfare of citizenry bearing in mind the prevailing conditions. With the increase in misery index it became imperative for government to put in place policy meant to provide safety nets for the poor. One of such policy is Petroleum subsidy which has now been redrawn. It is against this backdrop that this research seeks to assess the effect of petroleum Subsidy removal on Poverty level in Kogi State. Primary Data was used and collected through well-structured questionnaires distributed among 300 respondents sampled using multi stage sampling techniques analyzed using chi-Square and students t-test. The study revealed that petroleum subsidy removal increased the cost of living, transportation cost and hence recommends that government should shift Subsidy to Transportation Sector by putting in place a subsidized transportation scheme.

Keywords: Subsidy; petroleum; poverty.

JEL Classification: C12, D12, N37, N57, P36, P46

#### 1. INTRODUCTION

Poverty and hunger has become an household problem in Nigeria over the past decades despite the abundant human and material resources inherent in Nigerian economy. This is evident in the statement that Nigeria is rich but its people are poor [1]. This irony has made it imperative to assess the poverty implications of the government's activities. A greater urgency should be brought into this issue as the population of the poor people is steadily growing: between 1980 and 2004 the percentage of poor people, living below the poverty line doubled from 27% (18 million) to 58% (73 million) [2,3].

The prevalence of poverty in the country, which has attained an endemic nature is becoming worrisome. Poverty has made Nigeria to attain an unenviable status such that no Government (no matter the level), Organisation, Community, Clan or Family can survive effectively without introducing one kind of poverty reduction effort or the other [4].

Petroleum subsidy is one of such policies by the government to alleviate or reduce the poverty level in Nigeria. Fuel as a product in Nigeria has its demand and supply to be inelastic in nature, which means that it is very difficult for consumers to find alternatives to the use of gasoline, kerosene or diesel in their daily lives [2].

Furthermore, Nigeria has 4 refineries with an installed production capacity of 445,000 barrels of fuel per day. The country has a relatively small industrial base and demand for fuel is driven mainly by domestic use and transportation.

As a net importer of fuel products, 80% of petrol imported into Nigeria is subject to price regimes in the international markets. Domestically, fuel supply is a monopoly of the NNPC and its subsidiaries. The NNPC, licenses importers and distributors, fixes local pump prices, owns fuel stations and depots and administers payments of subsidies to distributors. The NNPC therefore acts as a regulator, a distributor, producer and competitor in the retail markets. With this arrangement in place, the Nigerian energy markets can be classified as a regulated monopoly with the added distinction that the regulator is also a competitor in the market.

Various arguments have been advanced for keeping this regime intact, most prominent of which, is the need to protect the Nigerian consumer from the vagaries of international markets and to prevent exploitation by private sector actors. The demand and supply situation is therefore subject to three major influences. A monopoly effect, a subsidy effect and a price fixing effect acting independently and in concert to produce a truly complex and confusing economic picture. Issues such as corruption are treated as additional taxes on the consumer [2].

However, given Nigeria's natural endowments; as the world's 14th largest producer of crude oil (index mundi) with 10th largest proven reserves and possessing the world's 8th largest proven natural gas reserves and as the world's seventh largest exporter of oil, sixth largest producer in OPEC, Africa's largest oil exporter and the fifth biggest source of United States oil imports, this enormous wealth is a good potential for effective poverty alleviation or reduction and possibly eradication of poverty [5,6,2].

Yet, Nigeria is not only one of the poorest countries in south Saharan Africa but also in Africa and indeed in the world. As long as majority of Nigerians remain poor, accompanied by limited social development, irrespective of the nation's great natural wealth, it will be difficult for the country to meet the Millennium Development Goals (MDGs) [5].

The bone of contention therefore is how does government protects the poor from the vagaries of international market dictated by the forces of demand and supply through the removal of subsidy.

The study therefore assessed the possible effect of petroleum subsidy Removal which has been the focus of much controversy with regard to poverty dynamics in Nigeria.

