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Impact of fuel subsidy removal on building materials in Minna

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Abstract

These instructions comply the subsidization in pump price of fuel subsidy in Nigeria help many Nigerians citizens to petroleum and its products in various ways which make life easy for them. There cent total removal of fuel subsidy has thrown Nigerian to great hardship, making it difficult for an average Nigerian to talk of owning a house of him/herself. This study, Assessment of impact of total subsidy removal on building materials is targeted at investigating the current cost of building materials after the total removal and the cost of building materials before the total removal of fuel subsidy. The study uses market survey to gather the data used for the study. Cost index was used for the analysis of the collected data. The results shows that there is high variation between the cost of building materials before the total removal of subsidy and after the removal of subsidy. The variation in the cost of Reinforcements, Y20, Y16 are #13,900 and #6,800 per length respectively. For Portland cement, the variations are: Lafarge #3,300 per bag, others are #2,700 Wood: 2x12 and 2x6 have the highest variation of #500 and #400 per length respectively. The study concluded that the total removal of fuel subsidy has serious impact on the prices of building materials, consequently, high cost of building project and housing development in Nigeria. It was recommended that active price control board be setup by the government to monitor prices of building materials.

Keywords: building materials, economic impact, housing affordability, housing development

1. Introduction

The petroleum sector plays an important role in Nigeria economy, as it is the single largest revenue earner of the country and one of the largest contributors to the gross domestic product (GDP) (Akintola,2018). It is the major regulator of Nigerian economy, a boom in the sector impacts economic growth and affects all sector of the economy including the construction industry. There is a depression in the economy when there is crisis in the oil sector, (Babalola, and Salau,2020). In Nigeria the pump price has made it easy for consumers in Nigeria to buy at a lower price than the market price of fossil fuel (Abdobaideaetal,2020).

The removal of fuel subsidies has significant implications for various sectors of the economy, including the construction industry. Building materials, a critical component of construction projects, are heavily dependent on transportation and energy costs, which are directly affected by fuel prices.

Subsidy was first partially removed in Nigeria in 1986, since then every government that has led since 1986 removes partially a percentage of petroleum subsidy by increasing the pump price. Fuel subsidy removal has been a recurring issue in Nigeria. Successive government in Nigeria have interfaced with the issue as they attempt to reform the Nigerian economy and the petroleum downstream to reduce corruption and waste and make the sector more effective (Harun, etal2018). The total removal of fuel subsidy by the present administration led by Bola Ahmed Tinubu, the president of the federal republic of Nigeria has resulted to very high increase in pump price which has triggered high price of transportation, food items and building materials in the Nigerian market.

The prices of building materials went up more than two times the initial price before the total removal of fuel subsidy which makes it unaffordable by majority of Nigerians particularly the civil servants and the local farmers. Building material is a key item in the construction industry as it is one of the major determinants of the final cost of construction products (Anoosike,2009, Adagunodo,2022). An increase to its cost poses a significant threat to both the housing sector and people aspiring to own a house (BrazilianandOnyei,2012). The rapid inflation in the cost of building materials has been a major constrain in the construction industry. One of the major causes of building materials in Nigeria is the increase in fuel pump price.

Inflation in building materials has a great consequence in the construction industry, as it can result to abandonment of construction project, poor quality product cost overrun as well as delay in project delivery (OkwanyaandMoses,2015). The quality and aesthetics of construction products depend significantly on the type of materials used. When the cost of good quality materials is beyond the reach of the ordinary man, consumers would find alternatives which will result to poor quality of construction products. This paper focus on the impact of total removal of fuel subsidy on the prices of building materials in Minna, Niger State. Nigeria, with the aim of investigating the impact of fuel subsidy removal on

the availability and accessibility of building materials in Minna, Niger state, Nigeria and also the relationship between fuel prices and the cost of building materials in Minna, Niger state, Nigeria.

Minna, the capital city of Niger state, Nigeria was selected as it has a strategic location at the confluence of major highways connecting the northern and southern Nigeria, making it a critical transportation hub. This location increases the city's reliance on fuel-intensive transportation, increasing the potential effects of fuel subsidy removal. Minna has also experienced significant construction activities in recent years, driven by government projects, private investments, and infrastructure development, this growth makes the city an ideal location to study the impact of fuel subsidy removal on building materials.

2. Methodology

This research uses mixed methods to fully and adequately gather data that will provide solutions to the research objectives. It uses market survey as its quantitative data collection method, where survey questionnaires were administered to building material dealers, builders and contractors and other industry experts. Market survey was also conducted in Minna building materials market to collect data on prices of building materials before and after fuel subsidy removal. This was mixed with in-dept interviews conducted with key stakeholders in the construction industry, building material suppliers, builders and contractors as the qualitative data collections of fuel subsidy removal and the prices of building materials before and after the total removal of fuel subsidy.

The survey questionnaire was designed to collect data on demographics, business operations, perception

The sampling technique used were stratified random sampling for survey questionnaires and purposive sampling for in-dept interviews and case studies.

