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Effect of Fuel Subsidy Removal on Households' Expenditure Patterns in Potiskum Local Government Area, Yobe State

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ABSTRACT
This study examined the effect of fuel subsidy removal on household income in Potiskum Local Government Area of Yobe State, Nigeria using a survey of 372 valid household responses. Data were collected through structured administered to the sampled household in Potiskum LGA. Descriptive statistics was employed to analyse to data. The findings showed that subsidy removal significantly increased transportation costs, food prices, and overall household expenditure, leading to reduced purchasing power, lower savings, and inadequate income to meet basic needs. Consequently, most households experienced a decline in their standard of living. The study concluded that fuel subsidy removal negatively affected household welfare and recommended social protection measures, price stabilization policies, business support, and investment in alternative energy to reduce its adverse effects.
Keywords: Fuel, Subsides, Household expenditure

INTRODUCTION

Fuel subsidy is a financial assistance provided by the government to reduce the cost of fuel for consumers, aimed at making fuel more affordable for the general population. Fuel subsidy removal policy is very responsive to the structure of households' expenditure patterns and country's level of development. In Nigeria, the price of petrol plays a central role in determining the cost of living, given its widespread use by households, small businesses, and across the transportation and logistics sectors. Any increase in the price of petrol tends to have an immediate and far-reaching impact on the prices of goods and services.

In Nigeria, the Federal Government has historically relied on fuel subsidies to keep domestic fuel prices stable and reduce the burden of rising living costs on citizens. Through this arrangement, the government paid a portion of the fuel price so that consumers could purchase petrol at a lower rate. Despite the introduction of the Petroleum Industry Act (PIA), the downstream oil and gas sector has continued to experience limited development. The subsidy regime characterized by corruption, inefficiency, and poor management, discouraged private investment and weakened sectoral growth. For example, from January 2020 to June 2022, about ₦3.92 trillion was spent on petrol subsidies, an amount that exceeded the total federal allocations to healthcare, education, and defence within the same period (Abayomi, 2023). Overall, Nigeria spent more than ₦10 trillion on fuel subsidies between 2006 and 2018, with an additional ₦5.82 trillion expended between 2021 and 2022, and about ₦3.36 trillion projected for the first half of 2023.

These expenditures have placed significant pressure on public finances, thereby reducing the government's ability to invest in key sectors capable of promoting economic growth and improving social welfare. In recent times, the government has faced growing calls to remove fuel subsidies as a means of achieving fiscal sustainability. However, the removal of subsidies has important consequences for the population, especially low-income earners. Although the policy is designed to release funds for development and enhance market efficiency, it has led to immediate increases in fuel prices, higher transportation costs, and a subsequent rise in the general price level of goods and services (Sotunde, 2024).

Nigeria's economy depends heavily on transportation, and increases in fuel prices have directly contributed to rising costs of essential commodities. This situation disproportionately affects low-income households, which allocate a large share of their income to basic necessities. The resulting inflation has further weakened consumers' purchasing power, making it increasingly difficult for many Nigerians to afford essential goods and services (Sotunde, 2024). On May 29, 2023, President Bola Ahmed Tinubu announced the removal of fuel subsidies during his inaugural address. This policy decision led to a sharp rise in the pump price of petrol, increasing from about ₦250 to over ₦600 per litre depending on location, and triggered a surge in commodity prices of up to 300 percent (Adewale, 2023). The post-subsidy period has also witnessed intensified competition among major and independent marketers, which has contributed to price instability. Higher delivery and logistics costs have translated into increased market prices for food items, raw materials, and finished goods. In order to maintain profit margins, producers have adjusted their prices upward, shifting the burden to consumers and further worsening inflationary pressures (Adewale, 2023).

Concept of Fuel Subsidy

Fuel subsidy refers to a government policy designed to reduce the retail price of fuel below the market equilibrium by compensating oil marketers or producers for the difference. This mechanism aims to make fuel affordable for consumers, thus lowering the cost of transportation, production, and energy-dependent goods (Adenikinju, 2003). Subsidies are often justified on social welfare grounds, especially in developing countries, where high fuel prices could significantly impact low-income households (Ebrahim, 2019). However, fuel subsidies in Nigeria have been criticized for fostering inefficiencies, corruption, and fiscal burdens on government budgets (Adenikinju, 2014). The policy has historically been a double-edged sword: while it cushions consumers from global oil price volatility, it also distorts market prices and discourages investment in alternative energy sources (Onyeiwu & Akinyemi, 2018). The removal of such subsidies, therefore, aims to correct these distortions but risks immediate socio-economic shocks, particularly for vulnerable populations (Udoakah & Imoisi, 2023).

