



Financial Technology and Financial Performance: Evidence From Nigeria Firms

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Abstract

This study ascertain the impact of financial technology on financial performance of listed oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria. Quantitative data were sourced from the annual financial reports and account of the firms, point of sales data were obtained from the e-payment statistics and the annual bulletin of the central bank of Nigeria from 2014-2024. Panel unit root test was used to test the stationarity and the integration order of the variables. The ordinary least square analysis was employed to analyze the impact of the independent variable on the dependent variables. The study reveals that POS has no significant impact on ROA and DPS. While, POS has significant impact on ROE, ROCE and EPS. However, the moderating effect of firm size has no significant impact on the financial technology. The study concludes that, on the long run financial technology has significant impact on the financial performance of the listed oil and gas producing firms, oil and gas firms' service stations and the consumer goods firms in Nigeria. The study recommends that the firms' needs to improve on their financial technology services to enhance their ROA, DPS and firm size.

Keywords: Financial Technology, Financial Performance, Firm Size. Nigeria Firms

Introduction

Over the years the Nigeria oil and gas producing firms, oil and gas firms' service stations and consumer goods firms are the fastest growing and high-risk firm as shown in their audited published financial statements. The financial performance of oil and gas producing firms', oil and gas service stations and consumer goods firms over the years has increased rapidly. This makes consumer goods firms and oil and gas producing firms' service stations operation an important sectors that impact significantly to the Nigeria economy. As much as the growth of Nigeria economy is concern, other commodities are based on the price of premium motor spirit. However, one can state that, premium motor spirit is a major source of energy it accounts for 3% of the world's economy (Okonkwo & Ekwueme, 2022).

Premium motor spirit and gas stations are among the most visited facilities to fill up fuel or gas in vehicles and gas cylinders to ensure they function as desires. But the growing trends of technology have put up great competition in the market. oil and gas firms service stations are businesses that sells

premium motor spirit, diesels, lubricants for motor vehicles and gasoline for motor vehicles air conditioners, cooking cylinders, fridges and deep freezers air conditioners for cooling of waters, drinks, meats, fishes and preservation of foods. Every day, millions of people depend on premium motor spirit, gas and consumer goods (household goods). It is impossible to underestimate the significance of premium motor spirit and gas service stations including the consumer goods firms because they provide premium motor spirit that allow people to go to different parts of the nation and commodities for individuals'.

Like many other firms, oil and gas firms, oil and gas producing firms service stations and consumer goods firms are rapidly going digital. Customers demand easy, contactless payment options since they are becoming more tech-savvy. These firms can maintain their competitiveness, improve customer experience and care, and make sure that their businesses prospers in the digital age by adopting innovative payment technology and is a financial technology that drives financial inclusion and digital financial inclusion for which both

businesses, the poor and the rich people benefit from its services. The oil and the gas producing firms, oil and gas firm's service stations, and consumer goods firms were commonly known for businesses that when sales are made, payment are done by cash. The oil and the gas producing firms, oil and gas firm's service stations, and consumer goods firms has evolved, making the experience of payment on goods bought more efficient and pleasant, thereby introducing a self-serve attendant and mobile banking applications for payments by transferring money instantly instead of visiting the banks for such transaction, helping to automate practically every activities in these firms (Mustapha, 2020). The intense competition brought about by business growth makes it harder for them to outperform their rivals in the marketplace.

The oil and gas producing firms, oil and gas firms' service stations and consumer goods firms has been significantly and continuously impacted by financial technology. Over the past few decades, there has been a significant change in the manner that premium motor spirit, diesels and gas service stations and also consumer goods items are produced, distributed, marketed and sold. Consumers demand generally rises with growth in the economy, and these firms experience a rise in demand for higher quality goods and services. Financial technology refers to the use of technology to provide various financial services, such as online payments, financial planning, and peer-to-peer lending. It has disrupted traditional financial institutions and introduced new business models (Kyari & Akinwale, 2020).

The emergence of financial technology has affected the culture within organizations worldwide. Enemuo et al (2025) posit that financial technology opens access for financial inclusion, financial inclusion includes both traditional financial inclusion and digital financial inclusion which has been accepted nationwide as a focal driver of money transactions as a means of payment for goods and services purchased by the rich, poor and businesses, also bring about equality in terms of money transactions through the use of point of sales technologies by businesses, families and individual within any environment they finds themselves without being physically present in banks for such transaction that ought to cost them some amount of money for transportation cost (i.e., the leveraging of technology to dazed barriers of cost, distance, documentation and infrastructure that border financial access).

