PETROLEUM PRODUCTS PRICING AND ECONOMIC CHANGES OF NIGERIA, 2000-2024

Prof. Aloygius Ezike Agada Ph.D

Department of Business Administration, Cosmopolitan Internation Business School, Abuja, Nigeria.
DOI: https://doi.org/10.5281/zenodo.17046037

Abstract: The study examined the effect of petroleum products pricing on economic changes in Nigeria from period of 2000-2024. Specific objectives include to: examine the effect of price of premium motor spirit (PMS) and ascertain the effect of price automotive gasoline oil (AGO) on real gross domestic product (RGDP) in Nigeria. *ex post* facto research design was adopted. The study adopted Auto Distributed Lag Model (ARDL) regression technique was used to test formulated hypotheses. The findings revealed that price of premium motor spirit had a negative and insignificant effect on real gross domestic products (RGDP) (coff = -0.082082, pv =0.6564>0.05), price of automotive gasoline oil had a negative and insignificant effect on real gross domestic products (RGDP) (coff = -0.007322, pv =0.9671>0.05). Based on the findings, the study recommended that removal of subsidy on price of premium motor spirit should not be implemented urgently to prevent hike in the prices of basic house hold commodities in the economy only when government has put local refining in place and local refining of crude oil should be encouraged to boost production and availability of Price of automotive gasoline oil products for domestically use. This can be achieved through the setting of guidelines and standards for operators of illegal refineries to enable them operate legally as destroying the facilities amounts to waste of capital to the operators and the nation.

Keywords: Petroleum products pricing, premium motor spirit, automotive gasoline oil and gross domestic products.

INTRODUCTION

Oil is the most significant source of energy supply for most global economies and is known for its fundamental role in the growth and development of the world economies. Mehmood, *et al* (2021), despite technological advancement and the emergence of other alternative renewable energy sources worldwide, crude oil stands tall in its role in transportation, production and other economic activities. Shao and Hua (2022) posit that oil remains strategic in today's political arena. It is exposed to demand and supply forces due to its importance, leading to fluctuations in its price.

Changes in the price of oil are unavoidable source of economic fluctuations, in which the resultant effect leads to global shock capable of affecting many economic activities instantaneously. This shock is perceived generally to have a similar impact due to events like a fall in growth rate, high unemployment rate, high inflation rate and volatility in the exchange rate (Jelilov, *et al*, 2020). Meanwhile, there are other impact of which oil price has moved Nigeria economy into like from energy production to green energy production were there are a lot of environmental activities which helped the economic situations across Nigeria and other developing countries.

The subsistence agricultural pattern of pre-industrial Nigeria began to change with the British penetration into the interior of the country. In 1900, the groundnut pyramid town of Kano became linked by iron rails with the coastal town of Iddo, Lagos, Nigerian route to the seaport to European countries. Hence, the Lagos-Kano railway line facilitated market transportation; imported goods were brought up to the Nigerian emporiums and Nigerian cash crops were transported to overseas markets. By 1960, Nigeria had become an export economy. However, industrialized countries in Europe and America were still the producers of manufactured goods, since the country's exports mainly comprised primary products.

The year 1938 marked a new beginning in the Nigerian economy when an oil exploratory license was issued to a consortium of Shell and BP known as Anglo-Iranian. Thus, 1938 marked the connection of Nigeria with the world petroleum economy. Commercially available crude oil was discovered at Oloibiri, located in the Nigeria Delta region of Nigeria, in 1956 and crude oil production began in 1957.Notably, before the coming of the British, Nigeria's internal trade was predominantly in agricultural products, especially cash crops. There was no international trade and both the social and economic lives of the inhabitants were centered on subsistence agriculture (Statista, 2024).

Nevertheless, with the advent of the Industrial Revolution in Europe at the beginning of the 18th century and the slave trade, Nigeria became important as an exporter of raw materials to Europe and as a market for European manufactured goods. As a developing world economy, Nigeria belonged to the class of The Second World in Jaquetita's Three Worlds (PWC, 2023). Consequently, the country had neither the capital goods nor the necessary factory capacity to process its raw materials into finished products before selling them in the international market.