#### 1.1 Statement of Research Problem

Petroleum subsidy is a social welfare package. It is aimed at improving the welfare of those who are categorized as poor. Petroleum subsidy remains one of the most intricate socio-economic policy issues in Nigeria, this is because Nigeria is a mono cultural economy and whatever happens

in the oil sector has a multiplier effect on other sectors of the economy.it is seen as a social obligation of the government to the economically disadvantage citizen, particularly the poor.

In view of this gross inadequacy perpetrated by unprecedented governmental regulations of the oil sector] and the need for resources to be efficiently allocated, there was an outcry for less government interference in the activities of the oil sector. This is premised on the belief that there will be undisputed improvement in the performance of the oil sector, pricing fluctuations and the recurrent distributional problem will be a story. The allocation role of the sector will be effectively and efficiently discharged when subsidy is withdrawn which case, market forces will determine the mode of allocation. The idea here is that, pricing and production decision are expected to be more efficient when the "invisible hand" doctrine is allowed to sufficiently dictate the behaviour of economic agents [7,2,1,8].

More disturbing is the fact that despite the colossal amount of resources committed to petroleum subsidy, the poverty situation aggravates, and more and more people fall into the poverty region instead of escaping from it. This has made the government take a U-turn and embark on the regime of deregulation of the downstream sector via outright removal of fuel Subsidy. However, the attendant situation that follows this policy is an escalation of the Inflation Rate and Gross Unemployment which does increased the misery index the hardship on the citizenry. The Price rigidities in the Petroleum Sector undermine the prowess of the market system to reduce the price and hence an increased in Petroleum price welcome Nigerians to the Regime. This has a multiplying effect on transportation as costs upsurges which hence gave rise to general rise in the price level of consumer goods.

In this regard, this study seeks to navigate the nexus that exist between Petroleum Subsidy Removal and Poverty level in Nigeria with Particular reference to Kogi State.

#### 1.2 Objectives of the Study

The broad objective is to assess the effect of petroleum subsidy removal on poverty level in Kogi State, Nigeria. The study is attempt at exposing the poverty level; nexus that exist between Petroleum Subsidy and Poverty Level in Kogi State and the attendant effect of Fuel

Subsidy removal on the living standard and cost of living of the Study area.

#### 1.3 Statement of Hypothesis

In other to reach a pragmatic inference on the research, the hypothesis below will be tested;

- Ho: There is no significant relationship between Petroleum Subsidy removal and increase in Cost of Living in Kogi State
- H<sub>1</sub>: There is a significant relationship between Petroleum Subsidy removal and increase in Cost of Living in Kogi State

#### 2. REVIEW OF RELATED LITERATURES

A search of literature has shown that there is no general consensus on the definition of poverty. Since poverty affects many facets of human endeavors such as physical, moral and psychological, a concise and acceptable definition of poverty is elusive as it cannot be captured only by income and consumption based measures [9].

Despite these views, different experts have defined poverty and its measurement based on their individual perspectives.

However, Poverty as lack of command over basic consumption needs. This means that poverty exist when there is inadequate level of consumption, giving rise to in sufficient food, clothing and shelter [7].

Another of such views of the poor is that, expressed by a poor man in 1997 as cited in [10] thus:

"Don't ask me what poverty is because you have met it outside my house. Look at the house and count the number of holes. Look at my utensils and the clothes that I am wearing. Look at everything and write what you see. What you see is poverty."

Despite these difficulties, there are 'compromise' definitions of poverty generally recognized and used by different people. The comprise view is that Poverty may be seen as absence of basic necessity of life.

Following from the above one can encapsulate poverty as a state of powerlessness characterized by moral and psychological deprivation of basic necessity of life.

However, the following can be categorized as poor: [1] illiterates, [2] wage earners, [4] households headed by older people and women whose nutritional needs are not being met adequately, [5] residents of isolated rural areas that lack essential infrastructure and [6] those who fall below the poverty line and whose incomes cannot afford their basic needs. Others are urban squatters and street children, ethnic minorities and all those who are not only marginalized and deprived but also suffer economic, political, social and persecution; those who have lost their jobs and youths who have not been able to find employment [9].