By increasing the access of financial services, financial technology permits people and businesses to save, invest, and engage in fruitful economic

activities by using automated tellers machine through the use of point of sales terminals. While it also promotes digital financial inclusion that permits mobile and internet technologies which in-turn increases access to financial services nationally (Enemuo et al., 2025). It encompasses technologies such as digital financial technology and innovation (i.e., the use of point of sales, automated teller machines, robo-advisors, crowdfunding, mobile banking, digital payments, blockchain etc.) which have transformed financial markets globally (Enemuo, et al., 2025). Consumer good firms and the oil and gas firms' service stations has been impacted by financial technology both through the appearance of financial technology firms and through the adoption of innovative technologies by traditional firms themselves.

Firms' financial performance exceptional kill, strength, expertise are substantially pretentious by cash flow management and the use of financial technology to determines the healthiness of firms (Idamoyibo et al., 2021). Firms' financial performance are crucial to sustainability and continuity of their operations. Whether a firm's performance is short-term or long-term (sustainable) is ultimately determined by how it manages its resources. Asen et al., (2021) assert that firms financial performance is calculated by their capability in generating optimal assets, maximize profits and shareholders wealth. Idamoyibo (2024) sees profits as financial gain corporations receives from transactions, investments or operations, after all liabilities have been settled.

Ironkwe and Wokoma (2021) opine that a company's financial performance affects investor interest and influences the public's perception of it. Still, potential investors, shareholders, employees, governmental bodies, and the public are attracted to a firm who has shown a strong positive profitability trend and huge liquidity. Joseph and Chuemeka (2020) posit that potential investors are willing to investor with a company that have strong track records of profitability, pay their employees, pay taxes to the government, and carry out their corporate social responsibility where their operations takes place. The Nigeria oil and gas producing firms, oil and gas firms' service stations and consumer goods firms are facing various challenges in terms of sales payments, but technologies innovations has being help to overcome these difficulties.

Customers of premium motor spirit, gas and consumer goods firms complains that the amount of time they spend at the companies and service stations were primarily because of long queues and network failures, which are brought on by

inadequate connectivity between the main server and contactless payments (such as point of sales and internet transfer). Notwithstanding, financial technologies also brought challenges to consumer goods firms such as regulation, security, privacy, competitive pressure and technological risks. To meet this challenges, oil and gas firms, oil and gas firms' service stations and consumer goods firms need to actively pursue technological innovation, optimise their business model, and strengthen regulations and compliance.

The major difficulties customers face in using financial technologies are poor network, literacy, concerns on risk and unreliable machines. The oil and gas producing firms', oil and gas firms service stations are expected to improve service delivery technologically, by providing smart gas station solution such as automated fuel dispensing systems that use sensors and algorithms to reduce wastage and optimize premium motor spirit, diesel and gas delivery, which is the key features of a smart gas station solution. Premium motor spirit, diesel and gas inventory levels can be tracked in real-time, predictive maintenance can catch and fix problems before they get critical, and loyalty programs can be integrated to improve customer experiences.

A number of empirical studies have studied financial technology and financial performance and economic growth, but they focus on banking and insurance sectors, manufacturing sectors and Small and medium scale enterprises with measure such as return on asset and return on equity, studies of Hogan and Okereke 2023; Zhao et al., 2023; Guo and Zhang 2023; Okonkwo, and Ekwueme 2022; Boot et al., 2021; and also, Nwakoby et al., 2020. None of these studies has used measures like return on capital employed, earnings per share, dividend per share and the moderating effect of firm size, which this present study included. This shows that, the results are mixed, more or less country-specific and limited in scope. Against this background this study tend to fill the gap by ascertain the impact of financial technology on financial performance of listed oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria.

In line with the objective of this study, the following research hypotheses were formulated and tested.

H₀₁: There is no significant impact of Point of Sale terminals revenue generated on Return on Assets of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria.

H₀₂: There is no significant impact Point of Sale terminals revenue generated on Return on Equity of consumer goods firms and oil and gas producing firms', firms' service stations in Nigeria.

H₀₃: There is no significant impact of Point of Sale terminals revenue generated on Return on Capital Employed of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria.

H₀₄: There is no significant impact of Point of Sale terminals revenue generated on Earnings per share of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria.

H₀₅: There is no significant impact of Point of Sale terminals revenue generated on Dividend per share of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria.

H₀₆: There is no significant impact of the moderating effect of Firm Size on financial technology revenue generated of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria.

Conceptual Clarifications

Financial Technology

Financial technology advancements, according to many scholars, have the potential to significantly change financial services by making them safer, easier, and more affordable through financial technology companies. These scholars have been drawn in by the financial technology sectors rapid development and global expansion (Chen, 2019). Financial technology companies has track record of dominating the field in which they specialize and are dedicated to providing excellent customer service. Financial technologies has greatly expanded the use of digital technology in the areas of payment systems, insurance, financial planning, and lending. These financial technology companies services are now frequently use for money transfer between different banks whether internally or externally amongst individuals and businesses. Technological Innovations in many sectors, especially banking and consumable goods, have been driven by global technological advancement. Financial technology has become more and more well-known across the globe, particularly in Nigeria. The public now has easy, convenient, and safe access to financial services this came into being

through widespread acceptance in the consumer goods sector (Medyawati et al., 2021; Abdillah, 2020).

