

Income Smoothing and Its Impact on Shareholder Wealth Creation: Evidence from Firms in the Nigerian Financial Services Sector

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Abstract

Understanding how income smoothing influences shareholder wealth is critical in the evolving dynamics of Nigeria's financial sector. This study examines the relationship between income smoothing and shareholder wealth creation in Zenith Bank Plc, a leading financial institution in Nigeria, over the period 2002 to 2024. The aim is to evaluate how Return On Equity (ROE), Dividend Per Share (DPS), and Return On Assets (ROA) Affect Earnings Per Share (EPS), a key proxy for shareholder wealth. An ex-post facto research design was employed, using secondary data sourced from Zenith Bank's financial reports. Analytical techniques included trend analysis, SWOT, PESTEL, and regression analysis, carried out with the EViews software. The regression results revealed that ROA and ROE had positive coefficients, while DPS had a negative coefficient; however, none of the independent variables were statistically significant (ROA: $p=0.2852$, ROE: $p = 0.9225$, DPS: $p = 0.5613$). The overall model was not significant ($p = 0.149$), indicating that income smoothing did not have a statistically confirmed impact on shareholder wealth during the period under review. The study is limited by its focus on a single institution, which may affect the generalizability of the findings. Future research should consider a comparative analysis across multiple banks or financial institutions, both locally and internationally. In conclusion, while income smoothing did not significantly influence shareholder wealth statistically, the strategic management of income trends, asset utilization, and dividend policy remains essential for long-term value creation in the banking sector.

Key Words: Income smoothing; Shareholder wealth creation; Return on assets; India; Dividend per share; Return on equity; Earnings per share

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1. Introduction

The global economy depends heavily on the banking industry, acting as the cornerstone for financial stability and economic growth. Banks, as key players in the global financial system, are responsible for offering depository services, extending loans to individuals, businesses, and governments, and facilitating investment activities. However, the financial health of banks is often at risk due to the inherent nature of their business—extending large loans to customers, which can lead to increased default risks. To manage these risks, banks are required to set aside provisions for loan losses, a measure designed to safeguard their financial standing and minimize the impact of potential defaults. Despite the importance of these provisions, evidence suggests that some banks engage in income smoothing, manipulating loan loss provisions to influence reported earnings, manage reserves, or optimize tax obligations [1,2]. This practice can have significant implications for shareholder wealth creation, as it affects the perceived stability and profitability of banks, which ultimately influences investor confidence and market performance.

In the African context, the banking sector is increasingly recognized as a key driver of economic development, particularly in emerging markets. Financial institutions in Africa face unique challenges, including a high risk of loan defaults, underdeveloped credit markets, and economic instability, which can undermine their financial resilience. As such, African banks, including those in Nigeria, often adopt provisions for loan losses to protect themselves from these risks. However, concerns have been raised about the extent to which income smoothing practices are employed in these regions. By manipulating loan loss provisions, banks may distort their financial performance, mislead investors, and reduce transparency in financial reporting. In Nigeria, where the financial services sector is expanding rapidly, these practices could influence shareholder wealth creation, affecting the long-term viability and investor trust in local banks.

Nigeria's banking sector is vital to the nation's economy since it supports government policies, facilitates economic activity, and extends credit to both consumers and companies. However, the high loan default rates, erratic economic situations, and requirement for strict regulatory control provide significant obstacles for Nigerian banks. Nigerian banks must include loan loss provisions in their risk management plans in order to protect their financial stability and pay possible bad debts. However, the manipulation of these provisions which might be used to control tax bills, raise revenues during lean times, or smooth income is causing increasing alarm. According to research, such actions may misrepresent banks' actual financial health and eventually have an impact on the growth of shareholder value [3].

Corporate reporting experts and scholars throughout the world are alarmed by concerns about income smoothing techniques used by firms, regardless of whether they are operating in stable, unclear, or financially troubled circumstances. A business is considered to be in financial distress if it has significant fixed costs, illiquid assets, or revenue that is vulnerable to economic downturns [4]. Those in this distress zone struggle to meet financial obligations, and even when they do, they often face significant challenges in satisfying creditors.

Accordingly, this relationship between income smoothing and shareholder wealth has been a hot topic in financial studies. The fact that although some studies have shown a positive correlation, others have found negative effects illustrates the complexity of this dynamic. Income smoothing improves shareholder wealth, according to research by Ogundajo, et al. [5], Isoso, et al. [6], and Al-Natsheha, et al. [7]. In order to demonstrate a more reliable financial performance, banks use income smoothing techniques, which raises market valuation and

investor trust. However, according to Dada, et al. [8] and Ubesie, et al. [9], such measures might have negative consequences, including distorting an organization's true financial health and decreasing shareholder value. With a focus on Zenith Bank Plc from 2002 to 2024, the current study aims to shed further light on this ongoing debate in the Nigerian financial services sector by examining the impact of income smoothing on shareholder wealth advances. Nigeria was chosen as the research setting because it has the biggest economy in Africa and one of the continent's most vibrant financial sectors. Over the past 20 years, legislative changes, technology advancements, and economic volatility have all contributed to major changes in Nigeria's financial services sector, especially in the banking sector. Examining income smoothing techniques and their effects on shareholder wealth is made easier by these circumstances.

Considering Zenith Bank Plc consistently ranks among the best-performing banks in Nigeria in terms of asset base, profitability, governance structure, and stock market performance, it was chosen as a model instance. The bank's public financial disclosures and prominence in the capital market make it an ideal candidate for assessing long-term income reporting patterns and shareholder value. The years 2002–2024 were selected to encompass significant turning points in Nigeria's financial history, such as the global financial crisis of 2008, the consolidation of banks in 2004–2005, the implementation of IFRS in 2012, the recovery from the recession in 2017, and the economic effects of the COVID-19 epidemic. Extending the analysis to 2024 enables a comprehensive view of how evolving macroeconomic and regulatory environments influence income smoothing and wealth creation practices over time.

1.1. Statement of the problem

Bank failures in recent years have frequently been connected to corporate governance issues that affect a number of stakeholders, including investors, management, and auditors. The conduct of directors and other participants has compromised the criteria for accounting reports. Income smoothing has significantly contributed to the loss of shareholder funds and the collapse of several banks in Nigeria. This research aims to fill the gap in the literature by carefully analysing the impacts of income smoothing on shareholder wealth creation in Nigeria's financial services sector, specifically focusing on Zenith Bank Plc.

1.2. Objective of the study

The specific objectives are to:

- Investigate the impact of return on assets on earnings per share for firms in Nigerian financial services sector.
- Assess the influence of dividend per share on earnings per share in Nigerian financial services sector.
- Analyze the impact of return on equity on earnings per share in Nigerian financial services sector.

1.3. Research questions

- What is the impact of return on assets on earnings per share in Nigerian financial services sector?
- How does dividend per share influence earnings per share in Nigerian financial services sector?

- What impact does return on equity have on earnings per share in Nigerian financial services sector?

1.4. Research hypotheses

- H_{01} : Return on assets does not have significant impact on earnings per share in Nigerian financial services sector.
- H_{02} : Dividend per share does not have significant influence in Nigerian financial services sector.
- H_{03} : Return on equity does not have significant impact on earnings per share in Nigerian financial services sector.

2. Review of Related Literature

2.1. Conceptual literature

As shown in Figure 1, the author's conceptual model is presented (2025).

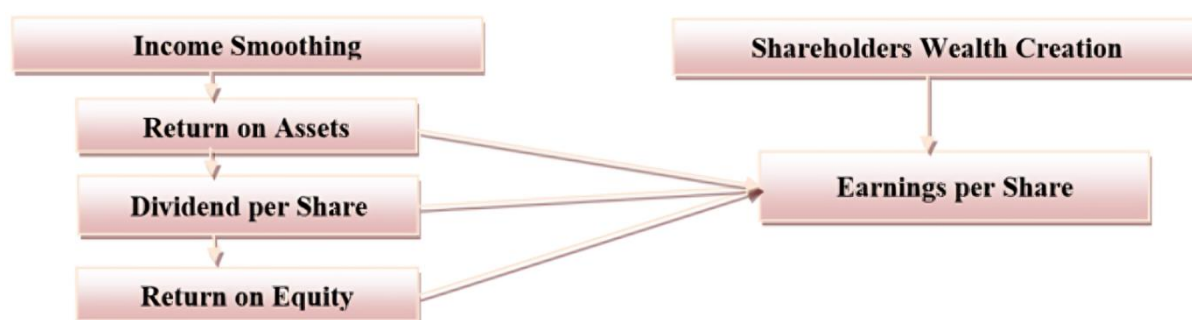


Figure 1: Author's conceptual model, 2025.