For the sampling size, 150 respondents of which 60 were building material dealers, 40 were builders and contractors while 50 were industry experts. In-dept interview had 20 respondents, of which 6 were stakeholders, 5 were building material suppliers, 4 were contractors and builders while 5 were industry experts.

The sample size was determined with the sample size formula $n = (z^2 * 0.5^2) / E^2$ where n = sample size, Z = Z-score corresponding to desired confidence level (1.96 for 95%) and E = margin of error which is 0.05 with population size of 7000. Using the formula, the recommended sample size is 150.

Cost index was used to analyze the price variations in building materials because it provides a standardized measure of price changes, allowing for comparisons across different materials. Cost index simplifies complex price data into a single easily interpretable value, facilitating analysis and decision making, it also ensured accurate estimates and forecasts.

3. Results and Discussion

Table 1: cost analysis table

Buiding Materials	Cost before Removal may 2023	Cost after removal To date	Cost variance
CEMENT: (ordinary)			
Portland cement)	4,500	7,200	2,700
Dangote cement	4,800	7,500	2,700
Bua cement	5,200	8,500	3,300
Lafarge cement	4,300	7,000	2,700
Sokoto cement			
REINFORCEMENT			
	Price per length	Price per length	
Y20	18,600	32,500	13,900
Y16	14,200	21,000	6,800
Y12	7,300	11,000	3,700
Y10	5,500	8,000	2,500
WOOD(Timber)			
	Price per length	Price per length	
12"x2"	1,500	2,000	500
6"x2"	1,200	1,600	400
4"x2"	750	1,100	350
3"x2"	420	800	380
SAND			
Sharp sand	95,00	150,000	55,000

Fine/plaster	75000	130,000	55,000
Laterite	40,000	75,000	35,000
BLOCK			
6" block	350 per block	450 per block	200 per block
9" block	450 per block	650 per block	200 per block
TILES			
	(price per square meter)	(price per square meter)	price per square meter)
Viony 400x 400	2,500	4,200	1,700
CDK 400x400	5,200	8,000	2,800
Royal 400x400	3,400	5,500	2,100
STONE			
	(price per ton)	(price per ton)	(price per ton)
Hard core	4,500	7,500	3,000
Stone dust	5,000	7,500	2,500
chippings	4,500	7,500	3,000

Table one shows the result of the cost of building materials before the total removal of fuel subsidy in May 2023 and after the removal of the subsidy to date. The result indicated that in each of the items shown, there are significant variations in the cost per item and per ton between the cost before the total removal and after the total removal. In most of the items shown, the variations were on a high side. For instance, the variation in cost of sharp sand and fine sand per 20 tons was #55,000 and in high yield reinforcement the variation in Y20 and Y16 are #13,900 and #6,800 per length respectively.

The implication of this findings is that the high increase in the cost of the major building materials as a result of total removal of fuel subsidy in Nigeria has triggered a profound shift and far-reaching effects on housing development in Nigeria. The middle and the lower income earners in Nigeria can no longer afford to own a house of their own as their dream house because of the high cost of building materials that is beyond the reach of an ordinary man in Nigeria and this affect housing development. The study's findings are consistent with the trickle-down economics, which suggests that changes in macroeconomic policies can have a ripple effect on various sectors of the economy. In this case, the removal of fuel subsidy has trickled down to affect the construction industry, leading to increased costs, reduced economic activities and higher inflation.

Furthermore, the study's findings underscore the importance of considering the regional implications of macroeconomic policies. Minna, Niger state, is a region with significant construction activities, driven by government infrastructure projects and private sector investment. The removal of fuel subsidy has disproportionately affected this region, highlighting the need for policymakers to consider regional differences when implementing policies.

Similarly, Babalola and Salau, (2020) examined the effect of petroleum pump price on welfare of Nigerians and concluded that an increase in the pump price of petroleum triggered every other sector of the economy resulting to high cost of transportation, goods and services, building materials and general standard of living. Equally, the findings of this study are in agreement with that of Evansetal, (2023) who investigated the socio-economic effect of subsidy removal in Nigeria and reported that there is a very high relationship between subsidy removal, inflation, high increase in the cost of goods like building materials, food and beverages, services and standard of living in Nigeria.

4. Conclusions

The study concluded based on the findings, that subsidy removal, inflation and high cost of building materials are highly related. The total removal of fuel subsidy in May 2023 in Nigeria led to high inflation which in turn led to devaluation of Nigerian currency, high cost of living standard and accommodation. The study recommended that government should urgently address the rate of inflation and set up price control board to control the prices of goods and services in Nigeria

The findings highlight the need for policy makers to reconsider the timing and implementation of macroeconomic policies, taking into account the potential consequences on valuable sectors of the economy.

To mitigate the effects of fuel subsidy removal, policy makers should consider implementing targeted subsidies for the construction industry to cushion the impact of fuel price increase, invest in alternative energy sources such as solar and wind power to reduce dependence on fossil fuels, enhance transportation infrastructure to reduce logistics cost and increase the efficiency of building material supply chain. Government should also provide financial support and training to small-scale construction businesses to enhance their resilience to macroeconomic shocks.

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