

Effect of Intangible Assets on the Financial Performance of Nigeria's Deposit Money Banks: Analysis of UBA PLC and First Bank PLC

Pukon, Aisha Seigha

Department of Banking and Finance, Igbinedion University, Okada, Edo State, Nigeria.

Corresponding author: se4real2000@yahoo.com

DOI: <https://doi.org/10.62154/b4ygf202>

Abstract

The financial sector, being a critical component of economic development, heavily relies on intangible assets to enhance its performance and competitiveness. This paper conducted an analysis of intangible assets and financial sector performance in Nigeria. The study utilized an ex-post facto research design, and a panel least square regression analysis. The study used current data of amortization of intangible assets, total investment in intangible assets, and earnings per share obtained from the annual report of two (2) major Banks (UBA and First Bank) from 2018-2022. The findings from the Panel least square analysis indicated that the amortization of intangible assets and the total investment of intangible assets have a positive but insignificant effect on the earnings per share of the listed banks in Nigeria. The study concludes that intangible assets have an insignificant effect on the financial performance of Nigerian banks. The study recommends that, financial institutions in Nigeria should focus on efficient management and utilization of their intangible assets. Regular assessments and strategies to mitigate depreciation can help enhance earnings and shareholder value. Lastly, they should increase investment in Intangible assets.

Keywords: Assets, Intangible Assets, Financial Sector Performance, Investments, Depreciation.

Introduction

The financial sector plays a vital role in Nigeria's economic development by facilitating resource allocation and productive investments (World Bank, 2021). It serves as a backbone for the efficient mobilization of savings and the provision of credit, enabling economic growth and development. In recent years, the importance of intangible assets in driving value creation, innovation, and competitive advantage has gained prominence in the knowledge-based economy.

The Nigerian economy has witnessed significant growth, with corporate entities striving to remain competitive despite intense industry rivalry. Deposit Money Banks (DMBs) face various challenges, including liquidity issues, governance concerns, and sustainability problems, which directly impact their performance. To enhance their financial performance, DMBs must strategically manage their assets, both tangible and intangible. In recent times, intangible assets have gained prominence as essential resources for production and value creation (Olaoye et al, 2020).

Intangible assets are non-physical properties that contribute to an organization's future wealth. These assets include goodwill, copyrights, trademarks, brand value, software, and patents. Unlike tangible assets, intangibles are often complex and challenging to define or measure. However, they play a crucial role in enhancing profitability and sustainability. The International Accounting Standards Board (IASB) recognizes intangible assets under IAS 38, emphasizing their contribution to an entity's financial performance (Olaoye et al, 2020). Understanding the impact of these intangibles on financial performance is crucial in evaluating the overall performance and competitiveness of banks. These assets are increasingly recognized as key contributors to a firm's value and long-term profitability (Baruch & Lechner, 2020). In the financial sector, intangible assets can play a significant role in shaping its performance and outcomes.

However, the specific impact of intangible assets on the financial sector's performance in Nigeria requires further investigation. While there is a growing body of literature on the role of intangible assets in developed economies, limited research has been conducted in the context of Nigeria. Therefore, a deeper understanding of the relationship between intangible assets and financial sector performance in Nigeria is needed to inform policymaking, investment decisions, and strategic planning within the sector.

In this study, intangible assets are proxied by two main metrics: investment in intangible assets and amortization of intangible assets. Investment in intangible assets represents the resources allocated towards building and enhancing intangible resources, while amortization reflects the systematic allocation of their costs over time (Barney, 2023). Financial performance, on the other hand, is proxied by earnings per share (EPS), a widely used metric to gauge a company's profitability and shareholder value (Mazzucato, 2023).

UBA and First Bank PLC, two prominent players in Nigeria's banking sector, present intriguing case studies for exploring the effect of intangible assets on financial performance. While both institutions operate within the same industry, they may differ significantly in their strategic focus, resource allocation, and market positioning (Ozili & Outa, 2023). Consequently, comparing their performance allows for a nuanced understanding of how intangible assets influence financial outcomes. This study thus investigated the effect of intangible assets on the financial performance of deposit money banks in Nigeria, using UBA and First bank as a case study.

This knowledge can inform the development of strategies that enhance the sector's performance, foster innovation, and drive sustainable growth in Nigeria's economy.

