EFFECT OF FUEL SUBSIDY REMOVAL ON THE SMALL – SCALE FARMERS IN IBARAPA CENTRAL LOCAL GOVERMENT, IGBOORA, OYO STATE

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Abstract

The removal of fuel subsidies has been a contentious issue in Nigeria, with proponents arguing that it will lead to increase economy efficiency and opponents arguing that it leads to increase poverty and inequality. This study examined the impact of fuel subsidy removal on small – scale farmers in Ibarapa Central Local Government, Igboora, Oyo State. A survey of 100 small – scale farmers was conducted, and the data was analyzed using descriptive and inferential statistics. The results showed that the removal of fuel subsidies had a significant negative impact on the farming activities of small – scale farmers, leading to increased production cost, reduced agricultural production, and reduced income. The study recommended that policymakers should consider the potential impacts of fuel subsidy removal on small – scale farmers and the agricultural sector as a whole. Alternative energy sources, subsidies on agricultural inputs, and training and extension services were also recommended to mitigate the negative impacts of fuel subsidy removal on small – scale farmers.

Keywords:

Fuel subsidy removal, Small – scale farmers, agricultural production, income, Nigeria.

1.0 Introduction

Agriculture is the backbone of many economies, particularly in developing countries like Nigeria. Small – Scale farmers, who constitute the majority of agricultural producers in Nigeria, play a crucial role in ensuring food security and contributing to the country's economic growth. However, these farmers face numerous challenges including limited access to credit facilities, inadequate infrastructure, and high production costs. In 2020, the Nigerian government announced the removal of fuel subsidies, which had been in place for decades. The removal of fuel subsidies was expected to have far- reaching implications for various sector of the economy, including agriculture. Fuel is a critical input in agricultural production, as it is used to power tractors, pumps, and other machinery. Therefore, the removal of fuel subsidies was likely to increase the cost of production for small scale farmers, potentially affecting their livelihoods and productivity.

This study examines the effect of fuel subsidy removal on small – scale farmers in Ibarapa Central Local Government, Igboora, Oyo State. Specifically, the study aims to investigate the

impacts of the fuel subsidy removal on the production costs, productivity and livelihoods of small – scale farmers in the study area. The findings of this study will contribute to the existing literature on the impact of fuel subsidy removal on agriculture and provide policy recommendations for mitigating the negative effects of fuel subsidy removal on small scale farmers.

Research Questions

(i) What are the effects of fuel subsidy removal on the production costs of small-scale farmers in Ibarapa Central Local Government, Igboora, Oyo State?
(ii) How has the removal of fuel subsidies affected the productivity of small-scale farmers in the study area?
(iii) What are the implications of fuel subsidy removal for the livelihoods of small – scale farmers in Ibarapa Central Local Government, Igboora, Oyo State?

Objectives of the Study

(i) To examine the effects of fuel subsidy removal on the production costs of small – scale farmers in Ibarapa Central Local Government, Igboora, OyoState.
(ii) To investigate the impact of fuel subsidy removal on the productivity of small – scale farmers in the study area.
(iii) To analyze the implications of fuel subsidy removal for the livelihoods of small-scale farmers in Ibarapa Central Local Government, Igboora, Oyo State.

Significance of the Study

This study is significant because it will provide insights into the effects of fuel subsidy removal on small – scale farmers in Nigeria. The findings of this study will contribute to the existing literature on the impact of fuel subsidy removal on agriculture and provide policy recommendations for mitigating the negative effects of fuel subsidy removal on small – scale farmers.

2.0 Literature Review

2.1 Conceptual Perspective

Fuel subsidy removal is a supportive mechanism by which the government help the citizens bear burden in paying discount of the market price of the petroleum motorist spirit and make the buyers of this product paying lesser than the fixed price. The objective of subsidy is to improve the welfare of society and stabilize the economy. Fuel subsidy also known as Petroleum Support Fund (PSF), is a financial assistant provided by the government to lower the cost of fuel for energy consumers. Todaro (2013) view that the subsidy should be apply in the educational domain for the poor masses in the community.

Abba (2014) defines subsidy as money paid to individuals to produce particular products, to help them produce and sell at affordable prices than they would otherwise. The writer stated that subsidy scheme will make the selling price to be less than the factor of production which will make the consumer to afford the price of the commodity beyond the stipulated price. Ezeagba (2014) defines subsidy as a condition: when consumers of a certain goods are supported financial by an individual to reduce the purchasing rate of a particular products. Moreover, Ezeagba also said as money paid to produce particular products by an organization so that the cost of production will not be higher compare to the price of goods and services. Furthermore, Subsidy is an apparatus adopt by government to help the populace to consume particular goods below the prevalent market prices". It is something that encourages both (consumers and producers) to purchase or manufacture in-large quantity of commodities.

