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# FUEL SUBSIDY REMOVAL AND PERFORMANCE OF SMEs IN EDO NORTH

**Umoru, Victor Agbomire (PhD),**
Department of Business Administration & Management, School of Business Administration & Management Studies, Auchi Polytechnic, Auchi, Edo State.

**Onishowo, Progress Ayo,**
Department of Business Administration, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka, Anambra State.

***Abstract***

*The study examined the effect of fuel subsidy removal on performance of SMEs in Edo North. Specifically, the study's objective is to investigate the effects of the hike cost of production, cost of supply chain and cost of finance on market share, profitability and survival rate of SMEs in Edo North. To achieve this objective, the study adopted a descriptive survey research design and a sample of 288 SMEs in Edo North were randomly selected using Cochran's sample size technique. The data obtained through a structured questionnaire were analysed, using both descriptive statistic and Pearson Product Moment correlation at 5% significance level. The findings revealed that there is positive insignificant relationship between the cost of production and market share of SMEs. The findings further indicated negative correlation between cost of supply chain and profitability of SMEs, while there is a significant negative correlation between the cost of finance and survival rate of SMEs in Edo North. The study therefore among others recommended that SMEs should explore strategies to enhance their market share by implementing efficient production processes, quality improvement, and innovative marketing approaches.*

**Keywords***:* Subsidy, Profitability, Performance, SMEs, Survival Rate, Supply Chain, Production.

## Introduction

Subsidy has been the means through which government engages in the transfer of money from the government to an entity, leading to a decline in the price of the subsidised product. This leads to an increase in the demand for the commodity, shifting the demand curve to the right. The government pays the difference between the supplier's price and what the consumer ends up paying. Subsidies were first introduced in Nigeria in the 1970s to cushion the effect of the oil price shock of 1973. This was formalized under the military regime of former President Olusegun Obasanjo in 1977 under the Price Control Act. The Price Control Act regulated the costs of goods including fuel. Since then, several administrations have tried unsuccessfully to end the subsidy regime in Nigeria (Leon, 2023).

Subsidies can be direct or indirect, legal or illegal, ethical or unethical, and can come from various sources, including governments and NGOs (Wikipedia, 2023). Direct subsidies are those that involve an actual payment of funds toward a particular individual, group, or industry. Indirect subsidies are those that do not hold a predetermined monetary value or involve actual cash outlays. They can include activities such as price reductions for required goods or services that can be government-supported. This allows the needed items to be purchased below the current market rate, resulting in savings for those whom the subsidy is designed to help (Yoon, 2020).

In economic theory, subsidies can be used to offset market failures and externalities to achieve greater economic efficiency. However, critics of subsidies point to problems with calculating optimal subsidies, overcoming unseen costs, and preventing political incentives from making subsidies more burdensome than they are beneficial (Yoon, 2020).

Inverse has been the case as government has continued to shoulder the high cost of refinery. Not only the high cost of refinery, subsidy payments were also been thwarted by issues of corruption and lack of fiscal transparency (United Nations, 2023). In 2012, the government under the administration of erstwhile President Goodluck Jonathan attempted to remove fuel subsidies as part of the full deregulation of the downstream oil and gas sector. However, it was only able to achieve a partial removal, which led to an increase in

the retail pump price of petrol to NGN 140 per litre from NGN 65 per litre. However, the present administration, led by President Bola Ahmed Tinubu, finally done what had appeared to be a pie in the sky, according to his statement, “fuel subsidies are gone! The era of funding the consumption of premium motor spirit (PMS), also known as petrol in Nigeria, is over” (Sauvage, 2023).

Consequently, the fuel subsidy removal has marred a great economic challenge as both public and private, large or small businesses have drastically been affected. Its spread effects have continued to call for formidable strategies to elevate the business and economic downturns, and poverty in the country. While the government is making efforts to contain this spread, the rate of survival of businesses especially the small and medium scale enterprises continued to decline (McCulloch, Moerenhout, & Yang, 2021).

