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FUEL SUBSIDY REMOVAL AND EMPLOYEE PRODUCTIVITY IN NORTH CENTRAL NIGERIA'S PUBLIC SECTOR: A STUDY OF UNIVERSITY EMPLOYEES

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ABSTRACT

Fuel subsidy removal in Nigeria represents a major economic reform with significant implications for public sector employees. This study examined fuel subsidy removal on employee productivity among university employees in North Central Nigeria's public sector. The study was anchored on Conservation of Resources Theory, with support from Equity Theory and Job Demands-Resources Theory. A survey research design was adopted, with a sample of 351 academic and non-academic staff selected from public universities in North Central Nigeria using multi-stage sampling. Data were collected through structured questionnaires and analysed using descriptive statistics and multiple regression analysis. The findings revealed that increased commuting cost (β = -0.218, $p < 0.05$), reduced real income and rising cost of living (β = -0.291, $p < 0.05$), and financial stress and welfare pressure (β = -0.254, $p < 0.05$) had significant negative effects on employee productivity. The regression model explained 54.5% of the variation in employee productivity. The study concluded that fuel subsidy removal weakened punctuality, attendance, task completion, work engagement and service delivery quality among university employees. Recommendations include provision of staff transport services, regular salary reviews, cost-of-living adjustments, and improved welfare support schemes to mitigate the productivity consequences of fuel subsidy removal.

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1.0 Introduction

Fuel subsidy removal has become one of the most consequential economic policy reforms in contemporary Nigeria because petroleum products remain central to transportation, production, household consumption and public sector administration. For several decades, fuel subsidy was used by government to moderate the retail price of Premium Motor Spirit and reduce the direct cost borne by consumers. However, the policy was also criticised for creating fiscal pressure, encouraging inefficiency, weakening public revenue management and limiting government capacity to invest in infrastructure and social services. The recent removal of fuel subsidy therefore represents not only a fiscal reform but also a major socio-economic adjustment with direct implications for workers and public institutions (World Bank, 2023; IMF, 2024).

In the Nigerian public sector, employee productivity is strongly shaped by the economic conditions under which workers perform their duties. University employees, including academic and non-academic staff, require stable income, regular mobility, access to work materials, psychological stability and a supportive work environment to perform effectively. When fuel prices rise sharply, the effect is transmitted to transport fares, food prices, electricity alternatives, rent, educational expenses and general household expenditure. These outcomes reduce real income and may weaken employees' ability to report early to work, remain motivated, concentrate on assigned duties and sustain high-quality service delivery (NBS, 2024; Anijah, 2024).

The issue is particularly relevant in North Central Nigeria because the zone contains several federal and state universities that depend heavily on staff mobility across urban, semi-urban and peri-urban locations. Many university workers live outside campus communities and commute daily from surrounding towns due to housing constraints and the rising cost of living. In such circumstances, an increase in fuel price may translate into lateness, absenteeism, reduced morale and lower engagement in teaching, research, student support and administrative duties. The productivity of university employees is therefore not only a matter of personal effort; it is also shaped by the wider economic environment within which work takes place (ILO, 2024; Woyengitari, 2025).

Employee productivity in public universities can be understood through indicators such as punctuality, attendance, task completion, teaching effectiveness, research activity, administrative responsiveness, student service delivery and institutional commitment. When workers face intense financial pressure, their capacity to sustain these indicators may decline. Although subsidy removal may be justified from a macroeconomic standpoint, its immediate micro-level effect on workers requires careful empirical investigation. This study therefore

examines how fuel subsidy removal affects employee productivity among university employees in North Central Nigeria's public sector.

Fuel subsidy removal is expected to reduce fiscal waste and create room for more productive government spending. In principle, savings from subsidy withdrawal should support infrastructure, education, healthcare, transportation systems and social welfare programmes. However, the immediate experience of many Nigerian workers suggests that the policy has also increased household pressure through higher petrol prices, transport fares, food prices and other living costs. This has created a gap between the macroeconomic justification of subsidy removal and the everyday realities of public sector employees (World Bank, 2023; IMF, 2024). University employees are particularly affected because their productivity depends on consistent physical presence, mental concentration, research engagement, interaction with students, timely administrative processes and participation in institutional activities. When workers spend a larger share of their income on transportation and basic needs, they may experience reduced disposable income, financial stress, fatigue and lower work motivation. These conditions can weaken punctuality, increase absenteeism, reduce commitment and affect the quality of service delivery in public universities (Anijah, 2024; Woyengitari, 2025).

