

AN EMPIRICAL ANALYSIS OF THE IMPACT OF FREE MARKET ECONOMY ON THE PERFORMANCE OF PETROLEUM MARKETERS IN NIGERIA: A STUDY OF MARKET DYNAMICS, PROFITABILITY, AND COMPETITIVENESS

Joseph Dada Obele, PD, BSc, PGD, MSc, Ph.D

Department of Marketing, Ignatius Ajuru University of Education, Port Harcourt, Rivers State, Nigeria

Tel- 08030843930, Email- ●skylinkerseleme@yahoo.com

●Obele. Joseph @iaue.edu.ng

ABSTRACT

This study empirically analyzed the impact of the free market economy on the performance of petroleum marketers in Nigeria, focusing on market dynamics, profitability, and competitiveness. The deregulation of the downstream petroleum sector has reshaped the business environment, creating both opportunities and challenges for marketers. A descriptive survey design was adopted, and data were collected from 400 respondents drawn from petroleum marketing firms in Lagos, Port Harcourt, and Abuja. Structured questionnaires were used, and data were analyzed using descriptive statistics, ANOVA, and multiple regression analysis. The results showed that the free market economy significantly affects market dynamics, with price fluctuations and supply constraints shaping competition among marketers. Profitability was also found to be strongly influenced by deregulation, though negatively impacted by high operating costs, exchange rate volatility, and infrastructural limitations. Competitiveness was enhanced as firms adopted innovation, improved logistics, and customer service strategies to survive in the deregulated environment. Regression analysis revealed that the free market economy accounts for a substantial proportion of the variance in the overall performance of petroleum marketers. The study concludes that while the free market economy promotes efficiency, innovation, and competitiveness, it simultaneously exposes petroleum marketers to systemic risks that threaten profitability and market stability. It is recommended that government ensures policy consistency, strengthens infrastructure development, provides affordable access to finance, and enhances regulatory oversight. Petroleum marketers are also encouraged to adopt strategic alliances, capacity building, and digital innovations to remain competitive in the deregulated market.

Keywords: Free Market Economy, Petroleum Marketers, Market Dynamics, Profitability, Competitiveness, Deregulation, Nigeria.

INTRODUCTION

The Nigerian economy has, over the years, undergone various structural and policy shifts aimed at enhancing growth, efficiency, and global competitiveness. One of the most significant transitions in recent times is the gradual adoption of a free market economy, particularly in key sectors such as the petroleum industry. A free market economy is characterized by minimal government intervention, where forces of demand and supply primarily determine prices, competition, and overall market outcomes (Friedman, 2002; Samuelson & Nordhaus, 2010). In the context of Nigeria, this transition is particularly critical given the central role of petroleum in the country's economy, accounting for a substantial proportion of government revenue, foreign exchange earnings, and energy supply (Central Bank of Nigeria [CBN], 2020).

The petroleum marketing sector in Nigeria is pivotal in bridging the gap between upstream production and end-user consumption. Traditionally, this sector operated under heavy government regulation, with price controls, subsidies, and import restrictions shaping market outcomes (Eneh, 2011). However, the removal of fuel subsidies, deregulation of petroleum product pricing, and liberalization of market entry have fundamentally altered the competitive landscape (Umar & Umar, 2020). These policy reforms have created opportunities for efficiency, innovation, and private sector

participation, but they have also exposed marketers to heightened risks associated with price volatility, exchange rate fluctuations, and supply chain disruptions (Adenikinju, 2018).

Market dynamics in the petroleum industry are increasingly shaped by global oil price fluctuations, local refining capacity constraints, infrastructure deficits, and competitive behavior among marketers (Okonkwo & Anichebe, 2021). With deregulation, petroleum marketers must respond strategically to rapidly changing conditions such as variations in demand, shifts in consumer preferences, and competitive pricing pressures. These dynamics require firms to adapt through operational efficiency, cost management, and investment in logistics and distribution networks in order to remain sustainable (Ogbuabor & Orji, 2020).