The sudden removal of fuel subsidies in Nigeria has instigated a cascade of repercussions that are significantly reverberating across the operational landscape of Small and Medium Enterprises (SMEs). A prominent and immediate consequence of this policy change is the marked escalation in fuel prices, a development that carries direct and far-reaching implications for the operational costs of these enterprises. Beyond the direct cost increases, the ramifications extend to the broader operational infrastructure, specifically concerning the cost of production, and the efficiency and resilience of supply chains and distribution networks that are the lifeblood of SMEs (Adelabu and Olanrewaju, 2019).

The surge in fuel prices, stemming from the removal of subsidies, is an indisputable source of concern for SMEs. It inflates their operating expenses, ranging from transportation and logistics to energy consumption in production processes. This escalation in operational costs inevitably squeezes profit margins and demands a swift response from these businesses in order to adapt and remain competitive in an evolving economic environment (Anthony & Jamal, 2014).

However, the effects are not confined solely to financial pressures. The intertwined relationship between fuel costs and the operational efficiency of SMEs is particularly conspicuous in supply chain and distribution dynamics. The repercussions are profound, stretching across various dimensions. The increasing cost of production or operation of businesses has been unbearable. The cost of production or operation of businesses is either make or break any business. As the price of fuel rises, the cost of manufacturing and

production for SMEs increases. This has a direct impact on their ability to offer competitive pricing and maintain their market share (Risnangsih, Yanti, Indrihastuti & Kunsnanto, 2023).

To revive the SMEs industry, the need to economize becomes imperative, potentially leading to adjustments in production methods, resource allocation, and, in some cases, even workforce management. It is important for the government to consider measures to mitigate the impact of the subsidy removal on businesses, particularly those that are vulnerable to the resulting price increases (Ozili & Obiora, 2023). However, despite the challenges, some experts argued that the removal of fuel subsidies could free up much-needed resources and help fix Nigeria's ailing economy. Ismail, Elian and Nelson (2023) believe that the Nigerian stock prices reached their highest valuation in 15 years, and the country is considered more open for business.

## 1. Objectives of the Study

The broad objective was to investigate the effects of the removal of fuel subsidy on the performance of small and medium enterprises in Nigeria particularly in Edo North. The specific objectives are to:

i. examine the effects of hike cost of production on market share of SMEs in Edo North.
ii. investigate the effects of supply chain costs on the profitability of SMEs in Edo North.
iii. determine the influence of hike cost of finance on survival rate of SMEs in Edo North.

## Hypotheses

The study formulates the following null hypothesis in line with the objectives and research questions:

$Ho_1$: There is no significant relationship between cost of production and market share of SMEs in Edo North.

$Ho_2$: Supply chain does not positively correlate with profitability of SMEs in Edo North.

$Ho_3$: Cost of finance does not positively correlate with survival rate of SMEs in Edo North.

**Empirical Review**

Ezeala-Harrison and Ifeanyichukwu (2016) investigated supply chain disruptions, responsiveness strategies and operational performance in Nigerian Service Organizations. A qualitative case study was adopted to explore supply chain disruptions and responsive strategies employed by service organizations in Nigeria, touching upon issues relating to cost containment. Semi structured interviews were conducted with managers in selected organizations to gather primary data. Results indicated that effective collaboration along the supply chain helps minimize disruptions and ensures smooth flow of goods and services, ultimately contributing to improved organizational performance and profitability.

Oboh and Amusa (2017) examined operations capabilities and logistics performance of small and medium enterprises in Nigeria. Through questionnaires administered to 150 randomly sampled SMEs, this cross-sectional survey study investigated relationships between operation capabilities and logistic performance in Nigeria. Findings suggested that process innovation, inventory control, order fulfillment, delivery reliability, and customer service play critical roles in enhancing logistics performance. Furthermore, strong logistics performance contributes significantly to SME profitability. Thus, managing supply chain costs effectively becomes vital to achieving desired profit margins.

Onyeji and Ogbuagu (2019) looked at the access to credit and profitability of SMEs in post-subsidy era of Nigerian downstream oil and gas sector. The study employs quantitative techniques using secondary sources of data obtained from Central Bank of Nigeria Statistical Bulletin reports, National Bureau of Statistics annual reports, and petroleum products import. The main finding indicated that improved access to credit facilitated greater resiliency for SMEs in Nigeria's oil and gas sector after the subsidy removal. Specifically, favorable loan terms and conditions contributed significantly to enhanced profitability among benefitting SMEs. This outcome implies that ensuring

adequate access to affordable credit facilities bolsters the capacity of SMEs to cope with shocks induced by substantial policy changes, thereby increasing their chances of survival.