Existing studies on fuel subsidy removal in Nigeria have largely focused on inflation, household welfare, poverty, transport cost and macroeconomic stability. While these issues are important, fewer studies have examined how subsidy removal affects productivity among university employees in the public sector, especially in North Central Nigeria. Studies conducted in other regions provide useful insights, but they may not fully capture the realities of public universities in the North Central zone, where staff mobility patterns, institutional funding conditions and welfare arrangements differ across states. This creates a contextual gap that the present study seeks to address.

The problem of this study is therefore that fuel subsidy removal may have altered the working conditions of university employees by increasing commuting cost, reducing real income and intensifying welfare pressure. If these effects are not empirically examined, university management and government may underestimate the hidden productivity costs of the reform. This study is designed to provide evidence on the extent to which fuel subsidy removal affects employee productivity in selected public universities in North Central Nigeria.

The main objective of this study is to examine the effect of fuel subsidy removal on employee productivity in North Central Nigeria's public sector, with specific focus on university employees. The specific objectives are to examine the effect of increased commuting cost arising from fuel subsidy removal on employee productivity among university employees in

North Central Nigeria, assess the effect of reduced real income and rising cost of living associated with fuel subsidy removal on employee productivity among university employees in North Central Nigeria, determine the effect of financial stress and welfare pressure caused by fuel subsidy removal on employee productivity among university employees in North Central Nigeria.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Fuel Subsidy Removal

Fuel subsidy removal refers to the withdrawal or reduction of government financial support that keeps the retail price of petrol below its market-determined cost. Under a subsidy regime, government absorbs part of the cost of importing, refining or distributing petroleum products so that consumers pay less than the actual market price. When the subsidy is removed, consumers face prices that are closer to the market cost of supply. In Nigeria, this policy has direct implications because petrol is widely used for transportation, small-scale power generation and daily economic activities (World Bank, 2023; NBS, 2024).

The removal of fuel subsidy is often justified on fiscal grounds. Policymakers argue that subsidy spending can crowd out investment in infrastructure, education, health and social protection. However, the welfare consequences of subsidy removal can be severe when compensatory measures are weak or delayed. Since petrol prices influence transport fares and production costs, subsidy removal can transmit price pressure across the economy. This makes the policy highly relevant to workers whose salaries do not adjust immediately to inflationary changes (IMF, 2024; Abiodun, 2025).

In the context of university employees, fuel subsidy removal may affect productivity through both direct and indirect channels. The direct channel is commuting cost: workers who travel daily to campus may spend more on transport or fuel. The indirect channel is cost of living: higher petrol prices may increase food prices, utility costs and household expenditure. These pressures can reduce disposable income and create stress that affects concentration, morale and work performance (Anijah, 2024; Balogun, 2025).

2.1.2 Indicators of Fuel Subsidy Removal

The first indicator of fuel subsidy removal is increased commuting cost. This refers to the rise in the amount employees spend on daily movement from home to workplace. For university employees, commuting cost is important because many staff members live away from campus and depend on public transport or private vehicles. When transport cost rises, employees may

experience lateness, fatigue or reduced attendance at institutional activities (NBS, 2024; Anijah, 2024).

The second indicator is reduced real income. Real income refers to the purchasing power of a worker's salary after accounting for changes in prices. Even when nominal salary remains unchanged, rising transport fares and food prices reduce what employees can actually buy. This decline in purchasing power may weaken job satisfaction and reduce workers' psychological commitment to organisational goals (ILO, 2024; Abiodun, 2025).

The third indicator is rising cost of living. Fuel price increases often affect food distribution, market prices, rent, school fees, health expenses and other household needs. For public sector workers whose salaries are fixed for long periods, the rising cost of living may create pressure between family survival and workplace obligations. This pressure may reduce work engagement and increase distraction during working hours (World Bank, 2023; IMF, 2024).

The fourth indicator is financial stress and welfare pressure. Financial stress arises when employees struggle to meet household obligations from available income. Welfare pressure may appear in the form of anxiety, reduced morale, indebtedness, inability to attend professional events, and difficulty sustaining work-life balance. These conditions are important because productivity depends not only on skills but also on the physical and psychological stability of workers (ILO, 2023; Woyengitari, 2025).

2.1.3 Concept of Employee Productivity

Employee productivity refers to the extent to which workers efficiently and effectively convert their time, skills, knowledge and effort into useful organisational output. In public universities, employee productivity includes teaching quality, research output, student supervision, administrative responsiveness, examination processing, record management, committee work, community service and institutional support functions. Productivity therefore involves both measurable outputs and qualitative contributions to institutional performance (ILO, 2024).

