

Innovations

Bank Performance: A Measure of the Relationship of ERM Indicators with Net Financing Per Share of Deposit Money Banks in Nigeria

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Abstract

This research aims to quantify the correlation between ERM indicators and net financing per share of Deposit Money Banks for a group of Nigerian banks through the use of pooled OLS, WG-VC, and flexible GLS techniques. Banks must manage a number of risks, including market, operational, interest rate, liquidity, and solvency (or capital) risks. These risks have reduced the benefits of managing the banking sector. One of the most noteworthy features of the Global Financial Crisis (GFC) was the unique nature of the liquidity crisis it precipitated, which eventually materialised as a variety of crises prior to reaching a catastrophic threshold. The outcomes demonstrated a favourable and statistically significant relationship between the chief risk officer and risk committee member parameters. Expanding these variables will result in an increase in net financing per share because the two factors have a favourable impact on net financing. However, there is no statistically significant difference between the exchange rate, price, and credit risk hedging derivative instrument and the risk mapping parameter. It demonstrates that these factors and net financing per share do not positively correlate. Derivative tools for hedging foreign exchange rate risk, the chief risk officer, and risk committee members all have positive coefficient values. This evidence shows that these factors and net financing per share are positively correlated. There is typically no positive correlation seen between risk mapping and derivative instruments used to hedge credit risk and net financing per share. Our research leads us to the conclusion that, since more than two ERM indicators have a positive impact on

net financing per share, the expected or theoretical sign of the relationship between enterprise risk management and net financing per share is maintained.

Keywords: *Deposit, Banks, Enterprise, Net, Performance, Money, Share, Financing*

Introduction

Enterprise Risk Management relatively may be a modern term in business and ultimately this approach is employed to manage the danger in financial firms as well as play a crucial role within the economy. The Enterprise Risk Management department focuses on new and emerging ways of risk reduction (Hopper, 2019; Al-Nimer, Sulieman, & Ahmad, 2022).

Additionally, ERM is an integral part of corporate governance and strategy (Al-Nimer, Sinan, Al-Omush, & Ahmad, 2021; Monika, & Thomas, 2022). A comprehensive viewpoint can be added to the company's risk management procedure through ERM, which is risk management connected to good corporate governance (GCG). ERM acts as a mediator between the excess and deficit elements which generates income to increase the GDP, this mediating aspect is vital for the efficient distribution of resources within the economy (Jonathan & Mutaiu, 2022).

Although, Le, (2023) in the documentation stated that standard corporate governance variables are mostly insignificantly or even negatively related to the banks' performance. The result of the study likewise claimed that ERM has no significant influence on the firm value and profitability while profitability has significant and positive influence on the firm value. As per Munangi and Sibindi (2020), the banking industry is the central component of any financial system. Financial intermediation and intermediaries, in particular Deposit Money Banks (DMBs), have become increasingly important in today's economy. This cannot be overstated because they perform critical financial functions such as deposit mobilization, loan administration, risk diversification, delegated monitoring, corporate control, and facilitating exchange among various economic agents (Soyebo, Russell, Somoye, 2019). Finally, they facilitate exchanges among different economic agents. The form and quantity of DMB functions typically dictated the level of financial development in the economy, according to the bank-based approach to financial intermediation.

Furthermore, although banks are in the risk-taking industry, they must take functional risks in their operations (Emeka, Muhammed, & Aliyu, 2021). A bank is exposed to interest-rate risk when there is a distortion in the amount or maturity dates of its interest-sensitive assets and liabilities. Losses may ensue from this, which could have an impact on the bank's financial performance (Olumayokun, 2020). Due to the aforementioned worries, it is essential to evaluate the risk profiles of Nigerian

banks and the effectiveness of their risk control systems in order to lessen the various risks to which they are exposed, as this could significantly affect their overall performance. Notwithstanding these measures, Nigerian banks continue to fail, even with the most current ones (KPMG, 2018; NBS, 2018; Olokoyo, Oyakhilome, Babajide, and Yinka-Banjo, 2021; Natufe & Evbayiro-Osagie, 2023). This study intends to control for confounding effects and introduced a new dimension of value, net financing per share, and therefore, this study tends to link Enterprise Risk Management to performance of DMBs.

