
ASSESSING THE ECONOMIC CONSEQUENCES OF FUEL SUBSIDY REMOVAL ON ROAD TRANSPORTATION COST IN DELTA STATE, NIGERIA

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Abstract : *The removal of fuel subsidies in Nigeria remains a highly debated policy, with some experts viewing it as a driver of poverty and others as a fiscal reform opportunity to reallocate national resources. This study examines the economic consequences of fuel subsidy removal on road transportation costs in Delta State, focusing on its effects on commuters and transport operators while identifying viable policy interventions. Guided by the Resource Dependency Theory (RDT), the study employed a descriptive survey design. Data were collected through structured questionnaires administered to 240 purposively selected respondents, and analyzed using simple percentage and chi-square tests. The findings reveal that the removal of fuel subsidies significantly increased transportation costs in Delta State, while existing government measures to cushion the effects have shown limited success. The study recommends that the Delta State Government should revitalize the Delta Mass Transit system (popularly known as Uduaghan Bus) and promote the adoption of electric vehicles through targeted subsidies to mitigate rising transportation costs.*

INTRODUCTION

The reduction of fuel subsidies has emerged as a watershed moment in Nigeria's economic landscape, particularly in Delta State, where it has profoundly affected the road transportation sector. According to Iyela (2008), energy plays a pivotal role in economic growth, as no society can function effectively without reliable energy sources. Sambo (2004) similarly emphasized that energy is indispensable for modern life, driving

industrial production, transportation, and electricity generation.

Fuel serves as a critical determinant of transportation costs, fare rates, and the final prices consumers pay for goods and services. Innocent, Obu, and Job (2015), as cited in Adeniran (2016), observed that fuel is central to production activities across all economic sectors. This is why governments often subsidize fuel—to ensure accessibility and stabilize economic activities of national importance. However, the removal of fuel subsidies has far-reaching consequences, especially in the transportation sector, which plays a crucial role in Nigeria's socioeconomic structure.

Despite being Africa's largest oil producer, Nigeria continues to struggle with providing affordable and efficient transportation for its citizens. The country's transport system is predominantly road-based, with most commuters and freight operators relying on petrol- and diesel-powered vehicles. Consequently, fluctuations in fuel prices and supply directly influence transport operations, affecting mobility patterns, costs, and economic accessibility.

Recent fuel subsidy removal has further aggravated the situation, as the sharp rise in petroleum prices has substantially increased the cost of transportation and living in Nigeria. Businesses that depend on road transport to distribute goods face higher operational expenses, which, in turn, contribute to inflation and a decline in living standards (Adogbeji, Okonkwo, & Ushurhe, 2024).

In Delta State, where road transport remains the dominant mode for moving people and goods, these price shocks have directly elevated operational costs for drivers and transport firms, while increasing fare burdens on commuters. Low-income earners, who rely heavily on public transportation, are particularly vulnerable. In response to rising costs, transport operators may adopt cost-cutting measures—such as reducing maintenance or overloading vehicles—to sustain profits. Such practices compromise safety, increase congestion, and worsen environmental pollution.

The cumulative effect of these dynamics not only raises travel and commodity prices but also undermines the competitiveness of local businesses. Hence, this study seeks to examine the economic implications of fuel subsidy removal on the road transportation system in Delta State and to identify government policies that can mitigate its adverse effects.

Objectives of the Study

The general objective of this study is to examine the impact of fuel subsidy removal on the road transportation sector in Delta State. The specific objectives are to:

1. Examine the effect of fuel subsidy removal on road transport costs in Delta State.
2. Identify major government initiatives and policies that can mitigate the adverse effects of fuel subsidy removal on Delta State's transport system.

Research Questions

1. Does the removal of fuel subsidies affect road transport costs in Delta State?
2. What government policies can help mitigate the adverse effects of fuel subsidy removal on the transportation sector in Delta State?

Research Hypotheses

H₀₁: There is no significant relationship between fuel subsidy removal and road transportation costs in Delta State.

H₀₂: There is no significant relationship between government policies and the effects of fuel subsidy removal in Delta State.

Conceptual Clarification

Concept of Fuel Subsidy

The term *subsidy* originates from the Latin *subsidium*, meaning “support” or “aid,” and refers to government financial assistance intended to maintain price stability. A fuel subsidy represents the government’s effort to cover the difference between the actual market cost of petroleum products and their regulated retail price, allowing citizens to purchase fuel below market value (Adogbeji, Okonkwo, & Ushurhe, 2024; Civic Keypoint, 2023).