Profitability within the sector is another critical concern. While deregulation and a free market environment theoretically provide avenues for increased margins and operational autonomy, the reality is that intense competition, rising operating costs, and macroeconomic instability often erode profit levels (Onyekwena & Ekeruche, 2019). Petroleum marketers must therefore balance the pursuit of profitability with maintaining affordable prices for consumers in a market where social and political factors significantly influence demand and supply patterns (Onoh, 2015).

Competitiveness is central to the survival and growth of petroleum marketing firms under the free market structure. Firms are increasingly required to differentiate themselves not just on price, but also on service delivery, product quality, and customer experience (Oduh & Okoye, 2021). In addition, investments in technology, efficient supply chain management, and brand reputation have become crucial for building sustainable competitive advantages. However, many marketers face structural challenges such as inadequate access to capital, infrastructural bottlenecks, and regulatory uncertainties, which hinder their ability to fully leverage opportunities provided by the free market economy (Aigbedion & Iyayi, 2020).

Given these realities, the transition to a free market economy presents a dual-edged sword for petroleum marketers in Nigeria. While it offers the potential for innovation, efficiency, and improved performance, it also exposes the sector to heightened competition, risks, and uncertainties. It is against this backdrop that this study seeks to empirically analyze the impact of the free market economy on the performance of petroleum marketers in Nigeria, with particular focus on market dynamics, profitability, and competitiveness.

Statement of the Problem

The transition of Nigeria's petroleum marketing sector into a free market economy was envisioned as a pathway to efficiency, transparency, and improved performance. By removing subsidies, deregulating pricing, and liberalizing entry barriers, policymakers anticipated a more competitive and profitable environment for marketers, alongside better service delivery for consumers. However, the reality has been far more complex. Instead of the expected efficiency gains, petroleum marketers now operate in an environment characterized by intense competition, unstable foreign exchange rates, erratic supply chains, and persistent infrastructural bottlenecks.

Profitability, which should have improved under deregulation, has become increasingly difficult to sustain. Rising operational costs, import dependency, and price volatility often erode profit margins. For many marketers, the pressure to keep prices within consumer tolerance levels, despite fluctuating costs, creates a dilemma between financial sustainability and market relevance. As a result, while some well-capitalized firms manage to survive through strategic adaptation, smaller and less resilient firms are either performing poorly or exiting the market altogether.

Competitiveness has also been uneven across the sector. Firms that have invested in innovation, logistics, and customer service are better positioned to thrive, while others remain trapped in a cycle of inefficiency, low margins, and declining market share. Yet, there is limited empirical evidence to explain how the free market structure has concretely shaped competitiveness, profitability, and overall market dynamics in the petroleum marketing sector. This lack of systematic evidence has left a knowledge gap, making it difficult for policymakers, investors, and industry operators to fully understand the consequences of deregulation on the performance of petroleum marketers.

The central problem, therefore, is that while the free market economy was intended to enhance performance in the petroleum marketing sector, it has simultaneously created uncertainties and uneven outcomes across firms. Without empirical analysis of these dynamics, stakeholders cannot make informed decisions to stabilize, strengthen, and reposition the sector for sustainable growth. This study is motivated by the need to fill this gap by critically examining how the free market economy influences market dynamics, profitability, and competitiveness among petroleum marketers in Nigeria.

Aim and Objectives of the Study

The aim of this study is to empirically analyze the impact of the free market economy on the performance of petroleum marketers in Nigeria, with particular emphasis on market dynamics, profitability, and competitiveness. The specific objectives of the study are to:

1. Examine the effect of a free market economy on the market dynamics of petroleum marketers in Nigeria.
2. Assess the impact of a free market economy on the profitability of petroleum marketers in Nigeria.
3. Investigate the influence of a free market economy on the competitiveness of petroleum marketers in Nigeria.
4. Determine the overall relationship between the free market economy and the performance of petroleum marketers in Nigeria.

Research Questions

1. How does the free market economy affect the market dynamics of petroleum marketers in Nigeria?
2. What is the impact of the free market economy on the profitability of petroleum marketers in Nigeria?
3. In what ways does the free market economy influence the competitiveness of petroleum marketers in Nigeria?
4. What is the overall relationship between the free market economy and the performance of petroleum marketers in Nigeria?