2.2. Income Smoothing

In the event of income smoothing, management usually creates three sets of financial statements, each with a distinct goal in mind: 1) understating income to reduce tax obligations; 2) inflating current assets to artificially show that the company can pay its debts; and 3) a report with exaggerated dividend declarations to mislead investors and attract additional funding. These strategies aim to manipulate financial performance in order to inflate earnings.

Executives are particularly concerned with income swings because managers believe that these changes raise risk and make businesses with steady profits seem less dangerous. Some businesses use income smoothing, which minimizes income unpredictability via the use of appropriate accounting procedures, to reduce this risk [10]. Enhancing returns is one of the objectives of this intentional behaviour, which also attempts to lessen sporadic income changes [11]. Although income smoothing could be legal, the fact that it entails changing revenues and expenses over many reporting periods raises ethical concerns [12].

Business managers employ accounting techniques called income smoothing to stabilize irregular earnings from one period to the next [13]. It helps control shareholder performance expectations and reduces significant income disparities. Since managers may be motivated to smooth income for personal motivations like bonus money and reaching performance targets,

this method typically represents self-interested activities. This is especially true when stakeholder expectations and actual revenue diverge [14].

According to Chung, et al. [15], income smoothing is motivated by pay quality and may result from opportunistic conduct or a desire for transparency. It uses accounting procedures to balance off changes in revenue over the course of reporting periods [16]. Previous research suggests that business managers may use income smoothing to persuade investors to pay more for stocks with steady and predictable earnings as opposed to volatile stocks, which risk-averse investors find less appealing [16,17].

To appease investors, management makes a special effort to smooth results. As long as it complies with Generally Accepted Accounting Principles (GAAP), income smoothing—basically, moving revenues and costs across accounting periods—is acceptable, claim Goetzmann, et al. [18]. Gross, et al. [19] contend that income smoothing lacks fairness and honest depiction of financial information despite its seeming validity since its objectives often include tax evasion, fraudulent purposes, and attempts to attract unwary investors.

To present the required financial information, management may decide to use income smoothing and earnings smoothing. Chen, et al. [16] classify income smoothing as a component of revenue management, which involves intentional acts that could not accurately reflect real operational activity. Over time, income smoothing seeks to show less perceived risk and earnings fluctuation [20,21].

Although income smoothing cannot be categorically classified as unlawful or immoral, certain people may use dubious tactics to accomplish their goals. Presenting steady income statistics is the fundamental goal of income smoothing, which enables businesses to maintain positive profiles with regard to growth, profitability, and income predictions. This helps to avoid needless divestitures and unfavorable market reactions [22]. This procedure might put the long-term viability of the company at risk by having auditors loosen their vigilance or financial preparers compromise their cautious reporting style [23]. Financial preparers should always follow applicable accounting rules and guidelines while using cautious techniques.

Chhabra [24] highlights two viewpoints on income smoothing: one sees it as deceptive, while the other views it as management acting within their preferences. The process is not legally permissible as it involves manipulative accounting practices to stabilize net income fluctuations [25]. This manipulation obscures actual earnings and can help companies evade taxes. According to Guillaume, et al. [26], such manipulation undermines the integrity of financial reports. Positive accounting theory suggests that management uses specific accounting methods to present favorable information.

In recent years, income smoothing practices have been on the rise in Nigeria's banking industry, potentially misleading investors or gaining unearned accounting-based rewards by presenting a distorted view of financial health [6]. According to Kabiru, et al. [3] research, Nigerian income smoothing has a negative and insignificant effect on the Return On Equity (ROE) and Return On Assets (ROA) of Deposit Money Banks (DMBs). According to Rachel management may feel pressured to manipulate earnings in times of financial distress, changing the accounting data by increasing profits while they're minimal and decreasing earnings whenever they're considerable [27].

2.3. Return on assets

The profitability of an organization is gauged by its Return On Assets, or ROA, relative to its total assets. It illustrates how well management makes use of its resources to produce income. The capacity of a business to turn a profit is essentially measured by ROA, one of the common accounting ratios or financial measures used to evaluate profitability. Although there are many ways to understand and apply the idea, at its core, it shows how well management uses assets to generate revenue [28].

A key statistic that connects a company's revenue to its total assets is Return On Assets (ROA), which gauges how well a corporation uses its assets to create money [3]. A greater Return On Assets (ROA) suggests that a business is making effective use of its resources to produce revenue [29]. ROA is calculated as a percentage by dividing a company's annual earnings by its total assets. In governance literature centered on accounting measures, it is commonly known as "return on investment" and is a generally accepted performance statistic. Additionally, ROA shows the company's net income and evaluates how well its assets have been used to create profits over time [30].

2.4. Return on equity

Return On Equity (ROE), which illustrates the relationship between net profit after taxes and net equity—which includes capital as well as reserves and retained earnings—is a key indicator of shareholder wealth. How well a business uses its owners' resources is gauged by its return ROE. One of the most crucial ratios in financial analysis, it illustrates how, if a satisfactory return is obtained, the primary objective of any business is to maximise shareholder value. The ratio indicates the degree to which this objective has been accomplished [6].

ROE is a yearly financial statistic that contrasts the total amount of shareholder equity shown on the balance sheet with the company's profit. It evaluates the expected return on investment for shareholders [3]. Better overall performance is usually indicated by a high ROE, which shows that a company can create cash internally. Ongore, et al. [31] claim that the ratio displays both the rate of return on shareholders' capital and the effectiveness with which management uses it. A high Return On Equity (ROE) frequently means that a company is making good use of strong investment possibilities and producing a positive return for shareholders [31]; showcasing the effectiveness of using shareholders' funds [32]. This demonstrates how well the company increases profits via the deployment of investment capital [33]. In addition to computing the net profit margin by asset turnover and the equity multiplier, ROE may also be computed by dividing net income by the value of shareholder equity, which is equal to total assets less total liabilities. An increasing ROE is a healthy sign, but a declining ROE may point to underlying issues [34].

2.5. Dividend per share

A company's Dividend Per Share (DPS) can provide details about its past and present financial health as well as how lucrative it was during a certain accounting period [35]. In essence, it represents the benefits given to the owners of the company from a percentage of its revenues. The irreversible nature of dividend payments causes a permanent decrease in the amount of money on the company's books, which affects share values. Usually, prices increase by the announced dividend and then decline after the ex-dividend date [36].

Since a company's dividends directly affect shareholder income, DPS is an important indicator for investors. Investors may use this simple figure to evaluate their dividend income over time from owning shares [37]. Furthermore, a steadily increasing DPS might be a sign that management thinks profits growth can be sustained. One has to be sufficiently knowledgeable about DPS in order to assess an organization's financial status and long-term growth possibilities [38].

2.6. Shareholder's wealth creation

Potential investors have long prioritised increasing their wealth, and shareholders of publicly listed firms frequently base their investment choices on this assumption. The wealth of shareholders demonstrates both the profitability of regular shareholders' investments and the effectiveness with which managers employ the resources available to them to produce value [39]. It is calculated by taking the entire number of outstanding common shares and dividing it by the post-tax profit.

Maximising shareholder value is essentially a depiction of the organization's profitability and potential returns per share [40]. According to Pandey [41], it is a profitability statistic that is a useful and widely used indicator for evaluating how well enterprises with positive earnings maximise shareholder wealth. Several research have supported it as a trustworthy indicator of shareholder wealth [42,43]. Investors want management to produce value, hence maximising shareholder wealth is essential for assessing business success, according to Habib, et al. [44]. The accuracy of this, 40e forecasts is a critical component of market forecasting.