The benefits of managing the banking industry have been diminished as a result of the various risks that banks confront, including interest rate risk, operational risk, market risk, liquidity risk, and solvency (or capital) risk (John & Okika, 2019). The distinctive character of the liquidity issue that the GFC (Global Financial issue) eventually produced, which materialised as various kinds of risks before ultimately ending in a full-blown crisis, was one of the crisis' major highlights (Sankalp and Prasad, 2021). As an example, the Central Bank of Nigeria (CBN) declared in September 2018 that Skye Bank would be liquidated and that Polaris Bank would acquire assets and liabilities after Skye Bank Plc licensed for financial operations was withdrawn and sacked its management for undercapitalization (CBN, 2021; 2022; Nigeria Deposit Insurance Commission, NDIC, 2018). Since there is a limited array of studies on this issue, investigating the impact of ERM on the Performance of Nigeria Deposit Money Banks is addressed in this study with the following research questions. The study tends to measure the linear and significant relationship between ERM and net financial per share of the Deposit Money Banks. The remaining parts of the paper is structured as section 2 literature review, section 3 data and method, section 4 results, section 5 conclusion and recommendation.

2. Literature Review

Conceptual Review

An example provided by the Organisation for Economic Co-operation and Development (OECD) from their most recent Risk Management and Corporate Governance report explains why the global community and governments are paying such attention to enterprise risk management and how it affects risk management at the enterprise level and how that translates into broader economic uncertainties: "Perhaps one of the greatest shocks from the financial crisis has been the widespread failure of risk management (OECD, 2020). In many cases, the risk was not managed on an enterprise basis" (OECD, 2020) and Rebecca (2021). One instance of risk mismanagement is the recent credit default crisis.

Several factors contribute to the value of a firm, one of which is the price-earnings ratio. The ratio signifies the extent to which investors value shares based on their earnings per share multiples (Cahyaningrum & Antikasari, 2017).). Net Financings

Per Share is the profit earned by the business divided by the number of outstanding shares (Almeida, 2019). As the Net Financings Per Share increases, the firm's profit also increases. Conversely, when the Net Financings Per Share decreases, the company's profit decreases as well. The primary objective of an organisation is to enhance its worth or abundance to investors. The first step in increasing the organization's value is to make all future rewards that investors receive more valuable today than they were before. A steady stock price that has increased over time is a good indicator of an organization's value; the higher the stock price, the larger the organization's capital (Bratamanggala, 2018). The total profit of the company (Net Income) divided by the total number of outstanding shares (Shares outstanding) yields Net Financings Per Share (NFPS) (Khalaf, 2011). The company does well when its Net Financings Per Share is higher since it generates more profit. It is not enough for investors to simply look at a company's income growth or decline when evaluating its performance; they also need to take changes in income into account when making investment decisions. Newer companies tend to have lower Net Financings Per Share (NFPS), while established organizations typically have higher NFPS ratios. According to Sadeghi and Lafmejani (2017), profitability is a metric that compares a company's current financial situation to its previous one in order to assess whether its finances have improved or deteriorated. The succeeding financial policies—which regulate dividend payments, debt repayment, allowances, and investments to ensure the business's survival—are affected by variations in this growth or reduction. Distributed earnings are worth more than earned profits, according to the Bird in Hand Theory, which explains the connection between dividends and company value. While some studies have found that Net Financings Per Share have a negative impact on firm value or the financial performance of DMBs, others have found the opposite (Chen et al., 2015). The main element influencing stock prices and company value is commonly believed to be Net Financings Per Share (NFPS). Although, literature demonstrates that most individual financial backers base their speculative decisions on NFPS (Islam et al., 2014), various studies have employed distinct methodologies for choosing performance variables, such as return on equity (ROE), Tobin's Q ratio, and return on assets (ROA), among other accounting measures.