Statement of the Problem

Despite the increasing recognition of intangible assets as critical determinants of financial performance in the banking sector, there remain significant gaps and inconsistencies in the literature regarding their impact on Deposit Money Banks (DMBs) in Nigeria, particularly exemplified by UBA and First Bank PLC. While theoretical frameworks suggest a positive relationship between investment in intangible assets and financial outcomes (Aluchna & Wozniak, 2023), empirical evidence within the Nigerian context is limited and often

inconclusive (Adeniran, 2024). This discrepancy raises questions about the efficacy of intangible asset management practices in driving bank profitability and shareholder value. One current issue pertains to the measurement and valuation of intangible assets within DMBs. Unlike tangible assets, which are relatively straightforward to quantify, intangible assets such as brand value and intellectual capital pose challenges in terms of valuation and recognition on financial statements (Ozili & Outa, 2023). Consequently, there is a lack of consensus on the appropriate methodologies for assessing the contribution of intangible assets to financial performance, leading to ambiguity in research findings and managerial decision-making.

Furthermore, existing research on the subject matter often overlooks the nuanced differences between DMBs, assuming homogeneity within the banking sector. However, UBA and First Bank PLC, as leading institutions, may exhibit distinct strategic orientations, risk profiles, and market dynamics, which can significantly influence the relationship between intangible assets and financial performance (Chan & Moorthy, 2023). Failing to account for these variations may result in biased or misleading conclusions, contributing to inconsistencies in findings across studies.

Moreover, the majority of studies focus primarily on investment in intangible assets as a proxy for evaluating their impact on financial performance, neglecting the role of amortization expenses. This oversight is critical as it fails to capture the dynamic nature of intangible asset utilization and the potential effects of their depletion over time (Petersen, 2023). Consequently, there exists a research gap in understanding how both investment and amortization of intangible assets collectively influence DMBs' profitability, warranting further empirical investigation and analysis. Addressing these gaps and inconsistencies is essential for advancing scholarly understanding and informing practical strategies aimed at enhancing the financial performance of DMBs in Nigeria.

Objectives of the Study

The general objective of the study is to examine the effect of intangible assets on the financial performance of Nigeria's deposit money banks: Analysis of UBA PLC and First Bank PLC. The specific objectives are to:

1. To investigate the effect of the value of depreciation of intangible assets on the earnings per share of the selected deposit money banks in Nigeria.
2. To investigate the effect of total investment in intangible assets on the earnings per share of the selected deposit money banks in Nigeria.

Research Questions

The following questions are asked to guide the conduct of this study:

1. What effect does the value of depreciation of intangible assets on the earnings per share of the selected deposit money banks in Nigeria?
2. What is the effect of total investment in intangible assets on the earnings per share of the selected deposit money banks in Nigeria?

Research Hypotheses

H₀₁: The value of depreciation of intangible assets has no significant effect on the earnings per share of the selected deposit money banks in Nigeria.

H₀₂: Total investment in intangible assets has no significant effect on the earnings per share of the selected deposit money banks in Nigeria.

Literature Review

Intangible Assets

Intangible assets encompass various non-physical resources and capabilities that contribute to a firm's value and competitive advantage. These assets include intellectual property, brand equity, organizational knowledge, and customer relationships. Intangible assets are often challenging to quantify and measure, making their impact on financial sector performance complex.

Nigerian Financial Sector

The Nigerian financial sector encompasses banks, insurance companies, capital markets, and other financial institutions, serving as a catalyst for savings mobilization, credit provision, and economic growth. Despite recent reforms, the sector faces challenges such as asset quality issues, limited financial inclusion, and inadequate long-term funding. Understanding the role of intangible assets in driving financial sector performance is crucial for addressing these challenges and enhancing the sector's resilience (World Bank, 2021).

Financial Sector Performance

Financial sector performance refers to the effectiveness and efficiency of financial institutions and markets in facilitating economic activities. Key performance indicators in the financial sector include profitability, liquidity, asset quality, and market competitiveness. Examining the relationship between intangible assets and financial sector performance provides insights into the strategic management of intangible assets by financial institutions.

Intangible Assets and Financial Performance

Intangible assets have been consistently recognized as significant determinants of firm value and financial performance. However, their value often goes unrecognized in traditional accounting practices. Research consistently demonstrates that intangible assets contribute significantly to a firm's market value and long-term profitability (Baruch & Lechner, 2020). In the financial sector, intangible assets may impact customer loyalty, brand recognition, risk management capabilities, and employee productivity.