2.7. Earnings per share

According to Arslan, et al. [45], Earnings Per Share (EPS) is the portion of the revenue of a business that is potentially allocated to each share of common stock following taxes and preferred stock distributions. This ratio illustrates the possible profit per share. In other words, the amount of profit that may be allocated to each share of common stock is determined by EPS [46]. Current and potential investors, as well as corporate management, keep a close eye on EPS.

EPS is calculated by dividing the total number of outstanding common shares by the profit after taxes. A corporation tends to draw in more investors when it has high short- and long-term profits growth prospects. The demand for its equity shares may rise as a result of this heightened interest, which would raise market share prices. Even though EPS and its growth can be used as predictors of previous success and future prospects, they could not adequately account for investor value creation, earnings smoothing strategies, or the propensity for positive EPS growth.

2.8. Theoretical literature

Agency theory, as proposed by Jensen, et al. [47], provides a foundational framework for understanding the relationship between a firm's owners (principals) and its managers (agents). The theory posits that in a setting where the principals delegate decision-making authority to agents, there exists an inherent risk of goal misalignment. This discrepancy results from information asymmetry and different utility functions; managers may adopt tactics that put their own interests, job security, or reputation ahead of those of shareholders, while shareholders are usually more concerned with long-term firm value and wealth creation.

One such management practice that may be investigated using the framework of agency theory is income smoothing. By decreasing earnings volatility, improving the firm's perceived stability, and perhaps lowering the cost of capital, it may, on the one hand, be in the best interests of shareholders. Accordingly, smoothing techniques might be seen as instruments for reducing investor apprehension, maintaining stakeholder trust, and encouraging the development of long-term wealth—thus advancing the principal's goals.

However, agency theory also cautions against agents acting opportunistically. Income smoothing can be used to satisfy profit objectives related to CEO remuneration, hide underperformance, or manipulate financial results. Even if it can be advantageous in the short run, such actions could conceal the company's actual financial situation, deceive investors, and eventually reduce shareholder wealth. This paradox highlights a crucial agency issue: managers have the chance and motivation to manipulate earnings, which may or may not be in the long-term best interests of the owners.

The conflict between using income smoothing as a stabilising tool and manipulating it for personal gain is especially pertinent in the context of Nigerian financial services companies, where corporate governance and regulatory enforcement practices can differ greatly in their efficacy. In order to guarantee that income smoothing operations are in line with the generation of shareholder value rather than managerial opportunism, this dichotomy emphasises the significance of strong monitoring, transparency, and accountability. Therefore, it is empirically necessary to evaluate the existence of income smoothing closely in order to ascertain if it indicates agency-driven profits management or represents sincere attempts to increase shareholder value.

2.9. Empirical literature

Numerous empirical studies have examined the impact of income smoothing on shareholder wealth and corporate performance, with sometimes contradictory results. For example, Susanto [48] used data from 51 carefully selected businesses to investigate the impact of earnings smoothing on company size and value in Indonesian enterprises over a three-year period (2014-2016). The contradicting regression study results showed that while income smoothing had a positive and significant influence on business value, it had a negative impact on firm size, indicating that not all areas of business performance may gain equally from smoothing.

Using data from eight years, from 2012 to 2017, Kabiru, et al. [3] investigated how income smoothing affected the financial performance of Nigeria's licensed banks of deposit. Income smoothing had a small and negative impact on the financial stability of Nigerian DMBs, according to the study, which employed ordinary least squares for analysis. This suggests that such measures may hinder financial institutions' capacity to grow sustainably and reduce transparency.

Likewise, Ubesie, et al. [9] used basic regression analysis to investigate the impact of earnings smoothing on the financial performance of consumer goods companies in Nigeria. The results showed that the financial success of these companies was not significantly impacted by earnings smoothing. These results suggest that while some accounting procedures may raise shareholder value, others may have the opposite effect. This implies that the rationale behind and execution of financial processes, such income smoothing, are essential.

Oboh, et al. [49] used multiple linear regressions to investigate how accounting methods affect shareholders' wealth using Polaris Bank. Using SPSS version 21, both descriptive and inferential statistics were used. The results showed that Skye Bank's return on equity (ROE) and adherence to the prudence principle were significantly inversely correlated, whereas ROE and tax planning and ethical accounting methods were positively correlated.

Additionally, Al-Natsheha, et al. [7] study aimed to determine the impact of new accounting practices on the earnings per share of Jordanian industrial companies from 2008 to 2017. Their quantitative study showed that both income smoothing and earnings smoothing had an effect on the companies listed on the Amman Stock Exchange (ASE) in terms of earnings per share, and that novel accounting had a significant impact on earnings per share. This highlights the significance of these strategies in emerging markets.

Abogun, et al. [50] examined the relationship between income smoothing and firm value in a controlled securities market while accounting for market risk. This ex post facto study included data from secondary sources and was assessed using the system generalized technique of moments (Blundell-Bond). The association between income smoothing and firm value was shown to be significantly influenced by market risk, suggesting that context influences the impact of income smoothing on company value, particularly when it comes to external market characteristics like risk levels. Investors may view income smoothing as a stabilizing signal when market risk is high.

Almubaydeen [51] used data from five commercial financial institutions to investigate how income smoothing affected business size as well as earnings in Jordanian banks throughout a four-year period (2015-2018). Income smoothing had a beneficial impact on the banks' profitability but a negative effect on firm size, according to descriptive research. The findings suggests that income smoothing may therefore be in line with shareholder interests connected to profits, but it may also be at odds with long-term growth goals, exposing a possible trade-off between stability and growth.

The effect of innovative accounting practices on the financial performance of particular Nigerian enterprises was investigated by Okoye, et al. [52]. They gathered information for listed deposit money banks between 2008 and 2018 from the Nigeria Security and Exchange Commission using an ex-post facto research approach. According to their study, loans and advances showed a positive but negligible link with return on assets, but equity capital and asset structure had a negative and negligible relationship. The results indicated that Nigerian banks' asset management was subpar, which impacted profitability negatively.

Siyanbola, et al. [53] used regression analysis to evaluate the impact of creative accounting on investment choices made in a specific category of traded manufacturing companies in Nigeria's real sector between 2007 and 2017. The results demonstrated that these businesses' investment decisions were slightly but favorably impacted by creative accounting. According to this study, income smoothing and associated accounting methods may influence investor perception in a good way by lowering profits volatility or indicating sound financial management. Though such methods can influence investing behaviour, they might not have a considerable impact on important capital allocation choices, according to the effect's marginal character. The results add to the discussion on whether income smoothing is a strategic signalling tool or just a matter of administrative judgement with little impact on the economy.

Emuze [54] examines how dividend policies affected Nigerian listed companies' profitability from 1999 to 2018. A regression matrix, descriptive statistics, and panel regression analysis were used with the aid of e-views 9 which found a favorable but not statistically significant correlation between dividend payments and ROA. On the other hand, earnings per share and dividend yield had a positive and substantial association with ROA; in contrast, the timing of dividend payments associated negatively and considerably with ROE.

The results of dividend policy were mixed; although EPS and yield improved ROA, poorly timed payouts hurt ROE. This demonstrates how payment techniques have a complex impact on shareholder value.

The impact of earnings smoothing on the market share prices of Nigerian firms that are publicly traded was examined by Agugum, et al. [55], covered 2009–2020 public financial statements of a few chosen firms applying an ex post facto research approach. A panel data analysis with the Unobserved Effects Model and the Hausman test were utilized. The findings demonstrated that earnings smoothing has a substantial favorable influence on market share prices, implying that income smoothing can help the short-term generation of shareholder value in Nigerian enterprises by improving share prices and influencing investor perception.