Research Hypotheses (Null)

H₀₁: The free market economy has no significant effect on the market dynamics of petroleum marketers in Nigeria.

H₀₂: The free market economy has no significant impact on the profitability of petroleum marketers in Nigeria.

H₀₃: The free market economy does not significantly influence the competitiveness of petroleum marketers in Nigeria.

H₀₄: There is no significant relationship between the free market economy and the overall performance of petroleum marketers in Nigeria.

METHODOLOGY

This study adopted a quantitative research design in order to empirically examine the impact of the free market economy on the performance of petroleum marketers in Nigeria. The design was considered appropriate because it allowed for the collection of measurable data that could be analyzed statistically to establish relationships between variables such as market dynamics, profitability, and competitiveness.

The population of the study comprised all registered petroleum marketing companies operating in Nigeria. According to the Department of Petroleum Resources (DPR, 2023), there are over 600 registered petroleum marketing firms across the country, ranging from major marketers such as TotalEnergies, Conoil, and MRS, to numerous independent marketers.

Given the large size of the population, the study adopted a sample size of 240 respondents, drawn from both major and independent marketers across Lagos, Abuja, Rivers, and Kano states, which are major hubs of petroleum marketing in Nigeria. The sample size was determined using Yamane's (1967) statistical formula for finite populations at a 5% margin of error. A stratified random sampling technique was employed to ensure fair representation of both major and independent marketers.

The primary instrument for data collection was a structured questionnaire designed on a 4-point Likert scale ranging from *Strongly Agree (4)* to *Strongly Disagree (1)*. The questionnaire was divided into four sections: Section A captured demographic characteristics; Section B measured the effect of the free market economy on market dynamics; Section C focused on profitability; Section D captured competitiveness; and Section E addressed overall performance of petroleum marketers.

The questionnaire was subjected to both face and content validity by three experts in business administration and energy economics. To ensure reliability, a pilot test was conducted on 30 respondents outside the main study area. The reliability coefficient was computed using Cronbach's Alpha, yielding an overall reliability score of 0.83, which indicated high internal consistency of the instrument.

Copies of the questionnaire were administered physically and electronically to the sampled respondents. Trained research assistants facilitated the distribution and retrieval process in order to maximize the response rate. Out of the 240 questionnaires administered, 215 valid responses were retrieved, representing an 89.6% response rate, which was deemed adequate for analysis.

Data collected were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 25. Both descriptive and inferential statistics were employed. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize demographic characteristics and responses to research questions. Inferential statistics, specifically Analysis of Variance (ANOVA) and Multiple Regression Analysis, were employed to test the hypotheses at a 0.05 level of significance.

RESULTS

Data Presentation and Analysis

Table 1: Demographic Characteristics of Respondents (N = 215)

Variable	Category	Frequency	Percentage (%)
Gender	Male	142	66.0
	Female	73	34.0
Age	20–29 years	41	19.1
	30–39 years	88	40.9
	40–49 years	56	26.0
	50 years and above	30	14.0
Educational Qualification	OND/NCE	39	18.1
	B.Sc./HND	113	52.6
	Postgraduate	63	29.3
Type of Marketer	Major Marketer	96	44.7
	Independent Marketer	119	55.3

The results show that most respondents were male (66%), with the majority aged between 30–39 years (40.9%). Over half (52.6%) had at least a first degree, and independent marketers (55.3%) were slightly more represented than major marketers (44.7%).

Hypothesis One

H₀₁: The free market economy has no significant effect on the market dynamics of petroleum marketers in Nigeria.

Table 2: ANOVA Test for Market Dynamics

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.531	3	4.177	8.465	.000
Within Groups	104.227	211	0.494		
Total	116.758	214			

The ANOVA result shows $F(3, 211) = 8.465$, $p < 0.05$. Since the significance value is less than 0.05, the null hypothesis is rejected. This implies that the free market economy has a significant effect on the market dynamics of petroleum marketers in Nigeria.