The ethical goal of ERM implementation is to maximise shareholder wealth. The technique raises the firm's potential return by helping management respond to risk more skillfully. The company's resource allocation based on risk can maximize the probability of gaining a return and achieving the business objectives (Mohammed et al., 2018) As a result, a company's financial performance can be improved by implementing ERM successfully. Companies that use ERM in conjunction with risk management get higher returns, which suggests that using ERM helps stabilise

earnings (Muhammed et al., 2018). The consistency of earnings suggests that the businesses are performing well, which increases demand for the stock of the company. The company's performance will increase if resources in the form of these investments are devoted towards the development of operations and technologies. Additionally, Net Financings Per Share have a favourable effect on business value (Bratamanggala, 2018).

Net Financings Per Share (NFPS)

Net financings per share is a financial metric used to evaluate the impact of financing activities on a company's shareholder equity (Boffo and Patalano, 2020). It measures the change in shareholder equity attributable to each outstanding share of a company's common stock resulting from financing activities. Net financings typically include actions such as issuing new shares, repurchasing shares, or raising capital through debt offerings.

The formula for calculating net financings per share is as follows:

$$\text{Net Financings Per Share} = \frac{\text{Change in Shareholder Equity from Financing Activities}}{\text{Number of Outstanding Common Shares}}$$

Here's a breakdown of the components used in the formula:

Change in Shareholder Equity from Financing Activities: This represents the net effect of financing activities on a company's shareholder equity. It includes the proceeds from issuing new shares, the cost of repurchasing shares, and any additional equity capital raised through debt offerings. Positive values indicate an increase in shareholder equity due to financing, while negative values indicate a decrease (Ahmad, Muslim & Syahrah, 2022; Bedendo, Garcia-Appendini & Siming, 2023; Shengfeng, Hafiz & Jia, 2023).

Number of Outstanding Common Shares: This is the total number of common shares issued by the company and held by shareholders. It's an important denominator in the calculation because it helps express the impact of financing activities on a per-share basis (KPMG IFRG Limited, 2018).

The result of this calculation provides insight into how financing activities affect the ownership stake of existing shareholders. If the net financings per share is positive, it means that financing activities have contributed to an increase in shareholder equity per share (Ahmad, Muslim & Syahrah, 2022; Bedendo, Garcia-Appendini & Siming, 2023). Conversely, if it's negative, it suggests that financing activities have

reduced shareholder equity per share, potentially diluting the ownership stake of existing shareholders (Li, Kuen-Lin, Li-Ting and Chi-Fang, 2021).

Investors and analysts may use net financings per share as a measure of the impact of capital raising or share buyback programs on a company's financial position and the potential effects on existing shareholders' ownership percentages. It's essential to consider this metric in conjunction with other financial and performance indicators to gain a comprehensive understanding of a company's financial health and capital structure.

Effect of ERM on NFPS

Enterprise Risk Management (ERM) is a strategic framework that organisations use to recognise, evaluate, and control risks that may have an impact on their capacity to meet their goals. ERM can have several effects on a company's financial metrics, including Net Financings Per Share (González, Santomil, & Herrera, 2020). Here's how ERM can impact Net Financings Per Share:

Risk Mitigation:

ERM helps organizations identify and assess various risks, including financial, operational, and strategic risks. By effectively managing these risks, a company can reduce the likelihood of adverse events or financial losses (Ruiz-Canela, 2021).

When a company has a robust ERM program in place, it may experience fewer unexpected financial setbacks or crises that could lead to the need for significant financings. This can positively impact Net Financings Per Share by reducing the necessity for dilutive financing rounds (Syrová, & Špička, 2023; Wang, Zhengwen, Yuwan & Li, 2022).

Cost of Capital:

ERM can lead to improved risk management practices, which may enhance a company's overall financial stability and reduce its perceived risk by investors and creditors.

A lower perceived risk can lead to a lower cost of capital, making it more cost-effective for the company to raise funds through various financing activities. Lower financing costs can positively impact Net Financings Per Share because the company can achieve its financing goals with less dilution to existing shareholders (Ahmad, Muslim & Syahrah, 2022; Bedendo, Garcia-Appendini & Siming, 2023).