The impact of innovative accounting techniques on financial reporting in Nigerian deposit money institutions was examined by Egolum, et al. [56]. A survey study design via questionnaires was used. With the use of SPSS version 20.0, the study found that innovative accounting techniques have led to bank distress in Nigeria. Additionally, it was demonstrated that creative accounting methods had a significant influence on judgements about accounting policy and financial reporting transaction deceit, meaning that innovative accounting techniques like income smoothing might jeopardise long-term shareholder interests by compromising financial transparency and causing instability.

Obeidat [57], in contrast, looked at the effects of income smoothing over a ten-year period, from 2010 to 2019, on the size and profitability of food and beverage enterprises quoted on the Amman Stock Exchange. Under consideration was the link between income smoothing and company size and the debt ratio was included as a controlled variable. While income smoothing had a detrimental impact on profitability, the results of the descriptive and multiple regression analysis indicated that it had a positive impact on firm size [58-59].

Ogundajo, et al. [5] looked at the effects of income smoothing and earnings smoothing on the accuracy of accounting data in Nigerian listed manufacturing companies over a ten-year period (2010-2019) using multiple linear regression analysis (OLS). Both income smoothing and earnings smoothing had a significant and positive influence on the trustworthiness of accounting information among Nigeria's registered industrial businesses, indicating that income smoothing may improve the accuracy of reported financial data, hence boosting stakeholder trust and decision-making, provided it is used within reasonable bounds.

Isoso, et al. [6] investigated the relationship between shareholder wealth in Nigeria's deposit money banks and creative accounting practices between 2008 and 2020. They employed questionnaires and a cross-sectional survey approach to gather data, and they utilised SPSS for regression analysis and statistical modelling. The results demonstrated a strong, positive, and consistent relationship between income smoothing and shareholder wealth as assessed by ROE, demonstrating that, when applied properly, income smoothing may stabilise returns and enhance perceived financial performance, both of which can positively affect shareholder value in Nigerian banks.

The impact of new accounting procedures on the solvency of certain deposit money banks listed in Nigeria between 2006 and 2021 is examined by Dada, et al. [8]. They used a Panel Regression Model using mean scores to examine the data that was gathered. Three proxies of creative accounting—cash asset structure, equity capital structure, and deposit liabilities—had a negative but not statistically significant impact on the banks' ability to survive, according to the findings. This suggests that while innovative accounting practices may influence significant financial structures, they neither significantly increase nor decrease the long-term solvency of Nigerian deposit money institutions.

The collective findings of these research indicate that the empirical literature is divided about the value of income smoothing. Contextual differences, such as corporate governance structures, regulatory environments, and managerial motives, may account for the discrepancy in findings. This highlights the need of doing context-specific research. Therefore, the current study contributes to this ongoing conversation by focusing on the Nigerian financial services sector, where governance frameworks and economic changes may affect how income smoothing tactics affect shareholder value.

2.10. Gap in literature

Although the impact of income smoothing on the creation of shareholder wealth in Nigeria's financial services industry has been the subject of numerous studies, the majority of these studies have been narrowly focused and have only looked at the period up to 2021. Furthermore, previous research has mostly ignored important analytical frameworks that are necessary for capturing more extensive strategic and macroeconomic influences, such as trend analysis, SWOT, and PESTEL.

In order to address these gaps, this study looks at the long-term period from 2002 to 2024, which has not yet been tried in the literature. It does this by using metrics such as return on equity, dividend per share, and return on assets to reflect income smoothing and earnings per share to represent shareholder wealth. The research emphasizes on Zenith Bank Plc because of its high appeal to both domestic and foreign investors, establishing it as a major force behind the expansion of Nigeria's financial industry, operational effectiveness, and job creation.

3. Methodology

3.1. Research design

This study used an ex-post facto research approach to examine the impact of income smoothing on the generation of shareholder wealth in Nigerian financial firms from 2002 to 2024 using secondary data from the companies' annual reports and financial statements. Because it examines pre-existing connections over an extended period of time and makes use of historical data that cannot be changed, this technique is appropriate for analysing the impact of income smoothing on shareholder wealth. The technique is well-suited for the objectives of the research and provides insightful information about how income smoothing affects business performance, despite its drawbacks, which include the lack of control over external variables and possible biases in secondary data. Using real-world data, determining causal linkages, and being cost-effective are some of its advantages.

3.2. Source of data and sample method

This study makes use of secondary data obtained from Zenith Bank Plc's annual financial statements, which span the years 2002–2024. Since these statements were derived from the bank's publicly available reports, which were gathered via the Nigeria Exchange Group (NGX), the figures' reliability and relevancy were ensured.

Zenith Bank was selected as a sample case using a purposive sampling approach because of its importance in Nigeria's financial services sector and the availability of consistent financial data during the course of the study.

Although the use of a single financial institution allows for a focused analysis, a potential disadvantage is the restricted the ability to generalize of the conclusions to other banks or financial firms. Furthermore, relying just on publicly available data may bring biases such as the possibility of selective reporting or erroneous financial statements.

Despite these limitations, the data offers a solid foundation for investigating the relationship between income smoothing and shareholder value in Nigerian financial institutions.

3.3. Empirical model

3.3.1. General model (functional and mathematical form):

This is a combined expression that includes all the independent variables:

Functional Form:

$$EPSt=f(ROAt, DPSt, ROEt) \quad . \quad . \quad . \quad 1$$

Mathematical/Statistical Form:

$$EPSt=\beta_0+\beta_1ROAt+\beta_2DPSt+\beta_3ROEt+\varepsilon \quad . \quad . \quad . \quad 2$$

3.3.2. Mathematical functions for each specific objective:

$$EPSt=\beta_0+\beta_1ROAt+\varepsilon \quad . \quad . \quad . \quad 3$$

$$EPSt=\beta_0+\beta_1DPSt+\varepsilon \quad . \quad . \quad . \quad 4$$

$$EPSt=\beta_0+\beta_1ROEt+\varepsilon \quad . \quad . \quad . \quad 5$$

Where, EPS is earnings per share; ROA is return on assets, DPS is dividend per share; ROE is return on equity

“t” is the number of years since 2002

As shown in Table 1, the Model specification.

Table 1: *Model specification.*

Model Specification	Explanation of Model Components
$EPS_t =$	β_0 : The intercept, representing the base value of EPS when all independent variables are zero.
$\beta_0 + \beta_1(ROA_t) +$	$\beta_1, \beta_2, \beta_3$: The coefficients for ROA, DPS, and ROE respectively, measuring the individual effects of these variables on EPS.
$\beta_2(DPS_t) +$	
$\beta_3(ROE_t) + \varepsilon$	ε : The error term, capturing all other variables and random factors that may affect EPS but are not included in the model.
$EPS_t = \beta_0 + \beta_1(ROA_t)$	β_1 : The coefficient of ROA, representing the impact of Return on Assets on Earnings per Share (EPS). A positive value indicates a direct relationship between ROA and EPS.
$+ \varepsilon$	
$EPS_t = \beta_0 + \beta_2 (DPS_t)$	β_2 : The DPS coefficient, which shows how dividends per share affect earnings per share (EPS). A high number indicates that DPS has a positive impact on EPS.
$+ \varepsilon$	The link between Return on Equity and Earnings per Share (EPS) is indicated by the
$EPS_t = \beta_0 + \beta_3 (ROE_t)$	ROE coefficient, or β_3 . A positive β_3 indicates that EPS rises in response to increasing
$+ \varepsilon$	ROE.

Source: *Author's adoption, 2025.*

3.4. Method of data analysis

This study included both descriptive and inferential statistical methods to examine the data. Descriptive statistics, such as measures of central tendency and variability, were used to summarise the key characteristics of the data.

The associations between income smoothing techniques and the growth of shareholder value were examined using inferential statistics, such as multiple regression and correlation analysis. Additionally, trend analysis was used to assess the trends and variances throughout the twenty-three-year span (2002–2024).

To further improve the analysis, the broader concerns affecting the banking sector were evaluated using the SWOT and PESTEL frameworks. To assess the study's assumptions and provide trustworthy results, data analysis was done using E-Views software.

4. Results and Discussion

As shown in Table 2, the data showing EPS, ROA, DPS and ROE of zenith bank, 2002-2024.