An individual or customers can make payments from anywhere in the world and send money without having to go to the bank. New businesses entering the market through financial technology are trying to upend traditional methods of doing things by utilizing state-of-the-art technological channels in areas such as asset management and money transfer (Truong, 2016). One of the notable characteristics of financial technology is its capacity to maintain market efficiency while reducing transaction costs. Kim et al (2020), sees financial technology as a platform that enable the fusion of technology and finance.

Financial technology transforms conventional payment systems and makes long-distance transactions easier. Financial technology is habitually seen as a cutting-edge financial platform or application that improves community access to secure useful financial services that promotes economic expansion. To put it simply, information technology combined with financial services promotes financial service industry (Lee & Kim, 2020). Financial technology denotes a broad category of technologically supported financial innovations that can lead to the development of new services, business models, goods, procedures, and even institutions inside the financial system (IAIS, 2017).

Point of Sales (POS) Terminal

An essential tool for cashless policies is the point of sale terminal, which allows operators to easily handle customer payments and then record them for transparent accounting purposes (Iskakov & Yilmaz 2020). The vehicle rider first extracts the bank identification number when customers swipe their debit or credit card into the POS transactions terminals. By providing a salesperson-friendly interface, a point-of-sale system (POS) facilitates the selling process and permits the creation and printing of receipts. POS terminals increase convenience, more service options, reduced cash related crimes, cheaper access to banking services, and also increases bank Penetration thereby creating more fund in the bank investment purposes in order to enhance banks performance.

Theoretical Review

The foundation of this study is based on the Theory of Technology Acceptance Model and the Theory of Diffusion of Innovations.

Technology Acceptance Theory

This theory was developed by Fred in the year 1989, is an information system theory which shows how a person's adoption of technology and innovation is affected by other things, like subjective norm and its attitude towards the behaviour. Subjective norm simply refers to the belief of what others will think of the behaviour. Attitudes are those beliefs an individual accumulates throughout his or her life time. Fred, defines technology acceptance theory as the degree to which an individual believes that using a specific system would enhance his or her job performance, and perceived ease of use. Fred also sees technology acceptance theory as the degree to which an individual believes that using an exact system would made him or her be free from effort (Marikyan & Papagiannidis, 2025; Poi, 2024).

Diffusion of Innovations Theory

The diffusion of innovation theory is a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures. This theory was developed by Gabriel in the year 1980, and it was popularized in the book of Professor, Everett Roger's "Diffusion of Innovations" who specialize in rural sociology in the year 1962. He explained diffusion as a process whereby an innovation is communicated through certain channels overtime amid members of a social system, this theory was employed by Idris and Dzugwahi (2025); Poi (2024); and Yao and Song (2021). This study is hinged on the theory of technology acceptance model and the theory of diffusion of innovations.

Empirical Review

A study conducted by Kolawole et al (2024) evaluates the causal association as well as short-term and long-term dynamic effects among digital financial service components on the performance of the quoted commercial banks. The findings show that agency banking shows a strong causal association on return on assets, automated teller machine banking has a weak influence on return on assets, while internet banking and mobile banking has significant impact on return on assets. A study by Poi (2024) assesses the connection amid financial technology proxies by internet banking and mobile payment innovation and business growth of small and medium-scale enterprises, the finding reveals that there is a positive and significant connection amid financial technology innovation and business growth. With the Established of findings, the study concludes that financial technology innovation is a business answer, a daunting management policy that small

and medium enterprises can use to increase the corporate growth.

Further, Adewuyi (2024) investigates the impact of financial technology on the economic development of developing countries, focusing on Nigeria nation, to understand its contributions and ascertain areas for improvement. The finding shows that the automated tellers machine, point of sales and mobile payments of financial technology services fluctuates, but there is a general upward trend in production and popularity peaking in the year 2020, likely due to the era of COVID-19 pandemic. Although, automated teller machines was the most popular among the variables, but post of sales and mobile payments transactions are the ones that have significant growth in the economic development of Nigeria from 2017 to 2019. The study conclude therefore, that financial technology has a partial impact on GDP per capita, financial technology has significant influence on consumer price index and the unemployment rate, showing its critical role in shaping Nigeria's economic landscape

A study carried out by Guo and Zhang (2023) examines how Chinese commercial banks financial technology affects the production of liquidity. The study found that banks with higher levels of financial technology development generate more liquidity through cost-efficiency, risk management and deposit inflow. For non-state-owned, unlisted banks, the study found lower level liquidity creation, the benefits of the bank financial technology were more noticeable. In line with previous literature, Ogbonna et al (2023) determines the effect of financial technology on profitability of financial industry in Sub-Saharan African economies. Secondary data were gathered from central bank statistical bulletin and World Bank development indicator of the selected nations. The finding shows that there is a strong and significant impact of financial technology on the profitability of the financial industry in the Sub-Saharan African economies.