Fuel subsidies are typically introduced to alleviate the burden of fuel costs on consumers, stabilize production costs, and maintain purchasing power, especially among low-income groups (Raji et al., 2018; Onyeizugbe & Onwuka, 2012). Governments adopt such measures as part of broader socio-economic strategies to promote growth, welfare, and affordability. However, scholars such as Agu et al. (2018) have described subsidies as market distortions that, while well-intentioned, often foster inefficiency, corruption, and fiscal stress.

Fuel Subsidy Removal

Fuel subsidy removal refers to the discontinuation of government payments that lower the domestic retail price of fuel below its true market value. It represents a shift toward *market deregulation*, where petroleum prices are determined by market forces (Adogbeji, Okonkwo, & Ushurhe, 2024). The rationale for subsidy removal includes reducing fiscal deficits, curbing corruption, and reallocating public funds toward critical sectors such as infrastructure, health, and education.

However, its immediate consequence is a sharp increase in fuel prices, which raises transportation costs and the general cost of living (Adeniran, 2016). In Nigeria, this policy remains contentious due to its social impact on low-income households and transport-dependent workers.

History of Fuel Subsidy Removal in Nigeria

Nigeria's fuel subsidy regime began in the 1970s and became institutionalized with the Price Control Act of 1977. Subsequent governments repeatedly adjusted or withdrew subsidies—often triggering public protests. Key milestones include deregulation attempts under the Babangida (1986–1993), Obasanjo (1999–2007), Jonathan (2012), Buhari (2016), and most recently Tinubu (2023) administrations (Yunusa et al., 2023; Garba, 2023).

Each attempt to remove subsidies was met with strong resistance from labor unions and citizens due to immediate spikes in fuel prices and living costs. The most recent reform in 2023 saw fuel prices rise to ₦540 per liter, marking a decisive move toward full deregulation.

Concept of Transportation

Transportation refers to the movement of people and goods across space using various modes such as road, rail, air, and sea (Microsoft Encarta, 2009; Good & Jebbin, 2015). A functional transport system comprises infrastructure, vehicles, and operational management that collectively ensure mobility and accessibility (Adeniran & Yusuf, 2016). In Nigeria, road transport dominates due to inadequate rail and water systems, making it highly sensitive to fuel price fluctuations.

Transport Costs

Transport costs represent the total expenditure incurred in providing transport services, including infrastructure (fixed costs) and operations (variable costs). Factors influencing these costs include fuel prices, distance, infrastructure quality, and efficiency of transport systems (Jean, Claude, & Brian, 2006). In Nigeria, fuel cost is the most significant variable component, directly determining passenger fares and freight rates.

Fuel Subsidy Removal and Transportation Cost

Fuel subsidy removal directly affects transportation costs by increasing fuel prices, which elevate operational expenditures for transporters and fare rates for commuters. Studies (Ajide, Ibrahim, & Opeyemi, 2019; Yakubu & Abubakar, 2025) reveal that the post-subsidy era leads to higher transport costs, reduced travel frequency, and greater financial strain on low-income earners. Additionally, rising costs often force operators to adopt unsafe practices—such as overloading or poor maintenance—to remain profitable.

Hence, the removal of fuel subsidies in Nigeria has broad socioeconomic implications, particularly in Delta State, where road transport remains the dominant means of mobility and economic linkage.

Theoretical Framework

Resource Dependency Theory (RDT)

Resource Dependency Theory (RDT) explains how organizations depend on external resources and how this dependency shapes their behavior, strategy, and survival. The theory was introduced by Jeffrey Pfeffer and Gerald R. Salancik (1978) in their seminal work *The External Control of Organizations: A Resource Dependence Perspective* (Ozili, 2023).

According to RDT, no organization is entirely self-sufficient. Each relies on external entities—such as suppliers, regulators, customers, and financiers—for essential inputs like capital, raw materials, labor, and information. Because these resources are often scarce and controlled by other actors, dependence creates power imbalances within the environment. Organizations that control critical resources can exert significant influence over those that rely on them.

RDT posits that organizations must develop adaptive strategies to manage this dependence and ensure survival. These strategies may include diversifying resource sources, forming alliances, complying with external demands, or innovating to reduce vulnerability to external shocks.

In the context of this study, the road transportation sector in Delta State is highly dependent on fuel, a resource controlled and priced by the government. The removal of fuel subsidies exemplifies a change in the external environment that significantly alters resource availability and cost. Transport operators, therefore, must adapt—either by adjusting prices, reducing operations, or seeking alternative energy sources—to remain viable. Hence, RDT provides a suitable framework for understanding how external policy changes, such as subsidy removal, affect organizational behavior and sustainability within the transportation sector.