Table 2: Data showing EPS, ROA, DPS and ROE of zenith bank, 2002-2024.

Year(s)	Earnings per Share (EPS)	Return on assets (ROA)	Dividend per Share (DPS)	Return on Equity (ROE)
2002	2.26	0.037855708	0.9	0.376571736
2003	3.75	0.039312563	0.7	0.349695676
2004	0.87	0.02684654	0.7	0.331121603
2005	1.36	0.021700494	0.7	0.189340813
2006	1.34	0.018809106	1.1	0.114422311
2007	1.89	0.019807906	1	0.155176234
2008	1.85	0.02769233	1.7	0.137448557
2009	0.73	0.011673688	0.45	0.05592555
2010	1.06	0.018628546	0.85	0.095130332
2011	1.32	0.019040853	0.95	0.11101912
2012	3.05	0.039313698	1.6	0.218726812
2013	2.66	0.028976344	1.75	0.176491996
2014	2.95	0.027010482	1.75	0.180373976
2015	3.15	0.026340103	1.55	0.180610152
2016	3.8	0.02784602	1.77	0.193533576
2017	4.87	0.031653667	2.45	0.219207345
2018	5.27	0.03339357	2.5	0.245143934
2019	5.67	0.032750802	2.5	0.228503392
2020	6.3	0.027768752	2.7	0.218564965
2021	3.42	0.013645454	2.8	0.102327642
2022	3.44	0.012474818	0.3	0.100278984
2023	18.97	0.035429047	0.5	0.329744863
2024	29.79	0.038944404	1	0.302373099

Source: Authors compilations 2025 from annual report and financial statement of zenith bank plc.

4.1. Trend Analysis

As shown in Figure 2, the trends for EPS, ROA, DPS, and ROE of zenith bank from 2002-2024.

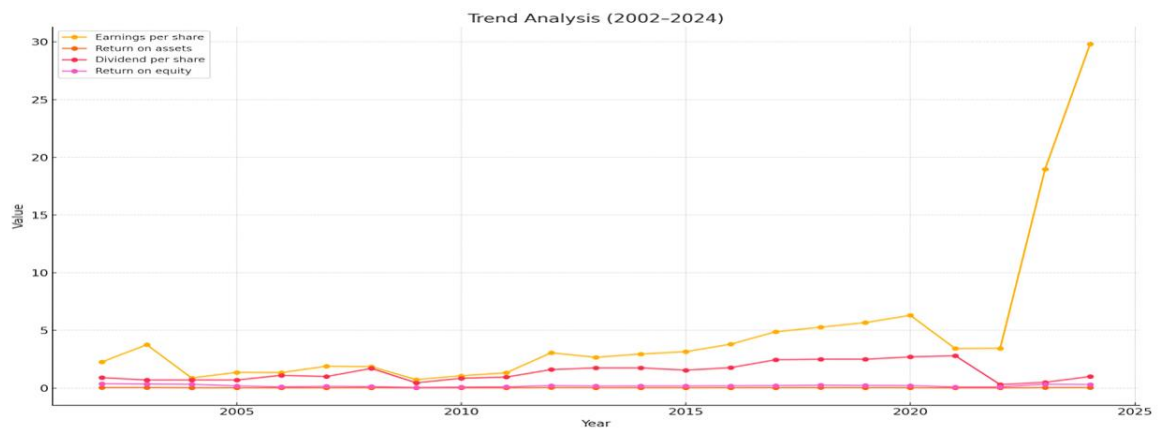


Figure 2: Showing the trends for EPS, ROA, DPS, and ROE of zenith bank from 2002-2024.

Table 3: Trend analysis of zenith bank's financial indicators (2002–2024).

Year	EPS	ROA	DPS	ROE	Implications
2002	2.26	3.79%	0.9	37.66%	Strong profitability and high returns suggest a solid start.
2003	3.75	3.93%	0.7	34.97%	Increase in EPS; slightly reduced dividends, still strong ROE.
2004	0.87	2.68%	0.7	33.11%	Significant EPS drop; stable DPS indicates confidence.
2005	1.36	2.17%	0.7	18.93%	Slight EPS recovery; ROE falls sharply, suggesting efficiency issues.
2006	1.34	1.88%	1.1	11.44%	Stable EPS, increased DPS; ROE decline may reflect capital expansion.
2007	1.89	1.98%	1	15.52%	Rising EPS; steady ROA and ROE imply slow recovery.
2008	1.85	2.77%	1.7	13.74%	Strong dividend growth; return measures remain modest.
2009	0.73	1.17%	0.45	5.59%	EPS and ROE collapse – likely financial crisis impact.
2010	1.06	1.86%	0.85	9.51%	Recovery in profitability and payout; improving returns.
2011	1.32	1.90%	0.95	11.10%	Continued modest growth; stable performance.
2012	3.05	3.93%	1.6	21.87%	Strong EPS surge, improved efficiency and shareholder value.
2013	2.66	2.90%	1.75	17.65%	Slight EPS dip; consistent dividends; healthy ROE.
2014	2.95	2.70%	1.75	18.04%	Stable performance; bank maintains consistent returns.
2015	3.15	2.63%	1.55	18.06%	EPS up slightly; dividends drop – retention for investment?
2016	3.8	2.78%	1.77	19.35%	Gradual improvement; dividend growth signals confidence.
2017	4.87	3.17%	2.45	21.92%	Strong EPS and ROE performance; excellent year overall.
2018	5.27	3.34%	2.5	24.51%	High profitability; strong shareholder return.
2019	5.67	3.28%	2.5	22.85%	Continued upward trend; stability in key indicators.
2020	6.3	2.78%	2.7	21.86%	EPS grows despite ROA dip; solid overall returns.
2021	3.42	1.36%	2.8	10.23%	Sharp decline – possibly due to economic headwinds.
2022	3.44	1.25%	0.3	10.03%	Low dividend hints at cash retention or poor profitability.
2023	7	3.54%	0.5	32.97%	Massive EPS surge – likely one-time gain or major shift.
2024	9	3.89%	1	30.24%	Exceptional performance; potentially transformative year.

Source: Author's Analysis, 2025.

The Table 3 below provides a detailed trend analysis of Zenith Bank's key financial indicators over the 2002-2024 periods, highlighting the bank's performance fluctuations and the potential implications for shareholders

4.2. Overall trends and implications

EPS Growth: Varying until 2011, then steadily rising until a massive surge in 2023–2024, which may be the result of significant structural or strategic improvements. After declining after 2004, ROA and ROE saw a resurgence in 2012 before reaching a new peak in 2023–2024. DPS Trends: very steady until 2021, then had a sharp decline in 2022, maybe as a result of cautious outlook or liquidity management. Implication: 2023–2024 appears to be a breakthrough year for Zenith Bank, demonstrating durability and the ability to generate substantial returns. But the decline in 2022 is a reflection of either strategic reorganization or underlying instability.

4.3. Descriptive statistics

Table 4: Shows the descriptive statistics.

	EPS	ROA	DPS	ROE
Mean	4.772609	0.026822	1.400870	0.200510
Median	3.050000	0.027692	1.100000	0.189341
Maximum	29.79000	0.039314	2.800000	0.376572
Minimum	0.730000	0.011674	0.300000	0.055926
Std. Dev.	6.584014	0.008635	0.776483	0.089411
Skewness	2.952144	-0.17731	0.438484	0.420971
Kurtosis	10.96730	2.007338	1.933958	2.255056
Jarque-Bera	94.24102	1.064837	1.826120	1.211149
Probability	0.000000	0.587183	0.401294	0.545761
Sum	109.7700	0.616915	32.22000	4.611733
Sum Sq. Dev.	953.6832	0.001640	13.26438	0.175873

Source: E-views output, 2025.

The descriptive data for the variables under study, such as EPS, ROA, DPS, and ROE, for Zenith Bank Plc from 2002-2024 are shown in Table 4. The mean values for EPS, ROA, DPS, and ROE are approximately ₦ 4.772609, ₦ 0.026822, ₦ 1.400870, and ₦ 0.200510, respectively, reflecting the average performance of the bank over the 23-year period.