Developing nations exporting crude oil is more vulnerable to oil shocks than developed nations because a slog in the price of oil results in more shocks for the oil-dependent economy of developing countries than the oil-dependent economy of developed countries (Hamilton, 2019). For example, the excess demand for oil by nations during the first and second oil crises in 1973 and 1979 had an upward movement in oil prices, resulting in a detrimental impact on oil-importing countries. In contrast, the drop in demand for oil due to the COVID-19 pandemic in the year 2020 resulted in downward changes in the oil price, which resulted in a decline in the economic activities of oil-exporting countries (Farid & Matthias, 2020).

It is a general fact that both upward and downward world oil price movements affect different countries differently depending on whether the country in question is a crude oil exporter or a refined oil importer. Nigeria is both an exporter and an importer of oil. Hence, the over-dependence of the Nigerian economy on oil earnings as the primary source of revenue can subject critical macroeconomic variables such as GDP, inflation rate, exchange rate and unemployment to fluctuations and uncertainty at the slightest world oil price shocks (Alhassan & Kilishi 2024).

In Nigeria, the issues surrounding petroleum pricing are not new; Olawepo-Hashim (2021) dated it back to the 1970s during the regime of General Yakubu Gowon, when the price of premium motor spirit (PMS) was first increased from 6 kobo to N8.45 kobo per litre in 1973. In Obasanjo administration it was #75, in Yaradu/Jonathan administration it was #87, in Buhari administration it

was ₦195 and in Tinubu administration it was ₦100 between 1999 to 2024 petroleum price have increased periodically for about 30 different times.

On the other hand, gasoline (AGO) prices controlled by the government with little infrequent adjustments have been relatively stable over time. The gasoline price was ₦65 per litre between 2005 and 2011, except in 2007 and 2008 when it was raised to ₦75 per litre for a month and then lowered to ₦70 per litre. In 2012 the price of diesel was deregulated, with the government removing the gasoline subsidy and allowing the retail price to rise above ₦100 per litre. With the deregulation, the price increased to ₦230 in 2016 and ₦280 in 2020. In 2021, the price of diesel rose to ₦539.32 per litre. For DPK (kerosene) the price increased in 2023 from ₦600 to ₦1000 per litre in 2023, then to ₦75 in 2012, ₦200 in 2016, and ₦170 in 2023, ₦110 in 2024 (Sakanko, Adejor & Adeniji, 2021).

These incessant adjustments in domestic prices of petroleum products in Nigeria have been attributed to changes in global crude oil prices. Any time crude oil price goes up in the international market there is always a resultant increase in domestic prices of petroleum products (premium motor spirit, automotive gasoline oil and dual purpose kerosene) in Nigeria. On the reverse side, when the international oil price falls in the global market, there is also a hike in the domestic price of petroleum products because the value of Nigeria's currency depreciates. Changes in the global crude oil price are a result of many factors like the COVID – 19 induced price fluctuation and the war in Ukraine; both of which have shocked the commodity markets altering the global prices of oil trade (Baffes *et al*, 2024).

There has been a strong deficit and debt bias stemming from government, spending primary deficit and debt in Nigeria between 1980 and 2024. The oil windfall as a result of increase in oil price between 1990 and 2024 was following the rapid growth in government spending with an average of about 2 percent of GDP during that period. However, as the oil market weakened in the subsequent years, oil receipts were not adequate to meet increasing levels of demand and expenditure being rationalized. Government resorted to borrowing mainly from the central bank to finance the huge deficits. The CBN absorbs deficits through the increases the money supply and this in turn causes inflation.

Absence of suitable fiscal rules and a proper finance management framework for oil related risks over the past two decades in Nigeria have led to boom-and-bust-type fiscal policies that have generated large and unpredictable movement in government finance. Consequently, this has a recurrent source of destabilizing effect of fiscal surprises in the domestic prices and exchange rate as well as financial system. Gas prices affect all Nigerians, both the wealthy and the poor and the Central Intelligence Agency (CIA) world fact book estimates that as at 2000, 60 percent of Nigerians live on less than a dollar a day. This incessant increase in petroleum price and its attendant effects on the economy and Government foot dragging in full deregulation of the Premium Motor Spirit (PMS) informed the interest of the researcher in conducting this study. The study focuses on effect of petroleum product price on economic changes in Nigeria.