For academic staff, productivity may be reflected in lecture delivery, research publications, student mentorship, curriculum development, conference participation and community engagement. For non-academic staff, productivity may be reflected in timely administrative service, accurate documentation, ICT support, laboratory assistance, library services, maintenance, security, student records and other operational responsibilities. Since public universities operate through the combined efforts of both staff categories, any factor that weakens their motivation or attendance may affect institutional effectiveness (Anijah, 2024; Woyengitari, 2025).

Employee productivity is not determined only by individual competence. It is also influenced by wages, welfare, work environment, transportation access, institutional support, job security, leadership and broader economic stability. Where employees face persistent financial stress, their productivity may decline even when they possess the required skills. This suggests that fuel subsidy removal may affect university productivity by altering the economic conditions under which staff perform their duties (ILO, 2023; Balogun, 2025).

2.1.4 Indicators of Employee Productivity

The first indicator of employee productivity is punctuality and attendance. Employees who report to work regularly and on time are more likely to perform assigned duties effectively. In universities, punctuality is essential for lectures, meetings, administrative schedules, laboratory sessions and student services. Rising commuting cost may affect this indicator where workers cannot afford daily transport or experience longer travel delays due to reduced mobility options (Anijah, 2024).

The second indicator is task completion. This refers to the ability of employees to complete assigned duties within expected time and quality standards. In public universities, delayed task completion can affect examination processing, student records, departmental administration, project supervision and research activities. Financial stress and fatigue may reduce attention span and delay the completion of official responsibilities (Woyengitari, 2025).

The third indicator is work engagement. Work engagement refers to the level of energy, dedication and concentration employees bring to their duties. A worker may be physically present but psychologically distracted by financial difficulties. When fuel subsidy removal increases household pressure, employees may experience lower morale and weaker emotional attachment to institutional goals (ILO, 2023).

The fourth indicator is service delivery quality. Public universities provide services to students, staff, parents, regulatory agencies and the wider society. The quality of these services depends on workers' ability to respond promptly, accurately and professionally. If welfare pressure reduces employee commitment, the quality of teaching, supervision, administration and student support may be affected (ILO, 2024).

2.2 Theoretical Review

2.2.1 Conservation of Resources Theory

The study is anchored on Conservation of Resources Theory developed by Hobfoll. The theory argues that individuals seek to acquire, protect and preserve valued resources such as income, time, energy, emotional stability, social support and work capacity. Stress occurs when these resources are threatened, lost or insufficient to meet demands. This theory is relevant because

fuel subsidy removal can be interpreted as a resource-depleting shock. It increases transport cost, reduces disposable income and places additional pressure on employees' time, energy and emotional stability.

The theory explains why university employees may experience reduced productivity after subsidy removal. When workers spend more money and time commuting to work, they lose financial and physical resources that would otherwise support effective performance. When household expenses increase without corresponding salary adjustment, employees may experience resource loss, anxiety and reduced concentration. The theory therefore provides a useful framework for understanding how macroeconomic policy affects micro-level work behaviour.

2.2.2 Equity Theory

Equity Theory, associated with Adams, explains how employees compare their inputs and outcomes with those of others. Inputs may include time, effort, skills and commitment, while outcomes may include salary, allowances, welfare benefits and recognition. When employees perceive that their effort is not fairly rewarded, dissatisfaction and reduced motivation may occur. In the context of fuel subsidy removal, workers may perceive inequity when their salaries remain stagnant while living costs rise sharply.

This theory is relevant because university employees may feel that the burden of economic reform is transferred to workers without adequate compensation. If employees believe that their welfare is neglected, they may reduce discretionary effort, become less committed or show lower enthusiasm for institutional responsibilities. Equity Theory therefore helps explain the motivational dimension of fuel subsidy removal and employee productivity.

2.2.3 Job Demands-Resources Theory

The Job Demands-Resources Theory explains that employee performance is shaped by the balance between job demands and available resources. Job demands include workload, pressure, time constraints and emotional strain, while job resources include salary, welfare support, autonomy, good work environment and institutional assistance. When demands are high and resources are low, employees may experience burnout and reduced productivity.

Fuel subsidy removal increases external demands on university employees by raising commuting cost, living expenses and financial stress. If institutional resources such as transport support, salary adjustment, welfare schemes or flexible work arrangements are absent, employees may find it difficult to sustain productivity. This theory therefore supports the argument that productivity is likely to decline when economic pressure increases without corresponding organisational support.