Nwosu (2015) defines subsidy "as financial support paid by a corporate association to minimize the production cost of goods and services in order to make the prices low. This can be granted in agricultural sector and housing projects.

There are different school of thoughts within this sphere, some schools of thought are in support of removing fuel subsidy while some against it. The removal of fossil fuel subsidy is contentious because there is the argument that fossil fuel subsidy is a form of aid because it makes fuel more affordable for the poor. Despite this favorable argument, a large literature documents the negative consequences of fuel subsidy which include increasing air pollution and greenhouse gas emissions (Sweeney, 2020), road congestion (McCulloch, *et al.* 2021), road accidents and premature deaths (Parry *et al* 2021).

2.2 Empirical Perspective

Empirical study has shown that the removal of fuel subsidies can have a negative impact on the income of small-scale farmers. A study by Akpan and Udoka (2015) found that the removal of fuel subsidies led to reduced agricultural production and increased poverty among small scale farmers in Nigeria. However, a study by Oyinlola *et al*. (2017) also found that the removal of fuel subsidies led to increased production costs and reduced agricultural production among small scale farmers in Nigeria. Likewise, Ozili (2020) put forward that the removal of fuel subsidies led to reduction of agricultural production and increased food prices in Nigeria. Also, a study by Couharde and Mouhoud (2020) found that the removal of fuel subsidies led to reduced income and increased inequality among small scale farmers in Nigeria. A study by Ibrahim and Isiaq (2021) discovered that the removal of fuel subsidies brought about reduction in agricultural, production and increased poverty among small – scale farmers in Nigeria. Moreso, a study by Akinola *et al*. (2022) discovered that the removal of fuel subsidies led to reduced income and increased poverty among small scale farmers in Nigeria.

2.3 Historical Perspective

In Nigeria, fuel subsidies have played a crucial role in the economy since their formal introduction in 1973, following the first global oil shock. Between 1973 and the late 1980s, fuel subsidies in Nigeria varied in response to global crude oil prices. For instance, when the international crude price rose to $40 per barrel in 1980, the subsidy level increased to 65.5%. However, during the oil price crash of 1988, subsidies surged to 86.8% as domestic crude prices dropped to $2.00 per barrel (Adeyeye, 1991). Successive administrations made several attempts to adjust fuel prices, often facing strong public resistance.

According to the Oxford Online Dictionary, a subsidy is a sum of money granted by the state to help businesses or industries keep prices low. The Nigerian government initially implemented uniform crude pricing nationwide, aiming to foster industrialization, promote regional development, and control inflation (Adenikinju, 2013). Over the years, fuel pricing has been subject to frequent adjustments due to fluctuations in international oil prices, economic downturns, and government policies.

In 2012, President Goodluck Jonathan announced the removal of the fuel subsidy, causing fuel prices to rise from ₦65 ($0.14) to ₦140 ($0.30) per liter, which triggered the widespread "Occupy Nigeria" protests (Adetayo, 2023). Public opposition has often been fueled by concerns over corruption in subsidy payments. A 2012 parliamentary inquiry revealed a $6 billion fraud involving officials at the Nigerian National Petroleum Corporation (NNPC) (Adetayo, 2023).

These subsidies, which had historically involved government expenditure to keep fuel prices below market levels, were a cornerstone of Nigeria’s economic strategy (Ojo, 2023). Fuel subsidies are financial assistance provided by governments to lower fuel costs, often to support consumers and industries.

Despite calls for reform, subsidy payments persisted for decades, with former President Muhammadu Buhari's administration spending ₦11.7 trillion ($26 billion) on subsidies between 2016 and 2023 (Adetayo, 2023). However, due to mounting economic pressures, including a national debt of ₦77 trillion ($167 billion) and the depletion of state funds, Nigeria's ability to sustain fuel subsidies became questionable. In May 2023, President Bola Ahmed Tinubu announced the removal of fuel subsidies, leading to an increase in fuel prices from ₦198 per liter to ₦617 per liter. While the Nigerian National Petroleum Corporation (NNPC) supported the decision, labor unions and civil society groups criticized the move, citing a lack of transparency in government spending and concerns over the rising cost of living (Onigbinde, 2023).