Efforts have been made to see the casual relationship between Poverty and the various factors that determine it. Among the factors identify includes:

- a. Gender of household heads: A review of literature indicated that belonging to a male-headed household was associated with higher welfare [proxies by per capita expenditure] than a female headed household [11,12].
- Education: Higher levels of education of household is associated with higher levels of welfare and hence lower levels of poverty [13,11].
- c. Occupation: It is widely acclaimed that the levels of welfare of an individual in farming household is usually lower than those of other household. This was supported that the economic activities of head of household is a significant determinant of welfare and poverty [12,14].
- d. Diversification of income sources: The number of income sources can be seen as an important determinate of poverty. Usually, household who depend solely on a particular sources of income for their lively hold are more prone to being attack by poverty this is because an unprecedented stop of such sources will leave the household with no income at all.
- e. Health: It is belief that it is only those whose work that should earn income and according to WHO health is wealth, it therefore means that when the health of an individual is threatened income will also be threaten.

Nonetheless, to caution the burden on Poverty, subsidy is usually put in place as a welfare package by various governments. A subsidy is

an assistance paid to a business or economic sector mainly by the government to prevent the decline of that industry [15].

Hence, to subsidize is to sell a product below the cost of production. A subsidy is a reverse tax. It is a deliberate attempt be government to support a chosen economic agent —a consumer and a provider and it can be applied in any market that involves the buying and selling of products and or services [2].

Within the Nigerian context, fuel subsidy means to sell petrol below the cost of importation. Nigeria as net exporters of oil, however, government typically maintains domestic petroleum prices well below the free market level. The petroleum sectors are dominated by a few large, state-owned enterprises, and the government typically controls both the wholesale and retail prices of petroleum products either directly and indirectly.

Two types of subsidy are referred to in the literature: explicit and implicit subsidy. Explicit subsidy is used in the normal sense in which subsidy is used: it is the difference between production cost and selling price. Implicit subsidy on the other hand is the type of subsidy that is observed in the exploitation of wasting assets such as crude oil. It refers to the difference between the opportunity cost of a wasting asset and the present selling price. Actually this is what is usually meant when subsidy of oil products is involved [16,17].

In Nigeria, both types of subsidies apply. The four refineries in the country produce about 13 million liters of refined petroleum products daily. However, daily domestic consumption is 30 million liters. The government imports the shortfall of 17 million liters so as to meet daily demand [2]

The government does not sell the imported products at their full landed cost as it subsidizes them. In June 2003 the government stated that for each litre of petroleum products, N12 is spent as subsidy. This implies an explicit subsidy of N74 Billion or about 1.42% of GDP. Off course changes in the international price of petroleum products and the exchange rate cause the landed cost of the products to fluctuate. The domestic prices of petroleum products in the country are much lower than what obtains in the neighboring countries. This has led to a thriving smuggling business. This difference is partly

because the crude oil for producing products for domestic consumption is sold to the local refineries at a lower price per barrel. This therefore brings down the cost of production.

#### 2.1 The Nexus between Petroleum Subsidy and Poverty Reduction in Nigeria

The nexus between petroleum subsidy and poverty reduction can be viewed from the point of the economic unit perspective.

There are three basic economic units; they are government, household and the firm. It should be noted that the household is the nucleus of these economic unit, as the goal of both the government and the firm is to meet the needs of the household. While the aim of government is meeting the welfare of the people, the aim of the firm is meeting the needs of the people. It therefore means that whatever happens to the other economic unit will have a multiplier effect on the household. The nexus between petroleum subsidy and poverty reduction in Nigeria can be further expatiated using the linkage below:

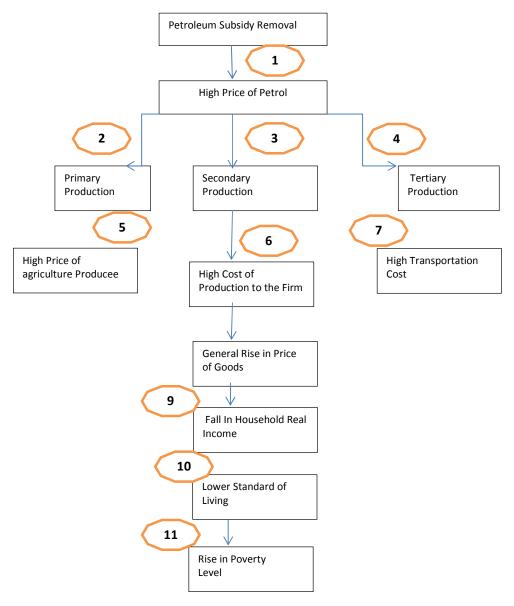


Fig. 1. Petroleum subsidy removal nexus with poverty Source: Author, 2016

#### 2.2 Transmission Mechanism

**Linkage 1:** Removal of government subsidy will imply that the market price of petrol will rise further. This was the case experience when the Nigerian government deregulated the downstream oil sector via removal of fuel subsidy. The attendant effect was an upsurge in oil Price from #97 to #142.

Linkage 2, 3, 4: There are three types of production in Economics which are Primary, Secondary and Tertiary Production. The primary production involves the extraction of raw materials from the earth, sea, and forest. The predominant sector that fall in this category is Agriculture. Secondary production involves the transformation of raw materials to a finished or semi-finished goods. Major Sector under this category is the manufacturing firm while the tertiary production involves all form of services like banking, communication and transportation.

**Linkage 5:** In the primary production, we assume the existence of agricultural sector as the predominant sectors and have more effect on the poor. A Rise in price of petrol will result in the Increase in transportation cost of retailers or in transporting agricultural produce to the market (which is incurred by the farmers) will also lead to the decrease in produce price.

Linkage 6: In the secondary production, we consider the effect on the firm, since it provides consumer goods to the household. This linkage is directly on firm. A Rise in price of petrol will affect firms in three ways: Firm's energy bill further escalate for those that rely heavily on petroleum powered generators for energy, the cost of intermediate inputs will rise as a result of increase in transportation cost. The impact on energy bill may be strong as, a sizeable number of firm depend on petroleum powered generating set for their energy supply as electricity supply is grossly inadequate and unreliable [2,1].

All these effect will result to higher cost of production to the firm which will further increase the output price of consumer goods.

**Linkage 7:** In the tertiary production, since transportation sector is more active, when price of petrol is high, it will lead to increase in passenger and goods transportation because the major type of transportation operational in Nigeria is road transport which mostly uses petrol as its source of energy.

Linkage 8: Following from the above linkage, a rise in the price of petrol which resulted in increments in price of agricultural Produce cost of production to the firm and transportation cost will all result to the general rise in price of all goods and services in the economy. Simply put, a rise in cost of petroleum products ceteris paribus, following the economic principle will lead to upswing in prices of good.

**Linkage 9:** A general rise in price of goods and services will result in the reduce household real income because the value of money will decrease and they will able to buy what they hitherto was unable to buy at higher cost.

**Linkage 10:** An upsurge in the general price of goods and services in which the household real income will rise will also result in higher cost of living of the people.

**Linkage 11:** Higher cost of living following economic principle will increase the household standard of living.

**Linkage 12:** Since a good measure of poverty level is real income, standard of living and cost of living, therefore since all these variables are disparaging in the analysis above, it will therefore lead to tumble in poverty level.

#### 2.3 Empirical Literature Review

The issue of petroleum subsidy and the effect on the poor has received widespread attention by several authors in most journals, articles, private and government research institute.

Many scholars have navigated into the issue under discourse. It is also essential to note that the issue of petroleum subsidy is a subjective issue and as such will be treated in its normative sense.

Nwafor et al. [2] examines the effects of the removal of petroleum subsidies on poverty in Nigeria. The study employed a Computable General Equilibrium Micro-simulation Analysis to assess the impacts of oil subsidy on poverty through the use of social accounting matrix. They posit that Subsidy removal, without spending of the associated savings, would increase the national poverty level.