The broad objective of the study was to investigate the effect of petroleum products pricing on economic changes proxied with real gross domestic product (RGDP) in Nigeria, 2000-2024. Specific objectives were to:

i. Examine the effect of price of premium motor spirit (PMS) on real gross domestic product (RGDP) in Nigeria.

ii. Ascertain the effect of price automotive gasoline oil (AGO) on real gross domestic product (RGDP) in Nigeria.

In order to maintained organizational structure under the study, the researcher dive into other major subheadings such as review of related literature, conceptual review, theoretical framework, empirical review, gaps in empirical review, methodology, data presentation and analysis, summary of findings, conclusion and recommendations. This study covered the period 2000 to 2024; that is the period of 24 years. 2000 base year was chosen because since there was severally change in petroleum price and policies from the federal government of Nigeria. This choice of 2024 was due to availability and currency of the data used for the analysis.

REVIEW OF RELATED LITERATURE

Conceptual Review

Petroleum Products Price

In the view of Baumeister and Kilian (2022) petroleum product is unanticipated component of a substantial change in the price of oil, defined as the difference between the expected and realized oil prices. In the simplest term, a change in oil price could boost economic growth in that it could make the price of crude oil in the international market appreciate at the expense of domestic oil prices. However, the general impact of crude oil price fluctuations on enterprises and economic growth is mainly determined by how the government manages its previous and current revenue (Ighosewe, *et al*, 2021).

Price Premium, Motor Spirit

The product is a volatile liquid with a characteristic odor that depends on the quality of its refinement. It is also referred to as 'gasoline' and its use stems from the fact that it is well suited for most combustible engines as well as its low price when compared to other fuels such as diesel, aviation fuel and natural gas (Onyinye & Nkechi, 2022).

Price Automotive Gasoline Oil

The increase in gasoline price represents a challenging situation to most car drivers. According to Cadie Thompson, if the price of oil keeps on increasing, drivers in America will have to change their behavior in driving as well as changing the type of cars they are driving (Thompson, 2023).

Real Gross Domestic Product (RGDP)

For the purpose of this paper, economic growth refers to an increase in the Gross Domestic Product (GDP) of a country brought about by changes in major macroeconomic variables. The GDP simply measures the market value of final goods and service produced in a country within a year. In this paper Therefore, GDP annual growth rate is used as a proxy for economic growth. It is a measure of the annual percentage growth rate of GDP at market prices based on constant local currency but aggregated on constant 2010 U.S. dollars (Ishmael, Matthew & Park, 2023).

Theoretical Framework

Therefore, the study was anchored on linear/symmetric theory of growth.

Symmetric Theory

Linear/symmetric relationship growth theory was advocated by Hamilton (1983) and Hooker (1986) hypothesizes the existence of a significant negative relation between oil price hikes and GDP growth. The linear/symmetric relationship theory of growth contends that there is a negative and significant relation between oil price changes and GDP growth. Hamilton (1983) confirmed this in his study on the effect of oil price on the economy of U.S. since World War II using a data set of between 1948 and 1972. The mainstream theory considers price of crude oil to be proportional to its marginal product which is an important input in determining economic growth. But proponents of the Renaissance growth model opine that both oil price changes and its volatility have negative effects on economic growth, though in different ways (Oriakhi & Iyoha, 2013). Proponents of the aforementioned theories concurred to the fact that a relationship exists between crude oil prices and economic growth in both the developed and developing economies. Although, the effects have been proven with empirical evidences to be different even among these nations. In the same way, both the exporting and importing countries experience the impact of changes in oil prices in diverse ways, depending on the internal mechanism for stabilization. This research is therefore anchored on the linear/symmetric theory of growth. The choice of this theory is informed by the close relationship it bears with the subject matter of this study.

Empirical Review

In similar study, Kyarem and Dodo (2023) investigated impact of petroleum products price changes on prices of food Items in the Nigerian Economy. This study therefore examines the impact of petroleum product price changes on the prices of food items in the Nigerian economy. The results show that the price of premium motor spirit has a positive and significant impact on food items during the short run but in the long run, the prices of premium motor spirits have a positive and insignificant impact on the food items in Nigeria.