Socioeconomic Implications of Fuel Subsidy Removal

Poverty

Poverty is a multidimensional condition characterized by the inability to meet basic human needs such as adequate food, shelter, healthcare, and education (World Bank, 2018). It encompasses both absolute and relative deprivation, where absolute poverty refers to the lack of essentials for survival, and relative poverty refers to the lack of resources compared to societal standards (Sen, 1999). The removal of subsidies has the potential to exacerbate poverty by increasing the cost of essential goods and services, thus reducing disposable income and access to basic necessities (Oluwatobi & Ogunrinola, 2020).

Food Security

Food security is defined by the Food and Agriculture Organization (FAO, 2020) as a state when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. It comprises four pillars: availability, access, utilization, and stability (FAO, 2019). Fuel subsidies influence food security primarily through transportation and production costs. Subsidized fuel lowers the cost of transporting agricultural inputs and outputs, thereby enhancing market access and affordability of food (Onyeneke et

al., 2021). The removal of such subsidies can increase food prices, reduce household purchasing power, and worsen food insecurity, especially among the poor (Agbola & Olaleye, 2022).

Healthcare Access

Healthcare access refers to the ability of individuals and communities to obtain timely, affordable, and quality medical services necessary for maintaining health (Peters et al., 2008). Access is influenced by factors including geographic availability of facilities, affordability, and sociocultural acceptability (Levesque et al., 2013). In developing countries, where out-of-pocket expenditure dominates healthcare financing, any increase in transportation and living costs which is often a consequence of fuel subsidy removal can restrict healthcare utilization (Aregbeshola & Khan, 2018).

Cost of Living

The elimination of fuel subsidies has a direct and measurable effect on the cost of living, with significant implication for the financial wellbeing of people. Increase in transportation expenses, utility bills, and other essential goods and services exert considerable economic pressure, especially in developing countries where people remuneration is often relatively low (Idriss et al,2024) this heightened financial burden can contribute to psychological distress, manifesting in anxiety, depression and occupational burnout, all of which are detrimental to individual well-being (Ogunode and Aregbesola, 2023). For professional in academia, mental and emotional wellbeing is closely linked to job performance, as these factors influence their effectiveness in teaching research and administrative responsibilities. Diminished wellbeing and job satisfaction have been associated with reduced levels of innovation (Mohammed etal 2020) beyond individual productivity, subsidy removal also negatively impacts employee sense of professional engagement and financial security. High levels of employee engagement are typically correlated with increase motivation, dedication and work place efficiency. However rising financial stress may leed to disengagement, reduce morale and lower job commitment (Anietal 2021).

Theoretical Review

Neoliberalism Theory

The theoretical framework of this study is anchored on the Neoliberalism Theory, which emphasizes market liberalization, privatization, deregulation, and minimal government intervention in economic activities. The theory argues that efficient allocation of resources is best achieved through the operation of market forces of demand and supply rather than government controls or subsidies. Under this perspective, fuel subsidies are viewed as distortions that artificially lower prices, encourage overconsumption, and create inefficiencies in the energy market (Harvey, 2005).

Neoliberalism further posits that government expenditure on subsidies places a heavy burden on public finances and reduces the ability of the state to invest in productive sectors such as infrastructure, education, and healthcare. The removal of fuel subsidies, therefore, is considered a reform aimed at promoting fiscal discipline, reducing budget deficits, and encouraging private sector participation in the downstream petroleum sector. By allowing fuel prices to reflect market realities, subsidy removal is expected to attract investment, improve competition, and enhance efficiency in resource allocation (Babb, 2013). However, neoliberalism also recognizes that market-oriented reforms often produce short-term social costs. The removal of fuel subsidies typically leads to increases in fuel prices, transportation costs, and production expenses, which subsequently raise the general price level of goods and services. This situation reduces consumers' purchasing power and disproportionately affects low-income households that spend a larger share of their income on basic needs. Without adequate social protection measures, subsidy removal may widen income inequality and reduce household welfare (Stiglitz, 2017).