Idris and Sani [18] evaluates the impact of fuel subsidy removal on small scale business, in Nigeria using Lagos, Enugu and Kano as case

study. The study used the chi-square distribution analysis to estimate the effect. The study found that fuel subsidy removal had a negative impact on the performance of small scale businesses in Nigeria at the 5% level of significant. It also reveals that fuel is a very important input in the development of small scale businesses.

Further research was undertaken to review the origins, justifications and complexities of fuel subsidies in Nigeria and the possible impact of said policy on the country. Using descriptive statistics, the study discovered that Fuel in Nigeria is an inelastic product both from the demand and supply side and further, posits that the withdrawal of subsidies on fuel is expected to have some major impact on the economy and particularly on the poor and vulnerable groups in society [19].

The inelasticity of fuel both from the demand and supply side was further buttress to formulates and estimates petroleum products demand functions in Nigeria at both aggregative and product level for the period 1977 to 2006 using multivariate cointegration approach. The study show petroleum products to be price and income inelastic [16].

Using a CGE model to analyze the elimination of fuel subsidies in Indonesia, which occurred in three stages over the period 2000-05 (prices were increased by 12% in 2000, 30% in 2001 and 29% in 2005). Furthermore, the reduction of fuel subsidies increased the overall incidence of poverty in the Indonesian economy from 8.9% to 12.9% of the population, with rural areas worst affected [12].

But since the issue of subsidy is a normative issue. A contrary opinion in IMF working paper finds that major oil-exporting countries tend to be net subsidizers of petroleum, while oil-importing countries tend to be net taxers. It was therefore concluded that despite the substantial costs of implicit subsidies, reform is difficult, as there is strong opposition to their elimination. They advise that subsidy reform should be embedded in a reform program that engenders broad support and yields widespread benefits [20].

#### 2.4 Theoretical Framework of the Study

The theoretical frame work for the study is structural/Marxian theory of poverty and Keynes economic theory.

The Structural/Marxian theory of poverty is hinged on the fact that capitalism brings about fundamental social problems including severe inequality which leads to poverty. Since wealth is concentrated in the hands of a minority who are bent on pursuing profits through exploitation of labour, the redistribution of resources is more within classes than between classes. Those stricken by poverty are often subjugated by the bourgeoisie so as to glean (collect undeserved) profits and capital via exploitation. It is the macro-structure of a capitalist society that produces inequality and consequently poverty.

The implication of this theory is that capitalism as an economic system has brought about the exploitation of the poor through its emphasis on the market forces. The market forces do not always often allocate resources effectively. This theory was further buttress by the Keynesian economic thought.

Keynesian economics is wholly based on a simple logic, that there is no divine entity, nor some invisible hand, that can tide us over economic difficulties, and we must all do so ourselves. Keynesian economic models stress on the fact that Government intervention is absolutely necessary to ensure growth and economic stability. As full employment is not guaranteed automatically, Keynesian economics advocates the use of beneficial government policies in order to give the economy a helping hand.

From these analogies it is evident that since poverty is as a result of the exploitative tendencies of the capitalist, there is therefore a role of the state to check the activity of the capitalist through the provision of subsidy since the role of the public sector is meeting the welfare of the citizenry. This is evident in Section 16 (2c) of the 1999 Constitution of Nigeria, the country's economic system shall not be operated in such a manner as to concentrate wealth or means of production in the hands of few individuals, and government shall manage and operate the major stay of the economy (FGN, 1999:11).

The policy of subsidy withdrawal raises many issues concerning the prospects for sustained national economic development, income distribution and poverty reduction. How much reliance can be placed on such a deregulated economy effectively reallocate resources to the societal interest calls for puzzle.

#### 3. METHODOLOGY

Primary Data will be used majorly for the purpose of the research. The study employs a multi stage sampling techniques. Out of the 21 local governments, three senatorial districts were selected based on the geographical structure of the state. Two major commercial town was picked from each senatorial district using purposive sampling technique which are West (Kabba, Lokoja), Central (Okene, Okehi) and East (Anyigba, Idah). A total of well-structured 50 both closed and open-ended questionnaires were randomly distributed in each of two commercial towns to elicit response from the respondents making a total of 300 respondents sampled. Comparative questions regarding various socio- economic indices between the two periods (Subsidy Regime and Post Subsidy Regime) will be presented to the respondents whose mean will be tested to ascertain if a significant difference exist.