In view of Brahim, *et al* (2024) examined petroleum products pricing and price stability in Nigeria. This study employed the Autoregressive Distributed lag (ARDL) technique to investigate the effect of petroleum products pricing on price level in Nigeria over the period 1990 –2022. The results of our analysis revealed that: in the long run, prices of Premium motor spirit and compressed natural gas retarded inflation level marginally while prices of automotive gas oil, dual purpose kerosene and crude oil spurred general price level marginally.

Relations to previous study by Bamaiyi (2024) studied effect of oil price shocks on selected macroeconomic variables in Nigeria This study investigates the impact of oil price shocks on selected macroeconomic variables in Nigeria from 1990-2021. The research employs ex-post facto methodology and econometric analysis, focusing on variables such as oil price, unemployment, balance of payment, exchange rate, and real gross domestic product (GDP). The result of the unit root test indicate that all the variables are integrated of order one (I (1)), necessitating further investigation into their relationships.

In the same time, Amadi and Danjuma (2024) examined oil price fluctuations and economic growth. This study examined effects of oil (crude and premium motor spirit (PMS)) price fluctuations on economic growth in Nigeria using annual time series data ranging from 1980 to 2022. Augmented Dickey Fuller (ADF) test was used for unit root test to avoid spurious regression estimates. The result of NARDL revealed that positive and negative fluctuations in crude oil prices has negative effect on economic growth in the long-run and a positive effect on economic growth in the short-run.

Aforementioned view of Sani and Kouhy (2024) employed vector auto regression model using variance decomposition, impulse response function and granger causality tests to assess the effect of deregulation of downstream oil sector on two macroeconomic variables which are; GDP and Unemployment. The result also reveals that there is positive impact of oil price changes on GDP but negative impact on Unemployment in the short run which became positive in the long run. Finally the Granger causality test indicates unidirectional causality running from Petroleum prices to GDP and also from Petroleum prices to Unemployment.

Gaps in Empirical Review

Most recent literature on the petroleum products pricing have recognized the tremendous effect on economic changes which has been recorded in recent times across Nigeria and other related boundaries. But this scenario revealed that petroleum products pricing indicators have not been extensively and empirically investigated by previous authors or researchers. This study thereby creates a research gap in the area which other researchers has not covered by decomposing petroleum products pricing into premium motor spirit and automotive gasoline as measures against economic changes in Nigeria. In so doing, this study seeks empirical content of "petroleum products pricing and economic changes than any study before using time series data and current year 2024.

METHODOLOGY

The *ex-post* facto design was employed, which involves collecting, analyzing and interpretation of secondary data in Nigeria within the period 2000-2024. Data were extracted from the Statistical Bulletin of the Central Bank of Nigeria, relevant National Bureau of Statistics publications, Annual reports of petroleum producing companies and papers presented on related issue.

Model Specification

The objective of the study was to investigate the effect of petroleum products pricing on economic changes in Nigeria. Hence, the model formulated for the study was adopted from the study of Eregha *et al.* (2015); the model is specified with functional form and after modification, it is stated below as:

RGDP = f(PMS, AGO) ------------------------ (3.1)

Transforming the data into a log form, the econometric model becomes;

RGDPt = α + β_1LPMS $_{t-i}$ + β_2LAGO $_{t-I}$ + ε --------------------------- (3.2)

Where:

RGDP = Real Gross Domestic Product

PMS = Price of Premium Motor Spirit

AGO = Price of Automotive Gas Oil

α = constant

β = the degree of variability or slope of each independent variable ε = error term.

t   =   Time at Present

t-i   =   Time at lag i-1,2, ...

The apriori expectation (i,e, $\beta_1 \geq 0$)

Model of Hypothesis One

Price of premium motor spirit (PMS) does not have a significant positive effect on real gross domestic product (RGDP) in Nigeria

$RGDPt = \alpha + \beta_1 LPMS_{t-i} + \varepsilon$ ---------------------------- -------------------------------------- (3.3)

Where:

RGDP = Real Gross Domestic Product

PMS = Price of Premium Motor Spirit

α = constant

β = the degree of variability or slope of each independent variable ε = error term.

t   =   Time at Present

t-i   =   Time at lag i-1,2,3, ...

The apriori expectation (i,e, $\beta_1 \geq 0$)

Model of Hypothesis Two

Price of automotive gasoline oil (AGO) does not have a significant positive effect on real gross domestic product (RGDP) in Nigeria.

