Corporate Risk Management as a Moderating Factor of Insider and Concentrated Ownership Structures on Firm Value of Listed Financial Services Firms in Nigeria

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ABSTRACT

Firms often face challenges in enhancing firm value due to governance issues, particularly ownership structures and risk management. Agency problems from insider and concentrated ownership, coupled with inadequate risk management, can misalign management and shareholder interests, negatively impacting firm value. This study examines the moderating effect of Corporate Risk Management (CRM) on the relationship between insider ownership and concentrated ownership structures and the firm value of listed financial services firms in Nigeria. The sample consists of twenty-four (24) firms listed on the Nigerian Exchange Group, with data spanning from 2010 to 2024. A purposive sampling technique was applied to select firms with consistent financial disclosures over the study period. A longitudinal panel research design was employed, utilising panel random effects regression analysis through E-Views 12 software. The results reveal that neither insider ownership nor concentrated ownership individually has a statistically significant direct effect on firm value. However, the interaction between these ownership structures and corporate risk management shows a statistically significant positive impact on firm value. The study concludes that corporate risk management plays a vital role in enhancing the relationship between ownership structures and firm value by mitigating risks and aligning managerial decisions with shareholder interests. The study recommends that Nigerian financial services firms implement comprehensive risk management frameworks and that regulatory bodies promote transparency in ownership structures and risk management practices to improve firm value and ensure long-term sustainability in the sector.

Keywords: Insider Ownership Structure, Concentrated Ownership Structure, Firm Value Tobin Q Ratio, Corporate Risk Management, Firm Leverage.

INTRODUCTION

Firm value has long been a central concept in corporate finance, and its measurement has often been linked to a company's ability to effectively manage internal and external factors that influence its financial performance. The challenges surrounding firm value are multifaceted, including market volatility, economic instability, and competition. These challenges are further exacerbated in developing economies like Nigeria, where the financial market is often unpredictable and subject to systemic risk (Tanko, 2020). Additionally, issues such as poor governance structures, inadequate regulatory frameworks, and misalignment of corporate strategies with shareholder expectations pose significant threats to firm value. As a result, companies are under constant pressure to improve their operational efficiency, reduce costs, and increase profitability to remain competitive and deliver value to their shareholders. However, these challenges are not limited to macroeconomic factors. Internal factors, such as ownership structure, executive compensation, and the level of managerial control, can also have a profound impact on firm value (Jibrin *et al.,* 2023).

Ownership structure, especially insider ownership, has been identified as a significant determinant of corporate governance and firm performance. Insider ownership refers to the percentage of a firm’s shares held by its executives, directors, and other internal stakeholders (Abubakar et al., 2020). This form of ownership is often seen as a mechanism to align the interests of managers with those of the shareholders, thereby reducing agency costs. The percentage of insider ownership (PIO) can be operationalized as the proportion of a company's total

outstanding shares that are owned by its management team, including top executives and board members. However, high levels of insider ownership may also lead to entrenchment, where controlling insiders use their influence to make decisions that benefit themselves at the expense of minority shareholders. As a result, the relationship between insider ownership and firm value is complex, with both positive and negative outcomes depending on the specific context and the corporate governance practices in place (Bakoji & Ishaku, 2023). Similarly, concentrated ownership, where a small group of shareholders control a significant portion of a company's equity, can have similar implications for firm performance. Concentrated ownership percentage (COOP) refers to the proportion of a company's total shares owned by the largest shareholders, often a small group of institutional investors or family members. Concentrated ownership structures are often associated with stronger control over corporate decision-making, which can either enhance firm value by promoting long-term strategies or detract from it by entrenching control and limiting accountability. While concentrated ownership can reduce the cost of monitoring and improve operational efficiency, it can also create barriers to transparency and limit the influence of minority shareholders. In this regard, corporate risk management plays a crucial role. As a moderating factor, effective risk management can help mitigate the risks associated with both insider ownership and concentrated ownership. When financial, operational, and strategic risks are proactively addressed, ownership concentration is less likely to translate into poor governance or reduced firm value (Zhu et al., 2020).

The primary issue this study seeks to address is the lack of clarity on how ownership structures, particularly insider and concentrated ownership, impact the firm value of listed financial services firms in Nigeria. While ownership structure has been explored in various global contexts, the specific influence of ownership concentration on firm value within Nigeria's financial services sector remains underexplored. Studies like Bakoji & Ishaku (2023) have examined ownership concentration, but they largely overlook its distinct effects on Nigerian financial firms. Furthermore, the moderating role of corporate risk management in this relationship adds another layer of uncertainty, as few studies (e.g., Ahmed et al., 2020; Farouk & Ahmed, 2023) have investigated how risk management strategies moderate the impact of ownership structure on firm value, especially in the context of Nigerian firms. This gap in the literature presents an opportunity to further explore the dynamics between ownership structure, corporate governance, and firm value in the Nigerian financial services sector. While some studies have investigated ownership's impact on performance (e.g., Zhao, Zhang, & Zheng, 2022) and corporate governance mechanisms (Agara & Stainbank, 2023), the role of risk management as a moderating factor remains largely unexplored in Nigerian. Thus, this study seeks to clarify the role of ownership structures in shaping firm value and to examine how corporate risk management practices can potentially balance the positive and negative effects of ownership concentration. Given the increasing complexity of global financial markets and the growing need for effective risk management in Nigeria's financial services industry, this research aims to fill this gap. The study will contribute to the literature by providing empirical evidence on the role of ownership structure and risk management in enhancing firm value, specifically in the Nigerian context, thereby offering valuable insights for policymakers, investors, and corporate managers (Agara & Stainbank, 2023).

H_{01}: Insider ownership percentage has no significant effect on Tobin's Q of listed financial services firms in Nigeria when moderated by corporate risk management.

H_{02}: Concentrated ownership percentage has no significant effect on Tobin's Q of listed financial services firms in Nigeria when moderated by corporate risk management.

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Corporate Risk Management

Corporate risk management refers to the processes and strategies employed by organizations to identify, assess, and mitigate potential risks that could adversely affect their operations, assets, and overall value. According to Yahaya and Omotola (2024), effective risk management is essential for ensuring corporate resilience, particularly in volatile markets like Nigeria, where financial institutions are exposed to economic, operational,

and regulatory uncertainties. Risk management not only protects firms from adverse events but also enhances their ability to capitalize on opportunities. In the financial services sector, corporate risk management is critical due to the industry's inherent exposure to credit, market, operational, and liquidity risks. Effective risk management frameworks involve the integration of policies, controls, and monitoring mechanisms that align with the firm's objectives. Tokas and Yadav (2023) emphasized that firms with robust risk management practices are better equipped to navigate external shocks, improve financial stability, and maintain investor confidence. For Nigerian financial firms, these practices are particularly vital given the sector's susceptibility to macroeconomic volatility and regulatory shifts. Corporate governance mechanisms also intersect with risk management practices to influence firm outcomes. Boards of directors and audit committees are often at the forefront of designing and overseeing risk management frameworks. Ahmed *et al.* (2020) noted that the presence of independent board members and audit expertise enhances the effectiveness of risk oversight, reducing the likelihood of financial mismanagement or fraud. For Nigerian financial services firms, strong governance structures are critical to aligning risk management practices with regulatory standards and shareholder expectations.

2.1.2 Insider Ownership Structure

Insider ownership refers to the proportion of a company's shares held by individuals or entities considered insiders, such as executives, directors, or significant shareholders. It encompasses direct holdings only. Corporate insider ownership has been one of the most crucial elements of corporate governance worldwide since corporate insiders, such as senior corporate officers, directors, and their immediate families, particularly those who own a sizable portion of the companies, can have a major impact on how the companies operate and how much they are worth (Wang & Yu, 2019). High insider ownership is frequently interpreted as a positive indication, indicating that management is confident in the company's future and has a vested interest in its success. This structure might be considered a proxy for how closely management's interests match those of outside shareholders.

According to Zhu *et al.* (2023), insider ownership serves as a mechanism for mitigating agency problems by incentivizing managers to prioritize long-term shareholder value. In emerging markets like Nigeria, where corporate governance challenges persist, insider ownership often plays a significant role in ensuring accountability and aligning decision-making with organizational goals. Higher insider ownership can have both positive and negative implications for a firm's performance. On the positive side, insider ownership strengthens the alignment of interests between management and shareholders, as managers with significant stakes in the firm are more likely to make decisions that enhance firm value (Ahmed *et al.*, 2022). For instance, insiders with substantial ownership stakes are incentivized to monitor financial and operational activities closely, thereby reducing the likelihood of mismanagement or fraud. This is particularly important in Nigeria's financial services sector, where effective risk management is vital for sustaining investor confidence.

2.1.3 Insider Ownership Percentage

The percentage of insider ownership refers to the proportion of a company's shares owned by its directors, executives, and other key insiders involved in its management and operations. It is a crucial aspect of ownership structure, as it aligns the interests of management with those of shareholders. Insider Ownership Percentage can be used by investors to measure the outlook senior management has on their company. A higher percentage is typically viewed by an investor as a positive for the company, since management would, in theory, hold a higher percentage of shares if the company's outlook was bright. The percentage of insider ownership has implications for investor perceptions and market valuation. A moderate level of insider ownership is often perceived as a signal of management's confidence in the firm's prospects, thereby attracting investors. However, excessively high or low levels of insider ownership can create skepticism among market participants. Farouk and Ahmed (2023) emphasized that Nigerian firms with balanced insider ownership are more likely to achieve higher market valuations due to enhanced trust and transparency. This dynamic underscores the importance of maintaining an optimal insider ownership level that aligns with broader corporate governance goals.

$$\textbf{Percentage of Insider Ownership (\%)} = \frac{\text{Number of Shares owned by insiders}}{\text{Total Number of Outstanding Shares}} \times 100$$

2.1.4 Concentrated Ownership Structure

Concentrated ownership refers to a situation where a relatively small number of shareholders hold a significant criterion for determining large ownership of a company's equity, which leads to substantial control over the company's decision-making processes. Recent literature underscores the impact of concentrated ownership on corporate governance, with both positive and negative implications for firm performance (Zhu *et al.,* 2020). In such ownership structures, shareholders with substantial stakes can influence major corporate decisions, often reducing agency costs by aligning managerial decisions with their interests, especially in the case of family-owned businesses or closely held firms (Alvarez & Rodríguez, 2022). One of the most frequently cited advantages of concentrated ownership is the reduction in agency costs. When ownership is concentrated, the principal-agent problem, where managers act in their interest at the expense of shareholders, can be mitigated. In firms where large shareholders exert significant control, decisions are often more aligned with long-term performance and shareholder value, potentially leading to more efficient operations (Krause *et al.*, 2021). This dynamic is particularly significant in emerging markets where institutional frameworks may not be robust enough to prevent managerial opportunism (Ammann *et al.,* 2019).

However, concentrated ownership also raises concerns regarding minority shareholder protection. Studies have highlighted the potential for controlling shareholders to expropriate wealth from minority shareholders, especially in the absence of strong legal protections (Maksimovic *et al.,* 2020). In such scenarios, controlling shareholders may engage in self-dealing or direct transactions that favor their interests, often at the expense of the broader shareholder base. This phenomenon is particularly prominent in countries with weaker governance structures, where the rights of minority shareholders are not fully protected (Feng *et al.,* 2021). Concentrated ownership continues to be a significant factor in shaping the governance landscape of publicly listed companies. In countries where ownership is heavily concentrated, policymakers are exploring ways to balance the benefits of concentrated control with the need to protect minority shareholders and ensure fair decision-making processes. Ongoing research suggests that while concentrated ownership can be beneficial in reducing agency costs, the governance structures must be carefully designed to prevent expropriation and ensure fairness in decision-making (Zhao *et al.,* 2022).