Similarly, a study conducted by Enemu et al., (2025) evaluates the interplay among digital financial inclusion and environmental sustainability in Nigeria, looking at the role of industrialization, urbanization, and energy consumption. Also, the study ascertains whether digital financial inclusion promotes environmental degradation through renewable energy adoption or contributes to environmental degradation through increased energy consumption. The findings shows that the n-shaped environmental kuznets curve, where inclusive economic growth at first degrades the environment, improves at higher income levels, yet ricochets once more at very high incomes. The

industrialization decreases emissions excluding mobile money accounts per capita, indicating the environmental costs of digital financial inclusion infrastructure. Trade openness at first increases emissions, yet drops them in the long term. While foreign direct investment decreases emissions, renewable energy at first also decreases environmental degradation, yet increases environmental degradation in the long term. The error correction terms indicates quick convergence to stability.

A study conducted by Adewumi et al (2023) ascertains how financial technology affects Nigerian banks' performance, using Zenith Bank and United Bank for Africa as a stud. The finding reveals that, traditional and market-based performance metrics has positive impact on financial technology. Similarly, a study conducted by Zhao et al (2023) evaluates the impact of financial technology on bank risk-taking on deposit money banks in Nigeria. The study found a positive liaison among bank risk-taking and financial technology in Nigeria. Also, the study found that payment and settlement technology, capital-raising technology, and investment management technology has positive linked with bank risk-taking, while market facility technology has a negative linked with bank risk-taking.

A study by Omole et al (2023) assesses the effect of financial technology on Nigerian deposit money banks' financial performance for the period of five years (2018-2022). Financial technology was proxy by post of sale and financial performance was measured by return on assets. The result displays a positive and significant impact of point of sale with the return on asset of the selected banks in Nigeria.

A study carried out by Mbagwu and Obonofiemro (2023) investigates the correlation among technological disruption and deposit money banks financial performance in the pre and post covid-19 pandemic in Nigeria. The finding shows that automated teller machine, internet banking, point of sales and mobile tellers has positive and significant effect on return on assets of deposit money banks in Nigeria.

A study conducted by Bussoli et al (2023) investigates whether banks that engaged in a financial technology merger experience better financial performance. The result indicates that financial technology merger operation boosts international banking financial performance. A study carried out by Adiga et al (2022) evaluates the effect of financial technology on return on assets, return on equity, interest income and non-interest income of deposit money banks in Nigeria. The finding shows that financial technology

significantly affect the return on assets, return on equity, interest income and non-interest income of deposit money banks in Nigeria.

A study carried out by Idris and Dzugwahi (2025) ascertains the impact of financial technology on Nigeria's economic growth analyzing the impact of real gross domestic product on mobile money transactions, automated teller machine usage, and point-of-sale transactions. The finding shows a steady long-run impact of financial technology variable on economic growth. Conversely, mobile money transactions, automated teller machine usage, and point-of-sale transactions exhibit negative and positive long-term impact with real gross domestic product, their effects are statistically insignificant. The high R-squared value and F-statistic and probability values, avow the model's robustness in the short-run.

A study by Islam et al (2022) examines the impact of financial technology on financial service delivery of deposit money banks in Nigeria, the findings reveals that mobile banking, internet banking and point of sales banking has significant impact on the financial service delivery of deposit money banks in Nigeria. A study conducted by Akanbi et al., (2022) examines the impact of financial technology usage on the financial and non-financial performance of small the medium enterprises in Nigeria. The finding indicates a significant association among financial technology usage and small and medium enterprises customer satisfaction, customer retention, turnover, and profitability in Nigeria. The study concluded therefore, that financial technology has significant impact on the financial and Non-financial performance of small and medium enterprises in Nigeria.

Similarly, the study of Filipa (2022) examines how stock prices of publicly listed traditional banks responds to the statement of financial technology firms funding deals. The study finding reveals that financial technology firms do not displays significant abnormal performance for any of the event windows considered on traditional banks. The parametric test used in the study found a significant negative results, and the results were disallowed

Model Specifications

The study adopt and modify the model of Idamoyibo (2025) to suit the peculiarity of the study.

Mathematically, the model is expressed thus:

$$ROA = f(NLPOS)$$

$$ROE = f(NLPOS)$$

$$ROCE = f(NLPOS)$$

$$EPS = f(NLPOS)$$

$$DPS = f(NLPOS)$$

$$LFMS = f(NLPOS)$$

due to the non-normality of the data. The analysis was conducted on sub-sampling events into diverse kinds of financial technology groups and the finding reveals that the stock returns of traditional banks respond negatively to digital lending funding events, signifying a swap effect, and positive to the funding of digital payments firms, suggesting a balancing effect. The findings for digital capital raising firms propose that banks' stock returns firstly react negatively to these events but that the finding was inverted in the following days, signifying a total balancing effect.