$RGDPt = \alpha + \beta_1 LAGO_{t-i} + \varepsilon$ ---------------------------- -------------------------------------- (3.3)

Where:

RGDP = Real Gross Domestic Product

AGO = Price of automotive gasoline oil

α = constant

β = the degree of variability or slope of each independent variable ε = error term.

t   =   Time at Present

t-i   =   Time at lag i-1,2,3, ...

The apriori expectation (i,e, $\beta_1 \geq 0$)

Methods of Data Analyses

The study used Auto-distributed lag Model (ARDL) regression analysis method to test two formulated hypotheses. The analytical procedures involved are; first, unit root test were carried out for each of the variables so as to ascertain the time series properties of the data set and obtain the stationary status. This test was used in this study to measure the normality distribution of the variables using Jacque –Bera normality of skweiness and kurtosis tending towards 3.

DATA PRESENTATION AND ANALYSES

In this section we discussed diverse analytical methods used in the study.

Data Presentation

Table 1: Values for Real Gross Domestic Product, Price of Premium Price, Price of Automotive.

Years	RGDP	AGO	PMS
2000	6713.57	21.00	22.00
2001	6895.2	21.00	22.00
2002	7795.76	26.00	26.00
2003	9913.52	41.50	39.50
2004	11411.07	48.00	48.00
2005	14610.88	60.00	50.00
2006	18564.59	60.00	65.00
2007	20657.32	60.00	65.00
2008	24296.33	80.00	70.00
2009	24794.34	110.00	65.00
2010	54612.26	140.00	65.00
2011	62980.4	150.00	65.00
2012	71713.94	150.00	86.00
2013	80092.56	150.00	86.00
2014	89043.62	150.00	97.00
2015	94144.96	145.00	97.00
2016	101489.5	185.00	145.00
2017	113711.6	21128.9	212013
2018	127736.8	21904.04	152335
2019	144210.5	25890.22	176354
2020	154,252.32	38,589.58	1,086.18
2021	176,075.50	42,054.50	98.39
2022	185.176.60	44,154.41	101.341
2023	173.5	25.50	20.22
2024	3.19	59.51	64.44

Source: Extracted from CBN statistical bulletin of various years.

Table 2 Descriptive Analysis

	LOGRGDP_B	LOGPMS	LOGAGO
Mean	10.65126	5.148149	5.713321
Median	11.29094	4.174387	4.941642
Maximum	12.07867	12.26440	10.69545
Minimum	5.156178	3.006672	3.044522
Std. Dev.	1.902794	2.729772	2.732518
Skewness	-1.986308	2.014066	1.033282

Kurtosis	6.215705	5.543182	2.373463
Jarque-Bera	27.21086	23.63918	4.857539
Probabilit y	0.000001	0.000007	0.088145
Obs	25	25	25

Source: Extracted from E-View 10 Statistical Package

Table 4.2 contains the basic measures of central tendency, spread and variations calculated on the different series of the dataset. All the variables are positively skewed to the left showing the degree of their departure to the line of symmetry except RGDP.

Unit Root Analysis

In order to address the problem, the Augmented Dickey-Fuller (ADF) unit root test was employed on the chosen data set to ascertain the stationarity of the data as follows:

Table 4.3 Unit Root Test

Variables	ADF	CRD5%	P.V	Order of Integration	Remark
LOGRGDP	-6.28	-2.99	0.0000	I(0)	Stationary
LOGPMS	-4.05	-2.99	0.0051	1(1)	Stationary
LOGAGO	-5.64	-3.67	0.0012	1(0)	Stationary

Source: Extracted from statistical package E-view 10

From table 3, the data tested the stationary properties of the variables and confirmed order of one 1(1) and 1(0). The augmented dickey fuller test was used to test whether the variable has a unit root. Therefore, analyses from the review confirmed that there is unit root on the variable at 1(1) and 1(0). Hence, therefore, the study adopted Auto distributed lag Model (ARDL) method since there is no sign for co-integration.

Test of Hypotheses

Test of Hypothesis One

H$_{01}$: Price of premium motor spirit (PMS) does not have a significant positive effect on real gross domestic product (RGDP) in Nigeria.