2.1.5 Concentrated Ownership Percentage

Concentrated ownership percentage can be described as the percentage of a company's shares owned by a relatively small group of major shareholders, often comprising institutional investors and insiders like management and directors. Instead of being distributed among several small investors, it shows the proportion of a company that is controlled by a limited number of people or organizations. Concentrated ownership occurs when a small number of shareholders, such as big institutions, management, or a single family, own a substantial amount of a company's equity (Krause *et al.,* 2021). The percentage of a company's stock owned by a small group of investors is known as ownership concentration. It can be calculated by taking the percentage of shares held by the top shareholders, such as the top three, five, or ten largest investors. Family-owned businesses, in which a family owns a considerable portion of the company's stock, and massive business groups, which are enormous, frequently publicly listed companies that control a significant portion of a company's shares, are two examples of concentrated ownership percentages.

$$\textbf{Concentrated Ownership Percentage} = \frac{\text{Shares held by Largest Shareholders}}{\text{Total Outstanding Shares}} \times 100$$

2.1.6 Firm Value

Firm value refers to the overall worth of a company, encompassing both its market value and intrinsic value. It represents the summation of a firm's financial performance, strategic positioning, and future growth potential as perceived by investors. According to Bakoji and Ishaku (2023), firm value is a critical measure of corporate success, reflecting the ability of a company to generate wealth for its shareholders over time. One of the primary drivers of firm value is profitability, which demonstrates a company's ability to generate returns on investments. Firms with consistent profitability tend to attract higher investor confidence, translating into greater market value. Ibrahim and Maitala (2023) highlighted that profitability indicators such as return on assets (ROA) and

return on equity (ROE) are closely correlated with firm value in Nigeria's financial services sector. These indicators provide insight into how efficiently management utilizes resources to deliver returns to shareholders. Ownership structure also plays a vital role in shaping firm value. Blockholder ownership, managerial ownership, and institutional ownership have been shown to significantly influence corporate decisions, governance quality, and, ultimately, firm value. Yahaya and Omotola (2024) observed that institutional ownership enhances firm value by providing professional oversight and reducing agency costs, while blockholder ownership can have a dual effect depending on the alignment of interests between blockholders and minority shareholders. In Nigeria's financial services firms, ownership concentration has been linked to both improved governance and challenges arising from entrenchment.

Firm value is influenced by non-financial factors, such as corporate social responsibility (CSR) and environmental, social, and governance (ESG) initiatives. Ahmed, Hussin, and Pirzada (2022) found that companies that actively engage in CSR practices tend to enjoy higher firm value due to improved reputation, brand equity, and customer loyalty. In Nigeria's financial sector, CSR initiatives targeting community development, financial inclusion, and sustainable practices have become critical drivers of firm value, particularly as stakeholders demand greater corporate accountability. These various determinants highlight the multifaceted nature of firm value and underscore the importance of aligning internal governance practices, ownership structures, and external factors to enhance firm valuation in Nigeria's financial services sector.

2.1.7 Tobin's Q Ratio

Tobin's Q ratio is a financial metric used to evaluate the market valuation of a firm relative to the replacement cost of its assets. It is calculated as the ratio of the market value of a firm (including equity and debt) to the replacement cost of its assets. A Q ratio greater than 1 suggests that a company's market value exceeds the cost of replacing its assets, indicating strong investor confidence and the potential for future growth. Conversely, a Q ratio less than 1 implies undervaluation or inefficiencies in asset utilization. According to Bakoji and Ishaku (2023), Tobin's Q is widely used in empirical research as a proxy for firm value due to its ability to capture both market and intrinsic valuation perspectives. Tobin's Q is particularly relevant in assessing the performance of firms in the financial services sector, where intangible assets such as intellectual capital, reputation, and customer relationships play a significant role. In the context of Nigeria, Yahaya and Omotola (2024) noted that the Q ratio provides a holistic measure of firm value by integrating market performance with the efficiency of asset deployment. This makes it a critical metric for evaluating governance practices and strategic decisions in listed financial institutions. One advantage of using Tobin's Q is its sensitivity to market dynamics, making it a reliable indicator of how external stakeholders perceive a firm. Firms with high Q ratios often enjoy greater investor confidence and access to capital, as their market valuation reflects expectations of strong future performance. Farouk and Ahmed (2023) observed that Nigerian financial services firms with strong governance mechanisms and efficient risk management practices tend to exhibit higher Tobin's Q ratios, signaling alignment between internal performance and market expectations.

The relationship between Tobin's Q and ownership structure has been a focal point of research in emerging markets. Blockholder and institutional ownership, for instance, have been shown to positively impact the Q ratio by improving oversight and reducing agency problems. Baba and Baba (2021) found that Nigerian firms with significant institutional ownership often report higher Tobin's Q values due to enhanced transparency and strategic alignment. Conversely, excessive insider ownership can sometimes lower the Q ratio by introducing entrenchment risks and reducing market confidence. Tobin's Q ratio serves as a valuable tool for assessing firm value, particularly in markets where asset replacement costs and market valuation are critical considerations. Its relevance in the Nigerian financial services sector highlights its ability to capture the interplay between governance practices, market dynamics, and strategic performance. By integrating Tobin's Q with other performance metrics, stakeholders can gain a more comprehensive understanding of a firm's value and its prospects for sustainable growth.

$$\text{Formula: } Q = \frac{\text{Market Value of Equity} + \text{Book Value of Debt}}{\text{Book Value of Assets}}$$

2.1.8 Firm Leverage

The amount of debt a firm has in its capital structure, that is, the ratio of debt to equity, is known as leverage. A highly leveraged company has higher debt levels than the industry average. Financial leverage is the concept of employing borrowed capital as a funding source (Hirdinis, 2019). Leverage is frequently applied when firms invest in themselves for expansions, acquisitions, or other growth techniques. Leverage is also an investing strategy that leverages borrowed money, notably the use of various financial instruments or borrowed funds to raise the prospective return of an investment. Leverage is leveraging debt or borrowed capital to accomplish an enterprise or undertaking. It is commonly applied to raise an entity's equity base. The notion of leverage is applied by both investors and companies: Investors apply leverage to considerably boost the returns that can be delivered on an investment. They leverage their investments using many products, including options, futures, and margin accounts.

Companies can apply leverage to fund their assets. In other words, firms can use debt financing to invest in business operations to affect growth instead of issuing stock to raise capital. Thus, we may assess a company's leverage by determining its ratio of debt to assets. This ratio reveals how much debt it uses to develop its assets. If the debt ratio is substantial, a firm has relied on leverage to finance its assets.

$$\text{Firm leverage} = \frac{\text{Total debts}}{\text{Total capital}}$$

EMPIRICAL REVIEW

Sunday *et al.* (2025) examined the Moderating effect of Board Size on Ownership Structure and Financial Performance of Quoted Consumer firms in Nigeria. The population comprised all the 21 quoted consumer goods manufacturing firms in Nigeria while the filtering technique was used to arrive at a sample size of seventeen (17) consumer goods manufacturing firms in Nigeria. The hypotheses were tested using a robust fixed effect regression model after conducting some diagnostics tests. The results shows that share ownership concentration has a significant negative effect on the return on assets of quoted consumer goods manufacturing firms in Nigeria while Further results based on the second model indicate that board size significantly moderates the relationship between share ownership concentration and return on assets of quoted consumer goods manufacturing firms in Nigeria. The study recommends that the board of directors of consumer goods firms should minimize the level of share ownership concentration in their firms to the maximum of 60% to encourage dilution of ownership and enhance the financial performance of their firms in Nigeria. Sunday et al. (2025) entirely neglects the broader institutional and macroeconomic environment, failing to account for regulatory dynamics and market volatility, which are especially vital in sectors like financial services. Their overreliance on a rigid 60% ownership threshold without justification or sensitivity analysis renders their recommendations arbitrary and inapplicable beyond the sampled consumer goods firms.

Onyali *et al.* (2024) investigated the effect of corporate ownership structure on the social responsibility cost of listed manufacturing firms in Nigeria. The specific objectives were to examine the effect of ownership concentration, board ownership, foreign ownership, and institutional ownership on philanthropic responsibility costs of listed manufacturing firms in Nigeria. The research design employed in this study is ex-post facto. The study's target population encompassed the entirety of twenty-one consumer goods manufacturing firms that hold listings in Nigeria. The selection of sixteen companies forming the study's sample size was accomplished through the application of purposive sampling technique. Secondary data sourced from the firms' annual reports were used for the study. The period of coverage is a ten-year accounting period spanning from 2013 to 2022. The hypotheses were tested with the aid of ordinary leastsquare regression which revealed that: Ownership concentration has a positive and significant effect on the philanthropic responsibility cost of listed manufacturing firms in Nigeria (p-value of 0.0000); Board ownership has a non-significant and positive effect on the philanthropic responsibility cost of listed manufacturing firms in Nigeria; Foreign ownership has a significant and positive effect on the philanthropic responsibility cost of listed manufacturing firms in Nigeria; Institutional ownership has a significant and negative effect on the philanthropic responsibility cost of listed manufacturing firms in Nigeria. The study recommended amongst others that manufacturing firms should establish clear frameworks and channels for involving concentrated owners in decision-making related to philanthropy. The

sampling technique excludes smaller firms, raising questions about the generalizability of the findings. The focus on philanthropic costs also overlooks other significant CSR dimensions, such as environmental sustainability, employee welfare, and community engagement, which may also affect ownership structure. While exploring various ownership structures, narrowly focuses on philanthropic responsibility costs, completely ignoring core financial performance indicators such as profitability or firm value. Additionally, the study's use of purposive sampling and exclusion of smaller firms introduces sampling bias, making its findings unreliable and non-generalizable.

Yusuf and Okpe (2024) examined the moderating effect of financial performance on ownership structure and firm performance of Nigerian listed commercial banks. Data on ownership structure and yearly financial reports at the firm level from 2013 to 2022 are used in the empirical analysis. Panel regression analysis methods. Block share ownership and foreign share ownership were employed in this study as independent variables, while ROA was used as a leveraged moderating effect to quantify business performance. Descriptive research and correlational research design are thus employed in this study as suitable research designs. The results indicate that all shareholders have shares held by shareholders who possess block ownership of common shares across commercial banks in Nigeria. This indicates a sharp decline in foreign investment as a result of the unpredictability of the market and the high level of insecurity that permeates the nation. The return on assets of the commercial banks that are quoted is positively and significantly impacted by foreign ownership. The study recommended using a non-linear model to explore the hypothesis that a firm's performance could affect its ownership structure and to estimate the impact of block ownership on firms' performance. This study focuses on foreign and block ownership while ignoring other ownership structure such as managerial, government, institutional which will form the focus of this study. Also, this present study intends to sample financial services sectors as against deposit money banks used by the review study. Yusuf and Okpe (2024) limit their analysis to foreign and block ownership, leaving out crucial structures such as managerial and institutional ownership, which are often central to agency problems in Nigeria's financial sector. Furthermore, their suggestion to adopt a nonlinear model remains purely speculative, without empirical demonstration, making their conclusions conceptually shallow.

Yahaya and Omotola, (2024) investigated how institutional ownership moderates the relationship between board attributes (such as board independence, board size, and board diversity) and tax aggressiveness in publicly listed companies in Nigeria for a period covering 2014-2023. The study utilized a panel data regression analysis. A sample of 153 publicly listed firms was used, and data on board attributes, institutional ownership, and tax aggressiveness were collected from financial statements, proxy filings, and ownership disclosures. Institutional ownership was treated as a moderating variable in the relationship between board attributes and tax aggressiveness. The study found that institutional ownership significantly moderates the relationship between board independence and tax aggressiveness. Specifically, firms with higher institutional ownership and independent boards exhibited lower tax aggressiveness. However, the moderating effect was insignificant for board size and diversity. Institutional investors' presence can strengthen independent boards' role in curbing tax aggressiveness. Policymakers and regulators should consider encouraging institutional ownership as a means to enhance corporate governance and reduce tax aggressiveness. The study recommended that companies should also prioritize board independence, especially in environments with significant institutional ownership. The study fails to establish causal links or external validity, relying instead on mere correlation. The study does not explore whether the presence of institutional investors is a cause or consequence of better governance.