Theoretical Framework

This study is anchored primarily on Conservation of Resources Theory because it provides the strongest explanation for how fuel subsidy removal affects employee productivity. The theory shows that workers require financial, physical and psychological resources to perform effectively. When subsidy removal increases transport cost and cost of living, it reduces these resources and may weaken productivity. Equity Theory and Job Demands-Resources Theory are retained as supporting theories because they explain perceived fairness, motivation and the balance between work pressure and available support.

2.3 Empirical Review

Anijah (2024) examined the implication of fuel subsidy removal on academic staff productivity in colleges of education in Southeast Nigeria. The study adopted a descriptive research design and collected data from academic staff using a structured questionnaire. The findings indicated that fuel subsidy removal increased financial strain, commuting cost and work-life pressure among academic staff. The study further showed that these pressures negatively affected staff morale, motivation, absenteeism and professional engagement. This study is relevant because it directly links subsidy removal to academic productivity, although its geographical focus differs from the North Central zone.

Woyengitari (2025) investigated fuel subsidy removal and university staff performance in selected universities in Bayelsa State. The study focused on motivation, productivity and job satisfaction among academic and non-academic staff. Findings showed a significant relationship between fuel subsidy removal and staff performance indicators. The study recommended targeted welfare programmes, transport allowances and institutional support systems to reduce the economic burden on university employees. Although the study is useful, its South-South context may not fully reflect the realities of public universities in North Central Nigeria.

Abiodun (2025) assessed the impact of fuel subsidy removal on cost of living in Nigeria. The study found that fuel subsidy removal significantly increased cost of living and inflationary pressure. The finding is relevant to the present study because cost of living is one of the channels through which subsidy removal may affect worker productivity. However, the study focused more on macroeconomic and household welfare outcomes than on university employee productivity.

Balogun (2025) examined the short-term effects of gasoline price subsidy removal in Nigeria using monthly data. The study considered inflation trends, transportation cost, public sentiment and fiscal adjustment. The findings indicated that subsidy removal had immediate

consequences for transport cost and consumer prices. This is important for the present study because transport cost is a major determinant of staff attendance, punctuality and work engagement in public universities.

The World Bank (2023) reported that petrol subsidy removal contributed to inflationary pressure in Nigeria, although the reform was also viewed as important for fiscal sustainability. Similarly, the IMF (2024) noted that subsidy reform should be accompanied by effective social protection because the burden of adjustment can be severe for vulnerable households. These institutional findings support the argument that fuel subsidy removal should not be examined only from the standpoint of fiscal savings, but also from the standpoint of worker welfare and productivity.

The reviewed studies show that fuel subsidy removal has implications for transport cost, cost of living, welfare, motivation and productivity. However, there remains limited empirical attention on university employees in North Central Nigeria. This gap is important because universities in the zone operate under different economic, geographical and institutional conditions. The present study therefore extends existing literature by examining the public university context in North Central Nigeria.

2.4 Gap in the Literature

The first gap is geographical. Existing studies have examined fuel subsidy removal in relation to university staff performance in Bayelsa State and academic staff productivity in Southeast Nigeria, but limited attention has been given to public universities in North Central Nigeria. Since cost of transport, residence patterns and institutional welfare conditions vary across regions, evidence from other zones may not be sufficient for policy decisions in North Central Nigeria.

The second gap is institutional. Many studies on fuel subsidy removal focus on households, transport operators, inflation and general welfare. Fewer studies examine public universities as workplaces where productivity depends on punctuality, research activity, teaching effectiveness, administrative efficiency and service delivery. This study addresses that gap by focusing on university employees.

The third gap is conceptual. Existing research often treats fuel subsidy removal as a broad economic policy without clearly identifying the specific workplace channels through which it affects productivity. This study narrows the analysis to commuting cost, reduced real income, rising cost of living, financial stress and welfare pressure. These indicators make the study more precise and empirically measurable.

3.0 Methodology

3.1 Research Design

The study adopted a survey research design. The design was considered appropriate because the study collected primary data from academic and non-academic staff of selected public universities in North Central Nigeria. The survey design enabled the researcher to obtain the opinions, experiences and perceptions of respondents on how fuel subsidy removal affected employee productivity.

3.2 Method and Sources of Data Collection

The study used both primary and secondary sources of data. The primary data were obtained through the administration of structured questionnaires to selected academic and non-academic staff of public universities in North Central Nigeria. The questionnaire was considered appropriate because it enabled the researcher to collect uniform and measurable responses from a relatively large number of respondents.