Agboola and Isitor (2018) carried out a study titled "accessibility and affordability of credit facilities by small and medium enterprises in Nigeria. Using a descriptive cross-sectional design with structured questionnaire administration, this study examined credit facility affordability and accessibility for Nigerian SMEs. Results demonstrated that high interest rates coupled with collateral requirements pose considerable barriers to securing loans for most SME owners. Addressing such hurdles could alleviate financial stresses experienced by SMEs, thereby increasing their chances of surviving difficult times such as fuel subsidy removals.

## METHODOLOGY

*The study adopted a descriptive survey research design and a sample of 288 SMEs in Edo North was randomly selected using Cochran's sample size technique. The data obtained through a structured questionnaire were analysed using both descriptive statistic and Pearson Product Moment correlation at 5% significance level.* Descriptive statistics and inferential data analysis were done using Pearson product moment correlation. The p-value at the 0.05 level of significance was used as decision criterion.

### Model Specification

The model used in this study was the regression model. The model fitted for the data is:

SMEP = SUBREM ……..…….. i

This is decomposed into:

MKTSHARE $=\alpha_0 + \alpha_1$COSTPROD + ε ……..……ii

PROFIT = $\alpha_0$ + $\alpha_2$SUPCHAIN + ε……..……..……iii

SURVIVAL = $\alpha_0$ + $\alpha_3$COSTFIN + ε ……,..iv

Where;

***Dependent Variable:*** - SMEP = SME Performance

MKTSHARE = Market Share

PROFIT = Profitability

SURVIVAL = Survival Rate

***Independent variables:*** **-** SUBREM = Subsidy Removal
COSTPROD = Cost of Production
SUPCHAIN = Supply Chain
COSTFIN = Cost of Finance
$\varepsilon$ = Error term
$\alpha_0$ = constant
$\alpha_1$- $\alpha_3$ = coefficients of the independent variables

**Hypotheses Testing**

The Pearson Product Moment Correlation was employed to test the relationship between the variables of the study, and as well as the significance of the relationships. This was tested at 5% level of significance.

**Hypothesis I**

**Ho:** There is no significant relationship between cost of production and market share of SMEs in Edo North.

**$H_1$:** There is significant relationship between cost of production and market share of SMEs in Edo North.

**Table: 1.** Correlation analysis for Cost of Production and Market Share

| | | COSTPROD | MKTSHARE |
|---|---|---|---|
| COSTPROD | Pearson Correlation | 1 | .053 |
| | Sig. (2-tailed) | | .383 |
| | N | 274 | 274 |
| MKTSHARE | Pearson Correlation | .053 | 1 |
| | Sig. (2-tailed) | .383 | |
| | N | 274 | 274 |

**Source:** Researcher's computation

The correlation analysis presented in the table shows a Pearson correlation coefficient of 0.053 between the cost of production and market share, with a two-tailed p-value of 0.383 for both variables. The correlation coefficient (0.053) indicates a very weak positive correlation between cost of production and market share. The p-value is higher than the significance level of 0.05, indicating that there is no enough evidence to reject the null

hypothesis. Therefore, based on the given data, it can be concluded that there is no significant relationship between the cost of production and market share of SMEs in Edo North, but such relationship is positive.

The cost of production directly influences pricing decisions. SMEs must set prices that cover production costs while remaining attractive to customers. Striking the right balance is crucial for sustained profitability (Anggadwita & Mustafid, 2017).

This agrees with the position of Idowu and Komolafe (2015) that as market competition intensifies and customers seek out less expensive alternatives, SMEs facing elevated costs risk losing market share unless they find ways to innovate, streamline processes, or enhance product quality.