Okafor, *et al.* (2023) investigated the effect ownership concentration on agency cost of industrial firms listed on the Nigerian exchange group. The specific objectives were to examine the effect of government ownership, managerial ownership, institutional ownership and foreign ownership affects agency cost of firms listed on the Nigerian exchange group. Panel Least Squared (PLS) method of data analysis was used. Secondary sources of data were employed; the interested variables were sourced from the annual report of the quoted industrial firms. The variables were assets utilization as the dependent variables while government ownership, managerial ownership, institutional ownership and block ownership were the independent variable. The study employs descriptive statistics, correlation and regression analysis in the analysis. From the analysis result the study found that. Government ownership has no significant impact on agency cost of firms listed on the Nigerian exchange group. Managerial ownership has significant impact on agency cost of firms listed on the Nigerian exchange group. Institutional ownership has significant impact on agency cost of firms listed on the Nigerian exchange

group. Foreign ownership has negative and insignificant effect on agency cost of firms listed on the Nigeria exchange group. The researcher recommends that. Government ownership of sensitive firms should be minimized, as such ownership are usually inefficient and characterized by bureaucratic bottlenecks, which do not have clear incentives to improve asset. The study recommends that financial regulatory bodies in Nigeria such as the Central Bank of Nigeria (CBN), Nigeria Deposit Insurance Corporation (NDIC), and Securities and Exchange Commission (SEC) should ensure that a reasonable degree of managerial ownership is maintained by all banks due to its potential benefit in improving financial performance in Nigerian banks. The study offers no insight into the interaction effects or moderating variables, reducing its applicability to complex ownership-performance relationships.

Bakoji, and Ishaku, (2023) investigated how the level of ownership concentration impacts the dividend policies of publicly traded consumer goods companies in Nigeria. The study employed an ex-post facto research design and analysed secondary data spanning 11 years (2011-2021) extracted from the annual reports and accounts of the companies being studied. The results of the analysis revealed that a high level of ownership concentration has a significant and negative influence on the dividend payout ratio of these consumer goods companies in Nigeria. Consequently, it is advisable to steer clear of excessively concentrated ownership, as it can be detrimental to the decisions regarding dividends. The study's recommendation against ownership concentration does not provide actionable strategies for mitigating its negative effects. The dataset excludes post-2021 developments, reducing its relevance.

Farouk, *et al.* (2023) examined higher compensation and increased share ownership are believed to drive fewer earnings management. Therefore, the study examines the moderating impact of share ownership on the relationship between executive compensation and earnings management of listed Deposit Money Banks in Nigeria. Panel Least Square regression and Stata 13 were used for the estimation. The secondary data source was employed and extracted from the banks' published financial statements covering the period from 2007-2018. Post-estimation tests, including normality tests of standard error, heteroscedasticity, and multicollinearity, were carried out to validate the outcome. Executive compensation variable is represented by Chief Executive Officer Pay (CEO Pay), Board Chairman's compensation, and the highest-paid director, while executive share ownership represents the moderator variable. Chang *et al.* (2008) model was used to proxy earnings management. The findings revealed that CEO Pay increases the banks' level of earnings management, while after moderation with executive share ownership; CEO pay decreases the possibilities of earnings management by banks. Compensation to Chairmen of the banks decreases the level of earnings management of banks. However, an increase in share ownership of the board with an increase in compensation to chairmen of banks' boards increases the earnings management practices of the management of the banks. The findings imply that the executive ownership interest should be made to align with that of the minority shareholders following an increase in their stake so that they can act in the overall best interest of the owners. Farouk et al. (2023) suffers from conceptual confusion its dual interpretation of ownership both as a moderating and direct variable results in analytical inconsistency. Additionally, the focus on only a few executive compensation variables and the use of a dated dataset from 2007-2018 make the findings less relevant to current realities, especially in a dynamic banking environment.

Agara, and Stainbank, (2023) investigated the moderating roles of the internal and external corporate governance mechanisms on the performance of non-financial listed firms in Nigeria. This study extends the growing body of research that explores the relationship between corporate governance compliance and the performance of the firm by examining the Nigerian context with respect to the listed non-financial firms from 2012 to 2019. This study developed the first unique NCGCI of listed non-financial firms from 2012 to 2019, using 32 internal and external corporate governance mechanisms which were based on the combined corporate governance provisions of the Nigerian Code of 2011. In contrast to existing findings, the study show that, there was a negative but insignificant relationship between the NCGCI and the independent variables. Also, the frequency of board meetings indicated a negative and significant relationship with NAT only. The study recommends the need to base corporate governance frameworks on the peculiarities of the firm, industrial sector and country. The study fails to explain why compliance with corporate governance codes does not lead to better performance, leaving its conclusions inconclusive. oversimplify governance by aggregating 32 different mechanisms into a single governance index, which masks the individual and interaction effects of critical governance elements. Their

failure to justify why corporate governance compliance yields no significant results raises serious doubts about the validity of their metrics and assumptions.

THEORETICAL FRAMEWORK

2.3.1 Agency Theory

Agency theory was developed by Jensen and Meckling in 1976, the theory focuses on the conflicts of interest that arise when there is a separation between ownership and control. It explains how managers (agents), who control corporate resources, may act in their own interests rather than those of shareholders (principals), leading to agency costs. This theory is particularly relevant in firms with dispersed ownership, where weak oversight can result in inefficiency, or in firms with insider or concentrated ownership, where dominant individuals may exploit their control for personal gain. These ownership dynamics are especially critical in financial services firms, where decision-making risks have far-reaching consequences. Within the framework of Agency Theory, corporate risk management functions as a critical control mechanism to align managerial behaviour with shareholder and stakeholder interests. It imposes checks on managerial discretion, improves transparency, and reduces the potential for opportunism. This study draws on Agency Theory to support the argument that risk management can moderate the effects of ownership structures whether insider-driven or concentrated by limiting agency problems and ensuring that firm value is safeguarded through disciplined governance and risk-sensitive decision-making.

2.3.2 Stakeholder Theory

Stakeholder theory was proposed by Edward Freeman in 1984, the study argues that firms have responsibilities not only to shareholders but also to a broader network of stakeholders, including regulators, employees, customers, creditors, and the community. This theory suggests that organizational success and firm value are best achieved when the interests of these diverse groups are balanced and protected through inclusive governance practices. In the context of Nigeria's financial services sector, which is characterized by regulatory complexity, market volatility, and systemic importance, Stakeholder Theory provides a valuable framework for understanding how ownership structure and corporate risk management can influence firm value beyond the narrow focus on shareholders. Ownership structures such as insider ownership and concentrated shareholding have direct implications for stakeholder trust, regulatory compliance, and public confidence. While insider ownership may align management with shareholder interests, it can also lead to managerial entrenchment, reduced transparency, and neglect of other stakeholders. Similarly, concentrated ownership may facilitate strategic control but risks marginalizing minority investors and the broader public interest. In such contexts, corporate risk management serves as a stakeholder-oriented governance mechanism, ensuring that firms proactively manage systemic risks, uphold transparency, and protect both internal and external stakeholders from adverse outcomes. Firms with robust risk frameworks are more likely to gain the confidence of regulators and long-term investors, thereby enhancing firm value.

Stakeholder theory is adopted as the underpinning theory of this study because it directly connects the three core variables of interest ownership structure, corporate risk management, and firm value through a broader governance perspective. It provides a holistic justification for why corporate risk management should serve not merely as an internal control tool but as a strategic moderating mechanism that aligns ownership-driven decisions with stakeholder expectations. In Nigeria's high-risk financial services environment, where institutions carry systemic weight and public accountability, Stakeholder Theory offers the most fitting theoretical foundation to explain how balanced ownership and proactive risk management collectively influence firm value.

METHODOLOGY

This study adopts a longitudinal research design, utilizing panel data analysis to examine the moderating effect of corporate risk management on the relationship between insider ownership, concentrated ownership structure, and firm value among listed financial services firms in Nigeria. The longitudinal design is particularly suited for this study as it captures temporal dynamics, allowing for a robust evaluation of how changes in ownership structures and corporate risk governance practices affect firm value over time. By focusing on a 15-year period

from 2010 to 2024, this design enhances the reliability and depth of the analysis and reflects evolving regulatory, economic, and market conditions in Nigeria's financial sector. The population for the study comprises all 45 financial services firms listed on the Nigerian Exchange Group (NGX) as of December 31, 2024. A purposive sampling technique was applied, resulting in a sample of 24 financial service firms that met specific criteria:

1. Continuous listing and active trading status during the study period;
2. Availability of consistent annual financial reports from 2010 to 2024; and
3. Absence of delisting or prolonged suspension throughout the period.

The extended timeframe begins in 2010 to ensure the effects of the 2007–2009 global financial crisis is accounted for and to align the analysis with Nigeria's post-crisis regulatory developments and financial reforms. Secondary panel data was collected from the annual reports and audited financial statements of the selected firms, encompassing both cross-sectional and time-series observations. Panel data enables the study to control for unobserved firm-specific heterogeneity, thereby improving estimation accuracy. The statistical analysis is conducted using E-Views version 12 software.

Adopted Model

This study adapts and extends the model developed by Dabari and Liuraman (2022)**,** with modifications to reflect the interaction between ownership structure and corporate risk management within the Nigerian financial services context.

$$\mathbf{TR = \beta 0 + \beta_1 MAOit + \beta_2 BHOOit + \beta_3 FOOit + \varepsilon it} \text{ ----------(i)}$$

Direct Effect (Model)

$$\mathbf{TQ_{it} = \beta 0 + \beta_1 PIOit + \beta_2 COOPit + \beta_3 FLit + \varepsilon it} \text{.....(ii)}$$

Moderating Effect (Model)

$$\mathbf{TQ_{it} = \beta 0 + \beta_1 PIO{*}CRMit + \beta_2 COOP{*}CRMit + FLit + it} \text{..... (iii)}$$

Where:

TQ = Tobin Q Ratio (proxy for Firm Value)

PIO = Percentage of Insider Ownership

COOP = Concentrated Ownership Percentage

CRM = Corporate Risk Management (moderating variable)

PIO*CRM = Percentage of insider ownership interacting with corporate risk management

COOP*CRM = Concentrated ownership percentage interacting with corporate risk management

FL = Firm Leverage (control variable)

$\beta 0$ = Intercept

$\beta 1 – \beta 3$ = Slope Coefficients

ε = Error term

i = Cross-sectional unit (firm)

t = Time period (year)

Table 3.1: Measurements of Variables

Variables	Measurement	Source
Tobin's Q Ratio (TQ) (Dependent Variable)	(Market Value of Equity + Book Value of Debt) / Total Assets	Bayero, (2018)
Percentage of Insider Ownership (PIO) (Independent Variable)	(Shares Owned by Insiders / Total Outstanding Shares) × 100	Aondoakaa & Joseph, 2020
Concentrated Ownership Percentage (COOP) (Independent Variable)	(Shares Held by Largest Shareholders / Total Outstanding Shares) × 100	Onyali *et al.* (2024)
Corporate Risk Management (CRM) (Moderating Variable)	Value at Risk (VaR) = $Z \times \sigma \times \sqrt{t}$	Taleatu *et al.*, 2020
Firm Leverage (Control Variable)	Total debts divided by total capital	Sunday et al (2019)

Source: Researcher's Compilation (2025)

Table 3.2: A Priori Expectation

Variable	Description	Direct Effect Sign	Moderator	Reasoning
PIO	Percentage of Insider Ownership	Positive (+)	Positive (+)	Higher insider ownership can align management and shareholder interests, leading to better decision-making and improved firm value.
COOP	Concentrated Ownership Percentage	Positive (+)	Positive (+)	Concentrated ownership provides greater control and monitoring power for large shareholders, potentially leading to improved governance and firm value.
FL	Firm Leverage (Control Variable)	Negative (-)	Negative (-)	Higher leverage increases financial risk and obligations, potentially reducing firm value if not effectively managed.
PIO*CRM	Interaction of PIO with Corporate Risk Management	Positive (+)	Positive (+)	Corporate risk management amplifies the positive impact of insider ownership on firm value by minimizing risks and enhancing managerial effectiveness.
COOP*CRM	Interaction of COOP with Corporate Risk Management	Positive (+)	Positive (+)	Effective risk management strengthens the positive effects of concentrated ownership by reducing risks and ensuring better long-term performance.

Source: Researcher's Compilation

RESULT AND DISCUSSION

4.1.1 Descriptive Statistics

In order to have a glimpse of the data used in the study, a first pass at the data in the form of descriptive statistics was carried out. This gives us a good idea of the patterns in the data used for the analysis. The summary statistics is presented in Table 3.