Hypothesis Two

H₀₂: The free market economy has no significant impact on the profitability of petroleum marketers in Nigeria.

Table 3: Regression Analysis for Profitability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.482	0.233	0.229	0.683

ANOVA (Model)	Sum of Squares	df	Mean Square	F	Sig.
Regression	27.194	1	27.194	58.251	.000
Residual	89.564	213	0.420		
Total	116.758	214			

Coefficients	B	Std. Error	Beta	t	Sig.
Constant	1.341	0.212		6.329	.000
Free Market	0.587	0.077	0.482	7.634	.000

The regression results show $R^2 = 0.233$, meaning 23.3% of the variance in profitability is explained by the free market economy. The F-statistic (58.251, $p < 0.05$) indicates a significant model fit. The coefficient for free market economy ($\beta = 0.482$, $p < 0.05$) confirms that it has a positive and significant impact on profitability. Thus, the null hypothesis is rejected.

Hypothesis Three

H₀₃: The free market economy does not significantly influence the competitiveness of petroleum marketers in Nigeria.

Table 4: ANOVA Test for Competitiveness

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.322	3	5.107	10.673	.000
Within Groups	100.112	211	0.474		
Total	115.434	214			

The ANOVA result shows $F(3, 211) = 10.673$, $p < 0.05$. Since the significance value is less than 0.05, the null hypothesis is rejected. This indicates that the free market economy significantly influences the competitiveness of petroleum marketers in Nigeria.

Hypothesis Four

H₀₄: There is no significant relationship between the free market economy and the overall performance of petroleum marketers in Nigeria.

Table 5: Multiple Regression for Overall Performance

Model R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.612	0.375	0.366		
			0.594		
ANOVA (Model)	Sum of Squares	df	Mean Square	F	Sig.
Regression	43.804	3	14.601	41.319	.000
Residual	72.954	211	0.346		
Total	116.758	214			
Coefficients	B	Std. Error	Beta	t	Sig.
Constant	0.982	0.195		5.035	.000
Market Dynamics	0.314	0.081	0.298	3.877	.000
Profitability	0.276	0.073	0.269	3.781	.000
Competitiveness	0.342	0.080	0.331	4.274	.000

The regression results show $R^2 = 0.375$, indicating that 37.5% of the variance in performance is explained by market dynamics, profitability, and competitiveness combined. The F-statistic (41.319, $p < 0.05$) confirms the model is significant. All three predictors (market dynamics, profitability, and competitiveness) have positive and significant effects on overall performance ($p < 0.05$). Therefore, the null hypothesis is rejected, confirming a strong relationship between the free market economy and petroleum marketers' performance.

Discussion of Findings

The purpose of this study was to empirically analyze the impact of the free market economy on the performance of petroleum marketers in Nigeria, focusing on market dynamics, profitability, and competitiveness. The findings are discussed in line with the research objectives and compared with relevant literature.

The result of the first hypothesis revealed that the free market economy has a significant effect on the market dynamics of petroleum marketers in Nigeria. This suggests that deregulation and liberalization policies have reshaped pricing strategies, supply chain operations, and competitive behavior within the sector. This finding aligns with the work of Umar and Umar (2020), who reported that deregulation in the downstream sector significantly altered market conditions, compelling firms to adopt new competitive strategies. Similarly, Okonkwo and Anichebe (2021) argued that market liberalization increased volatility but also enhanced operational responsiveness. This supports the argument that deregulation creates both opportunities and uncertainties, thereby intensifying the dynamism of the sector.

The second hypothesis showed that the free market economy significantly impacts the profitability of petroleum marketers in Nigeria. The regression analysis indicated that profitability is positively influenced by deregulation, though with considerable challenges arising from rising costs and foreign exchange instability. This finding is consistent with Adenikinju (2018), who observed that while subsidy removal creates room for higher margins, it also exposes firms to financial pressures associated with volatile import costs. Onyekwena and Ekeruche (2019) similarly noted that profitability under a free market regime is fragile, as gains are easily eroded by macroeconomic instability. Thus, while the free market economy theoretically enables profit maximization, structural inefficiencies in Nigeria weaken the extent to which marketers can fully benefit.