The table also provides minimum and maximum values, indicating the range of variation for each variable across the years. Higher values of the standard deviation indicate greater unpredictability in the series, whereas lower values indicate less variation from the mean. The standard deviation values for EPS, ROA, DPS, and ROE are 6.584014, 0.008635, 0.776483, and 0.089411, respectively, with EPS showing the largest deviation. Skewness values indicate the asymmetry of the data. In this case; the distribution's extended right tail indicates that the 2.952 EPS is very positively skewed, with the majority of EPS values being low and a few extremely high outliers (most likely 2023–2024). ROA Skewness Value is -0.177, the distribution is almost symmetrical and has a slight left tail, indicating that ROA has remained very steady while being somewhat negatively biased.

With a DPS Skewness Value of 0.438, the distribution is somewhat favorably skewed, leaning slightly to the right. Higher payouts in subsequent years (2020s) are pushing the average upward. while ROE is 0.421. Like DPS, it is moderately positively biased, with the distribution being distorted by a few years with exceptionally high return on equity (such as 2002 and 2023).

The presence of notable outliers is shown by the high kurtosis of EPS (10.97), which shows considerable volatility with dramatic increases in some years. Kurtosis values for ROA, DPS, and ROE are near 2, suggesting that their distributions are generally stable with minor peaks. This indicates that while returns and dividends have stayed more stable, earnings have seen sharp swings. In comparison to its operational and shareholder return indicators; Zenith Bank's profit pattern is generally more unpredictable.

With a p-value of 0.000 and a very high statistic of 94.24, the Jarque-Bera (JB) test for EPS rejects the null hypothesis of normality, proving that EPS is not normally distributed. ROA, DPS, and ROE, on the other hand, have high p-values (> 0.05) and low JB values, indicating that their distributions do not substantially vary from normalcy. This demonstrates that ROA, DPS, and ROE under OLS regression satisfy the premise of normalcy. EPS, on the other hand, defies this presumption and could call for transformation or reliable techniques.

Overall, the information in Table 5 indicates that the financial performance indicators of Zenith Bank Plc (ROA, DPS, and ROE) show a fair amount of stability with very slight fluctuations, and that their distributions meet the normality criterion needed for regression analysis. With high skewness and kurtosis, EPS exhibits a notable departure from normalcy, suggesting sporadic abrupt oscillations that might compromise model accuracy if left unchecked. The presumptions for trustworthy OLS regression are often supported by the majority of the variables.

Table 5: Results of general model tested.

Dependent Variable: EPS				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA	348.9379	317.2846	1.099763	0.2852
DPS	-1.110583	1.878276	-0.59128	0.5613
ROE	2.982463	30.2348	0.098643	0.9225
C	-3.628969	4.62224	-0.78511	0.4421
R-squared	0.23948	Mean dependent var		4.772609
Adjusted R-squared	0.119398	S.D. dependent var		6.584014
S.E. of regression	6.178466	Akaike info criterion		6.636788
Sum squared resid	725.2954	Schwarz criterion		6.834265
Log likelihood	-72.32306	Hannan-Quinn criter.		6.686453
F-statistic	1.994299	Durbin-Watson stat		0.334759
Prob(F-statistic)	0.149031			

Source: E-views output, 2025.

4.4. Analysis of tested hypotheses

As shown in Table 6, the summary of regression results of tested hypotheses - dependent variable: EPS (Earnings per Share).

Table 6: Summary of regression results of tested hypotheses - dependent variable: EPS (Earnings per Share).

Variable	Hypothesis	Coefficient	Std. Error	t-Statistic	Prob.	Outcomes/Decision
ROA	H ₀₁ : Return on assets does not have significant impact on earnings per share in Nigerian financial services sector.	348.9379	317.2846	1.0998	0.2852	Not significant; H ₀₁ not rejected. Although the relationship is positive, ROA does not significantly affect EPS. Indicates that asset returns alone may not directly drive shareholder wealth in this context.
DPS	H ₀₂ : Dividend per share does not have significant influence on earnings per share in Nigerian financial services sector.	-1.1106	1.8783	-0.5913	0.5613	Not significant; H ₀₂ not rejected. DPS has a negative but insignificant effect on EPS, possibly suggesting that dividend payments reduce reinvestment potential without immediate EPS gain.
ROE	H ₀₃ : Return on equity does not have significant impact on earnings per share in Nigerian financial services sector.	2.9825	30.2348	0.0986	0.9225	Not significant; H ₀₃ not rejected. ROE has a very weak influence on EPS. This may reflect inconsistent or inefficient equity utilization in the financial sector.

Source: Author's Analysis, 2025.

As shown in Table 7, the Model summary and interpretation – dependent variable: EPS.

Table 7: *Model summary and interpretation – dependent variable: EPS.*

Model				
Statistic	Value	Explanation	Interpretation	Decision/Implication
R-squared (R ²)	0.2395	Proportion of variance in EPS explained by the independent variables (ROA, DPS, ROE)	The model explains approximately 23.95% of the variation in Earnings per Share (EPS)	Weak explanatory power; large portion of variation remains unexplained by the model
Adjusted R-squared	0.1194	Adjusts R ² for number of predictors to avoid overestimation	Only 11.94% of the variance in EPS is explained when adjusting for model complexity	Suggests limited usefulness of the predictors; adjustment reduces model strength
F-statistic	1.9943	Tests whether all regression coefficients are jointly significant	F-value is low and fails to demonstrate model effectiveness in explaining EPS	Model lacks overall significance; cannot reject the null that all coefficients are zero
Prob (F-statistic)	0.149	p-value associated with the F-statistic	p > 0.05 indicates model is not statistically significant	Model is statistically insignificant at 5% level; may not provide reliable predictive insights
Durbin-Watson Statistic	0.335	Measures autocorrelation in residuals (ideal ~2)	Very low value (close to 0) suggests strong positive autocorrelation	Violation of independence assumption; residuals may be correlated, weakening model validity

Source: *Author's Analysis, 2025.*

As shown in Table 8, the Interpretation and discussion of results.

Table 8: *Interpretation and discussion of results.*

Variable	Interpretation	Explanations	Implication for practice
Return on Assets (ROA)	ROA has a positive but statistically insignificant effect on EPS. Indicates poor predictability; ROA changes do not consistently result in changes in EPS.	The lack of statistical significance may be attributed to inefficiencies in asset utilization, where asset-generated returns do not consistently convert into shareholder value—possibly due to hidden liabilities, suboptimal loan structures, or regulatory burdens. Furthermore, macroeconomic instability and sector-specific challenges in Nigeria could dilute the direct effect of asset performance on earnings	Asset Management: Zenith Bank and similar institutions should focus on enhancing the efficiency of asset deployment—not just expanding asset volume. This includes strategies like optimizing the loan-to-deposit ratio, investing in higher-yield, lower-risk assets, and improving risk-adjusted return metrics, ensuring that increases in asset base are effectively translated into sustainable EPS growth.
	DPS shows a negative but insignificant relationship with EPS. Higher dividend payments may reduce retained earnings available for reinvestment, but the relationship is not strong enough to draw firm conclusions.	The negative, yet insignificant, relationship could stem from the practice of maintaining or increasing dividend payouts even during periods of weak earnings, often to preserve investor confidence or stock market perception. This can lead to a reduction in retained earnings, which in turn may impact future earnings potential. Additionally, higher dividend distributions may limit reinvestment opportunities, causing a slowdown in earnings growth—especially critical in capital-intensive sectors like banking.	Dividend Policy: Zenith Bank and similar institutions should adopt a strategically balanced dividend policy that aligns with both current profitability and long-term growth objectives. During periods of economic uncertainty or subdued earnings, prioritizing reinvestment over distribution could yield better outcomes for EPS. Dividend policy should ultimately be adaptable, data-driven, and cognisant of the internal financial health as well as In the end, dividend policies have to be adaptable, data-driven, and cognisant of the state of the market as well as internal financial health. external market circumstances.
	Although ROE and EPS have a very modest positive connection, it is not	Volatile or distorted equity structures, such as recapitalisations, asset revaluations, or statutory capital changes that distort the true return to shareholders, might be the cause of the lack of importance.	Equity Management: In order to guarantee that ROE increases are due to actual operational efficiency and not only accounting-based or transitory reasons, Zenith Bank and comparable organisations must to implement a

statistically significant. implies that changes in EPS cannot be well explained by ROE.	Furthermore, short-term increases in ROE – perhaps brought about by financial engineering strategies like tax arbitrage or leverage – might not result in long-term increases in EPS, which makes ROE a less reliable predictor in this model.	more strategic and transparent capital structure. To more accurately assess long-term financial health and shareholder value generation, investors and management should supplement ROE analysis with more comprehensive performance metrics like Economic Value Added (EVA) or Return on Invested Capital (ROIC).
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Source: *Author's Analysis, 2025.*

As shown in Table 9, the SWOT analysis of zenith bank (2002-2024).