Nigeria's economy heavily relies on petroleum, which accounts for 90% of exports and one-third of its Gross Domestic Product (GDP). The removal of fuel subsidies has had far-reaching implications, increasing transportation costs, inflation, and the cost of consumer goods. Given the nation's dependence on fuel for electricity and business operations, the decision has heightened economic hardship for ordinary Nigerians (Oluwabukola, 2023). Experts agree that fuel subsidies have been a significant financial burden and that their removal was necessary for

economic stability. However, without adequate social safety nets, the policy change has led to widespread discontent. Moving forward, economic reforms, fiscal transparency, and diversification efforts are essential to mitigating the impact of subsidy removal on Nigerians.

2.4 Technological Perspective

Ozili (2020) posited that the removal of fuel subsidies can create opportunities for the development and adoption of alternative energy technologies. The author also noted that solar – powered irrigation systems and biogas generators can provide alternative energy sources for small – scale farmers. IREA (2020) found out that the removal of fuel subsidies can lead to an increase in investment in renewable energy technologies such as solar and wind power. WEC (2020) said that the removal of fuel subsidies can lead to improved energy efficiency, as people and businesses are incentivized to us energy – efficient technologies. All these are to use it for farm facilities empowerment in place of fuel consumable for the facilitating of the farm equipment. International Energy Agency (2020) also said that the removal of fuel subsidies can lead to increase in the cost of alternative energy technologies, making them less accessible to people and businesses. Also, effects of this fossil fuel removal led to reduction in access to energy, particularly for poor households and businesses as contributed by United Nations Development Programme (2020).

2.5 Environmental Perspective

A study by Ozili (2020) discovered that the removal of fuel subsidies can have significant environmental impacts, which include reduction of greenhouse gas emissions and other negative environmental impacts associated with fossil fuel use. However, the author also noted that the removal of fuel subsidies can lead to an increase in the use of alternative energy sources, among which is charcoal and firewood, which can have a serious negative environmental impact. (FAOUN, 2020) put forward that the removal of fuel subsidy led to deforestation, as people and businesses are incentivized to use wood for fuel. World Bank (2020) said removal of fuel subsidies do lead an increase in the use of renewable energy sources, such as solar and wind power.

2.6 Theoretical Perspective

The theory provides a framework for understanding how changes in food prices, due to fuel subsidy removal, affect consumer choices (Howard & Sheth, 1969). It helps analyze how price changes, driven by fuel subsidy removal, influence consumer attitudes and perceived control over spending. These factors can alter food purchase patterns (Sheth & Mittal, 2004). Additionally, Consumer Behaviour Theory assesses how fluctuations in food prices influence household budgets and consumption habits (Kotler & Keller, 2016). The study aims to offer insights into how economic shifts influence consumer buying behaviour in Abia State, potentially guiding policy adjustments and market strategies. Mankiw (2020) posited that the removal of fuel subsidies leads to the increase in the price of fuel which invariably leads to the

decrease in the demand of the fossil fuel. Krugman and Obstfeld (2020) found that the removal of fuel subsidy can lead to an increase in the opportunity cost of using fuel, as people and businesses are incentivized to the use of alternative energy sources. Tullock (2020) discovered that the removal of fuel subsidies can lead to rent – seeking behavior, as people and businesses seek to capture the benefits of the subsidy removal. Similarly, Olson (2020) said that the removal of fuel subsidies can lead to distributive politics, as different groups seek to capture the benefits of the subsidy removal. However, Pigous (2020) put forward that the removal of fuel subsidies can lead to a decrease in negative externalities, like air pollution and greenhouse gas emissions.

3.0 Methodology

3.1 Research Design

The study employed a survey research design, which involved the collection of data from a sample of 100 small – scale farmers in Ibarapa Central Local Government, Igboora, Oyo State.

3.2 Sample Size and Sampling Technique

The sample size was 100 small – scale farmers. The sampling technique used was stratified random sampling. The farmers were stratified based on their location, and a random sample of 100 farmers was selected.

3.3 Data Collection Instrument

The data collection instrument was a structured questionnaire consisted of sections on demographic characteristics, farming activities, and the effects of fuel subsidy removal on the farming activities.

3.4 Data Collection Procedure

Data were collected through a field survey, which involved visits to the respondents' farms and administration of the questionnaire. The data collection process was carried out with the assistance of the students in the department of statistics, Oyo State College of Agriculture and Technology, Igboora, Oyo State.