Secondary data were obtained from textbooks, journal articles, government publications, institutional reports, conference papers and relevant online materials. These sources provided background information on fuel subsidy removal, commuting cost, cost of living, employee welfare, public sector productivity and university administration in Nigeria.

3.3 Population of the Study

The population of the study comprised academic and non-academic staff of selected public universities in the North Central geopolitical zone of Nigeria. The zone covered Benue, Kogi, Kwara, Nasarawa, Niger, Plateau and the Federal Capital Territory. The study focused on university employees because they were directly involved in teaching, research, administration, student support services and institutional service delivery.

For the purpose of this study, the accessible population was estimated at 2,850 academic and non-academic staff from selected public universities in North Central Nigeria. The population consisted of lecturers, administrative officers, registry staff, bursary staff, librarians, technologists, laboratory staff, ICT personnel, security staff, maintenance staff and other categories of employees who contributed to university productivity.

The population was grouped as follows:

Academic staff = 1,140

Non-academic staff = 1,710

Total population = 2,850

3.4 Sample Size Determination

The sample size for the study was determined using Taro Yamane's formula. The formula was considered suitable because the population of the study was finite and the researcher intended to select a representative sample from the total population of academic and non-academic staff. The formula is stated as:

$n = N / 1 + N(e)^2$

Where:

n = sample size

N = population of the study

e = margin of error

1 = constant

For this study:

N = 2,850

e = 0.05

Substituting the values into the formula:

$n = 2,850 / 1 + 2,850(0.05)^2$

$n = 2,850 / 1 + 2,850(0.0025)$

$n = 2,850 / 1 + 7.125$

$n = 2,850 / 8.125$

$n = 350.77$

$n = 351$

Therefore, the sample size for the study was 351 respondents.

This means that 351 academic and non-academic staff were selected from the estimated population of 2,850 university employees in the selected public universities in North Central Nigeria.

3.5 Proportionate Sample Allocation

The sample was proportionately distributed between academic and non-academic staff to ensure fair representation of both categories of employees.

For academic staff:

Sample allocation = 1,140 / 2,850 × 351

Sample allocation = 0.4 × 351

Sample allocation = 140.4

Sample allocation = 140

For non-academic staff:

Sample allocation = 1,710 / 2,850 × 351

Sample allocation = 0.6 × 351

Sample allocation = 210.6

Sample allocation = 211

Therefore, the sample was distributed as follows:

Academic staff = 140 respondents

Non-academic staff = 211 respondents

Total sample size = 351 respondents

3.6 Sampling Technique

The study adopted a multi-stage sampling technique. In the first stage, selected public universities were purposively chosen from the North Central geopolitical zone. This was done because the study focused specifically on public universities whose employees were affected by public sector salary structures, commuting cost, welfare conditions and general economic pressure arising from fuel subsidy removal.

In the second stage, the respondents were stratified into academic and non-academic staff categories. This was necessary because both categories of employees performed different but complementary roles in the university system. Academic staff were involved mainly in teaching, research, student supervision and community service, while non-academic staff were involved in administration, record management, student services, technical support and general institutional operations.

In the third stage, simple random sampling was used to select respondents from each staff category. This gave each eligible respondent an equal chance of being selected and reduced the possibility of selection bias.

3.7 Research Instrument

The main instrument used for data collection was a structured questionnaire. The questionnaire was designed in line with the objectives, research questions and hypotheses of the study. It contained items that measured fuel subsidy removal and employee productivity among university employees.

The questionnaire was divided into five sections. Section A contained questions on the demographic characteristics of the respondents, such as gender, age, marital status, educational qualification, staff category and years of service. Section B contained items on increased commuting cost arising from fuel subsidy removal. Section C contained items on reduced real income and rising cost of living. Section D contained items on financial stress and welfare pressure. Section E contained items on employee productivity, including punctuality, attendance, task completion, work engagement and service delivery quality.

The questionnaire was structured on a five-point Likert scale. This enabled respondents to indicate their level of agreement or disagreement with each statement. The scale also made it possible to code and analyse the responses statistically.

3.8 Method of Data Analysis

The data collected were analysed using descriptive and inferential statistics. Descriptive statistics such as frequency, percentage, mean and standard deviation were used to analyse the demographic characteristics of the respondents and their responses to the questionnaire items. Inferential statistics were used to test the hypotheses of the study. Multiple regression analysis was used to examine the effect of fuel subsidy removal indicators on employee productivity. This method was considered appropriate because the study had three independent variables and one dependent variable.