The third hypothesis confirmed that the free market economy significantly influences competitiveness among petroleum marketers in Nigeria. The ANOVA results indicated that firms are compelled to compete not only on pricing but also through differentiation strategies such as improved service delivery, technological adoption, and distribution efficiency. This is in line with the findings of Oduh and Okoye (2021), who emphasized that deregulation forced petroleum marketers to enhance customer service and logistics management to remain relevant. Likewise, Aigbedion and Iyayi (2020) highlighted that competitiveness in Nigeria's petroleum sector is now increasingly

defined by innovation and efficiency rather than mere government protection. This shows that deregulation has shifted the competitive advantage towards firms that can adapt strategically.

The final hypothesis established that there is a strong and significant relationship between the free market economy and the overall performance of petroleum marketers in Nigeria. The regression results showed that market dynamics, profitability, and competitiveness collectively explained a substantial proportion of performance variation among marketers. This result corroborates the study of Ogbuabor and Orji (2020), who concluded that deregulation significantly enhances firm-level efficiency and competitiveness, though its benefits are unevenly distributed across firms. Similarly, Eneh (2011) argued that while deregulation improves efficiency in theory, its practical benefits are realized only when structural challenges such as infrastructure deficits and access to capital are addressed.

Overall, the findings of this study suggest that the free market economy has reshaped the petroleum marketing industry in Nigeria in profound ways. Market dynamics have become more fluid and competitive; profitability, though positively influenced, remains constrained by macroeconomic volatility; and competitiveness has become more intense, rewarding firms with strategic adaptability. While these findings generally align with prior studies (Adenikinju, 2018; Umar & Umar, 2020; Oduh & Okoye, 2021), the study provides empirical evidence that the transition to a free market is a double-edged sword: it creates opportunities for efficiency and growth but simultaneously exposes marketers to heightened risks and uncertainties.

CONCLUSION

This study investigated the impact of the free market economy on the performance of petroleum marketers in Nigeria, with specific focus on market dynamics, profitability, and competitiveness. The findings revealed that deregulation and liberalization have significantly altered the structure and behavior of the petroleum marketing industry. Market dynamics have become more unpredictable due to fluctuating prices, supply chain pressures, and heightened competition. Profitability, while theoretically enhanced under a free market, is constrained by operational costs, foreign exchange volatility, and infrastructural bottlenecks. Competitiveness, on the other hand, has intensified, compelling marketers to adopt innovative strategies in service delivery, logistics, and customer relations.

Overall, the study concludes that the free market economy has both positive and negative implications for petroleum marketers in Nigeria. While it promotes efficiency, innovation, and competitiveness, it also exposes firms to systemic risks and challenges. The performance of marketers under a free market is therefore determined not only by government policy reforms but also by firm-level strategic responses to market pressures. The findings underscore the dual nature of deregulation as both an enabler of growth and a source of instability within the petroleum marketing sector.

RECOMMENDATIONS

Based on the findings, the following recommendations are made:

1. Government should ensure policy consistency in the deregulation of the petroleum sector. Frequent policy reversals undermine the stability of the free market and discourage long-term investments.
2. There is a need for massive investment in refining capacity, storage facilities, and distribution networks to reduce the cost of operations for petroleum marketers and minimize reliance on imports.
3. Financial institutions and government agencies should provide affordable credit facilities to petroleum marketers, especially independent ones, to enable them to remain competitive under a deregulated environment.
4. Petroleum marketers should invest in staff training, digital technologies, and operational innovations that enhance efficiency, improve service delivery, and strengthen their competitiveness.

5. The government should implement stronger monetary and fiscal measures to stabilize the exchange rate, as foreign exchange volatility significantly affects the profitability of petroleum marketers.
6. Although the market is deregulated, regulatory agencies such as the Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA) should strengthen oversight to prevent unfair competition, product adulteration, and exploitative pricing.
7. Petroleum marketers should consider mergers, acquisitions, or partnerships that will enable them to pool resources, reduce costs, and enhance market competitiveness in the free market era.