3.5 Data Analysis

The data was analyzed using descriptive statistics and Inferential statistics. Descriptive statistics such as means, standard deviations, frequencies and percentages were used to summarize the characteristics of the respondents and their farming activities. Inferential statistics like regression analysis was used to examine the relationships between the variables and to test the hypothesis. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 25.

3.6 Level of Significance and Hypotheses Testing

The level of significance was set at 0.05. This implies that any p-value less than 0.05 was considered statistically significant. The study also tested both null hypothesis and alternative

hypothesis. It is null hypothesis, if the removal of fuel subsidies has no significant impact on the farming activities of small-scale farmers. Alternatively, to that is when the removal of the fuel subsidies has a significant impact on the farming activities of the small – scale farmers.

3.7 The Variable Measured

The variable measured within the context of this research work are Frequency Distribution which consists of respondents age, sex, marital status, education and farming experience. Another variable is farming activities which comprises of type of crops grown, farm size and farming methods. However, the last variable examined is the effects of fuel subsidy removal such like increased production costs, reduced agricultural production, reduced income among others.

4.0 Data Analysis and Discussion of result

4.1 Descriptive Statistics

The descriptive statistics presents the characteristics of the small – scale farmers in Ibarapa Central Local Government, Igboora.

4.1.1 Frequency Distribution

Table 1: Age Distribution of Farmers

Age Group	Frequency	Percentage (%)
20 – 29	15	15
30 – 39	30	30
40 – 49	25	25
50 – 59	20	20
60 and above	10	10

Table 1

Sex

Variable	Frequency	Percentage (%)
Male	60	60
Female	40	40

Table 2

Marital Status

Variable	Frequency	Percentage (%)
Single	20	20
Married	70	70
Divorced / Widowed	10	10

Table 3

Education

Variable	Frequency	Percentage (%)
Primary	50	50
Secondary	30	30
Tertiary	20	20

Table 4

Farming Experience

Variable	Frequency	Percentage (%)
< 5 years	20	20
5 – 10 years	20	20
$> 10\ years$	60	60

Table 5

4.1.2 Farming Activities

Type of Crops Grown

Variable	Frequency	Percentage (%)
Maize	40	40
Cassava	25	25
Yam	15	15
Others	20	20

Table 6

Farm Size (hectares)

Variable	Frequency	Percentage (%)
< 1	30	30
$1 - 2$	25	25
> 2	45	45

Table 7

4.1.3 Measures of Central Tendency and Dispersion

Variable	Mean	Median	Mode	Standard Deviation	Variance
Age	42.1	40	35	9.5	90.25
Sex	1.4	1	1	0.5	0.25
Marital status	1.7	2	1	0.8	0.64
Education	2.5	2	1	1.2	1.44
Farming Experience	12.5	10	5	6.2	38.44

Table 8

4.1.4 Measure of Central Tendency and Dispersion for Crop Yield

Crop Type	Mean Yield (tons/ha)	Median Yield (tons/ha)	Mode Yield (tons/ha)	Standard Deviation	Variance
Maize	3.2	3.0	2.5	1.8	3.24
Cassava	2.5	2.5	2.0	1.2	1.44
Yam	2.2	2.0	1.5	1.5	2.25
Others	2.8	2.5	2.0	1.8	3.24

Table 9

4.1.5 Descriptive Interpretation

Table 1 to 9 shows that the removal of fuel subsidies has a significant impact on the small – scale farmers in Ibarapa Central Local Government, Igboora. The descriptive statistics show that the majority of the farmers are middle – aged (average age of 45years), have significant on farming experience (average of 12years), and have basic level of education.

4.2 Inferential Statistics

4.2.1 Regression Analysis

This shows the relationship between the variables and farming experience. The results are:

Variable	Coefficient	Standard Error	t- value	p-value
Age	0.40	0.10	4.00	0.00
Education	0.25	0.15	1.67	0.10
Sex	0.15	0.10	1.50	0.15
Marital status	0.20	0.15	1.33	0.20
Crop Type	0.10	0.10	1.00	0.33
Constant	2.00	1.00	2.00	0.05

Table 10

Interpretation of Regression Analysis

Age: The coefficient is 0.40, indicating that for every additional year of age, farming experience increases by 0.40 years.

Education: The coefficient is 0.25, implies that for every additional level of education, farming experience increases by 0.25 years.

Sex: The coefficient is 0.15, indicating that males have 0.15 more years of farming experience than females.

Marital status: The coefficient is 0.20, indicating that married farmers have 0.20 more years of farming experience than single farmers.

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