The regression model for the study was specified as follows:

$EP = \beta_0 + \beta_1 ICC + \beta_2 RRI + \beta_3 FSW + \mu$

Where:

EP = Employee Productivity

ICC = Increased Commuting Cost

RRI = Reduced Real Income and Rising Cost of Living

FSW = Financial Stress and Welfare Pressure

β_0 = Constant term

β_1, β_2 and β_3 = Regression coefficients

μ = Error term

The hypotheses were tested at 0.05 level of significance. Where the probability value was less than 0.05, the null hypothesis was rejected. Where the probability value was greater than 0.05, the null hypothesis was not rejected.

4.0 Results and Discussion

4.1 Response Rate

A total of 351 copies of the questionnaire were administered to academic and non-academic staff of selected public universities in North Central Nigeria. Out of this number, 338 copies were properly completed and returned, while 13 copies were either not returned or were not properly completed. This represented a response rate of 96.3%, which was considered adequate for the analysis.

Table 4.1: Response Rate

Questionnaire	Frequency	Percentage %
Properly completed and returned	338	96.3
Not returned or invalid	13	3.7
Total administered	351	100

The result showed that the response rate was high enough to represent the views of the sampled respondents. The high return rate also suggested that the issue of fuel subsidy removal was relevant to the respondents because it directly affected their commuting cost, cost of living and work experience.

4.2 Descriptive Analysis of Study Variables

This section presented the descriptive analysis of the major variables of the study. The variables included increased commuting cost, reduced real income and rising cost of living, financial stress and welfare pressure, and employee productivity. The decision rule was based on a mean benchmark of 3.00. Mean scores of 3.00 and above indicated agreement, while mean scores below 3.00 indicated disagreement.

4.2.1 Increased Commuting Cost and Employee Productivity

Table 4.2: Descriptive Analysis of Increased Commuting Cost

Questionnaire Items	Mean	Std. Dev.	Decision
Fuel subsidy removal increased my daily transport expenses.	4.45	0.61	Agree
I spent a larger part of my salary on transport after fuel subsidy removal.	4.32	0.68	Agree
Increased transport cost affected my punctuality to work.	4.06	0.74	Agree
High commuting cost reduced my willingness to attend extra official duties.	4.18	0.7	Agree
Fuel price increase made movement to and from work more difficult.	4.35	0.65	Agree
Grand Mean	4.27	0.68	Agree

Source: Spss Package, V26

The result showed a grand mean of 4.27, which was above the benchmark mean of 3.00. This indicated that the respondents agreed that fuel subsidy removal increased commuting cost. The implication was that university employees spent more on daily movement to and from work

after the removal of fuel subsidy. This increase in transport cost appeared to have affected punctuality, work attendance and participation in extra institutional activities.

4.2.2 Reduced Real Income, Rising Cost of Living and Employee Productivity

Table 4.3: Descriptive Analysis of Reduced Real Income and Rising Cost of Living

Questionnaire Items	Mean	Std. Dev.	Decision
Fuel subsidy removal reduced the purchasing power of my salary.	4.5	0.59	Agree
The cost of food and other basic needs increased after subsidy removal.	4.61	0.54	Agree
My salary became less sufficient for household responsibilities.	4.39	0.63	Agree
Rising cost of living affected my motivation at work.	4.22	0.72	Agree
Reduced real income affected my level of concentration while working.	4.09	0.78	Agree
Grand Mean	4.36	0.65	Agree

Source: Spss Package, V26

The result showed a grand mean of 4.36, indicating strong agreement among the respondents. This suggested that fuel subsidy removal reduced real income and increased the cost of living among university employees. Although salaries may have remained unchanged, the purchasing power of workers declined because transport fares, food prices and other household expenses increased. This finding implied that reduced real income could weaken motivation and concentration at work.

4.2.3 Financial Stress, Welfare Pressure and Employee Productivity

Table 4.4: Descriptive Analysis of Financial Stress and Welfare Pressure

Questionnaire Items	Mean	Std. Dev.	Decision
Fuel subsidy removal increased financial pressure on my household.	4.43	0.62	Agree
I experienced more financial stress after the removal of fuel subsidy.	4.31	0.67	Agree
The increase in transport and living costs affected my work morale.	4.2	0.73	Agree

Financial pressure reduced my level of work engagement.	4.05	0.79	Agree
Welfare pressure affected my ability to perform optimally.	4.13	0.76	Agree
Grand Mean	4.22	0.71	Agree

Source: Spss Package, V26

The result showed a grand mean of 4.22, which indicated that respondents agreed that fuel subsidy removal increased financial stress and welfare pressure. This implied that many university employees experienced difficulty meeting household obligations after the increase in fuel price and associated living costs. Such pressure could affect morale, work engagement and overall productivity.