Study Area

Potiskum Local Government Area is predominantly agrarian with active cattle and grain markets, where households depend on farming, petty trading, and transportation for income. Fuel subsidy removal increases the cost of petrol and diesel, leading to higher transportation and business expenses. This raises the cost of goods and services, reduces profit margins for farmers and traders, and lowers household

purchasing power. As a result, households spend more on transportation and business operations, leading to reduced income and a decline in their standard of living.

Sources of Data

Primary data were used to examine the effect of fuel subsidy removal on household income in the study area. The households selected for the study were visited during the survey period, and data were collected through the administration of structured questionnaires focusing on changes in income, cost of living, and transportation expenses following fuel subsidy removal. A total of three hundred and eighty-two (382) questionnaires were administered, out of which three hundred and seventy-two (372), representing 97 percent, were successfully retrieved, while ten questionnaires were not returned.

Population of the Study

The population of the study comprises all households in Potiskum Local Government Area. According to the National Bureau of Statistics (2006), the average household size in Yobe State is 5.1 persons per household. This implies that every 5.1 persons constitute one household. Using the projected population of 565,000 for the Local Government Area (NPC, 2026), the total number of households was estimated by dividing the population by 5.1, resulting in approximately 57,000 households in the study area.

Sample Size

The sample size figure is based on Dillman (2011) simplified formula for calculating sample size. The formula for determining a good representative sample is;

$$S = \frac{NP(1-P)}{\left(\frac{B}{C}\right)^2 (N-1) + P(1-P)}$$

Where;

S = required sample size

N = Numbers of households (565,000)

P = the population proportion expected to answer in a particular way (the most conservative proportion is 0.5)

B = the degree of accuracy expressed as a proportion (0.05)

C = the z statistics valued based on the confidence level (in this case 1.96 is chosen for the 95% confidence level)

S = 382

Sample Technique

The study used a multi-stage random sampling technique to examine the effect of fuel subsidy removal on household income in Potiskum Local Government Area. Three wards were randomly selected from ten wards, followed by three streets from each ward. Forty-one households were then randomly chosen from each street, giving a total sample size of 384 households. Randomization was ensured by assigning numbers to houses and selecting them through ballot.

DATA PRESENTATION AND ANALYSES

Table1: Demographic characteristics of Respondents

Variables	Frequency	Percentage (%)
Gender		
Male	300	80.64%
Female	72	19.36%
Total	**372**	**100%**
Age		
18–25	77	20.7%
26–35	117	31.45%
36–45	102	27.42%
46–55	42	11..29%
56 and above	34	9.14%
Total	**372**	**100%**
Marital Status:		
Single	46	12.37%
Married	263	70.70%
Divorced	32	8.60%
Widowed	31	8.33%
Total	**372**	**100%**
Educational Qualification:		
Primary	38	10.22%
Secondary	84	22.28%
Tertiary	197	52.96%
Others	53	14.25%
Total	**372**	**100%**
Occupation:		
Civil servant	74	19.89%
Business	160	40.01%
Farmer	65	16.40%
Self-employed	32	8.60%
Others	41	11.02%
Total	**372**	**100%**

Source: Authours' Computation 2026

The results showed that the majority of respondents were male (80.64%), indicating that men controlled most household economic activities and income decisions.. Most respondents fell within the active working-age groups of 26–35 years (31.45%) and 36–45 years (27.42%), meaning the economically productive population was mostly affected. These age groups were engaged in farming, trading, civil service, and transport activities, which were sensitive to fuel price changes. The marital status revealed that 70.70% of respondents were married, implying higher household responsibilities and financial pressure. The reduction in real income due to fuel subsidy removal therefore affected households with dependents more severely. Educational distribution showed that 52.96% had tertiary education, 22.28% had secondary education, and 10.22% had primary education. Occupationally, 42.01% were business operators, 19.89% were civil servants, and 16.40% were farmers. These groups experienced increased operating costs, reduced purchasing power, and lower real household income following fuel subsidy removal.