Capital Allocation:

ERM helps organizations prioritize their resource allocation, including capital allocation. By understanding and quantifying risks, a company can allocate capital more efficiently to projects and investments that offer the best risk-adjusted returns.

Effective capital allocation can result in better financial performance, potentially reducing the need for excessive financings. This, in turn, can have a positive effect on Net Financings Per Share by minimizing the issuance of additional shares (Prasad, Loukoianova, Xiaochen, Feng and Oman, 2022).

Investor Confidence:

Companies with a strong ERM framework are often viewed more favorably by investors and stakeholders because they demonstrate a commitment to managing risks proactively.

Greater investor confidence may translate into a higher stock price and, consequently, a more attractive currency for raising capital. This can positively influence Net Financings Per Share, as the company can achieve financing objectives with fewer shares issued (Ahmad, Muslim & Syahrah, 2022; Bedendo, Garcia-Appendini & Siming, 2023).

Strategic Decision-Making:

ERM provides decision-makers with a more comprehensive understanding of risks and their potential impacts on the business. This can lead to more informed and prudent strategic decisions.

By making better strategic decisions, a company may avoid costly mistakes or crises that would necessitate significant financing activities, thus positively affecting Net Financings Per Share (Ahmad, Muslim & Syahrah, 2022; Bedendo, Garcia-Appendini & Siming, 2023).

In summary, the implementation of effective Enterprise Risk Management practices can have a positive impact on Net Financings Per Share by reducing the need for dilutive financing, lowering the cost of capital, improving capital allocation, increasing investor confidence, and facilitating informed strategic decision-making. However, it's essential to note that the specific impact of ERM on Net Financings Per Share will depend on the nature of the risks a company faces and the effectiveness of its risk management efforts (Ahmad, Muslim & Syahrah, 2022; Bedendo, Garcia-Appendini & Siming, 2023).

Theoretical Review

The goal of many empirical investigations is to find evidence in favour of different risk management philosophies. Few studies had contributed to our understanding of risk management, according to a wave of fresh research in this area in the late 1990s. It should be noted that the most important research in recent years has focused on methodological issues: the endogeneity problem (Xinrui, Hanqing, Junsheng, & James, 2021), the inclusion of non-derivative hedging (Davies et al., 2006), and assumptions regarding the purpose of using derivatives (Oliver &

George, 2019). Models for risk management were created and included in the theory.

Enterprise Risk Management Theory

Businesses and stakeholders are becoming more and more concerned about risk due to the significance of risk management (Fernando & Basnayak, 2022). A company can take into account the possible effects of all risks on all processes, activities, stakeholders, goods, and services by using an enterprise-wide approach to risk management. An integrated strategy for managing risk inside an organisation and its extended networks is called enterprise risk management, or ERM. The degree to which the outcomes of a company's business strategy fall short of its declared goals is known as enterprise risk. Due to the numerous variables that could affect the decisions made on the activities, procedures, and resources to be used in implementing the plan, the approach chosen to meet these corporate goals carries a particular risk profile. The traditional silo approach to risk management, which was once used by different departments and functions within an organisation, has given way to a more integrated, holistic process that manages risk across the board (Buczowski, 2021; Mojca, Marika, & Darja, 2023). Enterprise Risk Management (ERM) has become the term for this comprehensive and integrated strategy.

Enterprise risk management is, in essence, the latest name for an overall risk management approach to business risks supporting that the overall risks of the organization should be managed in aggregate, rather than independently (OECD, 2020). Under enterprise risk management, the chief executive officer or board of directors, who are prepared to handle any kind of risk, takes over decision-making authority from the insurance risk manager. The following are the categories of risk that are covered by enterprise risk management: financial, operational, strategic, and hazard.

Hazardous risks: These are risks such as fire, theft, windstorm, liability, interruption of business, pollution, health, and pensions that have historically been covered by insurance.

Financial risks: This includes interest rates, foreign exchange rates, commodity prices, liquidity concerns, credit risks, and other possible losses resulting from movements in the financial markets.

Operational risks: These risks include a wide range of scenarios, such as those involving corporate leadership, information technology, managerial fraud, trademark protection, product development, failure, and consumer satisfaction.