#### 3.1 Method of Data Analysis

Chi-square and T-test would be used for presentation and analysis of data. The objective of this statistical analysis is to provide a quantitative way of distilling the essential features from the data and compare the difference in mean between the two era to postulate the significance at 95% level of Significance.

The formula for the Chi-Square is given below

$$X^2 = \frac{\Sigma [Fo - Fe]^2}{F_e}$$

Where:

F<sub>O</sub> = Observed value [frequency]; and

Fe = Expected value [frequency].

 $X^2$  = Chi Square

 $\Sigma$  = Summation

Degree of Freedom: = [R-1][C-1]. Where R= Number of Row C= Number of Column

The Critical Value of X2 is 0.05% at 95% level of Significance.

#### 4. PRESENTATION OF RESULT **FINDINGS**

These sections portray the presentation result of the research carried out.

Table 1. Chi-square

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.000 <sup>a</sup>	4	.199
Likelihood Ratio	6.592	4	.159
Linear-by-Linear Association	1.989	1	.158
N of Valid Cases	3		

a. 9 cells (100.0%) have

#### **Symmetric Measures**

	Value	Approx. Sig.		
Nominal by Nominal	Phi	1.414	.199	
	Cramer's V	1.000	.199	
N of Valid Cases	3			

a. Not assuming the null hypothesis.

the null hypothesis.

Where C=5

R=5

Since  $X^2_{cal}$   $X^2_{0.05}$ , 6.00 > 0.711, The Null Hypothesis that state there is no significant relationship between Petroleum Subsidy removal and increase in Cost of Living in Kogi State is rejected and hence conclude that significant relationship between Petroleum Subsidy removal and increase in Cost of Living in Kogi State.

expected count less than

<sup>5.</sup> The minimum

expected count is .33.

b. Using the asymptotic standard error assuming

The Strength of the relationship is further tested using Phi and cramer's V test and it shows that strength of association of the variables are strong.

## 4.1 Summary of Findings and Policy Implication

Available evidence from the analysis implies that a higher percentage of people below the monthly income level of \(\frac{\text{N10,000}}{10,000}\) which is far below the recommended poverty measure of \(\frac{\text{150}}{150}\) per day. Hence it can be concluded that over 40% of the respondents are poor. Since according to [11] Poverty is simply lack of basic amenities of life including Education. Evidence from the response of the respondents reveals that poverty is predominant in the study area since about 25.8% has no formal education and only 25% has at least primary education while the remaining percentage depicts higher level of education

associated with higher levels of welfare and hence lower levels of poverty. It therefore means that the poor benefit from petroleum subsidy, since the percentages of the people who fall into the poverty trap are much.

Also, facts from the study implies that a greater number of respondents are civil servant (About 40%) and businessmen (32.5%), therefore petroleum subsidy removal has increase the burden of transportation cost on the citizens.

The result of the Table 2 shows a mean difference in the cost of transportation of N 2.12 per kilometer travelled. This implies that the respondents have to bear an extra N 2.12 on every Kilometer they travelled as result of the petroleum Subsidy Removal. This difference in mean was further found to be significant at 95% level of Significant using t-test.