**Hypothesis II**

**Ho:** Supply chain does not positively correlate with profitability of SMEs in Edo North.

**$H_1$:** Supply chain positively correlates with profitability of SMEs in Edo North.

**Table: 2.** Correlation analysis for supply chain and profitability

| | | SUPCHAIN | PROFIT |
|---|---|---|---|
| SUPCHAIN | Pearson Correlation | 1 | -.033 |
| | Sig. (2-tailed) | | .585 |
| | N | 274 | 274 |
| PROFIT | Pearson Correlation | -.033 | 1 |
| | Sig. (2-tailed) | .585 | |
| | N | 274 | 274 |

**Source:** Researcher's computation

The correlation analysis presented in the table shows a Pearson correlation coefficient of -0.033 between supply chain and profitability, with a two-tailed p-value of 0.585 for both variables. The correlation coefficient (-0.033) indicates a very weak negative correlation between supply chain and profitability. This implies that increase in supply chain will results to very low decrease in the profitability of SME. The p-value is higher than the significance level of 0.05, indicating that there is no enough evidence to reject the null hypothesis. Therefore, based on the result, it can be concluded that there is no positive

correlation between supply chain and profitability of SMEs in Edo North, and such correlation is insignificant. However, this is in contrast to the findings of Oboh and Amusa 2017 as well as Ezeala-Harrison and Ifeayichukwu 2016 who affirmed that a strong logistics performance contributes significantly to SME profitability. Thus, managing supply chain costs effectively becomes vital to achieving desired profit margins.

**Hypothesis III**

**Ho:** Cost of finance does not positively correlate with survival rate of SMEs in Edo North.

**$H_1$:** Cost of finance positively correlates with survival rate of SMEs in Edo North.

**Table: 3.** Correlation analysis for cost of finance and survival rate

| | | COSTFIN | SURVIVAL |
|---|---|---|---|
| COSTFIN | Pearson Correlation | 1 | -.180** |
| | Sig. (2-tailed) | | .003 |
| | N | 274 | 274 |
| SURVIVAL | Pearson Correlation | -.180** | 1 |
| | Sig. (2-tailed) | .003 | |
| | N | 274 | 274 |

**. Correlation is significant at the 0.01 level (2-tailed).

**Source:** Researcher's computation

The correlation analysis presented in the table shows a Pearson correlation coefficient of -0.180** between the cost of finance and survival rate, with a two-tailed p-value of 0.003 for both variables. The correlation coefficient (-0.180) indicates a moderate negative correlation between the cost of finance and the survival rate of SMEs. The negative correlation suggests that as the cost of finance increases, the survival rate of SMEs tends to decrease. The p-value of 0.003 is less than the significance level of 0.05, and the correlation is deemed significant at the 0.01 level (2-tailed), indicating that there is enough evidence to reject the null hypothesis. Therefore, based on these results, it can be concluded that there is a significant negative correlation between the cost of finance and survival rate of SMEs in Edo North. While agreeing with this, findings of the studies conducted by Onyeji and Ogbuagu 2019 as well as Agboola and Isitor 2018 suggested that ensuring

adequate access to affordable credit facilities bolsters the capacity of SMEs to cope with shocks induced by substantial policy changes, thereby increasing their chances of survival.

## Conclusion

Based on the findings of the study, the cost of production and supply chain both insignificantly and positively affect market share and profitability. However, cost of finance significantly negatively correlates with survival rate of SMEs in Nigeria, especially in Edo north, suggesting that increase in the cost of finance resulting from the removal of fuel subsidies could lead to decrease in the survival rate of SMEs. Sequel to the above, it can be concluded that the government's removal of the fuel subsidies affects the performance of SMEs in Nigeria through the high cost of production, supply chain and cost of finance.

## Recommendations

Based on the findings from the study focusing on the effect of the removal of fuel subsidies on the performance of small and medium enterprises (SMEs) in Edo North, the following recommendations are proposed:

i. SMEs should explore strategies to enhance their market share by implementing efficient production processes, quality improvement, and innovative marketing approaches.

ii. Despite the lack of a positive correlation between supply chain and profitability, SMEs should prioritize supply chain optimization to improve overall operational efficiency.

iii. SMEs should explore alternative financing options, negotiate favorable terms with financial institutions, and implement prudent financial management practices to improve their survival prospects

In terms of managerial implication, the study of subsidies removal and SMEs' performance is hereby enhanced as different approaches to government policies and organizational performance in the small and medium business sectors.

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