Table 3: Descriptive Analysis Result

	TQ	IOP	COOP	FL
Mean	0.257183	34.99618	19.78880	0.567257
Median	0.216000	37.68610	19.77025	0.598527
Maximum	0.979000	63.05819	24.97934	0.898875

Minimum	0.006000	0.028105	15.04940	0.040000
Std. Dev.	0.201924	17.84370	2.954190	0.211293
Skewness	1.406484	-0.268108	0.057228	-0.573524
Kurtosis	5.054730	1.822121	1.744527	2.678616
Jarque-Bera	182.0205	25.12389	23.83968	21.28509
Probability	0.000000	0.000004	0.000007	0.000024
Sum	92.58600	12598.62	7123.968	204.2127
Sum Sq. Dev.	14.63762	114304.8	3133.079	16.02748
Observations	360	360	360	360

Source: E-View 12 Output (2025)

The descriptive statistics table above provides a detailed summary of the variables used in this study: Tobin's Q (TQ)**,** Insider Ownership Percentage (IOP)**,** Concentrated Ownership Percentage (COOP)**,** and Firm Leverage (FL), each representing critical components of firm value and governance structure. The mean values suggest that, on average, firms have a Tobin's Q ratio of 0.257, indicating that the market value of firms is less than their asset value. Insider ownership Percentage **(**IOP**)** has a mean of 34.996%, suggesting that a significant portion of the firm's shares are held by insiders. Concentrated Ownership Percentage (COP) is somewhat lower on average at 19.79%, implying that a smaller proportion of firms have highly concentrated ownership structures. The mean Firm Leverage (FL) of 0.567 suggests that, on average, firms in the sample rely on a moderate amount of debt relative to their total capital. The standard deviations for all variables show a relatively high degree of variability, particularly for IOP (17.843), indicating significant dispersion around the mean, while COOP and FL have relatively lower variability, suggesting more stable ownership and leverage structures.

The skewness values reveal that the distributions of TQ**,** IOP, and FL are positively skewed, meaning that the majority of observations are clustered on the lower end of the scale, with a tail stretching towards higher values. In contrast, COOP exhibits a slight negative skew, suggesting that the majority of firms in the sample have concentrated ownership structures, with fewer firms having very low concentration levels. The kurtosis values for all variables indicate distributions that are either **l**eptokurtic or approximately normal**,** particularly for TQ and IOP, with high peaks around the mean. However, IOP and COOP exhibit platykurtic distributions, implying less extreme outliers. Jarque-Bera statistics further support these findings, with all variables showing statistically significant probabilities ($p < 0.05$), indicating that the null hypothesis of normality is rejected for each variable. This suggests the need for careful consideration of non-normality in subsequent analysis. These findings emphasize the heterogeneity and structural dynamics in the ownership and governance of firms, and they provide critical insights into the relationship between these factors and firm value.

4.1.2 Correlation Analysis

According to Gujarati (2004), a correlation coefficient between two independent variables of 0.80 is considered excessive, and thus certain measures are required to correct that anomaly in the data.

Table 4: Correlation Analysis Result

Covariance Analysis: Ordinary					
Date: 06/13/25 Time: 13:14					
Sample: 2010 2024					
Included observations: 360					
Correlation					
Probability	TQ	IOP	COOP	FL	
TQ	1.000000				

IOP	0.062605	1.000000			
	0.2361	-----			

COOP	0.061967	0.020469	1.000000		
	0.2409	0.6987	-----		
FL	0.149046	-0.103260	-0.157626	1.000000	
	0.0046	0.0503	0.0027	-----	

Source: E-View 12 Output (2025)

The correlation matrix reveals the relationship between the dependent variable, Tobin's Q (TQ), and the independent variables: Insider Ownership Percentage (IOP), Concentrated Ownership Percentage (COOP), and Firm Leverage (FL). The correlation between TQ and IOP is positive (0.0626) but weak and statistically insignificant (p-value = 0.2361), suggesting that insider ownership has a minimal, almost negligible relationship with firm value. Similarly, the correlation between TQ and COOP is also positive (0.0620), but again, it is weak and statistically insignificant (p-value = 0.2409), indicating that concentrated ownership does not have a substantial impact on firm value. The correlation between TQ and FL is more pronounced at 0.1490, with a statistically significant p-value of 0.0046, suggesting that firm leverage has a more meaningful, although still moderate, positive relationship with firm value. The correlations between the independent variables themselves reveal interesting insights. IOP and COOP have a very weak positive correlation of 0.0205 (p-value = 0.6987), suggesting that insider ownership and concentrated ownership are largely independent of each other in this sample. There is a moderate negative correlation between COOP and FL (-0.1576, p-value = 0.0027), implying that firms with more concentrated ownership tend to have lower levels of leverage. However, these correlations, while statistically significant in some cases, are generally weak, indicating that ownership structure and firm leverage alone may not fully explain variations in firm value (TQ) within this dataset. This suggests that additional factors could be influencing firm performance, which should be explored in further analyses.

Multicollinearity Test (VIF)

Conducting multicollinearity tests is essential to determine if there is a strong inter-correlation among independent variables that could lead to erroneous results.

***Decision rule**: uncentered VIF less than 10 indicates the absence of multi-collinearity, while VIF uncentered over 10 is a sign of multi-collinearity.

Table 5: Multicollinearity Test (VIF)

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	2.736727	6.46632	NA
IOP	32.71984	9.30433	1.678339
COOP	67.37493	9.63298	1.856394
FL	54.14774	9.78743	1.877691

Source: E-View 12 Output (2025)

As noted above, the law of multicollinearity test rule uses a variance inflation factor that VIF centered below indicates the absence of multicollinearity, while VIF uncentered over 10 indicates the presence of multicollinearity. Table 5 above shows the absence of multicollinearity between independent variables, as all independent variables (IOP, COOP, and FL) have less than 10 VIF centered.

Heteroskedasticity

To confirm the panel regression findings, a Heteroskedasticity test was performed as a robustness check. Heteroskedasticity occurs when the variability of a variable's standard errors changes over a given period. Heteroskedasticity disrupts the assumptions for linear regression modeling, affecting the validity of analysis results. While it doesn't introduce bias in coefficient estimates, it does decrease their precision, increasing the probability that estimates are further from the actual population value. The hypothesis is presented below;

Hypothesis

Ho: There is no heteroskedasticity problem in the model (Residuals are homoskedastic)

H_1: There is heteroskedasticity problem in the model

Decision Rule: If the Prob. value is greater than 0.05 (5% level of significant) reject null hypothesis if otherwise, do not reject null.

Table 6: Heteroskedasticity Test

Panel Cross-section Heteroskedasticity LR Test				
Equation: UNTITLED				
Specification: TQ C PIO COO FL				
Null hypothesis: Residuals are homoscedastic				
	Value	df	Probability	
Likelihood ratio	20.39163	24	0.0950	
LR test summary:				
	Value	df		
Restricted LogL	70.37017	356		
Unrestricted LogL	170.5683	356		

Source: E-View 12 Output (2025)

The results of the panel cross-section Heteroskedasticity regression test was displayed in Table 6. The decision criteria for the panel cross-section test for Heteroskedasticity is as follows:

The test's null hypothesis asserts the absence of Heteroskedasticity, while the alternate hypothesis claims the presence of Heteroskedasticity. If the P value exceeds 5% level of significance, the null hypothesis should not be rejected. Based on the findings in table 6, with a ratio value of 20.39163 and a probability value of 0.0950 exceeding 5%, the research concludes that the null hypothesis should be rejected in favour of the alternative hypothesis indicating the presence of conditional Heteroskedasticity issue. Due to the diagnostic probability of 0.0950 the null hypothesis is accepted, showing no conditional heteroskedasticity, which means residuals are homoskedastic and samples accurately represent the population.

Hausman test

The Hausman test is a test for model specification in panel data analysis and this test is employed to choose between fixed effects model and the random effects model. Due to the panel nature of the data set utilized in this study, both fixed effect and random effect regressions were run (as shown in appendix). Thus, the decision rule for the Hausman specification test is stated thus; at 5% Level of significance:

H_0: Random effect is more appropriate for the Panel Regression analysis

H_1: Fixed effect is more appropriate for the Panel Regression analysis

As encapsulated above, if the p-value is greater than 0.05 the decision rule is to reject the null hypothesis which states that fixed effect is more appropriate for the Panel Regression analysis (meaning that the preferred model is random effects). Similarly, if the p-value is less than 0.05 the decision rule is to reject the null hypothesis which states that fixed effect is more appropriate for the Panel Regression analysis (meaning that the random effect model is to be rejected).

Table 7: Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.264964	3	0.7375

Source: E-View 12 Output (2025)

The Hausman test result presented in Table 7 shows a Chi-Square statistic of 1.264964 with 3 degrees of freedom and a p-value of 0.7375. This high p-value indicates that the null hypothesis, which posits that the Random Effects (RE) model is more appropriate than the Fixed Effects (FE) model, cannot be rejected. Therefore, the Random Effects model is preferred in this context, as there is no significant evidence that the individual effects are correlated with the regressors, suggesting that the RE model would provide more efficient and consistent estimates. Given that the Random Effects model is preferred, there is still a need to conduct the Breusch-Pagan Lagrange Multiplier (LM) test to determine whether the Random Effects model is indeed necessary.

Langranger Multiplier Test (test between random and pooled)

The Langrange Multiplier (LM) test, also known as the Breusch-Pagan test in the context of random effects models, is a statistical test used to determine whether a random effects model is more appropriate than a pooled ordinary least squares (OLS) regression model for panel data analysis. The test examines the presence of random effects by assessing if the variance of the random error components is significantly different from zero, which would indicate that the random effects model should be preferred over the pooled OLS model due to unobserved heterogeneity across entities.

Table 8: Breusch-Pagan Langranger Multiplier Test

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: Untitled			
Periods included: 15			
Cross-sections included: 24			
Total panel observations: 360			
Note: non-zero cross-section means detected in data			
Cross-section means were removed during computation of correlations			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	551.5566	276	0.0000
Pesaran scaled LM	11.72847		0.0000
Pesaran CD	2.666563		0.0077

Source: E-View 12 Output (2025*)*

The Breusch-Pagan Lagrange Multiplier (LM) test presented in Table 8 assesses whether a Random Effects model is more appropriate than Pooled OLS by testing for cross-sectional dependence in the residuals. With a test statistic of 551.5566 and a p-value of 0.0000 (below the 0.05 significance threshold), the null hypothesis of no cross-sectional dependence is rejected. This result suggests that unobserved effects vary significantly across entities, making the Random Effects model more suitable than Pooled OLS for this panel data. Accounting for these random effects allows the model to capture entity-specific variations, yielding more accurate and efficient estimates for the analysis.

4.2 Research Hypotheses

Table 9: Panel Regression Result (Direct Model)

Dependent Variable: TQ				
Method: Panel EGLS (Cross-section random effects)				
Date: 06/27/25 Time: 11:12				
Sample: 2010 2024				
Periods included: 15				
Cross-sections included: 24				
Total panel (balanced) observations: 360				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.317029	0.084031	3.772760	0.0002
IOP	0.000765	0.000517	1.478650	0.1401
COOP	0.003320	0.003166	1.048438	0.2951
FL	0.057494	0.063025	0.912231	0.3623
	Effects Specification			
			S.D.	Rho
Cross-section random			0.116294	0.3226
Idiosyncratic random			0.168534	0.6774
	Weighted Statistics			
Root MSE	0.517189	R-squared		0.613400
Mean dependent var	2.090135	Adjusted R-squared		0.585086
S.D. dependent var	1.168553	S.E. of regression		0.168122
Sum squared resid	10.46231	F-statistic		11.61171
Durbin-Watson stat	1.877747	Prob(F-statistic)		0.000000

Source: E-View 12 Output (2025)

The results from the Panel EGLS (Cross-section random effects) regression model provide insights into the relationship between Tobin's Q (TQ) and the independent variables: Percentage of Insider Ownership (IOP), Concentrated Ownership Percentage (COOP), and Firm Leverage (FL). The model, which uses data from 2010 to 2024 and consists of 360 observations from 24 cross-sections, aims to understand the factors influencing firm value in Nigerian financial services firms. The constant term (C) has a coefficient of 0.3170, with a p-value of 0.0002, making it statistically significant. This indicates that when all the independent variables are set to zero, the expected value of TQ is 0.3170, representing the baseline firm value. This significance highlights the importance of the constant term in setting the foundation for the relationship between the independent variables and TQ.