METHOD

This study adopted a descriptive survey research design, which is appropriate for collecting quantitative data from a large population to describe existing conditions and relationships. The population of the study comprised passengers and drivers in major motor parks across Delta State, Nigeria. The purposive sampling technique was used to select respondents based on their direct involvement in the transportation sector and frequent exposure to changes in fuel prices.

A structured questionnaire served as the primary instrument for data collection. The instrument consisted of three sections, each corresponding to the research questions formulated for the study. The first section captured respondents' demographic information, the second addressed issues related to fuel subsidy removal, and the third focused on government policies and transportation costs.

The questionnaire employed a four-point Likert scale scored as follows: 4 = *Strongly Agree*, 3 = *Agree*, 2 = *Disagree*, and 1 = *Strongly Disagree*. This scale was designed to measure respondents' level of agreement with each statement.

Data collected were analyzed using simple percentage to summarize responses and chi-square (χ^2) tests to determine the relationship between fuel subsidy removal, transportation costs, and government policy responses.

FINDINGS AND DISCUSSION

Findings

Out of the two hundred and fifty questionnaire, only two hundred and thirty were found. This suggests that the instrument twenty copies were misplaced. This is sufficient for data analysis since it shows that 88.7% of the questionnaire were returned and 13.3% were lost. Thus, the 230 collected questionnaire served as the basis for the data analysis.

Table 1 Analysis Of Demographic Characteristics Of Respondents

Items		Frequency	Percentage
Age	18-25	56	24.3
	26-33	80	34.8
	34 and above	94	40.9
	Total	230	100
Sex	Male	153	66.5
	Female	77	33.5
	Total	230	100
Religion	Christianity	211	91.7
	Islam	08	3.5
	African Traditional Religion	11	4.8
	Total	230	100
Marital Status	Married	87	37.8
	Single	143	62.2
	Total	230	100

Education	SSCE	56	24.3
	B.Sc	93	40.4
	M.Sc	45	19.6
	PH.D	36	15.7
	Total	230	100

Source: Field Work 2025

Table 1 shows the demographic characteristics of respondents. 56 respondents of 24.3% are 18-25 years old, 80 respondents of 34.8% are 26-33 years old while 94 respondents of 40.9% are 34 years old and above. This shows that respondents of age 34 and above dominated the study. 153 respondents of 66.5% were male while 77 respondents of 33.5% were female. Thus, the study is dominated by male respondents. 211 respondents of 91.7% were Christians, 8 respondents of 3.5% were Islam while 11 respondents of 4.8% were belong to African Traditional Religion. Thus, the study is dominated by Christains. 87 respondents of 37.8% were married while 143 respondents of 62.2% were single. This shows that the study is dominated by single respondents. 56 respondents of 24.3% were SSCE holders, 93 respondents of 40.4% were B.Sc holders, 45 respondents of 19.6% were M.Sc holders while 36 respondents of 15.7% were Ph.D holders. Thus, the study is dominated by B.Sc holders.

Table 2 Effect of fuel subsidy removal on road transport cost in Delta State

Items	SA	A	SD	D	%A	%D
Fuel subsidy removal have led to increase in transport cost in Delta State	129	83	08	10	92.2	7.8
High cost of transport due to fuel subsidy removal has led to reduction in the rate of traveling in Delta State	118	66	24	22	80	20

Transportation companies in Delta State rely only on fuel for running of their vehicles	156	59	06	09	93.5	6.5
Fuel subsidy removal have affected the use of private cars for traveling in Delta State	106	72	30	22	77.4	22.6
Fuel subsidy removal have led to increase in the number of passengers public vehicles carry in each journey and has led to discomfort while traveling in Delta State	98	65	48	19	70.9	29.1

Source: Field Work 2025

Table 2 shows the simple percentage analysis of the effect of fuel subsidy removal on transportation cost in Delta State. 92.2% of respondents agreed that fuel subsidy removal have led to increase in transport cost in Delta State while 7.8% disagreed. 80% of respondents agreed that high cost of transport due to fuel subsidy removal has led to reduction in the rate of traveling in Delta State while 20% respondents disagreed. 93.5% of respondents agreed that transportation companies in Delta State rely only on fuel for running of their vehicles while 6.5% respondents disagreed. 77.4% of respondents agreed that fuel subsidy removal have affected the use of private cars for traveling in Delta State while 22.6% of respondents disagreed. 70.9% of respondents agreed that fuel subsidy removal have led to increase in the number of passengers public vehicles carry in each journey and has led to discomfort while traveling in Delta State while 29.1% of respondents disagreed.