Table 2. T-test

Parameter		Mean	Difference in mean	S.D	T test	Remark
Transportation Cost (KM/ <del>N)</del>	Pre Petroleum Subsidy Removal Era	3.50	+2.34	0.05	2.12	Signicant difference exist at 95% level of Significant
	Petroleum Subsidy Removal Era	5.84		0.009		
Housing Cost (Per Room)	Pre Petroleum Subsidy Removal Era	60,343		0.0003	1.75	Insignificant difference exist at 95% levelof significant
	Petroleum Subsidy Removal Era	60,546	+203	0.002		
Energy Cost (PMS Per Litre)	Pre Petroleum Subsidy Removal Era Petroleum	97	+45	0.001	12.4	Signicant difference exist at 95%level of Significant
	Subsidy Removal Era	142		0.1		
Nominal Monthly Income	Pre Petroleum Subsidy Removal Era	56,234	-4889	0.01	1.98	Significant difference exist at 95%levelof significant
	Petroleum Subsidy Removal Era	51,345		0.11		
Inflation Price	Pre Petroleum Subsidy Removal Era	10.5	+6.6	0.05	3.1	Significant difference exist at 95%levelof significant
	Petroleum Subsidy Removal Era	17.1	. 5.0	0.001	J. 1	· 0

Source: Field Survey, 2016; NBS, 2016

Housing Cost was found to be insignificant. Table 2 portrays the fact that the respondent's borne an extra N-203 as a result of fuel Subsidy removal. The insignificant in the difference in the housing cost cannot be far from the fact that the demand and supply for housing is inelastic in the short run but elastic in the long run, hence the effect is still in the gestation period.

Energy cost which in this context is the price of Petrol Moto Spirit (PMS) otherwise called Petroleum has significant difference between the two periods. Table 2 further enunciated that respondent borne an extra N 45 per litre due to the fuel subsidy removal. The implication of this is felt in the transportation cost which further results in upsurge in price in the commodity market.

The nominal income of respondents was seen to have a negative difference between the era. It was seen that the average monthly income fell by 4889. This can be deduce due to the fact that respondent experience cyclical and frictional unemployment, respondents who specialize in price elastic products whose increase in cost of production cannot be passed to consumers in the form higher price have to be borne by them in form of reduce profit.

Table 2 further disclosed that the inflation rate increased from 10.5 to 17.1 a difference of 6.6. This significant difference was fuelled by the increased transportation cost via increased in energy cost which does increased price in the commodity market hence a multiplier effect on inflation rate from running inflation to hyperinflation.

The implication of the upsurge in the inflation rate is that it lowers real income and increased the misery index of the household. This is however not a deviation but affirmation to the apriori expectation as enunciated in Fig. 1.0.

Precisely, about 80% of the respondents as against 20% are optimistic that Petroleum subsidy should be used as a strategy to reduce poverty in Kogi State.

Further findings from the study reveals that the 89% of the respondents have increase their household expenditure on Consumer goods and Transportation cost since the removal of fuel subsidy, 11% reveals that they are not affected. Hence it can be concluded that Subsidy removal has brought untold hardship on the masses via

increase in transportation cost and prices of consumer goods.

Hence, going by the policy implication of findings, it can be concluded that petroleum subsidy removal has brought about increase in the cost of living of the people of Kogi State via increase in Transportation cost which translated into Increases in Prices of Goods and Services.

#### 5. CONCLUSION AND RECOMMENDA-TION

The essence of government is to provide welfare so as to meet the needs of the teeming population. Therefore, the existence of subsidy is a necessity and the removal of Petroleum Subsidy has caused untold hardship on the masses. It increased the misery index and hence poverty level by further raising Transportation costs, which translated also into increased Consumer goods prices.

On the basis of the findings the following recommendation are made;

Considering the negative impact that the fuel subsidy removal have on the poverty level in Kogi State in particular, it is recommended that government should shift Subsidy to Transportation Sector by putting in place a good transportation scheme to provide transportation services for both passengers and goods to charge a reduce price in other to reduce the hardship of increase in Price brought about by Increase in Petroleum Price.

Power Supply Should be improved upon in other to reduce the Energy Bill of firm using PMS to power the Generators as this will further reduce the cost of Production of Consumer goods which will hence reduce the prices of goods and services.

The Supply of Petroleum Products should be improved upon to further neutralize the potency of the demand of Petroleum product in the market in other to push down the price.

Also, government should embark on mass establishment of NNPC mega stations in at least every village in other to curb the inflation of price of petrol above the market price by the profit oriented Private retailers.

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#### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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