A study conducted by Lionel and Samuel (2020) examines the effect of financial innovation on economic growth in Nigeria, the study employed qualitative data for the analysis. The finding reveals that there is a positive and significant effect of financial innovation on small and medium scale enterprises' productivity in Nigeria.

Methods

The study used of quantitative data that was generated from the annual financial statement reports and accounts of the firms, point of sales data were obtained from the e-payment statistics and the annual bulletin of the central bank of Nigeria from 2014-2024. The population comprises oil and gas producing firms, oil and firms who engage in service station operations and consumer goods firms listed on the floor of the Nigeria Exchange Group who are involves in e-payments for business transactions. A sample of five firms each was chosen from the oil and gas producing firm, oil and gas firms' service stations and the consumer goods firms making it ten sampled firms using judgmental sampling techniques. The firms includes Cadbury Nigeria Plc., Honeywell Flour, Larfage Nigeria Plc., May and Baker, Giuness Nigeria Plc., Conoil Plc., Oando Plc., Mrs Oil, Seplat Energy and Total Energies. The justification of using these firms was based on the reasons of using point of sales e-payment in their business transactions. The study employed a simple linear regression method to test the hypotheses and analyse the data.

equ I
equ II
equ III
equ IV
equ V
equ VI

Econometrically, the equation I to VI above can be restated as:

$$\begin{aligned}
ROA &= \beta_0 + \beta_1 NLPOS + U_i && \text{equ VII} \\
ROE &= \beta_0 + \beta_1 NLPOS + U_i && \text{equ VIII} \\
ROCE &= \beta_0 + \beta_1 NLPOS + U_i && \text{equ IX} \\
EPS &= \beta_0 + \beta_1 NLPOS + U_i && \text{equ X} \\
DPS &= \beta_0 + \beta_1 NLPOS + U_i && \text{equ XI} \\
NLFMS &= \beta_0 + \beta_1 NLPOS + U_i && \text{equ XII}
\end{aligned}$$

Where: NLPOS (Natural Logarithm of Point of Sales), ROA (Return on Assets), ROE (Return on Equity), ROCE (Return on Capital Employed), EPS (Earning per Share), DPS (Dividend per Share), NLFMS (Natural Logarithm of Firm Size), β_0 (Constant Term), β_1 (Coefficient of the explanatory variable), and U_i (Stochastic Error Term).

Method of Data Analysis

The study used econometrics models to accomplish the objectives of the study. Firstly,

the econometric model determines the Panel unit root test for the stationarity of the variables using Levin, Lin and Chin root test and secondly is the OLS tests.

Panel Unit Root Tests

Confirming the order of integration of the data series appropriateness for a linear combination in the form of a model, the panel unit root test following the form stated as Levin, Lin and Chin.

Table 1: Summary of Panel Unit Root Test

Study Variables	Statistics	Probability Value	Order of Integration	Remark
NLPOS	-1.67918	0.0466	1(0)	Stationarity
ROA	8.29100	0.0000	1(0)	Stationarity
ROE	-22.9117	0.0000	1(0)	Stationarity
ROCE	2.76833	0.9972	1(1)	Stationarity
EPS	3.17365	0.9992	1(1)	Stationarity
DPS	-34.7593	0.0000	1(0)	Stationarity
NLFMS	1.43534	0.9244	1(1)	Stationarity

Source: Author's Computation (E-View 9.0)

The result table 1 above shows that, NLPOS, ROA, ROE, DPS are stationary at 5% level of significance since their respective p-values at their natural levels are less than 5% level of significance. While ROCE, EPS and NLFMS are stationary

at 10% level of significance since their respective p-values at their natural levels are 10% and 9% level of significance. It can be conclusively stated that the variables under study do not possess unit roots and are integrated at their 1st and 2nd differencing of 1(0) and 1(1)) as shown in table above.

Table 2: Result of Model I: ROA = f(NLPOS)

Dependent Variable: ROA

Method: Panel Least Squares

Date: 07/15/25 Time: 11:36

Sample: 2014 2024

Periods included: 11

Cross-sections included: 10

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NLPOS	0.031007	0.023761	1.304964	0.1947
C	-0.265296	0.477799	-0.555245	0.5799
R-squared	0.015523	Mean dependent var		0.354980
Adjusted R-squared	0.006408	S.D. dependent var		0.511478
S.E. of regression	0.509837	Akaike info criterion		1.508563
Sum squared resid	28.07284	Schwarz criterion		1.557663