Variable of Intangible Assets

- **Depreciation of Intangible Assets:**

Depreciation of intangible assets involves the systematic allocation of the cost of intangible assets over their useful lives, reflecting the concept that intangibles, such as patents, copyrights, and trademarks, gradually lose their value and utility over time. This accounting practice is in line with Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS), which mandate the recognition of intangible assets on the balance sheet and their subsequent depreciation over their estimated useful lives (IAS 38; FASB ASC 350).

- **Total Investment in Intangible Assets:**

Total investment in intangible assets encompasses the aggregate expenditure a company allocates towards acquiring and developing intangible assets such as patents, copyrights, trademarks, and goodwill (IAS 38; FASB ASC 350). This category of assets holds increasing significance in today's knowledge-based economy, where intangibles often contribute significantly to a firm's competitive advantage and value creation.

Measure of Financial Sector Performance

- **Earnings per Share:**

Earnings Per Share (EPS) according to Investopedia (2021) is a financial metric used to evaluate a company's profitability and is a crucial indicator for investors when assessing the company's performance and potential investment opportunities. EPS is calculated by dividing a company's net earnings (profits) by the number of outstanding shares of its common stock (Financial Accounting Standards Board (FASB), 2021).

EPS provides insight into how much profit a company generates for each outstanding share of its stock. It is commonly reported in quarterly and annual financial statements and is used by investors to gauge a company's profitability relative to its stock price. Higher EPS values are generally favorable, as they indicate that a company is generating more earnings for its shareholders (CFA Institute, 2021).

Theoretical Review

Here is a general overview of theories that support the significance of intangible assets in the financial sector's performance:

Resource-based view (RBV):

The resource-based view developed by Barney (1991) suggests that intangible assets, such as knowledge, skills, reputation, and relationships, can be a source of sustainable competitive advantage for financial institutions. According to this theory, possessing unique and valuable intangible assets allows financial firms to differentiate themselves from competitors, attract customers, and enhance their overall performance.

Intellectual capital theory:

Intellectual capital theory propounded by Stewart (1997) emphasizes the importance of intangible assets, including human capital, structural capital, and relational capital, in

contributing to the financial sector's performance. Human capital refers to the knowledge, skills, and expertise of employees, while structural capital represents organizational processes, systems, and intellectual property. Relational capital focuses on the relationships and networks that financial institutions develop with customers, suppliers, and other stakeholders.

Stakeholder theory:

Stakeholder theory developed by Freeman (1984) suggests that intangible assets, such as reputation and relationships with stakeholders, including customers, employees, regulators, and investors, have a direct impact on the financial sector's performance. By managing relationships and maintaining a positive reputation, financial institutions can enhance customer trust, attract investment, and foster long-term sustainability.

Empirical Review

In their study, Olaoye et al (2022) explored the impact of intangible assets on the financial performance of Nigeria's deposit money banks. Utilizing secondary data from the annual reports and accounts of selected DMOs, the researchers employed panel ordinary least square regression, descriptive statistics, correlation analysis, and the Hausman test for data analysis. Their findings indicated a positive but statistically insignificant relationship between intangible assets and the profitability of Nigeria's deposit money banks. Consequently, the authors recommended that organizations should invest considerably in intangible assets to boost profitability.

Akpeekon (2021) investigated the influence of intangible assets on the financial performance of deposit money banks in Nigeria, along with the moderating role of ownership structure in this relationship. Data were gathered from the annual reports of five listed commercial banks spanning six years (2012-2017). Goodwill was used as a proxy for intangible assets, while return on assets served as the measure for financial performance. Employing an ex-post facto research design, the study conducted regression analyses to test two hypotheses. The results revealed that intangible assets have a negative and significant impact on profitability, whereas managerial ownership did not significantly moderate the relationship between intangible assets and firm performance.

Drisu and Chukwu (2018) explored the impact of asset intangibility on the financial performance of deposit money banks in Nigeria, analyzing data from four banks over a seven-year period (2009 to 2015). Financial performance was assessed through reported profits and the amount of dividends paid, while asset intangibility was measured by the ratio of total non-tangible assets to total assets. The study employed the ordinary least square method for data analysis and found a significant positive relationship between asset intangibility and the financial performance of the banks. In the model assessing the relationship between asset intangibility and dividend payment, the coefficient of intangible assets was 8.132 with a P-value of 0.000, indicating a positive and significant relationship. Similarly, in the model examining the relationship between asset intangibility and reported

profit, the coefficient on asset intangibility was 6.144 with a P-value of 0.000, suggesting a significant positive effect on profitability. The study recommends that banks should increase their investments in intangible assets, as these assets significantly contribute to financial performance.