Strategic Risk: This is related to competitiveness, consumer preferences, technical innovation, and political or regulatory barriers are all considered strategic risks.

Empirical Review

Using a sample of one hundred and seventy-five quoted companies in China; Rahman, Kenned, and Chen (2022) conducted a study on the impact of enterprise risk management on the performance of firms. The firms used were quoted on the Shanghai stock exchange and the Shenzhen stock exchange. The sample duration covers a period of 10 years from 2009 to 2018 and data were obtained from the yearly accounts and financial reports of the companies. Pairwise correlation and random effect estimators were utilized. The pairwise correlation result shows that ERM and performance are negatively and insignificantly correlated. The random effect estimator reveals that there is an inverse but significant relationship between performance of the firm and ERM. Thus, the authors claimed that there is a strong link between the firm performance and the commercial industry in China.

In the research work of Jawad et. al (2021), the impact of enterprise risk management on the performance of financial sectors in Pakistan was evaluated. The researchers used data from different financial institutions for their study. The financial firms are Housing Finance Companies, Investment Banks, Commercial Banks, Development Finance Institutions, Mutual Funds, Insurance Companies, Leasing Companies, Foreign Banks, and Modaraba Companies. Data were collected from these firms' annual financial reports and accounts from 2008 to 2016 via the statistics and DWH Department of State Bank in Pakistan. The dependent variable used by these researchers is debt to asset ratio, to present performance. Meanwhile, the independent variables are enterprise risk management, return on capital employed, cost-to-income ratio, enterprise value-to-asset value, return on equity, leverage, and equity-to-asset ratio. Ordinary Least Square estimator was adopted by the authors to test their stated hypotheses. The researchers discovered that there is a long-run link among the variables used. All the independent variables have a positive influence on the performance of the financial institutions selected in this study. Furthermore, they declared that the relationship between the dependent variable and the independent variables is significant except for cost to income ratio which has an insignificant influence on performance.

Odubuasi, Ofor, and Ilechukwu (2022) conducted comparative research by examining enterprise risk management, risk committee, and the earning capacity of financial institutions in Africa. The researchers used three countries in Africa which are Ghana, Nigeria, and South Africa. The data for the study were obtained from the financial reports of the selected banks for a period of ten years that is from 2009 to 2018. Fixed effect and random effect estimators were employed by the researchers to test their formulated hypotheses. The outcome of their findings reveals that ERM and the efficiency of the risk committee have the strongest influence on the earning capacity of the firms in Nigeria than the other two countries' firms. The authors concluded that both ERM and risk committee are factors that enhance earnings

capacity proxied by return on equity of the firms under investigation. They thus, recommend that stringent policies should be enforced by the regulatory authorities in African countries for the implementation and compliance of the ERM framework across financial institutions. Also, companies should employ qualified risk managers. Otekunrin, et al. (2021) examined the link between the management of enterprise risk and firm performance. They used the registered manufacturing companies in Nigeria as their targeted sample. Around thirty (30) manufacturing firms were selected, fifteen from the industrial goods sector and the remaining fifteen from the consumer goods sector. The required data were obtained from the annual financial reports and accounts of these companies for a period of nine years spanning from 2010 to 2018. Also, net assets per share, return on asset, and debt-to-equity ratio are the indicators of performance used by the researcher, these served as the dependent variables. the independent variable is enterprise risk management and it is represented by risk board committee and firm size. Director ownership and board size are the control variables for the study. The methods used by the researchers in estimating the three models of the study are the random and fixed effect methods.

In the first two models where return on asset, and debt-to-equity ratio served as the dependent variable, the random effect model was adopted. However, the fixed effect model was utilized to analyze the third model. From the results presented by the researchers all the independent variables have a positive correlation with all the dependent variables except for return on asset, where one of the independent variables is negatively correlated with it. The authors claimed that the results of the random effect model in their study show that all the independent variables are negatively related to return on asset. But risk board committee has a significant and positive effect on performance. In like manner, risk board committee has a significant and positive influence on the other two dependent variables (net assets per share, and debt-to-equity ratio). Thus, the authors recommend that the risk board committee's operations should be periodically reviewed to make sure that the choices made by the risk board and the actions taken by its members are consistent with the company's objectives.