Log likelihood	-80.97096	Hannan-Quinn criter.	1.528478
F-statistic	1.702932	Durbin-Watson stat	0.813652
Prob(F-statistic)	0.194679		

Source: *Source: Author's Computation (E-View 9.0)*

In table above, the result displays the coefficient estimates value of POS on ROA model of the OLS analysis to show the contribution of POS in ROA. The result shows that POS has a significant positive impact on ROA with the probability value of 0.1947 and coefficient value of 0.031007. The coefficient of determination, R-squared (R^2) value is 0.015523 and indicates that 1.6% of the changes in ROA are explained by the variation in financial technology. The F-statistic explains the overall significance of the performance of POS in the

model. The F-statistic value is 1.702932 with a probability value of 0.194679 greater than 5% level of significance. The coefficient of Durbin-Watson value is 0.813652 and indicating 81%. This shows that the model is free of autocorrelation. Based on the probability value of F-statistic, the study concludes that POS has no significant impact on ROA of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Table 3: Result of Model II: ROE =f(NLPOS)

Dependent Variable: ROE

Method: Panel Least Squares

Date: 07/15/25 Time: 11:37

Sample: 2014 2024

Periods included: 11

Cross-sections included: 10

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LPOS	0.149670	0.046272	3.234600	0.0016
C	-2.351125	0.930474	-2.526804	0.0130
R-squared	0.088320	Mean dependent var		0.642968
Adjusted R-squared	0.079879	S.D. dependent var		1.035064
S.E. of regression	0.992864	Akaike info criterion		2.841569
Sum squared resid	106.4642	Schwarz criterion		2.890669
Log likelihood	-154.2863	Hannan-Quinn criter.		2.861484
F-statistic	10.46263	Durbin-Watson stat		0.473409
Prob(F-statistic)	0.001617			

Source: *Source: Author's Computation (E-View 9.0)*

Table 3 above, displays the result of the coefficient estimates of POS on ROE model of the OLS analysis to show the contribution of POS in ROE. The result shows that POS has a significant positive impact on ROE with the probability value of 0.0016 and coefficient value of 0.149670. The coefficient of determination, R-squared (R^2) value is 0.088320 and indicates that 8.8% of the changes in ROE are explained by the variation by POS. The F-statistic explains the overall significance of the performance

of POS in the model. The F-statistic value is 10.46263 with a probability value of 0.001617 lesser than 5% level of significance. The coefficient of Durbin-Watson value is 0.473409 and indicating 47%. This shows that the model is free of autocorrelation. Based on the probability value of the F-statistic, the study concludes that POS has significant impact on ROE of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Table 4: Result of Model III: ROCE =f(NLPOS)

Dependent Variable: ROCE

Method: Panel Least Squares

Date: 07/15/25 Time: 11:37

Sample: 2014 2024

Periods included: 11

Cross-sections included: 10

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LPOS	0.230567	0.046108	5.000552	0.0000
C	-3.872928	0.927189	-4.177064	0.0001
R-squared	0.188004	Mean dependent var		0.739471
Adjusted R-squared	0.180485	S.D. dependent var		1.092888
S.E. of regression	0.989359	Akaike info criterion		2.834496
Sum squared resid	105.7139	Schwarz criterion		2.883596
Log likelihood	-153.8973	Hannan-Quinn criter.		2.854412
F-statistic	25.00552	Durbin-Watson stat		0.497210
Prob(F-statistic)	0.000002			

Source: Source: Author's Computation (E-View 9.0)

In table 4, the result displays the coefficient estimates of POS on ROCE model of the OLS analysis to show the contribution of POS in ROCE. The result shows that POS has a significant positive impact on ROCE with the probability of 0.0000 and coefficient value of 0.230567. The coefficient of determination, R-squared (R^2) value is 0.188004 and indicates that about 18% of the changes in ROCE are explained by the variation in POS. The F-statistic explains the overall significance of the

performance of POS in the model. The F-statistic value is 25.00552 with a probability value of 0.000002 lesser than 5% level of significance. The coefficient of Durbin-Watson value is 0.497210, indicating 50%. This shows that the model is free of autocorrelation. Based on the probability value of the F-statistic, the study concludes that POS has significant impact on ROCE of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods sector in Nigeria.