The study conducted by Adeoye and Iyoboyi (2017) delves into the relationship between intangible assets and the financial performance of Nigerian banks. The researchers sought to explore how investments in intangible assets can influence the profitability and market value of these banks. The study revealed a positive relationship between intangible assets and financial performance in Nigerian banks. This finding suggests that banks that effectively manage and invest in intangible assets are more likely to experience improved profitability and market value compared to those that do not. The researchers noted that, one key factor contributing to the positive relationship is the impact of intangible assets on customer behavior and loyalty. Banks with a strong brand reputation and positive customer relationships are more likely to attract and retain customers. These intangible assets enhance customer trust and confidence in the bank's services, leading to increased customer loyalty. Consequently, loyal customers are more likely to engage in additional transactions, use a wider range of banking services, and refer others to the bank, ultimately boosting the bank's profitability. Furthermore, the study highlights the importance of intellectual capital in driving financial performance.

The study conducted by Owoeye and Babajide (2017) examines the relationship between intangible assets and financial performance in Nigerian listed banks. The study utilized quantitative methods to investigate the association between intangible assets and financial performance. They collected data from a sample of Nigerian listed banks and employed statistical analysis techniques, such as regression analysis, to examine the relationship. The findings of the study reveal a positive association between intangible assets and financial performance in Nigerian listed banks. This suggests that banks with greater intangible assets, such as intellectual capital, brand reputation, or innovative capabilities, tend to exhibit improved financial outcomes. These results highlight the importance of intangible assets as valuable resources that contribute to the financial success of Nigerian banks.

Methodology

This study employed the *ex-post* facto research design, and the Panel Least Square Regression analysis method, using variables of amortization value of intangible assets, value of intangible assets, and the earnings per share, obtained from the 5 years (2018-2022) annual report of two (2) selected financial institution (UBA and First Bank) reports. The analysis involved categorizing and assessing key themes, their relevance, and significance, while establishing connections between intangible assets and financial sector outcomes.

Results and Analysis

Table 1: Data Presentation

COY	YEAR	S/N	Amortization of Intangible Assets (₦, mill)	Investment in Intangible Assets (₦, mill)	Earnings Per Share (Kobo)
FIRST BANK	2018	1	5336	16,134	161
	2019	1	6,197	18,961	195
	2020	1	7,238	15,340	126
	2021	1	8,258	19,018	417
	2022	1	7,068	15,859	375
UBA	2018	2	1,602	18,168	220
	2019	2	1,627	17,671	252
	2020	2	2,972	28,900	320
	2021	2	22,700	30,450	339
	2022	2	26,218	33,468	484

Source: Annual Financial Report of the above Banks

The table presents data on the amortization of intangible assets, investment in intangible assets, and earnings per share (EPS) for First Bank and UBA over a five-year period from 2018 to 2022. For First Bank, the amortization of intangible assets shows a steady increase from ₦5,336 million in 2018 to a peak of ₦8,258 million in 2021, before slightly declining to ₦7,068 million in 2022. Investment in intangible assets also fluctuates but generally trends upwards, peaking at ₦19,018 million in 2021. The EPS for First Bank shows significant volatility, with a low of 126 kobo in 2020 and a high of 417 kobo in 2021, indicating periods of both underperformance and strong financial gains. For UBA, there is a dramatic rise in the amortization of intangible assets, especially from 2020 onwards, surging from ₦2,972 million in 2020 to ₦26,218 million in 2022. Investment in intangible assets also increases consistently, reaching ₦33,468 million in 2022. UBA's EPS follows a similar upward trend, increasing from 220 kobo in 2018 to 484 kobo in 2022, reflecting a robust growth in profitability. Overall, both banks exhibit significant investment in intangible assets and corresponding increases in amortization, with UBA demonstrating more aggressive growth and higher volatility in both intangible asset management and earnings performance.

Table 2: Descriptive Statistics

	EPS	AMRTINA	TAINTA
Mean	288.9000	8921.600	21396.90
Median	286.0000	6632.500	18564.50
Maximum	484.0000	26218.00	33468.00
Minimum	126.0000	1602.000	15340.00
Std. Dev.	116.9924	8551.711	6789.862
Skewness	0.197642	1.258773	0.850143
Kurtosis	1.880947	3.064023	2.006324

Table 2: Contd.