Table 3 Government policies that can ameliorate the adverse effects of fuel subsidy removal on Delta State transport system

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Statements	SA	A	SD	D	%A	%D
Government policies so far to ameliorate the cost of transportation in Delta State are not working	84	58	56	32	61.7	38.3
The use of electric cars will help savage the transportation problem in Delta State	78	62	56	34	60.9	39.1
Bringing back Delta Mass Transit (Uduaghan Bus) will help reduce the cost of transportation in Delta State	102	78	28	22	78.3	21.7
Delta State government intended partnership with cars/keke conversion companies and electric cars for public transport is a good move if purposefully followed up	89	61	44	36	65.2	34.8

Source: Field Work 2025

Table 3 shows the simple percentage analysis of Government policies that can ameliorate the adverse effects of fuel subsidy removal on Delta State transport system. 61.7% of respondents agreed that Government policies so far to ameliorate the cost of transportation in Delta State are not working while 38.3% of respondents disagreed. 60.9% of respondents agreed that the use of electric cars will help savage the transportation problem in Delta State while 39.1% of respondents disagreed. 78.3% of respondents agreed that bringing back Delta Mass Transit (Uduaghan Bus) will help reduce the cost of transportation in Delta State while 21.7% of respondents disagreed. 65.2% of respondents agreed that Delta State government intended partnership with cars/keke conversion companies and electric cars for public transport is a good move if purposefully followed up while 34.8% of respondents disagreed.

Testing of Hypothesis

Hypothesis 1: There is no significant relationship between fuel subsidy removal and transportation cost in Delta State.

Table 4 Chi-square analysis of questionnaire for the relationship between fuel subsidy removal and transportation cost in Delta State.

Sources of Variation	Responses		Df	X2-Cal	X2-Crit	Alpha Level	Decision
	Observed	Expected					
Strongly Agree (SA)	607	230	3	149.86	7.82	0.05	Significant Ho1 rejected
Agree (A)	345	230					
Strongly Disagree (SD)	116	230					
Disagree (D)	82	230					

Source: Field Work 2025

Table 4 shows that there is significant relationship between fuel subsidy removal and transportation cost in Delta State. The calculated value of 149.86 is greater than the chi-square table value of 7.82. Thus, the null hypothesis is rejected. Therefore, there is a significant relationship between fuel subsidy removal and transportation cost in Delta State.

Hypothesis 2: There is no significant relationship between Government policies

and fuel subsidy effect in Delta State.

Table 5: Chi-square analysis of questionnaire for the significant relationship between Government policies and fuel subsidy effect in Delta State.

Sources of Variation	Responses		Df	X2-Cal	X2-Crit	Alpha Level	Decision
	Observed	Expected					
Strongly Agree (SA)	353	230	3	150.54	7.82	0.05	Significant Ho2 is rejected
Agree (A)	259	230					
Strongly Disagree (SD)	184	230					
Disagree (D)	129	230					

Source: Field Work 2025

Table 5 shows that there is significant relationship between Government policies and fuel subsidy effect in Delta State. The calculated value of 150.54 is greater than the chi-square table value of 7.82. Thus, the null hypothesis is rejected. Therefore, there is a significant relationship between Government policies and fuel subsidy effect in Delta State.

Discussion

Based on the analysis and testing of hypothesis, the study finds that there is significant relationship between fuel subsidy removal and transportation cost in Delta State. This was established through the findings that fuel subsidy removal have led to increase in transport cost which have led to reduction in the rate of traveling in Delta State. Also, transportation companies in Delta State rely only on fuel for running of their vehicles and the removal of this fuel subsidy have affected the use of private cars for traveling in Delta State and fuel subsidy removal have led to increase in the number of passengers public vehicles carry in each journey which has led to discomfort while traveling in Delta State.

The study also finds that Government policies so far to ameliorate the adverse effects of fuel subsidy removal on Delta State transport cost is not impacting on transportation cost in Delta State and the study was able to suggest various policies that Government should formulate and implement to cushion the effect of fuel subsidy

removal on transportation cost in Delta State. This was done through the finding that the use of electric cars, bringing back Delta Mass Transit (Uduaghan Bus) will help reduce the cost of transportation in Delta State and that Delta State Government intended partnership with cars/keke conversion companies and electric cars for public transport is a good move if purposefully followed up.

Conclusion

From the findings, this study concluded that fuel subsidy removal have had damaging effect on transportation cost in Delta State, this is because transportation companies in Delta State rely solely on this subsidized fuel for running of their vehicle but with its removal has cost the transportation cost to go up with drivers devising ways to cover for increased cost of fueling their vehicle by increasing the number of passengers they carry per journey and this has led to reduction in the rate of traveling in Delta State. It has also affected the use of private cars for traveling as a result of high cost of fuelling one's car. The study also concluded that the various Government policies to suppress the effect of fuel subsidy removal on transportation cost in Delta State have not yielded result so far.

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