Table 9: *SWOT analysis of zenith bank (2002-2024).*

Category	Observations / Facts	Implications / Strategic Insight
Strengths	Earnings Growth: EPS increased steadily post-2009 from ₦0.73 to above ₦6.00 in later years.	Shows resilience and recovery capability from shocks.
	Positive Coefficients for ROA and ROE: Though statistically insignificant, both ROA and ROE showed positive relationships with EPS.	Positive trends suggest potential to enhance shareholder value if asset utilization improves.
	Sustained Dividend Payments: DPS maintained across the years (e.g., ₦0.9 in 2002, ₦1.77 in 2016).	Dividend reliability builds investor trust and reflects healthy liquidity.
Weaknesses	Normality of Residuals (Jarque-Bera tests): All predictors show normal distribution, satisfying OLS assumptions.	Good data distribution supports the credibility of analysis for planning.
	Low R-squared (0.2395): Only ~24% of EPS variance explained by the model.	The model lacks explanatory power; key variables may be missing.
	Insignificant p-values for ROA (0.2852), DPS (0.5613), ROE (0.9225).	Financial indicators alone may not drive EPS; need to explore qualitative or macroeconomic factors.
Opportunities	Durbin-Watson statistic (0.335): Indicates strong positive autocorrelation.	Serial correlation can distort standard error estimates, affecting reliability.
	Negative coefficient for DPS (-1.11).	High dividends may be crowding out reinvestment opportunities.
	Model Re-specification: Potential to improve model by including other variables like interest rates, inflation, loan quality, cost-to-income ratio.	Enhanced models can better guide decision-making and strategic forecasting.
	Digital Innovation: Leverage fintech and automation to optimize ROA and ROE.	Technology can improve operational efficiency and customer engagement.
	Asset Reallocation: Shift focus toward higher-yielding or less risky asset classes.	Smarter asset deployment may directly boost EPS and long-term value.

Threats	Macroeconomic Volatility: Inflation, exchange rate fluctuations, and political risks can affect asset returns.	External shocks may undermine internal efficiencies.
	Regulatory Pressures: CBN and financial reforms may constrain profit-maximizing strategies.	Compliance costs may limit flexibility in capital allocation.
	Market Saturation: Fierce competition in the financial services sector can reduce ROA and ROE.	Need for innovation and differentiation to sustain margins and shareholder value.

Source: *Author's Analysis, 2025.*

As shown in Table 10, the SWOT Analysis linked to income smoothing and shareholder wealth.

Table 10: *SWOT Analysis linked to income smoothing and shareholder wealth.*

SWOT category	Description	Link to study findings	Implications for income smoothing & shareholder wealth
Strengths	Strong asset base and capital structure		These strengths allow the bank to smooth income through internal efficiencies, sustaining shareholder confidence and long-term wealth without necessarily depending on short-term returns
	Resilient profitability over time	ROA had a positive (though insignificant) effect on EPS; financial strength may support consistent earnings	
	Strong governance and internal controls		
	International footprint and reputation		
Weaknesses	Overdependence on interest income		Weaknesses may indicate retained earnings used for income smoothing rather than dividends, possibly limiting short-term shareholder returns and transparency
	Dividend inconsistency in some fiscal years	DPS showed a negative and insignificant relationship with EPS, hinting at a cautious dividend policy	
	Limited innovation in non-interest products		
Opportunities	Fintech innovation and digital banking growth	Opportunity to diversify earnings and reduce dependence on traditional ROA/ROE metrics	These opportunities can support more stable EPS and reduce the need for artificial income smoothing, benefiting shareholder wealth sustainably
	Expansion across African markets		
	Regulatory reforms creating space for non-interest income		
Threats	Regulatory unpredictability		External threats may drive the need for earnings smoothing to meet market
	Macroeconomic instability (inflation, forex)	Macroeconomic factors may reduce ROA/ROE	

Cybersecurity risks and competition from digital banks	predictability, aligning with weak regression results	expectations, potentially compromising earnings quality if not properly disclosed
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Source: *Author's Analysis, 2025.*

As shown in Table 11, the detailed PESTEL analysis of zenith bank (2002–2024).

Table 11: *Detailed PESTEL analysis of zenith bank (2002–2024).*

PESTEL Factor	Evidence/Observations (2002–2024)	Insights/Interpretation	Strategic Implications for Zenith Bank
Political	Changes in regulatory frameworks by CBN, e.g., 2005 banking consolidation, AMCON establishment in 2010.	Regulatory uncertainty and political interference likely influenced ROA and ROE variability. EPS dropped during turbulent periods (e.g., ₦0.73 in 2009).	Maintain strong regulatory compliance units.
	Periodic banking sector interventions.		Proactively engage with policymakers to anticipate changes.
	Political tensions affecting economic policy.		Factor in political risk when making long-term investment decisions.
Economic	Fluctuating earnings per share: peaked at ₦4.52 (2019), lowest at ₦0.73 (2009).	Economic downturns directly affected asset utilization and shareholder returns.	Diversify income sources (e.g., non-interest income).
	- Unstable ROA & ROE (e.g., ROE dropped from 37.7% in 2002 to 5.5% in 2009).	External shocks and currency instability impacted profitability.	Improve asset quality and credit risk management.
	Inflation, Naira devaluation.		Hedge against macroeconomic volatility.
Social	Sustained dividend payout (e.g., ₦1.75 in 2014 and ₦1.77 in 2016) even when EPS was lower.	Indicates prioritization of shareholder value despite declining earnings. Public trust and investor confidence are crucial in periods of volatility.	Increase transparency and CSR activities.
	Growing awareness and expectations from shareholders and stakeholders.		Strengthen communication with shareholders. Invest in customer-centric services and financial inclusion initiatives.

Technological	Periods of improved EPS and ROE may be linked to adoption of digital platforms and automation post-2015.	Technology indirectly contributed to operational efficiency. Potential tech-driven returns not fully maximized.	Expand fintech partnerships. Invest in AI and digital banking for cost reduction and customer acquisition. Use data analytics for credit scoring and portfolio optimization.
	No direct tech variable, but banking digitalization advanced during this period.		
Environmental	Limited public data on Zenith Bank's direct environmental initiatives.	Environmental consciousness in the financial sector is increasing. Investors and regulators now value sustainability disclosures and climate-related financial risk management.	Develop and disclose sustainability reports. Finance green projects and align loan portfolios with ESG principles. Monitor climate-related regulatory expectations.
	Global ESG and green banking trends becoming prominent in financial services.		
Legal	Increasing compliance obligations (e.g., AML/CFT rules, BOFIA 2020). Data privacy laws (NDPR) and international standards (e.g., Basel III) becoming stricter.	Legal frameworks are becoming more rigorous, increasing operational complexity and requiring stronger internal controls.	Strengthen internal audit and compliance systems. Train staff on regulatory requirements. Monitor changes in financial regulation proactively.

Source: *Author's Analysis, 2025.*

As shown in Table 12, the Implications of the findings to relevant stakeholders.