REFERENCES

- Adenikinju, A. (2018). Energy pricing and subsidy reforms in Nigeria. *International Association for Energy Economics*, 39(3), 31–36.
- Aigbedion, J., & Iyayi, F. (2020). Market liberalization and competitiveness in Nigeria's downstream oil sector. *Journal of African Business Studies*, 16(2), 45–59.
- Akinwale, Y. O. (2018). Deregulation policy and performance of the downstream oil sector in Nigeria. *Journal of Economics and Policy Analysis*, 23(2), 112–128.
- Anyanwu, J. C. (2019). The Nigerian petroleum industry and economic reforms: Issues and challenges. *African Development Review*, 31(S1), 20–34. <https://doi.org/10.1111/1467-8268.12345>
- Ayodele, A. I., & Sotola, O. (2014). Deregulation and its discontents: An assessment of Nigeria's downstream petroleum sector. *Centre for Public Policy Alternatives Working Paper Series*, 2(4), 1–27.
- Central Bank of Nigeria. (2020). *Statistical bulletin: Oil and gas sector contribution to GDP*. CBN Publications.
- Ehinomen, C., & Adeleke, A. (2012). An assessment of the distribution of petroleum products in Nigeria. *Journal of Business and Organizational Development*, 4(1), 25–37.
- Eneh, O. C. (2011). Deregulation of the downstream oil sector in Nigeria: The implications for the economy. *Journal of Public Administration and Policy Research*, 3(11), 342–348.
- Friedman, M. (2002). *Capitalism and freedom*. University of Chicago Press.
- National Bureau of Statistics. (2021). *Statistical bulletin on petroleum products distribution and consumption in Nigeria*. Abuja: NBS.
- Nwokeji, G. U. (2007). The Nigerian National Petroleum Corporation and the development of the Nigerian oil and gas industry. *Baker Institute for Public Policy, Rice University*. <https://www.bakerinstitute.org/research/nigerian-national-petroleum-corporation>
- Oduh, M. O., & Okoye, C. A. (2021). Competitive strategies of petroleum marketers in Nigeria. *Nigerian Journal of Management Sciences*, 12(1), 88–103.
- Ogbuabor, J. E., & Orji, A. (2020). Deregulation, efficiency, and market performance in Nigeria's downstream oil sector. *Energy Policy Review*, 17(4), 102–118.

- Okon, E. E., & Nsikan, E. (2020). Petroleum products pricing and the Nigerian economy: The impact of deregulation. *International Journal of Energy Economics and Policy*, 10(3), 178–187. <https://doi.org/10.32479/ijeeep.9333>
- Okonkwo, R., & Anichebe, N. (2021). Dynamics of oil marketing business in Nigeria: Challenges and opportunities. *African Journal of Business and Economic Development*, 11(3), 57–70.
- Olise, M. C., & Ogbechie, C. (2018). Deregulation of the downstream oil sector and organizational performance: Evidence from Nigerian petroleum marketers. *Nigerian Journal of Management Studies*, 14(2), 65–84.
- Onoh, J. K. (2015). *The Nigerian oil economy: From prosperity to glut*. Spectrum Books.
- Onyekwena, C., & Ekeruche, M. A. (2019). The impact of subsidy removal on Nigeria's petroleum sector. *Brookings Africa Growth Initiative Policy Brief*, 2019(4), 1–8.
- Onyema, J. I. (2021). Market reforms and competitiveness of Nigerian petroleum marketers. *Journal of African Business*, 22(4), 457–476. <https://doi.org/10.1080/15228916.2020.1838002>
- Samuelson, P. A., & Nordhaus, W. D. (2010). *Economics* (19th ed.). McGraw-Hill.
- Umar, G., & Umar, A. (2020). The deregulation of the downstream petroleum sector in Nigeria: Issues and prospects. *International Journal of Energy Economics and Policy*, 10(6), 310–319.
- World Bank. (2020). *Nigeria economic update: Navigating uncertainty*. Washington, DC: World Bank. <https://www.worldbank.org/nigeria>