Table 2: Effect of fuel subsidy removal on households' expenditure patterns

Variables	Options	Frequency	Percentage
The cost of transportation in my household has increased, decreased, or remained the same after fuel subsidy removal.	Increased	294	79.02%
	Decreased	30	8.07%
	Remained the same	48	12.90%
	Total	**372**	**100%**
My household disposable income has increased, decreased, or remained the same due to fuel price changes.	Increased	262	70.43%
	Decreased	62	16.67%
	Remained the same	48	12.90%
	Total	**372**	**100%**
The cost of food and essential commodities has increased, decreased, or remained the same as a result of higher transportation costs.	Increased	306	82.26%
	Decreased	26	6.99%
	Remained the same	40	10.75%
	Total	**372**	**100%**
Household spending on transportation has increased, decreased, or remained the same compared to before subsidy removal.	Increased	283	70.08%
	Decreased	39	10.48%
	Remained the same	50	13.44%
	Total	**372**	**100%**
The purchasing power of my household income has increased, decreased, or remained the same following fuel subsidy removal.	Increased	36	9.68%
	Decreased	294	79.03%
	Remained the same	42	11.29%
	Total	**372**	**100%**
The cost of running small businesses has increased, decreased, or remained the same due to higher fuel prices.	Increased	230	61.83%
	Decreased	47	12.63%
	Remained the same	95	25.34%
	Total	**372**	**100%**
Household savings have increased, decreased, or remained the same after the increase in fuel prices.	Increased	52	13.99%
	Decreased	241	64.79%
	Remained the same	79	21.24%
	Total	**372**	**100%**
Overall household expenditure has increased, decreased, or remained the same due to fuel subsidy removal.	Increased	255	65.55%
	Decreased	34	9.14%
	Remained the same	83	22.31%
	Total	**372**	**100%**
Income adequacy in meeting household needs has increased, decreased, or remained the same after fuel subsidy removal.	Increased	45	12.10%
	Decreased	249	66.94%
	Remained the same	78	20.67%
	Total	**372**	**100%**
The standard of living in my household has increased, decreased, or remained the same following fuel subsidy removal.	Increased	40	10.75%
	Decreased	258	69.35%
	Remained the same	74	19.89%

Total	**372**	**100%**

Source: Authors'' Computation 2026

The result revealed that 79.02% of respondents reported that transportation costs increased following fuel subsidy removal, which indicated higher household spending on mobility. The results further showed that70.43%indicated changes in household disposable income due to fuel price increases, which suggested pressure on household income. About 82.26% % stated that the cost of food and essential commodities increased, which showed that rising fuel prices contributed to higher living expenses. In addition, 70.08% reported that household spending on transportation increased, which reduced income available for other needs. A large proportion (79.03%) indicated that the purchasing power of their household income decreased, which meant households could afford fewer goods and services. The findings also revealed that 61.83% reported an increase in the cost of running small businesses, which likely reduced household earnings. Similarly, 64.79% of respondents indicated that household savings decreased as more income was spent on necessities. The majority (65.55%) reported that overall household expenditure increased following fuel subsidy removal. Furthermore, 66.94% stated that income adequacy in meeting household needs decreased, which indicated insufficient income. Consequently, 69.35% reported that their standard of living decreased, which suggested that fuel subsidy removal negatively affected household income and welfare.

CONCLUSION

The study concluded that fuel subsidy removal had a significant negative effect on household income in Potiskum Local Government Area. It led to increased fuel, transportation, food, and essential commodity prices, which raised overall household expenditure and reduced purchasing power. Many households were forced to spend more on basic needs, leaving less income for savings and other uses. The cost of running small businesses also increased, reducing profits and household earnings, especially among traders, farmers, and self-employed persons. As a result, household savings declined and income became insufficient to meet basic needs. This created financial pressure, particularly for households with dependents. Ultimately, the standard of living of most households declined following the policy.

RECOMMENDATIONS

1. The government should introduce targeted social protection programmes, such as cash transfers and transport subsidies, to cushion the negative impact of fuel subsidy removal on low-income households.
2. There should be a deliberate effort to stabilize fuel prices through effective regulation and monitoring of petroleum distribution to reduce sudden price fluctuations.
3. The government should support small and medium-scale businesses with soft loans and grants to reduce the burden of increased operating costs caused by high fuel prices.
4. Investment should be increased in alternative and renewable energy sources to reduce dependence on petrol and diesel in transportation and production activities.
5. Public transportation systems should be improved and subsidized to reduce the cost burden of transportation on households.
6. Policies should be implemented to control inflation in food and essential commodities through better supply chain management and support for local production.
7. Farmers should be supported with agricultural inputs and mechanization subsidies to reduce the impact of high transportation and production costs on food prices.
8. Financial literacy programmes should be strengthened to help households manage income, savings, and expenditures more effectively under rising cost conditions.

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