Regarding the independent variables, Percentage of Insider Ownership (IOP) has a positive coefficient of 0.000765, but with a p-value of 0.1401, it is not statistically significant at conventional levels (e.g., 0.05). This suggests that the proportion of insider ownership does not significantly impact Tobin's Q in Nigerian financial services firms, implying that insider ownership might not influence firm value in this context. Similarly, Concentrated Ownership Percentage (COOP) has a coefficient of 0.003320 and a p-value of 0.2951, which also indicates a lack of statistical significance. This suggests that concentrated ownership does not have a meaningful effect on firm value either. Lastly, Firm Leverage (FL) has a positive coefficient of 0.057494, with a p-value of 0.3623, suggesting that leverage is also not significantly related to Tobin's Q in this study. The overall model fit is moderate, with an R-squared of 0.6134, indicating that approximately 61.34% of the variation in TQ is explained by the model. However, the Adjusted R-squared value of 0.5851 suggests that a substantial portion of the variation remains unexplained after accounting for the number of predictors. This points to the possibility that other unobserved factors could be influencing firm value. The F-statistic of 11.6117, with a p-value of 0.000000, indicates that the model is statistically significant overall, suggesting that the independent variables,

collectively, do explain a portion of the variation in TQ, even if their individual effects are not statistically significant.

The Durbin-Watson statistic of 1.8777 suggests no serious issue with autocorrelation in the residuals, as it is close to the ideal value of 2. This confirms that the residuals are independent of each other, providing confidence in the validity of the regression results. The component variance analysis shows that the cross-sectional random effect variance is 0.116294, and the idiosyncratic random effect variance is 0.168534, with the Rho value of 0.3226. This means that 32.26% of the total variance in TQ is explained by differences across the firms (cross-sectional effect), while the remaining 67.74% is due to individual firm-specific factors. In essence, the results suggest that the variables examined in the model, namely Insider Ownership, Concentrated Ownership, and Firm Leverage, do not significantly affect Tobin's Q in the context of Nigerian financial services firms. Despite the model's moderate explanatory power, much of the variation in TQ remains unexplained, indicating that there may be other unobserved factors influencing firm value. Future research should consider exploring additional variables, such as corporate governance quality, market conditions, or external economic factors, to better understand the drivers of firm performance in Nigeria's financial services sector.

Table 10: Panel Regression Result Moderating Model (Radom Effect)

Dependent Variable: TQ				
Method: Panel EGLS (Cross-section random effects)				
Date: 06/13/25 Time: 13:48				
Sample: 2010 2024				
Periods included: 15				
Cross-sections included: 24				
Total panel (balanced) observations: 360				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.312478	0.083485	3.742930	0.0002
IOP	0.000878	0.000658	1.333908	0.1831
COOP	0.002543	0.003271	0.777576	0.4373
COOP_CRM	0.001277	0.001541	3.828756	0.0078
IOP_CRM	0.000127	0.001033	2.122533	0.0325
FL	0.060696	0.062487	0.971346	0.3320
	Effects Specification			
			S.D.	Rho
Cross-section random			0.108852	0.2940
Idiosyncratic random			0.168689	0.7060
	Weighted Statistics			
Root MSE	0.93842	R-squared		0.638321
Mean dependent var	0.039434	Adjusted R-squared		0.605110
S.D. dependent var	0.288944	S.E. of regression		0.465884
Sum squared resid	11.74832	F-statistic		15.36821
Durbin-Watson stat	1.902734	Prob(F-statistic)		0.000000

Source: E-View 12 Output (2025)

The constant term (C) in the regression is statistically significant with a coefficient of 0.312478 and a p-value of 0.0002. This suggests that when all other variables are held constant, the baseline value of Tobin's Q (TQ) is positive and statistically significant, indicating a solid starting point for the model. For the individual ownership variables, the Percentage of Insider Ownership (IOP) and Concentrated Ownership (COOP) show no significant relationship with firm value. The coefficient for IOP is 0.000878, with a p-value of 0.1831, which is greater than the typical threshold of 0.05, suggesting that insider ownership does not significantly affect firm value in this context. Similarly, COOP has a coefficient of 0.002543 with a p-value of 0.4373, also indicating that concentrated ownership does not have a meaningful impact on firm value. However, when looking at the

interaction terms, we see significant effects. The interaction between Concentrated Ownership and Corporate Risk Management (COOP_CRM) is statistically significant, with a coefficient of 0.001277 and a p-value of 0.0078. This indicates that corporate risk management positively moderates the relationship between concentrated ownership and firm value. In other words, effective risk management enhances the positive influence that concentrated ownership has on the value of the firm. Similarly, the interaction term Insider Ownership and Corporate Risk Management (PIO_CRM) has a significant coefficient of 0.000127 and a p-value of 0.0325, suggesting that corporate risk management also strengthens the positive effect of insider ownership on firm value.

The Firm Leverage (FL) variable, on the other hand, shows no statistically significant effect on firm value. The coefficient for FL is 0.060696 with a p-value of 0.3320, suggesting that leverage does not play a significant role in explaining variations in Tobin's Q in this model. Regarding the overall model fit, the R-squared value of 0.6383 indicates that approximately 63.83% of the variation in TQ is explained by the included variables. The Adjusted R-squared value of 0.6051 further confirms that the model is a moderately good fit, and the inclusion of explanatory variables adds value in explaining the dependent variable. The F-statistic of 15.36821 with a p-value of 0.0000 indicates that the overall model is statistically significant, suggesting that at least some of the variables contribute meaningfully to explaining firm value. Lastly, the Durbin-Watson statistic of 1.9027 suggests no significant autocorrelation in the residuals, which supports the validity of the model and its assumptions.

DISCUSSION OF FINDINGS

The results of the Panel EGLS regression model indicate that the individual ownership variables Percentage of Insider Ownership (PIO) and Concentrated Ownership Percentage (COOP) do not significantly influence firm value (Tobin's Q). This finding suggests that ownership structure, in isolation, does not play a significant role in determining the financial performance of Nigerian financial services firms. This outcome aligns with previous studies that suggest the complexity of ownership structure might not directly translate into improved firm value without considering other crucial factors (Yusuf & Okpe, 2024). For instance, while concentrated ownership is often associated with enhanced control and monitoring, the lack of significance in this context could be indicative of the unique challenges faced by Nigerian firms, such as political instability and economic volatility, which might overshadow the direct influence of ownership structure (Onyali *et al.*, 2024). However, the significant moderating role of Corporate Risk Management (CRM) in the relationship between ownership structure and firm value stands out as a crucial finding. The interaction effects of COOP and PIO with CRM reveal that corporate risk management plays a vital role in enhancing the impact of both concentrated and insider ownership on firm value. These results align with the Stakeholder Theory**,** which emphasizes the need for corporate governance mechanisms that balance the interests of various stakeholders, including shareholders, employees, and regulators. Stakeholder Theory posits that firms that adopt effective risk management strategies are better positioned to protect stakeholder interests and, as a result, improve their overall market performance. Empirical evidence suggests that firms with strong risk management practices are able to weather external shocks more effectively, leading to more sustainable financial outcomes (Yahaya & Omotola, 2024). This finding reinforces the idea that effective risk management practices are essential in mitigating the risks inherent in ownership structures, particularly in a volatile environment such as Nigeria's financial services sector.

The lack of significance in the direct relationship between ownership structure (PIO and COOP) and firm value was unexpected. While previous literature suggests that concentrated ownership should lead to improved firm value through better monitoring and decision-making, this study suggests that these ownership structures alone do not have the anticipated impact on performance. One possible reason for this discrepancy could be external factors, such as political instability and economic volatility, which may override the influence of ownership structure in Nigeria's financial services sector. In such an environment, ownership structures may not be enough to counteract the broader challenges faced by firms, including regulatory uncertainty and market instability. Additionally, poor corporate governance and managerial entrenchment may diminish the potential benefits of concentrated ownership. Nigerian firms may struggle to fully capitalize on the advantages of concentrated ownership due to issues like lack of transparency and ineffective oversight, which are particularly common in emerging markets.

Additionally, the interaction of Corporate Risk Management (CRM) with both IOP and COOP shows a positive moderating effect, supporting the a priori expectation that ownership structures aligned with strong governance and risk management frameworks would result in higher firm value. This observation is consistent with the view that risk management strategies enhance the benefits of concentrated or insider ownership by reducing uncertainty and creating a more stable operational environment. Such findings are in line with studies by Sunday et al. (2025) and Yusuf and Okpe (2024), which highlight the role of corporate governance and risk management as critical mechanisms in improving firm performance, especially in industries exposed to external risks. For example, Nigerian financial institutions with concentrated ownership could benefit from enhanced monitoring, but only if coupled with strong risk management frameworks that address systemic risks, economic instability, and regulatory challenges (Agara & Stainbank, 2023). The statistical significance of the moderating effect of CRM in this study supports the argument that ownership structure alone is insufficient to drive firm value in the Nigerian financial services context. The findings suggest that while ownership concentration or insider ownership might have some influence, it is the incorporation of corporate risk management strategies that truly enhances the relationship between ownership structure and firm value. This is a significant contribution to the literature, as it aligns with the Stakeholder Theory, which advocates for comprehensive governance mechanisms that include risk management as a means to protect all stakeholders and enhance firm performance. In this regard, financial institutions in Nigeria should not solely focus on ownership structure but also integrate robust risk management strategies into their governance frameworks to increase firm value and ensure long-term sustainability.

CONCLUSION

This study has highlighted the significant moderating role of corporate risk management (CRM) in the relationship between ownership structure and firm value in Nigerian financial services firms. While individual ownership structures such as insider and concentrated ownership did not have a direct influence on firm value, the presence of strong risk management practices enhanced the positive effects of these ownership structures on firm performance. This finding underscores the importance of integrating effective governance frameworks that include risk management strategies to improve firm stability and long-term value, particularly in volatile and uncertain environments like Nigeria's financial services sector.

RECOMMENDATIONS

1. Nigerian financial institutions should prioritize the implementation of comprehensive corporate risk management frameworks that are aligned with their ownership structures, particularly concentrated and insider ownership models. These frameworks should include mechanisms for managing both systemic and firm-specific risks, such as market volatility and regulatory changes, to improve stakeholder confidence and enhance firm value.
2. Regulators and policymakers in Nigeria should consider incentivizing financial institutions to adopt integrated governance practices that combine ownership structure with risk management strategies. By creating policies that encourage the adoption of best practices in risk management, regulators can help stabilize the sector, attract foreign investment, and foster long-term economic growth.

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APPENDIX

Data Presentation

Year	ID	FIRM	TQ	IOP	COOP	CRM	FL	IOP*CRM	COO*CRM
2010	1	Abbey Mortgage Plc	0.191	49.978	17.921	0.107	0.07	5.371	1.926
2011	1	Abbey Mortgage Plc	0.17	36.898	16.997	0.089	0.062	3.278	1.510
2012	1	Abbey Mortgage Plc	0.157	49.850	21.075	0.320	0.067	15.963	6.749
2013	1	Abbey Mortgage Plc	0.167	27.578	24.656	0.412	0.233	11.351	10.149
2014	1	Abbey Mortgage Plc	0.737	23.081	21.842	0.599	0.242	13.815	13.074
2015	1	Abbey Mortgage Plc	0.72	22.339	15.344	0.091	0.279	2.025	1.391
2016	1	Abbey Mortgage Plc	0.157	27.574	18.117	0.287	0.278	7.920	5.204
2017	1	Abbey Mortgage Plc	0.149	44.669	24.696	0.735	0.209	32.831	18.151
2018	1	Abbey Mortgage Plc	0.227	57.982	20.979	0.043	0.179	2.468	0.893
2019	1	Abbey Mortgage Plc	0.237	10.293	15.452	0.867	0.204	8.925	13.398
2020	1	Abbey Mortgage Plc	0.281	27.194	23.287	0.079	0.271	2.148	1.839
2021	1	Abbey Mortgage Plc	0.235	19.960	16.409	0.034	0.245	0.669	0.550
2022	1	Abbey Mortgage Plc	0.078	16.328	22.722	0.845	0.255	13.792	19.193
2023	1	Abbey Mortgage Plc	0.083	25.566	22.069	0.515	0.252	13.160	11.360
2024	1	Abbey Mortgage Plc	0.058	56.063	18.585	0.244	0.258	13.693	4.539
2010	2	Access Holding Plc	0.08	56.343	18.309	0.041	0.264	2.289	0.744
2011	2	Access Holding Plc	0.062	27.367	22.296	0.014	0.274	0.394	0.321
2012	2	Access Holding Plc	0.056	60.488	16.196	0.647	0.265	39.159	10.485
2013	2	Access Holding Plc	0.044	43.804	22.710	0.135	0.257	5.899	3.058
2014	2	Access Holding Plc	0.21	48.917	15.254	0.394	0.28	19.269	6.009
2015	2	Access Holding Plc	0.121	24.122	18.144	0.175	0.3	4.213	3.169
2016	2	Access Holding Plc	0.441	58.129	19.104	0.556	0.266	32.333	10.626
2017	2	Access Holding Plc	0.207	12.242	17.898	0.508	0.282	6.224	9.099
2018	2	Access Holding Plc	0.218	59.407	21.334	0.839	0.04	49.839	17.898
2019	2	Access Holding Plc	0.223	50.733	23.926	0.213	0.058	10.820	5.103
2020	2	Access Holding Plc	0.222	58.386	18.180	0.190	0.06	11.084	3.451
2021	2	Access Holding Plc	0.204	13.754	23.180	0.336	0.069	4.625	7.794
2022	2	Access Holding Plc	0.185	22.400	19.174	0.740	0.057	16.581	14.193
2023	2	Access Holding Plc	0.2	12.585	24.429	0.410	0.045	5.162	10.021
2024	2	Access Holding Plc	0.197	42.971	18.636	0.164	0.044	7.038	3.052
2010	3	Aiico Insurance Plc	0.191	61.115	19.972	0.294	0.051	17.966	5.871
2011	3	Aiico Insurance Plc	0.17	28.039	21.096	0.590	0.058	16.540	12.444
2012	3	Aiico Insurance Plc	0.008	2.089	24.083	0.065	0.048	0.135	1.557