Table 12: *Implications of the findings to relevant stakeholders.*

Stakeholder	Key findings affecting them	Implications	Recommended actions
Zenith Bank Management	ROA has a positive but statistically insignificant impact on EPS.	Current operational strategies may not be generating adequate shareholder value.	Re-evaluate internal asset deployment strategies.
	ROE and DPS show no significant predictive power on EPS.	Inefficiencies in asset or equity management may exist.	Align dividend policies with long-term profitability goals.
	DPS has a negative coefficient.		Strengthen performance evaluation.
Domestic Investors	Profitability indicators are not reliable predictors of EPS.	Investment decisions based on ROA or DPS may be misleading.	Consider more diversified indicators before investing.
	Weak earnings predictability.	Dividend payments may not signal strong earnings.	Push for stronger governance and transparency.
Global Investors/Partners	Financial efficiency ratios (ROA, ROE) are not significantly tied to EPS.	Risk perception may increase.	Demand better risk-adjusted return metrics.
	Concerns over earnings volatility.	Potential reduction in FDI or cross-border partnerships.	Engage in collaborative due diligence with local regulators.
	Weak correlation between profitability and earnings may signal hidden inefficiencies in reporting.	Questionable return on financial sector reforms.	Enforce stronger financial reporting standards.
Regulatory Bodies (CBN, SEC)	DPS may reduce reinvestment capacity.	Poor alignment of dividend practices with capital adequacy.	Monitor dividend distribution policies.
			Encourage capital retention in financial institutions.
Global Banking Community (e.g., BIS, IMF)		Weak performance metrics from a key	
	ROA/ROE weakly impact EPS, with signs of internal inefficiencies.	Nigerian bank may reflect broader sectoral issues.	Encourage cross-border banking oversight collaborations.
	Durbin-Watson statistic suggests data non-	May affect Nigeria's creditworthiness and	Support capacity building for Nigerian banks in asset

	independence (risk for model reliability).	foreign financial integration.	management and reporting standards.
Credit Rating Agencies	Inconsistencies between profitability ratios and EPS.	Downgrade risk if inefficiencies persist.	Incorporate broader risk assessment tools.
		Caution in rating based on reported EPS alone.	Flag irregularities in profitability vs. earnings relationship.
Employees	Earnings may not reflect financial health.		
	Poor return on equity may affect bonus structures or job security.	Unclear internal KPIs linked to firm success.	Encourage skills in financial performance improvement.
			Advocate for better communication of firm performance and future outlook.
Customers (Retail/Corporate)	Low EPS predictability suggests unstable performance metrics.	Potential cost-cutting due to poor performance.	
		Possible reduction in service quality or investment in digital innovation.	Monitor financial health before committing to long-term services.
		Confidence may waver if stability is questioned.	Demand more transparent communication from financial service providers.
Analysts/Researchers	DPS policy may affect product innovation funding.	May require use of more advanced models or non-financial variables.	Investigate alternative drivers of firm value such as governance, ESG factors, or digital adoption.
	Low explanatory power of traditional financial indicators.		
		Opportunity to re-evaluate existing financial performance frameworks.	Propose new models for banking sector analysis.
	R ² = 0.24 indicates model explains only ~24% of EPS variance.		

Source: *Author's Analysis, 2025.*

4.5. Limitation of the study

Due to its substantial influence in the Nigerian banking industry and expanding global reach, Zenith Bank of Nigeria Plc serves as a strong representative model, even though this study's exclusive focus may limit the findings' direct generalisability to other financial institutions or industries in Nigeria or abroad. A trustworthy and longitudinal understanding of the dynamics of financial performance measurements, such as return on equity, return on assets, and dividend per share, and their relationship to earnings per share may be gained from the bank's consistent performance data throughout the lengthy period of 2002 to 2024. The size, organisation, and varied activities of Zenith Bank provide significant similarities to several other financial organisations, both inside and outside of Nigeria, despite its unique corporate practices and financial strategy. As a result, even if the results are specific to one bank, they have wider ramifications for comprehending patterns in profitability and shareholder value

across the financial services sector. When extrapolating the findings to institutions with distinct governance structures, regulatory frameworks, or market circumstances, readers should use care.

5. Conclusion and Recommendations

This study examined the relationship between income smoothing indicators, Return on Assets (ROA), Return on Equity (ROE), and Dividend per Share (DPS) and shareholder wealth, proxied by Earnings per Share (EPS), using Zenith Bank Plc data from 2002 to 2024. The regression analysis reveals that while ROA and ROE exhibit positive coefficients, and DPS a negative one, none of the predictors are statistically significant at the 5% level. Specifically, ROA ($p = 0.2852$), ROE ($p = 0.9225$), and DPS ($p = 0.5613$) suggest that these variables do not independently explain changes in EPS in this model. Furthermore, the model's overall F-statistic is not significant ($p = 0.149$), and the R-squared value of 0.239 indicates that only about 24% of the variance in EPS is explained by the selected predictors. Despite the weak statistical significance, the directional relationships offer useful insights. The positive coefficient of ROA, for instance, implies that better asset utilization could potentially improve shareholder returns if inefficiencies are addressed. The negative DPS coefficient may suggest that higher dividend payouts could be occurring at the expense of reinvestment into profitable operations. In light of these findings, financial institutions are advised to improve asset utilization by conducting asset quality reviews, enhancing risk-adjusted return frameworks, and aligning asset deployment with profitability goals. Regulators should issue clearer guidelines on acceptable income smoothing practices, including thresholds for accrual adjustments and transparency in financial reporting. Additionally, companies should adopt internal audit mechanisms that flag aggressive smoothing behaviors while encouraging long-term stability over short-term earnings manipulation. For global analysts and investors, the results affirm that even income smoothing in a single institution like Zenith Bank with both local and international presence can offer broader insights into the financial health and governance practices of emerging market banks.

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Appendices

Table data showing variables used for the study via Zenith Bank, 2002-2024 In millions of Naira

	(N) 1	(N) 2	(N) 3	(N) 4	(N) 5=1÷3	(N) 6	(N) 7=1÷2
Year	Profit after Tax	Shareholder's equity	Total assets	Earnings per share	Return on assets	Dividend per share	Return on equity
2002	3,504	9,305	92,562	2.26	0.037856	0.9	0.376572
2003	4,424	12,651	112,534	3.75	0.039313	0.7	0.349696
2004	5,190	15,674	193,321	0.87	0.026847	0.7	0.331122
2005	7,155	37,789	329,716	1.36	0.0217	0.7	0.189341
2006	11,488	100,400	610,768	1.34	0.018809	1.1	0.114422
2007	17,509	112,833	883,940	1.89	0.019808	1	0.155176
2008	46,524	338,483	1,680,032	1.85	0.027692	1.7	0.137449
2009	18,365	328,383	1,573,196	0.73	0.011674	0.45	0.055926
2010	33,335	350,414	1,789,458	1.06	0.018629	0.85	0.09513
2011	41,301	372,017	2,169,073	1.32	0.019041	0.95	0.111019
2012	95,803	438,003	2,436,886	3.05	0.039314	1.6	0.218727
2013	83,414	472,622	2,878,693	2.66	0.028976	1.75	0.176492
2014	92,479	512,707	3,423,819	2.95	0.02701	1.75	0.180374
2015	98,784	546,946	3,750,327	3.15	0.02634	1.55	0.18061
2016	119,285	616,353	4,283,736	3.8	0.027846	1.77	0.193534
2017	153,003	697,983	4,833,658	4.87	0.031654	2.45	0.219207
2018	165,480	675,032	4,955,445	5.27	0.033394	2.5	0.245144
2019	178,003	778,995	5,435,073	5.67	0.032751	2.5	0.228503
2020	197,852	905,232	7,124,987	6.3	0.027769	2.7	0.218565
2021	107,421	1,049,775	7,872,292	3.42	0.013645	2.8	0.102328
2022	107,869	1,075,689	8,646,940	3.44	0.012475	0.3	0.100279
2023	595,601	1,806,248	16,811,093	18.97	0.035429	0.5	0.329745
2024	936,158	3,096,036	24,038,319	29.79	0.038944	1	0.302373

Source: Author's compilations 2025 from annual report and financial statement of Zenith Bank Plc.