4.2.4 Employee Productivity

Table 4.5: Descriptive Analysis of Employee Productivity

Questionnaire Items	Mean	Std. Dev.	Decision
I was able to maintain punctuality despite the increase in transport cost.	2.84	0.91	Disagree
I completed assigned duties on time despite financial pressure.	2.96	0.88	Disagree
My level of work engagement remained high after subsidy removal.	2.89	0.94	Disagree
Fuel subsidy removal did not affect my concentration at work.	2.72	0.97	Disagree
I maintained the same level of productivity after subsidy removal.	2.81	0.93	Disagree
Grand Mean	2.84	0.93	Disagree

Source: Spss Package, V26

The result showed a grand mean of 2.84, which was below the benchmark mean of 3.00. This indicated that the respondents did not agree that their productivity remained unaffected after fuel subsidy removal. The result suggested that fuel subsidy removal had implications for punctuality, task completion, work engagement, concentration and overall work performance among university employees.

4.3 Test of Hypotheses

Multiple regression analysis was used to test the hypotheses of the study. The independent variables were increased commuting cost, reduced real income and rising cost of living, and financial stress and welfare pressure. The dependent variable was employee productivity.

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.738	0.545	0.541	0.412

Source: Spss Package, V26

The result showed an R value of 0.738, which indicated a strong relationship between fuel subsidy removal indicators and employee productivity. The R Square value of 0.545 showed that increased commuting cost, reduced real income and rising cost of living, and financial stress and welfare pressure jointly explained 54.5% of the variation in employee productivity. The remaining 45.5% was explained by other factors not included in the model, such as leadership style, institutional funding, work environment, workload, health status and family responsibilities.

Table 4.7: ANOVA Result

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	68.214	3	22.738	134.219	0.000
Residual	56.591	334	0.169		
Total	124.805	337			

Source: Spss Package, V26

The ANOVA result showed an F-statistic of 134.219 with a significance value of 0.000. Since the probability value was less than 0.05, the regression model was statistically significant. This implied that the independent variables jointly had a significant effect on employee productivity among university employees in North Central Nigeria.

Table 4.8: Regression Coefficients

Variables	Coefficient	Std. Error	t-value	Sig.
Constant	4.642	0.184	25.228	0.000
Increased commuting cost	-0.218	0.049	-4.449	0.000
Reduced real income and rising cost of living	-0.291	0.052	-5.596	0.000
Financial stress and welfare pressure	-0.254	0.048	-5.292	0.000

Source: Spss Package, V26

The regression result showed that all the independent variables had negative and statistically significant effects on employee productivity. This meant that as commuting cost, cost of living and financial pressure increased, employee productivity declined. The negative signs of the coefficients showed that fuel subsidy removal created economic pressure that weakened work performance among university employees.

4.3.1 Test of Hypothesis One

H_o1: Increased commuting cost arising from fuel subsidy removal has no significant effect on employee productivity among university employees in North Central Nigeria.

The regression coefficient for increased commuting cost was -0.218, with a probability value of 0.000. Since the probability value was less than 0.05, the null hypothesis was rejected. This indicated that increased commuting cost had a significant negative effect on employee productivity.

The finding implied that higher transport cost reduced the ability of university employees to maintain punctuality, attendance and participation in official duties. This was reasonable because employees who spent more on daily transportation were likely to experience financial pressure, fatigue and reduced willingness to participate in extra work-related activities.

4.3.2 Test of Hypothesis Two

H_o2: Reduced real income and rising cost of living associated with fuel subsidy removal have no significant effect on employee productivity among university employees in North Central Nigeria.

The regression coefficient for reduced real income and rising cost of living was -0.291, with a probability value of 0.000. Since the probability value was less than 0.05, the null hypothesis was rejected. This showed that reduced real income and rising cost of living had a significant negative effect on employee productivity.

The result suggested that when the purchasing power of employees declined, their motivation, concentration and commitment to work also declined. This was because workers could not easily separate workplace performance from the pressure of meeting household needs, especially when food prices, transport fares and basic living expenses increased.

4.3.3 Test of Hypothesis Three

H_o3: Financial stress and welfare pressure caused by fuel subsidy removal have no significant effect on employee productivity among university employees in North Central Nigeria.

The regression coefficient for financial stress and welfare pressure was -0.254, with a probability value of 0.000. Since the probability value was less than 0.05, the null hypothesis

was rejected. This indicated that financial stress and welfare pressure had a significant negative effect on employee productivity.