Table 4 ARDL Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGRGDP_B(-1)	-0.103961	0.174191	-0.596819	0.5573
LOGPMS	-0.082082	0.181736	-0.451655	0.6564
LOGPMS(-1)	-0.085595	0.179287	-0.477421	0.6382

C	12.85512	2.061059	6.237141	0.0000

R-squared	0.086436	Mean dependent var	10.8802 2
Adjusted R-squared	0.050598	S.D. dependent var	1.552570
S.E. of regression	1.591364	Akaike info criterion	3.918072
Sum squared resid	50.64878	Schwarz criterion	4.114414
Log likelihood	-43.01686	Hannan-Quinn criter.	3.970161
F-statistic	0.630764	Durbin-Watson stat	2.09385 2
Prob(F-statistic)	0.603688		

*Note: p-values and any subsequent tests do not account for model
    selection.

As revealed that the price of premium motor spirit shows negative and statistically insignificant effect on real gross domestic products (RGDP) (coefficient = -0.082082, t-value = -0.451655). This indicates that one percent decrease in RGDP in Nigeria is due to 82% decrease in price of premium motor spirit while the remaining 18% happened outside the model. The probability value of 0.6564>0.05 confirms insignificance of the result. We reject the null hypothesis and conclude that price of premium motor spirit had negative and insignificant effect on real gross domestic products (RGDP) in Nigeria.

Test of Hypothesis Two

H$_{02}$: Price of automotive gasoline oil (AGO) does not have a significant positive effect on real gross domestic product (RGDP) in Nigeria.

Table 6 ARDL Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGRGDP_B(-1)	-0.157140	0.196583	-0.799358	0.4351
LOGRGDP_B(-2)	-0.199017	0.161237	-1.234317	0.2339
LOGAGO	*-0.007322*	*0.175112*	*-0.041814*	*0.9671*
LOGAGO(-1)	-0.383420	0.221217	-1.733231	0.1012

LOGAGO(-2)	0.516558	0.171969	3.003777	0.0080
C	13.94276	2.976416	4.684412	0.0002

R-squared	0.376331	Mean dependent var	10.87901
Adjusted R-squared	0.192899	S.D. dependent var	1.587452
S.E. of regression	1.426148	Akaike info criterion	3.767289
Sum squared resid	34.57626	Schwarz criterion	4.063505
Log likelihood	-37.32383	Hannan-Quinn criter.	3.841787
F-statistic	2.051610	Durbin-Watson stat	1.780471
Prob(F-statistic)	0.122334		

*Note: p-values and any subsequent tests do not account for model
    selection.

As revealed that the price of automotive gasoline oil shows negative and statistically insignificant effect on real gross domestic products (RGDP) (coefficient = -0.007322, t-value = -0.041814). This indicates that one percent decrease in RGDP in Nigeria is due to 73% decrease in price of automotive gasoline oil while the remaining 27% happened outside the model. The probability value of 0.9671>0.05 confirms insignificance of the result. We reject the null hypothesis and conclude that price of automotive gasoline oil had negative and insignificant effect on real gross domestic products (RGDP) in Nigeria.

Summary of Findings

The findings from the specific objective of this study are as follows:

1) Price of premium motor spirit had a negative and insignificant effect on real gross domestic products (RGDP) (coff = -0.082082, pv =0.6564>0.05).
2) Price of automotive gasoline oil had a negative and insignificant effect on real gross domestic products (RGDP) (coff = -0.007322, pv =0.9671>0.05).

Conclusion

The issue of petroleum product pricing is crucial because it affects the economic changes of a country. Based on the empirical review of various studies carried out by different researchers, the study concluded that petroleum products pricing had a negative and insignificant effect on economic changes in Nigeria. It was also concluded that premium motor spirit and automotive gasoline oil had negative and insignificant effect on real domestic product in Nigeria.

Recommendations

The study made some recommendations which includes;

a) Removal of subsidy on price of premium motor spirit should not be implemented urgently to prevent hike in the prices of basic house hold commodities in the economy only when government has put local refining in place.

b) Local refining of crude oil should be encouraged to boost production and availability of price of automotive gasoline oil products for domestically use. This can be achieved through the setting of guidelines and standards for operators of illegal refineries to enable them operate legally as destroying the facilities amounts to waste of capital to the operators and the nation.