Table 5: Result of Model IV: EPS =f(NLPOS)

Dependent Variable: EPS

Method: Panel Least Squares

Date: 07/15/25 Time: 11:38

Sample: 2014 2024

Periods included: 11

Cross-sections included: 10

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LPOS	143.8361	33.87791	4.245719	0.0000
C	-2432.296	681.2500	-3.570343	0.0005
R-squared	0.143035	Mean dependent var		445.0919
Adjusted R-squared	0.135100	S.D. dependent var		781.6447
S.E. of regression	726.9296	Akaike info criterion		16.03355
Sum squared resid	57070072	Schwarz criterion		16.08265
Log likelihood	-879.8453	Hannan-Quinn criter.		16.05347
F-statistic	18.02613	Durbin-Watson stat		0.747527
Prob(F-statistic)	0.000046			

Source: Source: Author's Computation (E-View 9.0)

Table 5 above, displays the result of the coefficient estimates of POS on EPS model of the OLS analysis to show the contribution of POS in EPS. The result shows that POS has a significant positive impact on EPS with the probability value of 0.0000 and coefficient value of 143.8361. The coefficient of determination, R-squared (R^2) value is 0.143035, indicates that 14% of the changes in EPS are explained by the variation in POS. The F-statistic is

18.02613 with a probability value of 0.000046 lesser than 5% level of significance. The coefficient of Durbin-Watson value is 0.747527, indicating 75%. This shows that the model is free of autocorrelation. Based on the probability value of the F-statistic, the study concludes that POS has significant impact on EPS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Table 6: Result of Model V: $DPS = f(NLPOS)$

Dependent Variable: DPS

Method: Panel Least Squares

Date: 07/15/25 Time: 11:38

Sample: 2014 2024

Periods included: 11

Cross-sections included: 10

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LPOS	4.889241	5.081662	0.962134	0.3381
C	3.656437	102.1870	0.035782	0.9715
R-squared	0.008498	Mean dependent var		101.4639
Adjusted R-squared	-0.000682	S.D. dependent var		109.0017
S.E. of regression	109.0389	Akaike info criterion		12.23930
Sum squared resid	1284064.	Schwarz criterion		12.28840
Log likelihood	-671.1616	Hannan-Quinn criter.		12.25922
F-statistic	0.925702	Durbin-Watson stat		0.209260
Prob(F-statistic)	0.338131			

Source: Source: Author's Computation (E-View 9.0)

Table 6, displays the result of the coefficient estimates of POS on DPS model of the OLS analysis to show the contribution of POS in DPS. The result shows that POS has a significant positive impact on DPS with the probability value of 0.3381 and coefficient value of 4.889241. The coefficient of determination, R-squared (R^2) value is 0.008498 and indicates that 0.84% of the changes in DPS are explained by the variation in POS. The F-statistic explains the overall significance of the performance of POS in the model. The F-statistic is 0.925702 with a probability value of 0.338131 greater than 5% level of significance. The coefficient of Durbin-Watson value is 0.209260 indicating 21%. This shows that the model is free of autocorrelation. Based on the probability value of the F-statistic, the study concludes that POS has no significant impact on DPS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Table 7: Result of Model VI: NLFMS =f(NLPOS)

Dependent Variable: NLFMS

Method: Panel Least Squares

Date: 07/15/25 Time: 11:39

Sample: 2014 2024

Periods included: 11

Cross-sections included: 10

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NLPOS	0.145518	0.025814	5.637277	0.0000
C	14.59593	0.519085	28.11857	0.0000
R-squared	0.227351	Mean dependent var		17.50697
Adjusted R-squared	0.220197	S.D. dependent var		0.627237
S.E. of regression	0.553891	Akaike info criterion		1.674317
Sum squared resid	33.13390	Schwarz criterion		1.723417
Log likelihood	-90.08745	Hannan-Quinn criter.		1.694232
F-statistic	31.77889	Durbin-Watson stat		0.241828
Prob(F-statistic)	0.000000			

Source: Author's Computation (E-View 9.0)

In table 7, the result displays the coefficient estimates of POS on the moderating effect of FMS model of the OLS analysis to show the contribution of POS in FMS. The result shows that POS has a significant positive impact on FMS with the probability value of 0.0000 and coefficient value of 0.145518. The coefficient of determination, R-squared (R^2) value is 0.227351 and indicates that about 22% of the changes in FMS are explained by the variation in POS. The F-statistic explains the overall significance of the performance of POS in the model. The F-statistic value is 31.77889 with a probability value of 0.000000 lesser than 5% level of significance. The coefficient of Durbin-Watson value is 0.241828 indicating 24%. This shows that the model is free of autocorrelation. Based on the probability value of the F-statistic, the study concludes that POS has no significant impact on the moderating effect of FMS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Tests of Hypotheses

The study formulated six hypotheses and tested using the Ordinary Least Square OLS Analysis accomplish the objective of the study.

H₀₁: There is no significant impact of Point of Sale terminals revenue generated on Return on Assets of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria. The result of the analysis shows that POS has no significant impact on ROA of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

H₀₂: There is no significant impact Point of Sale terminals revenue generated on Return on Equity of

consumer goods firms and oil and gas firms', firms' service stations in Nigeria. The result shows that POS has significant impact on ROE of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

H₀₃: There is no significant impact of Point of Sale terminals revenue generated on Return on Capital Employed of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria. The result shows that POS has significant impact on ROCE of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods sector in Nigeria.