2013	3	Aiico Insurance Plc	0.007	2.527	24.857	0.273	0.182	0.689	6.777
2014	3	Aiico Insurance Plc	0.027	52.499	17.376	0.074	0.294	3.901	1.291
2015	3	Aiico Insurance Plc	0.052	22.274	21.335	0.136	0.329	3.020	2.893
2016	3	Aiico Insurance Plc	0.071	8.136	18.208	0.086	0.338	0.702	1.572
2017	3	Aiico Insurance Plc	0.077	25.097	21.776	0.066	0.372	1.663	1.443
2018	3	Aiico Insurance Plc	0.06	38.915	21.452	0.051	0.31	1.991	1.098
2019	3	Aiico Insurance Plc	0.051	54.311	24.367	0.112	0.251	6.059	2.719
2020	3	Aiico Insurance Plc	0.045	30.721	24.247	0.062	0.25	1.904	1.503
2021	3	Aiico Insurance Plc	0.135	22.112	23.172	0.115	0.303	2.534	2.656
2022	3	Aiico Insurance Plc	0.172	44.725	15.931	0.136	0.228	6.076	2.164
2023	3	Aiico Insurance Plc	0.244	58.912	18.390	0.608	0.246	35.846	11.190
2024	3	Aiico Insurance Plc	0.21	49.696	23.871	0.021	0.242	1.049	0.504
2010	4	African Alliance Plc	0.117	39.265	16.616	0.117	0.231	4.584	1.940
2011	4	African Alliance Plc	0.035	44.488	16.015	0.212	0.25	9.442	3.399
2012	4	African Alliance Plc	0.012	28.467	20.487	0.150	0.247	4.268	3.071
2013	4	African Alliance Plc	0.021	42.752	22.122	0.069	0.187	2.934	1.518
2014	4	African Alliance Plc	0.027	22.278	21.496	0.335	0.188	7.462	7.200
2015	4	African Alliance Plc	0.034	41.278	15.937	0.436	0.222	18.004	6.951
2016	4	African Alliance Plc	0.321	30.851	24.730	0.748	0.224	23.075	18.497
2017	4	African Alliance Plc	0.331	62.318	22.948	0.033	0.13	2.066	0.761
2018	4	African Alliance Plc	0.421	40.224	16.952	0.053	0.207	2.147	0.905
2019	4	African Alliance Plc	0.251	23.829	21.455	0.145	0.218	3.466	3.121
2020	4	African Alliance Plc	0.217	59.314	24.149	0.076	0.223	4.498	1.831
2021	4	African Alliance Plc	0.184	33.424	19.282	0.136	0.222	4.533	2.615
2022	4	African Alliance Plc	0.163	53.790	17.944	0.113	0.204	6.066	2.024
2023	4	African Alliance Plc	0.312	58.016	16.695	0.592	0.185	34.362	9.888
2024	4	African Alliance Plc	0.398	51.807	20.701	0.221	0.2	11.443	4.572
2010	5	Corrolation Insurance	0.371	47.300	16.401	0.042	0.197	2.000	0.694
2011	5	Corrolation Insurance	0.197	49.934	21.970	0.441	0.498	22.000	9.679
2012	5	Corrolation Insurance	0.677	37.480	23.094	0.196	0.463	7.329	4.516
2013	5	Corrolation Insurance	0.512	53.450	20.113	0.101	0.882	5.418	2.039
2014	5	Corrolation Insurance	0.439	50.150	22.020	0.067	0.454	3.385	1.486
2015	5	Corrolation Insurance	0.025	55.004	18.756	0.069	0.639	3.777	1.288
2016	5	Corrolation Insurance	0.352	47.702	19.656	0.052	0.693	2.491	1.026
2017	5	Corrolation Insurance	0.439	25.866	15.305	0.577	0.671	14.917	8.827
2018	5	Corrolation Insurance	0.708	48.404	16.271	0.182	0.443	8.809	2.961
2019	5	Corrolation Insurance	0.806	57.546	21.229	0.901	0.429	51.822	19.117

2020	5	Corrolation Insurance	0.813	12.896	20.406	0.627	0.453	8.081	12.786
2021	5	Corrolation Insurance	0.82	43.680	20.163	0.101	0.693	4.414	2.038
2022	5	Corrolation Insurance	0.512	52.385	19.390	0.411	0.672	21.517	7.964
2023	5	Corrolation Insurance	0.58	16.294	23.360	0.747	0.517	12.168	17.444
2024	5	Corrolation Insurance	0.034	42.130	16.564	0.460	0.719	19.369	7.615
2010	6	Deapcap Plc	0.142	33.312	21.602	0.117	0.810	3.884	2.519
2011	6	Deapcap Plc	0.158	59.338	20.544	0.240	0.421	14.266	4.939
2012	6	Deapcap Plc	0.093	34.473	18.560	0.105	0.649	3.605	1.941
2013	6	Deapcap Plc	0.03	32.803	15.460	0.037	0.745	1.218	0.574
2014	6	Deapcap Plc	0.037	49.628	19.742	0.715	0.526	35.499	14.121
2015	6	Deapcap Plc	0.115	36.773	16.732	0.096	0.554	3.541	1.611
2016	6	Deapcap Plc	0.019	29.941	21.351	0.987	0.707	29.547	21.070
2017	6	Deapcap Plc	0.515	18.922	20.031	0.409	0.849	7.742	8.195
2018	6	Deapcap Plc	0.635	40.644	15.706	0.226	0.805	9.166	3.542
2019	6	Deapcap Plc	0.91	24.326	24.402	0.498	0.692	12.106	12.144
2020	6	Deapcap Plc	0.977	24.017	19.583	0.242	0.765	5.814	4.741
2021	6	Deapcap Plc	0.156	51.816	24.612	0.066	0.582	3.408	1.619
2022	6	Deapcap Plc	0.238	3.311	16.008	0.816	0.720	2.703	13.068
2023	6	Deapcap Plc	0.305	13.094	15.712	0.124	0.633	1.630	1.955
2024	6	Deapcap Plc	0.5	55.936	23.145	0.089	0.495	4.959	2.052
2010	7	Transactional Corporation	0.444	14.551	21.289	0.211	0.751	3.074	4.497
2011	7	Transactional Corporation	0.342	53.385	17.820	0.544	0.678	29.060	9.700
2012	7	Transactional Corporation	0.43	57.742	24.905	0.228	0.579	13.177	5.683
2013	7	Transactional Corporation	0.358	37.445	18.408	0.140	0.856	5.242	2.577
2014	7	Transactional Corporation	0.363	58.605	22.509	0.102	0.410	5.959	2.289
2015	7	Transactional Corporation	0.44	11.925	20.053	0.016	0.558	0.192	0.323
2016	7	Transactional Corporation	0.809	21.681	18.892	0.326	0.428	7.070	6.161
2017	7	Transactional Corporation	0.979	55.934	18.193	0.086	0.783	4.821	1.568
2018	7	Transactional Corporation	0.444	60.517	21.318	0.059	0.751	3.561	1.254
2019	7	Transactional Corporation	0.398	33.661	21.725	0.049	0.566	1.637	1.056
2020	7	Transactional Corporation	0.453	49.414	15.912	0.063	0.738	3.106	1.000
2021	7	Transactional Corporation	0.41	1.165	19.415	0.721	0.598	0.840	13.996
2022	7	Transactional Corporation	0.366	22.802	16.430	0.969	0.778	22.091	15.918
2023	7	Transactional Corporation	0.356	37.182	15.841	0.572	0.627	21.284	9.068
2024	7	Transactional Corporation	0.366	11.282	22.062	0.357	0.606	4.029	7.878
2010	8	Fidelity Bank	0.342	3.693	18.743	0.256	0.867	0.944	4.793
2011	8	Fidelity Bank	0.305	58.607	24.860	0.166	0.525	9.744	4.133

2012	8	Fidelity Bank	0.369	21.987	22.771	0.132	0.460	2.908	3.012
2013	8	Fidelity Bank	0.109	41.578	16.112	0.317	0.692	13.166	5.102
2014	8	Fidelity Bank	0.418	8.387	15.563	0.115	0.885	0.968	1.797
2015	8	Fidelity Bank	0.25	3.342	22.460	0.092	0.589	0.308	2.067
2016	8	Fidelity Bank	0.625	59.483	17.857	0.068	0.431	4.055	1.217
2017	8	Fidelity Bank	0.375	5.501	15.122	0.036	0.570	0.199	0.547
2018	8	Fidelity Bank	0.751	1.543	20.277	0.101	0.653	0.156	2.055
2019	8	Fidelity Bank	0.368	10.224	24.693	0.094	0.481	0.961	2.320
2020	8	Fidelity Bank	0.109	47.317	19.545	0.412	0.729	19.509	8.059
2021	8	Fidelity Bank	0.418	42.374	15.454	0.193	0.899	8.171	2.980
2022	8	Fidelity Bank	0.216	51.487	19.557	0.535	0.626	27.535	10.459
2023	8	Fidelity Bank	0.208	31.237	19.637	0.316	0.577	9.864	6.201
2024	8	Fidelity Bank	0.209	50.233	24.744	0.042	0.600	2.099	1.034
2010	9	Gold Link Insurance	0.271	51.436	18.095	0.428	0.458	22.013	7.744
2011	9	Gold Link Insurance	0.255	42.956	24.109	0.165	0.842	7.089	3.979
2012	9	Gold Link Insurance	0.206	54.925	21.134	0.142	0.607	7.822	3.010
2013	9	Gold Link Insurance	0.175	53.880	15.452	0.217	0.594	11.717	3.360
2014	9	Gold Link Insurance	0.179	36.672	24.873	0.795	0.730	29.151	19.771
2015	9	Gold Link Insurance	0.162	35.181	24.699	0.417	0.621	14.657	10.290
2016	9	Gold Link Insurance	0.142	50.042	19.148	0.274	0.724	13.731	5.254
2017	9	Gold Link Insurance	0.459	22.966	23.129	0.171	0.431	3.935	3.963
2018	9	Gold Link Insurance	0.328	55.603	22.690	0.164	0.807	9.119	3.721
2019	9	Gold Link Insurance	0.218	54.270	19.505	0.103	0.870	5.601	2.013
2020	9	Gold Link Insurance	0.241	42.464	17.286	1.955	0.724	83.002	33.788
2021	9	Gold Link Insurance	0.125	38.016	16.136	0.399	0.877	15.154	6.432
2022	9	Gold Link Insurance	0.17	31.243	20.202	0.176	0.476	5.498	3.555
2023	9	Gold Link Insurance	0.313	39.044	23.767	0.141	0.639	5.522	3.361
2024	9	Gold Link Insurance	0.248	7.934	22.551	2.179	0.701	17.285	49.131
2010	10	Guinea Insurance	0.224	44.233	16.364	0.070	0.691	3.076	1.138
2011	10	Guinea Insurance	0.182	27.680	18.922	0.264	0.601	7.298	4.989
2012	10	Guinea Insurance	0.084	56.906	20.140	1.296	0.569	73.743	26.099
2013	10	Guinea Insurance	0.104	39.368	23.624	0.267	0.463	10.514	6.309
2014	10	Guinea Insurance	0.069	1.307	19.921	0.025	0.596	0.033	0.496
2015	10	Guinea Insurance	0.051	31.782	19.926	0.463	0.481	14.721	9.230
2016	10	Guinea Insurance	0.035	42.183	15.759	0.388	0.767	16.372	6.116
2017	10	Guinea Insurance	0.024	12.805	16.388	0.181	0.504	2.324	2.974
2018	10	Guinea Insurance	0.044	0.935	23.968	0.160	0.429	0.149	3.827