Jarque-Bera	0.586887	2.642557	1.615984
Probability	0.745691	0.266794	0.445752
Sum	2889.000	89216.00	213969.0
Sum Sq. Dev.	123184.9	6.58E+08	4.15E+08
Observations	10	10	10

Source: Eviews 10

The above descriptive statistics shows the mean, median, maximum and Jarque-Bera probability value of the data. The result indicates that earnings per share (EPS) had a mean value of 288.9000, a maximum and minimum of 484.0000 and 126.0000, respectively. Furthermore, the result shows that the amortization of intangible assets (AMRTINA) had a mean value of 8921.600, a maximum and minimum of 26218.00 and 1602.000, respectively. Lastly, the result shows that the total value of intangible assets (TAINTA) had a mean value of 21396.90, a maximum and minimum of 33468.00 and 15340.00, respectively. The Jarque-Bera probability value of all the variables are well above 5% level of significance, indicating that the variables were normally distributed.

Table 3: Panel Regression Result

Dependent Variable: EPS

Method: Panel Least Squares

Date: 05/12/24 Time: 23:53

Sample: 2018 2022

Periods included: 5

Cross-sections included: 2

Total panel (balanced) observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AMINTA	0.004007	0.005781	0.693187	0.5105
TINTA	0.007127	0.007281	0.978878	0.3603
C	100.6531	126.5451	0.795393	0.4525
R-squared	0.436445	Mean dependent var		288.9000
Adjusted R-squared	0.275429	S.D. dependent var		116.9924
S.E. of regression	99.58591	Akaike info criterion		12.28324
Sum squared resid	69421.48	Schwarz criterion		12.37402
Log likelihood	-58.41622	Hannan-Quinn criter.		12.18366
F-statistic	2.710573	Durbin-Watson stat		1.426298
Prob(F-statistic)	0.134362			

Source: Version 10 of Eviews

Hypotheses Testing

H₀₁: The value of depreciation of intangible assets has no significant effect on the earnings per share of the selected deposit money banks in Nigeria.

The outcome derived from employing panel least squares reveals a t-stat of 0.693187 along with a p-value of 0.5105, which lie above the 5% significance threshold. This outcome implies that the diminishment of intangible assets exerts a positive insignificant effect on the earnings per share of Nigerian financial institutions, exemplified by First Bank and UBA.

H₀₂: Total value of intangible assets has no significant effect on the earnings per share of the selected deposit money banks in Nigeria.

The result obtained through the utilization of panel least squares demonstrates a t-stat of 0.978878, coupled with a p-value of 0.3603, which again is above the 5% significance level. This finding suggests that the total value in intangible assets has a positive insignificant influence on the earnings per share of the selected deposit money banks, as illustrated by First Bank and UBA.

Discussion of Findings

The depreciation of intangible assets has a coefficient of 0.004007. This shows that a positive relationship exists amongst the variables. This can be interpreted that; a unit increase in the depreciation of intangible assets results in a 0.004007 unit increase in the value of the selected deposit money banks (UBA & First Bank) in Nigeria.

Also, total investment in intangible assets has a coefficient of 0.007127. This is an indication that, a unit increases in the investment in intangible assets brought about 0.007127 units increase in the earnings per share of the selected deposit money banks (UBA & First Bank PLC) in Nigeria.

With an R² of 0.436445, the study shows that 44% of the variation in earnings per share of financial institutions is a result of movements or activities of intangible assets variables: i.e., depreciation of intangible assets, and total value of intangible assets. Furthermore, the value of the F-stat of 2.710573, and an associated Prob(F-statistic) of 0.134362 > 0.05. This shows that overall, intangible assets have an insignificant effect on the performance of financial sector in Nigeria.

Conclusion

The reviewed literature studies provide valuable insights into the effect of intangible assets on the financial performance of deposit money banks in Nigeria, focusing on UBA and First bank PLC. The result and the empirical evidence consistently suggest that intangible assets have a positive though insignificant effect on the financial performance of Nigerian banks. This analysis highlights the importance of recognizing and effectively managing intangible assets to enhance financial outcomes in the Nigerian financial sector.

Recommendations

Based on the findings of the aforementioned studies, several recommendations can be made to banks and other financial institutions in order to leverage intangible assets and improve their financial performance:

1. Optimize Intangible Asset Management: Given the positive relationship observed between the depreciation of intangible assets and earnings per share, financial institutions in Nigeria should focus on efficient management and utilization of their intangible assets. Regular assessments and strategies to mitigate depreciation can help enhance earnings and shareholder value.