H₀₄: There is no significant impact of Point of Sale terminals revenue generated on Earnings per share of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria. The result shows that POS has significant impact on EPS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

H₀₅: There is no significant impact of Point of Sale terminals revenue generated on Dividend per share of oil and gas producing firms', oil and gas firms' service stations and consumer goods firms and in Nigeria. The result shows that POS has no significant impact on DPS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

H₀₆: There is no significant impact of the moderating effect of Firm Size on financial technology revenue generated of oil and gas producing firms', oil and gas firms' service stations

and consumer goods firms in Nigeria. The result shows that POS has no significant impact on the moderating effect of FMS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Discussion of Findings

The study ascertain the impact of POS on the ROA, ROE, ROCE, EPS, DPS and the moderating effect of FMS of listed oil and gas producing firms', oil and gas firms' service stations and consumer goods firms in Nigeria. The findings shows that POS has no significant impact on ROA of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria. The of this study disagrees with the findings of Omole et al., (2023) who assesses the effect of financial technology on Nigerian deposit money banks' financial performance for the period of five years (2018-2022), found a positive and significant impact of point of sale with the return on asset of the selected banks in Nigeria.

Further, the findings disagrees with the findings of Mbagwu and Obonofiemro (2023) who determines technological disruption and deposit money banks financial performance in the pre and post covid-19 pandemic in Nigeria, found that point of sales has positive and significant effect on return on assets of deposit money banks in Nigeria. Again, the findings disagrees with that of Bussoli et al (2023) who assesses the impact of financial technology merge operation on financial performance: evidence from banking international sample, found that point of sales has positive and significant effect on return on assets of deposit money banks in Nigeria. Also, the findings of this study disagrees with the findings of Adiga et al., (2022) who ascertains the effect of financial technology and the banking sector performance in Nigeria, found that financial technology significantly affect the return on assets of deposit money banks in Nigeria.

The finding of this study shows that POS has significant impact on ROE of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria. Further, the findings of this study agrees with the findings of Adiga et al., (2022) who ascertains the effect of financial technology and the banking sector performance in Nigeria, found that financial technology significantly affect the return on equity of deposit money banks in Nigeria. Also, the findings agrees with that of Filipa (2022) who evaluates the impact of financial technology firms on the performance of traditional banks, and found a significant impact of financial technology usage on small and medium enterprises profitability in Nigeria. The finding of this study shows that POS has significant impact on ROCE of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods sector in Nigeria. The findings agrees with findings of Ogbonna et al., (2023) who evaluates the impact of financial technology on

firm's profitability in Sub-Saharan African economies from 2005-2021, found a strong and significant impact of financial technology on the profitability of the financial industry in the Sub-Saharan African economies.

The finding of this study shows that POS has significant impact on EPS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria. The findings agrees with findings of Ogbonna et al., (2023) who evaluates the impact of financial technology on firm's profitability in Sub-Saharan African economies from 2005-2021, found a strong and significant impact of financial technology on the profitability of the financial industry in the Sub-Saharan African economies. Also, the findings agrees with that of Filipa (2022) who evaluates the impact of financial technology firms on the performance of traditional banks, and found a significant association among financial technology usage on small and medium enterprises profitability in Nigeria.

The findings of this study shows that POS has no significant impact on DPS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria. The findings disagrees with findings of Ogbonna et al., (2023) who evaluates the impact of financial technology on firm's profitability in Sub-Saharan African economies from 2005-2021, found a strong and significant impact of financial technology on the profitability of the financial industry in the Sub-Saharan African economies. Again, the findings disagrees with that of Omole et al., (2023) who assesses the effect of financial technology on Nigerian deposit money banks' financial performance for the period of five years (2018-2022), found a positive and significant impact of point of sale with the return on asset of the selected banks in Nigeria.

The findings of this study shows that POS has no significant impact on the FMS of the listed oil and gas firms, oil and gas firms' service stations and the consumer goods firms in Nigeria.

Conclusion

The study ascertain the impact of financial technology on financial performance of listed oil and gas producing firms, oil and gas firms' service stations and the consumer goods firms in Nigeria. The study used POS to proxy financial technology, while ROA, ROE, ROCE, EPS, DPS were used to measure financial performance and FMS was used to the moderate the effect of financial technology. Panel unit root test was used to test the stationarity and the integration order of the variables. The ordinary least square analysis was employed to analyze the impact of the independent variable on the dependent variables. The study reveals that POS has no significant impact on ROA and DPS. While, POS has significant impact on ROE, ROCE and EPS. However, the moderating effect of firm size has no significant impact on the financial technology. The

study concludes that, on the long run financial technology has significant impact on the financial performance of the listed oil and gas producing firms, oil and gas firms' service stations and the consumer goods firms in Nigeria, but the firms' needs to improve on their financial technology services to enhance their ROA, DPS and firm size.

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