Contribution to Knowledge

This research work adds to existing works in this area of finance and economics. In very specific terms, this works contributes to knowledge in the following ways: By way of literature, most of the work used other petroleum product pricing variables but this work used only petroleum products pricing variables. By way of currency, this work is more current because it covers period of 2000 to 2023. Illustratively, the study contributed with a model of petroleum products pricing and economic changes in Nigeria.

REFERENCES

Alhassan, A., & Kilishi, A. A. (2024). Analysing oil price- macroeconomic volatility in Nigeria. *CBN Journal of Applied Statistics* 7(1), 1-22

Amadi, K.W & Danjuma, I.J (2024). Oil price fluctuations and economic growth in Nigeria, *International Journal of Innovative Finance and Economics Research* 12(1), 87-102

Baffes, J., Kose, A., Ohnsorge, F., Stocker, M., Chen, D., Cosic, D., Gong, X., Huidrom, R & Zhao, T. (2024). Understanding the plunge in oil prices: sources and implications. *Global Economic Prospects Reports,* 1(1), 155-168

Bamaiyi G. (2024) Effect of oil price shocks on selected macroeconomic variables in Nigeria (1990-2021), *International Journal of Development and Economic Sustainability*, 12(1), 12-26

Baumeister, C. & Kilian, L. (2022). Forty years of oil price fluctuations: why the price of oil may still surprise us. *Journal of Economic Perspective*, 30(1), 139-160.

Brahim, A.A, Nteegah, A & Kalu, I (2024). Petroleum products pricing and price stability in Nigeria: An ARDL Investigation, *Asian J. Adv. Res. Rep*, 18(5), 188-200

Eregha, P.B., Mesagan, E.P & Olawale, O.O. (2015), *Petroleum products prices and inflationary dynamics in Nigeria,* MPRA Paper Series, 1-16, Earlier title: US China Education Review, ISSN 1548-6613. Retrieved on 8th January, 2015.

Farid, Z & Matthias, N. (2020). The impact of oil price changes on selected macroeconomic indicators in Azerbaijan. *Economic Systems*, 44(4), 1-21

Hamilton, J. D. (1983). Oil and the macro economy since world war II. *The Journal of Political Economy,* 91(2), 228-248

Hamilton, J. D. (2019). *Causes and consequences of the oil shock of 2007–08.* https://www.intechopen .com/chapters/73798

Ighosewe, E. F., Akan, D. C., & Agbogun, O. E. (2021). Crude oil price dwindling and the Nigerian economy: a resource-dependence approach. *Modern Economy*, 12(1), 1160-   1184.

Jelilov, G., Abdullahi, A. J., Bilal, C., & Abdurrahman, I. (2020). *Impact of oil price fluctuation on the economy of Nigeria,* the core analysis for energy producing countries. http://dx.doi.org/10.5772/intechopen.94055

Kyarem R.N & Dodo, F.E (2023). Impact of petroleum products price   changes on prices of food items in the Nigerian economy. *Journal of Development Economics and   Finance,* 4(1), 79-95

Mehmood, R. (2021). The impact of crude oil price on food prices in Iraq . *OPEC Energy Review,* 46 (1), 106-122

Onyinye, C. I & Nkechi, H. O. (2022). Analysis of premium motor spirit (pms) distributed in   Lagos Metropolis, Nigeria. *Middle-East Journal of Scientific Research*, 23(7), 1321-

Oriakhi, D. E & Iyoha, D. O. (2013). Oil price volatility and its consequences on the growth of   the Nigerian Economy: An Examination (1970-2010). *Asian Economic and Financial Review*, 3(5), 683-702

Sakanko, Adejor, & Adeniji (2021). *Impact of crude oil price Changes on economic growth in Nigeria* (1980-2014).

Sani, B. & Saghian S. (2024). The relationship among ethanol, sugar and oil prices in brazil: cointegration analysis with structural breaks', *Southern Agricultural Economics Association's 2015Annual Meeting, Atlanta, Georgia*, January 31- February 3.

Shao, A. J. (2022). Using natural resources for development: why has it proven so difficult? *Journal of Economic Perspectives.* 30 (1), 161–184

Thompson, C. (2023). *Rising gas prices are a growing threat to the American way of life. [online] Business Insider.* Available at: http://www.businessinsider.com/how-rising-gasprices-impact-economy-2017-3