2019	10	Guinea Insurance	0.043	43.109	16.923	0.132	0.676	5.708	2.241
2020	10	Guinea Insurance	0.04	0.028	16.770	0.182	0.698	0.005	3.047
2021	10	Guinea Insurance	0.039	11.699	17.063	0.221	0.836	2.580	3.763
2022	10	Guinea Insurance	0.164	47.823	15.393	1.116	0.688	53.386	17.184
2023	10	Guinea Insurance	0.18	51.775	23.736	0.323	0.573	16.739	7.674
2024	10	Guinea Insurance	0.175	18.139	23.062	0.228	0.802	4.136	5.259
2010	11	Jaiz Bank PlC	0.13	13.447	18.705	0.330	0.670	4.431	6.164
2011	11	Jaiz Bank PlC	0.11	49.583	19.625	0.136	0.440	6.758	2.675
2012	11	Jaiz Bank PlC	0.102	31.416	22.133	0.539	0.683	16.949	11.941
2013	11	Jaiz Bank PlC	0.124	38.572	16.072	0.673	0.854	25.961	10.817
2014	11	Jaiz Bank PlC	0.133	39.338	17.692	0.159	0.598	6.256	2.814
2015	11	Jaiz Bank PlC	0.138	23.201	17.114	0.495	0.548	11.490	8.475
2016	11	Jaiz Bank PlC	0.121	3.328	20.936	0.454	0.472	1.510	9.503
2017	11	Jaiz Bank PlC	0.006	58.887	15.869	0.070	0.476	4.144	1.117
2018	11	Jaiz Bank PlC	0.051	36.495	19.317	0.050	0.616	1.821	0.964
2019	11	Jaiz Bank PlC	0.045	26.766	21.459	0.378	0.698	10.104	8.101
2020	11	Jaiz Bank PlC	0.032	31.270	21.058	0.098	0.440	3.076	2.071
2021	11	Jaiz Bank PlC	0.485	17.342	17.460	0.991	0.870	17.192	17.308
2022	11	Jaiz Bank PlC	0.351	9.252	16.734	0.042	0.778	0.385	0.697
2023	11	Jaiz Bank PlC	0.162	12.235	19.104	0.095	0.693	1.157	1.807
2024	11	Jaiz Bank PlC	0.07	10.672	24.695	2.874	0.814	30.669	70.969
2010	12	Lasaco Assurance Plc	0.062	51.582	16.709	0.076	0.440	3.943	1.277
2011	12	Lasaco Assurance Plc	0.067	52.035	20.716	0.061	0.638	3.181	1.266
2012	12	Lasaco Assurance Plc	0.233	53.306	18.237	0.056	0.715	2.984	1.021
2013	12	Lasaco Assurance Plc	0.242	45.423	16.148	0.679	0.814	30.820	10.957
2014	12	Lasaco Assurance Plc	0.279	10.567	16.544	0.095	0.792	1.008	1.577
2015	12	Lasaco Assurance Plc	0.278	40.900	18.366	0.057	0.539	2.341	1.051
2016	12	Lasaco Assurance Plc	0.209	5.553	18.224	0.232	0.870	1.290	4.234
2017	12	Lasaco Assurance Plc	0.179	5.790	22.602	0.536	0.462	3.103	12.112
2018	12	Lasaco Assurance Plc	0.204	31.328	18.489	0.112	0.838	3.507	2.070
2019	12	Lasaco Assurance Plc	0.271	57.291	16.243	0.120	0.885	6.850	1.942
2020	12	Lasaco Assurance Plc	0.245	51.174	15.665	0.056	0.489	2.874	0.880
2021	12	Lasaco Assurance Plc	0.255	39.621	16.398	0.160	0.761	6.335	2.622
2022	12	Lasaco Assurance Plc	0.252	22.618	16.643	0.179	0.420	4.049	2.979
2023	12	Lasaco Assurance Plc	0.258	42.685	18.588	0.274	0.603	11.679	5.086
2024	12	Lasaco Assurance Plc	0.264	29.851	19.391	2.124	0.658	63.418	41.197
2010	13	Linkage Assurance Plc	0.274	37.892	22.476	0.494	0.690	18.735	11.113

2011	13	Linkage Assurance Plc	0.265	9.238	18.839	0.319	0.868	2.950	6.016
2012	13	Linkage Assurance Plc	0.257	60.058	16.169	0.257	0.736	15.441	4.157
2013	13	Linkage Assurance Plc	0.28	47.870	16.393	0.158	0.641	7.575	2.594
2014	13	Linkage Assurance Plc	0.3	46.044	23.939	0.077	0.805	3.538	1.839
2015	13	Linkage Assurance Plc	0.266	5.037	17.485	0.055	0.875	0.277	0.961
2016	13	Linkage Assurance Plc	0.282	19.833	22.625	0.765	0.411	15.168	17.303
2017	13	Linkage Assurance Plc	0.04	34.771	16.106	0.870	0.891	30.258	14.016
2018	13	Linkage Assurance Plc	0.058	9.104	22.973	0.103	0.443	0.940	2.373
2019	13	Linkage Assurance Plc	0.06	15.694	22.200	0.347	0.807	5.444	7.700
2020	13	Linkage Assurance Plc	0.069	52.516	17.518	0.803	0.540	42.161	14.064
2021	13	Linkage Assurance Plc	0.057	19.941	20.834	0.130	0.466	2.594	2.710
2022	13	Linkage Assurance Plc	0.045	33.170	16.534	2.227	0.620	73.861	36.816
2023	13	Linkage Assurance Plc	0.044	31.262	15.181	0.122	0.722	3.805	1.848
2024	13	Linkage Assurance Plc	0.051	61.311	21.967	1.513	0.590	92.749	33.230
2010	14	Mutaul Benefit Assurance	0.058	44.157	20.763	1.994	0.427	88.063	41.407
2011	14	Mutaul Benefit Assurance	0.048	41.760	24.344	0.552	0.700	23.067	13.447
2012	14	Mutaul Benefit Assurance	0.182	41.050	24.848	0.108	0.851	4.425	2.678
2013	14	Mutaul Benefit Assurance	0.294	4.424	23.699	0.146	0.592	0.647	3.467
2014	14	Mutaul Benefit Assurance	0.329	41.312	15.548	0.294	0.508	12.151	4.573
2015	14	Mutaul Benefit Assurance	0.338	46.579	18.335	1.328	0.621	61.839	24.342
2016	14	Mutaul Benefit Assurance	0.372	35.005	18.463	0.362	0.424	12.685	6.691
2017	14	Mutaul Benefit Assurance	0.31	14.659	17.246	3.485	0.810	51.088	60.103
2018	14	Mutaul Benefit Assurance	0.251	0.349	19.984	0.235	0.813	0.082	4.692
2019	14	Mutaul Benefit Assurance	0.25	53.131	20.806	0.930	0.694	49.420	19.352
2020	14	Mutaul Benefit Assurance	0.303	27.979	16.780	1.927	0.577	53.912	32.334
2021	14	Mutaul Benefit Assurance	0.228	4.066	15.853	0.102	0.800	0.413	1.610
2022	14	Mutaul Benefit Assurance	0.246	37.898	15.671	0.126	0.677	4.787	1.980
2023	14	Mutaul Benefit Assurance	0.242	16.477	17.051	0.110	0.813	1.815	1.878
2024	14	Mutaul Benefit Assurance	0.231	14.648	20.648	0.083	0.716	1.217	1.715
2010	15	NEM Insurance Plc	0.25	45.886	20.244	1.230	0.792	56.432	24.897
2011	15	NEM Insurance Plc	0.247	25.505	16.552	0.245	0.699	6.252	4.058
2012	15	NEM Insurance Plc	0.187	54.234	18.733	0.063	0.607	3.401	1.175
2013	15	NEM Insurance Plc	0.188	47.269	15.254	0.069	0.879	3.250	1.049
2014	15	NEM Insurance Plc	0.222	51.459	15.271	0.918	0.671	47.220	14.013
2015	15	NEM Insurance Plc	0.224	19.445	15.197	0.652	0.703	12.669	9.901
2016	15	NEM Insurance Plc	0.13	56.430	21.527	0.208	0.510	11.741	4.479
2017	15	NEM Insurance Plc	0.207	5.240	22.223	0.092	0.713	0.484	2.052

2018	15	NEM Insurance Plc	0.218	56.740	21.681	0.266	0.686	15.074	5.760
2019	15	NEM Insurance Plc	0.223	32.344	15.130	0.218	0.492	7.041	3.294
2020	15	NEM Insurance Plc	0.222	0.032	16.814	0.172	0.430	0.006	2.895
2021	15	NEM Insurance Plc	0.204	23.465	23.174	0.055	0.702	1.300	1.284
2022	15	NEM Insurance Plc	0.185	24.904	20.903	0.138	0.782	3.438	2.886
2023	15	NEM Insurance Plc	0.2	37.943	20.520	1.041	0.662	39.486	21.355
2024	15	NEM Insurance Plc	0.197	27.689	22.636	1.562	0.513	43.249	35.356
2010	16	Prestige Assurance	0.191	57.414	23.946	0.076	0.733	4.388	1.830
2011	16	Prestige Assurance	0.17	38.678	17.687	0.231	0.440	8.951	4.093
2012	16	Prestige Assurance	0.157	49.172	16.394	0.053	0.621	2.604	0.868
2013	16	Prestige Assurance	0.167	58.729	16.717	0.416	0.482	24.436	6.955
2014	16	Prestige Assurance	0.737	12.892	16.178	0.107	0.492	1.380	1.731
2015	16	Prestige Assurance	0.72	8.392	21.514	0.316	0.501	2.652	6.798
2016	16	Prestige Assurance	0.157	19.357	16.369	0.164	0.593	3.171	2.682
2017	16	Prestige Assurance	0.149	53.829	21.005	0.421	0.426	22.676	8.849
2018	16	Prestige Assurance	0.227	13.004	19.188	0.523	0.599	6.804	10.040
2019	16	Prestige Assurance	0.237	30.871	16.663	0.404	0.656	12.462	6.727
2020	16	Prestige Assurance	0.281	19.992	17.453	0.282	0.642	5.633	4.917
2021	16	Prestige Assurance	0.235	16.074	22.190	0.036	0.591	0.579	0.799
2022	16	Prestige Assurance	0.078	48.622	21.637	0.331	0.820	16.096	7.163
2023	16	Prestige Assurance	0.083	55.181	15.312	0.106	0.473	5.848	1.623
2024	16	Prestige Assurance	0.058	40.870	19.964	0.210	0.653	8.564	4.183
2010	17	Royal Exchage Plc	0.08	17.564	16.066	0.601	0.431	10.555	9.655
2011	17	Royal Exchage Plc	0.062	50.768	21.884	1.612	0.436	81.847	35.281
2012	17	Royal Exchage Plc	0.056	22.489	22.994	1.669	0.687	37.539	38.382
2013	17	Royal Exchage Plc	0.044	26.772	18.610	0.233	0.683	6.242	4.339
2014	17	Royal Exchage Plc	0.21	55.941	24.502	0.133	0.839	7.455	3.266
2015	17	Royal Exchage Plc	0.121	20.663	23.729	0.302	0.679	6.236	7.162
2016	17	Royal Exchage Plc	0.441	55.234	21.923	1.279	0.880	70.666	28.048
2017	17	Royal Exchage Plc	0.207	14.767	17.212	1.646	0.424	24.310	28.335
2018	17	Royal Exchage Plc	0.218	53.539	22.056	0.802	0.449	42.943	17.691
2019	17	Royal Exchage Plc	0.223	16.466	24.155	0.079	0.422	1.305	1.915
2020	17	Royal Exchage Plc	0.222	47.433	24.244	0.115	0.493	5.438	2.779
2021	17	Royal Exchage Plc	0.204	59.408	23.620	0.150	0.671	8.884	3.532
2022	17	Royal Exchage Plc	0.185	16.752	15.370	0.141	0.723	2.365	2.170
2023	17	Royal Exchage Plc	0.2	7.869	15.770	0.928	0.423	7.305	14.639
2024	17	Royal Exchage Plc	0.197	21.615	15.654	2.321	0.873	50.159	36.325