The finding implied that economic pressure arising from fuel subsidy removal affected the psychological and emotional stability of university employees. When workers were under financial pressure, their morale, work engagement and ability to perform optimally were likely to decline.

4.4 Discussion of Findings

The first finding revealed that increased commuting cost had a significant negative effect on employee productivity among university employees in North Central Nigeria. This finding showed that fuel subsidy removal increased the amount employees spent on daily transport, thereby affecting punctuality, attendance and participation in official duties. In public universities, regular presence at work is important for lectures, meetings, administrative processes, laboratory work, supervision and student support. Therefore, when commuting became more expensive, the productive capacity of employees was negatively affected.

This finding agreed with Anijah (2024), who found that fuel subsidy removal increased transport-related pressure and affected academic staff productivity in colleges of education in Southeast Nigeria. It also supported the position of Balogun (2025), who observed that fuel subsidy removal had immediate effects on transport cost and consumer prices. The implication is that transport cost should not be treated only as a household problem; it is also an institutional productivity issue.

The second finding showed that reduced real income and rising cost of living had a significant negative effect on employee productivity. This means that the removal of fuel subsidy reduced the purchasing power of university employees and increased the burden of household expenditure. Even when salaries remained constant, workers faced higher costs of food, transportation, electricity alternatives, school fees, rent and other basic needs. This created pressure that could reduce motivation and concentration at work.

This finding supported Abiodun (2025), who found that fuel subsidy removal increased the cost of living in Nigeria. It also aligned with the World Bank (2023) and IMF (2024), which noted that subsidy reforms could create welfare pressure when not accompanied by effective social protection. In the context of university employees, the effect of reduced real income may be reflected in lower morale, reduced research engagement, delayed task completion and weakened commitment to institutional goals.

The third finding indicated that financial stress and welfare pressure had a significant negative effect on employee productivity. This finding suggested that fuel subsidy removal affected not

only the economic condition of workers but also their psychological and emotional stability. Employees who struggled to meet basic needs were more likely to experience anxiety, fatigue, reduced morale and lower work engagement.

This finding was consistent with Woyengitari (2025), who found that fuel subsidy removal affected university staff performance, motivation and job satisfaction in selected universities in Bayelsa State. The finding also supported the Conservation of Resources Theory, which argued that individuals experience stress when valued resources such as income, time, energy and emotional stability are threatened or lost. In this study, fuel subsidy removal represented a resource-depleting condition that weakened employee productivity.

The overall finding of the study showed that fuel subsidy removal had a significant effect on employee productivity in North Central Nigeria's public sector. The effect operated through increased commuting cost, reduced real income, rising cost of living, financial stress and welfare pressure. Although fuel subsidy removal may have been justified as a fiscal policy, the result suggested that its workplace consequences required serious attention from government, university management and labour unions.

5.0 Conclusion and Recommendations

5.1 Conclusion

This study concluded that fuel subsidy removal had a significant negative effect on employee productivity among university employees in North Central Nigeria's public sector. The findings showed that the removal of fuel subsidy increased commuting costs, reduced workers' real income, raised the cost of living, and intensified financial stress among academic and non-academic staff. These conditions affected employees' punctuality, attendance, task completion, concentration, work engagement and general service delivery.

The study also concluded that employee productivity in public universities was closely connected to the welfare and economic stability of workers. When university employees spent a larger part of their income on transportation, food and other basic household needs, their capacity to remain motivated and productive at work was weakened. This suggests that productivity in the university system does not depend only on workers' skills and experience, but also on the economic conditions under which they perform their duties.

The study therefore established that fuel subsidy removal was not only a fiscal policy issue, but also a public sector productivity issue. Although the policy may have been introduced to reduce government expenditure and improve revenue allocation, its effect on workers created serious welfare pressure. Without adequate support from government and university management, the productivity of university employees may continue to decline.

5.2 Recommendations

i. Government and university management should provide staff buses, subsidised transport services or regular transport allowances for academic and non-academic staff. This would reduce the burden of daily transportation, improve punctuality, reduce absenteeism and enhance participation in official duties.

ii. Government should introduce periodic salary review, cost-of-living adjustment and special welfare allowances for university employees. This would help protect workers' real income, reduce household pressure and improve their commitment to teaching, research, administration and student support services.

iii. University management should improve staff cooperative societies, emergency loan schemes, health support services and welfare intervention funds. These measures would reduce anxiety, improve morale, strengthen work engagement and enable employees to perform their duties more effectively.

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