2. Increase Investment in Intangible Assets: The positive coefficient associated with total investment in intangible assets indicates a beneficial impact on earnings per share. Therefore, financial institutions should consider allocating resources towards strategic investments in intangible assets such as technology, branding, and intellectual property. This can lead to improved financial performance. Also, management decisions and strategies should take into account the potential influence of intangible assets on financial performance. Incorporating intangible asset evaluations into business planning and decision-making processes can lead to more accurate forecasting and better overall performance.

Overall, these recommendations aim to guide financial institutions in harnessing the potential of intangible assets to optimize their financial performance and contribute to the growth of the Nigerian financial sector.

References

- Adeniran, O. A. (2024). Challenges and prospects of the Nigerian banking sector: A comparative analysis of UBA and First Bank PLC. *Journal of African Business Management*, 12(3), 245-262.
- Adeoye, A. O., & lyoboyi, G. O. (2017). The impact of intangible Assets on the Profitability and Market Value of Nigerian Banks. *International Journal of Management, Accounting, and Economics*, 4(6), 381-395.
- Akpeekon, B. (2021). Intangible assets and financial performance of deposit money banks in Nigeria: The moderating effect of ownership structure. *KPA, Journal of Accounting, Finance and Business*, 1(1): 101-114
- Aluchna, M., & Wozniak, P. (2023). Intangible assets and their influence on financial performance: Evidence from the Polish listed companies. *Journal of Intellectual Capital*, 24(1), 102-118.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B. (2023). Intangible asset management and firm performance: A resource-based perspective. *Strategic Management Journal*, 34(7), 867-888.
- Baruch, Y., & Lechner, C. (2020). Intangible assets: Their significance and role in value creation. *Journal of Intellectual Capital*, 21(1), 2-10. doi:10.1108/JIC-01-2020-0012
- CFA Institute. (2021). Corporate finance: Earnings per share. Retrieved from <https://www.cfainstitute.org/en/programs/cfa/curriculum/level-i/4-4-earnings-per-share>
- Chan, S., & Moorthy, K. (2023). Understanding the strategic positioning of Nigerian banks: A comparative analysis of commercial banks. *International Journal of Bank Marketing*, 41(3), 467-485.

- Drisu S., & Chukwu, G. J. (20218). Asset intangibility and financial performance of deposit money banks in Nigeria. *Journal of Economics, Management & Social Science*, 4(4), 257-263
- Financial Accounting Standards Board (FASB). (2021). Accounting standards update 2021-05—Earnings per share (Topic 260): Effects on historical earnings per unit of master limited partnership dropdown transactions. Retrieved from https://www.fasb.org/cs/ContentServer?c=FASBContent_C&cid=1176174202691&d=&pagename=FASB%2FFASBContent_C%2FAccountingStandardsUpdate
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
- IAS 38 (International Accounting Standard 38). Intangible assets. Retrieved from: <https://www.ifrs.org/issued-standards/list-of-standards/ias-38-intangible-assets/>
- International Financial Reporting Foundation (IFRS) (2004). International accounting standard No 38 – Intangible Assets.
- Investopedia (2021). Earnings per share - EPS. Retrieved from <https://www.investopedia.com/terms/e/eps.asp>
- Mazzucato, M. (2023). Intangible assets and their implications for financial performance: A review of the literature. *Journal of Economic Perspectives*, 32(4), 121-142.
- Olaoye, S. A., Akingbade, A. O., & Okewale, J. A. (2022). Intangible assets and financial performance of Nigeria's deposit money banks. *KIU Journal of Humanities*, ISSN: 2415-0843; 5(2):391-395.
- Owoeye, O. A., & Babajide, A. A. (2017). Intangible assets and financial performance: Evidence from Nigerian listed banks. *Journal of Accounting and Auditing: Research & Practice*, 42(3), 103-118.
- Ozili, P. K., & Outa, E. R. (2023). Determinants of bank profitability and performance: Empirical evidence from Nigeria. *Cogent Economics & Finance*, 11(2), 67-84.
- Petersen, M. A. (2023). Understanding intangible asset management in the banking sector: Empirical evidence from commercial banks. *Journal of Banking & Finance*, 45(2), 189-205.
- Stewart, T. A. (1997). *Intellectual capital: The new wealth of organizations*. Currency Doubleday.
- World Bank. (2021). Financial development, savings and economic growth in Nigeria. *Savings and Development*, 43, 18–30.