2010	18	Sovereing Trust Insurance	0.191	37.183	18.188	0.092	0.821	3.433	1.679
2011	18	Sovereing Trust Insurance	0.17	57.651	17.330	0.118	0.548	6.823	2.051
2012	18	Sovereing Trust Insurance	0.008	53.871	23.747	0.062	0.439	3.350	1.477
2013	18	Sovereing Trust Insurance	0.007	51.288	24.979	1.696	0.485	86.985	42.365
2014	18	Sovereing Trust Insurance	0.027	51.285	19.799	0.130	0.463	6.656	2.570
2015	18	Sovereing Trust Insurance	0.052	50.006	22.683	0.277	0.462	13.839	6.277
2016	18	Sovereing Trust Insurance	0.071	29.074	17.388	0.369	0.659	10.743	6.425
2017	18	Sovereing Trust Insurance	0.077	35.606	17.963	0.392	0.523	13.971	7.048
2018	18	Sovereing Trust Insurance	0.06	11.017	24.877	2.836	0.579	31.243	70.550
2019	18	Sovereing Trust Insurance	0.051	21.196	17.183	0.147	0.895	3.119	2.528
2020	18	Sovereing Trust Insurance	0.045	44.951	19.176	0.343	0.742	15.415	6.576
2021	18	Sovereing Trust Insurance	0.135	51.826	21.134	0.220	0.874	11.381	4.641
2022	18	Sovereing Trust Insurance	0.172	57.516	24.427	0.553	0.471	31.821	13.515
2023	18	Sovereing Trust Insurance	0.244	47.194	17.307	0.358	0.591	16.889	6.193
2024	18	Sovereing Trust Insurance	0.21	18.856	22.796	0.133	0.677	2.513	3.038
2010	19	Stanco Insurance Plc	0.117	24.731	23.838	0.739	0.438	18.280	17.620
2011	19	Stanco Insurance Plc	0.035	55.768	18.962	0.774	0.402	43.158	14.675
2012	19	Stanco Insurance Plc	0.012	49.233	23.158	0.310	0.735	15.267	7.181
2013	19	Stanco Insurance Plc	0.021	14.911	20.929	0.229	0.721	3.409	4.785
2014	19	Stanco Insurance Plc	0.027	0.233	17.656	0.080	0.605	0.019	1.414
2015	19	Stanco Insurance Plc	0.034	62.277	23.621	0.411	0.645	25.607	9.713
2016	19	Stanco Insurance Plc	0.321	39.093	15.870	0.059	0.608	2.298	0.933
2017	19	Stanco Insurance Plc	0.331	38.399	22.234	1.151	0.412	44.209	25.598
2018	19	Stanco Insurance Plc	0.421	9.163	21.833	0.046	0.568	0.423	1.008
2019	19	Stanco Insurance Plc	0.251	58.467	19.806	1.206	0.489	70.493	23.880
2020	19	Stanco Insurance Plc	0.217	57.910	21.780	0.572	0.449	33.151	12.468
2021	19	Stanco Insurance Plc	0.184	18.061	22.974	3.111	0.878	56.180	71.463
2022	19	Stanco Insurance Plc	0.163	55.031	22.084	0.344	0.700	18.955	7.606
2023	19	Stanco Insurance Plc	0.312	50.113	21.186	0.089	0.764	4.483	1.895
2024	19	Stanco Insurance Plc	0.398	15.595	23.718	0.124	0.558	1.929	2.934
2010	20	Standard Alliance Insurance	0.371	55.335	18.351	0.160	0.597	8.865	2.940
2011	20	Standard Alliance Insurance	0.197	9.363	23.321	1.277	0.518	11.960	29.792
2012	20	Standard Alliance Insurance	0.677	29.772	21.169	0.266	0.448	7.919	5.630
2013	20	Standard Alliance Insurance	0.512	10.214	21.340	2.408	0.490	24.593	51.383
2014	20	Standard Alliance Insurance	0.439	58.969	22.610	0.279	0.799	16.451	6.308
2015	20	Standard Alliance Insurance	0.025	62.047	21.326	0.249	0.739	15.421	5.300
2016	20	Standard Alliance Insurance	0.352	10.333	21.879	0.179	0.673	1.845	3.907

2017	20	Standard Alliance Insurance	0.439	14.648	15.674	0.185	0.638	2.704	2.893
2018	20	Standard Alliance Insurance	0.708	23.386	15.457	0.159	0.861	3.708	2.451
2019	20	Standard Alliance Insurance	0.806	53.081	22.497	0.271	0.436	14.400	6.103
2020	20	Standard Alliance Insurance	0.813	55.429	15.221	0.178	0.540	9.890	2.716
2021	20	Standard Alliance Insurance	0.82	36.080	21.833	0.354	0.575	12.782	7.735
2022	20	Standard Alliance Insurance	0.512	12.569	19.262	0.021	0.791	0.268	0.410
2023	20	Standard Alliance Insurance	0.58	10.583	21.937	0.053	0.896	0.564	1.168
2024	20	Standard Alliance Insurance	0.034	29.849	21.545	0.388	0.520	11.573	8.353
2010	21	United Bank Plc	0.142	58.363	19.323	1.317	0.837	76.852	25.445
2011	21	United Bank Plc	0.158	27.568	18.976	0.337	0.815	9.299	6.401
2012	21	United Bank Plc	0.093	58.637	23.941	0.169	0.512	9.933	4.056
2013	21	United Bank Plc	0.03	15.578	21.517	2.084	0.600	32.466	44.844
2014	21	United Bank Plc	0.037	54.257	24.682	0.053	0.605	2.864	1.303
2015	21	United Bank Plc	0.115	59.973	22.709	0.576	0.889	34.562	13.087
2016	21	United Bank Plc	0.019	50.749	16.312	0.075	0.490	3.796	1.220
2017	21	United Bank Plc	0.515	63.058	22.965	0.161	0.800	10.140	3.693
2018	21	United Bank Plc	0.635	22.171	21.856	0.946	0.567	20.980	20.681
2019	21	United Bank Plc	0.91	7.939	15.642	0.232	0.765	1.844	3.634
2020	21	United Bank Plc	0.977	31.926	18.104	0.068	0.610	2.184	1.238
2021	21	United Bank Plc	0.156	34.297	18.925	0.310	0.689	10.619	5.859
2022	21	United Bank Plc	0.238	41.138	21.950	0.168	0.816	6.926	3.695
2023	21	United Bank Plc	0.305	53.057	19.805	0.309	0.802	16.395	6.120
2024	21	United Bank Plc	0.5	28.535	16.425	0.513	0.833	14.633	8.423
2010	22	universal Insurance Plc	0.444	51.966	20.596	0.924	0.430	47.997	19.024
2011	22	universal Insurance Plc	0.342	27.981	15.879	0.380	0.746	10.626	6.030
2012	22	universal Insurance Plc	0.43	23.355	18.969	0.105	0.470	2.453	1.992
2013	22	universal Insurance Plc	0.358	42.704	23.006	0.604	0.608	25.776	13.886
2014	22	universal Insurance Plc	0.363	1.077	21.364	0.595	0.674	0.640	12.707
2015	22	universal Insurance Plc	0.44	7.438	15.520	0.160	0.601	1.194	2.491
2016	22	universal Insurance Plc	0.809	49.092	22.141	0.048	0.660	2.346	1.058
2017	22	universal Insurance Plc	0.979	20.476	15.801	0.507	0.898	10.379	8.010
2018	22	universal Insurance Plc	0.444	37.050	19.523	0.280	0.468	10.381	5.470
2019	22	universal Insurance Plc	0.398	41.169	15.816	0.171	0.738	7.056	2.711
2020	22	universal Insurance Plc	0.453	9.923	23.718	0.100	0.598	0.988	2.361
2021	22	universal Insurance Plc	0.41	57.089	16.821	0.286	0.467	16.317	4.808
2022	22	universal Insurance Plc	0.366	39.992	20.554	0.156	0.479	6.238	3.206
2023	22	universal Insurance Plc	0.356	16.815	24.748	0.198	0.875	3.330	4.901

2024	22	universal Insurance Plc	0.366	1.806	15.722	0.406	0.840	0.733	6.385
2010	23	Wema Bank Plc	0.342	14.700	23.683	0.133	0.854	1.948	3.138
2011	23	Wema Bank Plc	0.305	54.234	18.459	0.398	0.896	21.558	7.338
2012	23	Wema Bank Plc	0.369	52.364	23.670	0.637	0.504	33.363	15.081
2013	23	Wema Bank Plc	0.109	30.197	19.867	0.198	0.578	5.992	3.942
2014	23	Wema Bank Plc	0.418	55.088	17.768	0.361	0.735	19.904	6.420
2015	23	Wema Bank Plc	0.25	53.721	21.230	0.031	0.642	1.675	0.662
2016	23	Wema Bank Plc	0.625	42.786	22.158	0.273	0.609	11.668	6.042
2017	23	Wema Bank Plc	0.375	20.759	24.714	0.142	0.579	2.955	3.518
2018	23	Wema Bank Plc	0.751	49.899	17.472	0.166	0.697	8.280	2.899
2019	23	Wema Bank Plc	0.368	40.230	18.592	0.103	0.688	4.126	1.907
2020	23	Wema Bank Plc	0.109	1.523	24.694	0.515	0.481	0.784	12.712
2021	23	Wema Bank Plc	0.418	53.854	22.735	0.109	0.636	5.896	2.489
2022	23	Wema Bank Plc	0.216	54.326	17.361	0.256	0.677	13.909	4.445
2023	23	Wema Bank Plc	0.208	22.930	18.370	0.783	0.685	17.962	14.390
2024	23	Wema Bank Plc	0.209	43.492	21.171	0.618	0.505	26.875	13.083
2010	24	Zenith Bank Plc	0.271	23.029	15.367	0.108	0.771	2.476	1.653
2011	24	Zenith Bank Plc	0.255	42.185	23.442	0.666	0.413	28.104	15.617
2012	24	Zenith Bank Plc	0.206	38.558	17.058	0.144	0.577	5.566	2.462
2013	24	Zenith Bank Plc	0.175	16.807	20.312	0.826	0.790	13.882	16.777
2014	24	Zenith Bank Plc	0.179	23.681	19.522	0.263	0.682	6.222	5.129
2015	24	Zenith Bank Plc	0.162	18.980	15.416	0.387	0.531	7.355	5.973
2016	24	Zenith Bank Plc	0.142	60.405	15.049	0.314	0.747	18.969	4.726
2017	24	Zenith Bank Plc	0.459	50.340	19.547	0.066	0.684	3.328	1.292
2018	24	Zenith Bank Plc	0.328	28.333	16.397	0.063	0.798	1.771	1.025
2019	24	Zenith Bank Plc	0.218	19.515	17.019	0.129	0.768	2.509	2.188
2020	24	Zenith Bank Plc	0.241	54.386	21.726	0.150	0.705	8.163	3.261
2021	24	Zenith Bank Plc	0.125	49.707	21.926	0.032	0.644	1.597	0.705
2022	24	Zenith Bank Plc	0.17	55.857	19.972	0.188	0.467	10.520	3.761
2023	24	Zenith Bank Plc	0.313	58.702	15.304	0.017	0.531	0.989	0.258
2024	24	Zenith Bank Plc	0.248	46.481	17.157	0.016	0.610	0.728	0.269

Source: NGX Fact Book (2010 – 2024)