Odigbo, Yusuf, and Shuaibu (2022) evaluated the effect of enterprise risk management on deposit money banks' financial performance. They based their study on Nigerian deposit money banks. Tobin-q and Earnings per share are the independent variables used and they are proxies for financial performance. Enterprise risk management served as the independent variable. Data on these variables were collected from five banks' annual reports for the period of six years from 2015 to 2020. Ordinary Least Square method of estimation was adopted to analyze the multiple regression models. From the findings of the researchers, it is seen that enterprise risk management and Tobin-q are both significantly and positively linked. In the same manner, enterprise risk management has a positive

and significant influence on earnings per share. Based on their findings, they deduced that enterprise risk management significantly and directly impacts the deposit money institutions in Nigeria that were chosen for the study.

3 Data and Method

3.1 Data

The study employs data on variables for a panel of banks. These variables are return on equity (dependent variable), and (independent variables); credit hedging, exchange hedging, price hedging, risk map, risk committee and chief risk officer. These data are collected across the cross-section of the ten banks from the annual statement of accounts published by these banks. The time dimension of the data is 11 years, while the individual dimension is 10 units. This gives a total observation of 110; and a better degree of freedom than only the time series.

3.2 Method

Farrell and Gallagher (2014), McShane et al. (2011), the researchers introduced a panel data econometric equation with little modification to address the research questions for this study. Orlovska (2014), & González, Otero, Santomil, and Aracely (2020) the researchers introduce panel data econometric equations with little modification to address the research questions for this study. Thus, by definition.

$$nfps_{it} = \alpha_0 + \alpha_1 cro_{it} + \alpha_2 cr_{it} + \alpha_3 rm_{it} + \alpha_4 ph_{it} + \alpha_5 ch_{it} + \alpha_6 exh_{it} + \mu_{i5} + \varepsilon_{it5} \quad 1$$

Where *nfps*-net financing per share ((Change in Shareholder Equity from Financing Activities)/ (Number of Outstanding Common Shares)), is an element of Performance for Deposit Money Banks while *cro*-chief risk officer, *cr*-risk committee and *rm*-risk map are proxies for Enterprise Risk Management in this study, and they are dummy variables that take 1 when present otherwise 0. *ch*-derivative instruments for hedging credit risk, *ph*-derivative instruments for hedging price risk, *exh*-derivative instruments for hedging exchange rate risk. They are also dummies taking 1 when they are available in the bank, otherwise 0. $\mu_{i1}, \dots, \mu_{i6}$ are the heterogeneity or specific errors, which are either fixed or random and $\varepsilon_{i1}, \dots, \varepsilon_{i6}$ are the unconditional time invariant disturbance term with Gaussian properties.

Justification of Choice of Study Variables

The variables used in this study could be traced to the studies by Farrell and Gallagher (2014), González et al. (2020) and McShane et al. (2011). In their studies return on asset, and return on equity are used as proxies for performance, while bankruptcy risk, risk officer, risk committee and risk map are proxies for enterprise risk management.

However, this study augmented their studies to include additional variables; Risk Committee (CR), Risk Map (RM), Credit Risk (CH), Price Risk (PH), and Exchange Rate Risk (EXH) and Net Financials Per Share (NFPS). The Chief Risk Officer was utilised by Hoyt and Liebenberg (2011) as an indicator of ERM implementation in their study of the association between ERM and company value for insurance companies. This idea is similar to the research design by González, Santomil and Herrera (2020) in their study when ERM was a proxy with nine indicators. Horvey & Ankamah (2020) in their research study Enterprise risk management and firm performance: Empirical evidence from Ghana equity market where three ERM indicators were used to check for the performance. Jawada, Munazza, Nauman, Sohail & Shamsi (2021) in their research analysis of the different performance indicators of the firm, enterprise risk management and their effect on firm performance proxy ERM with six indicators.

Since the research made use of a data set collected over time and across a set of units (variables), Pooled (OLS), Within Group Estimated Techniques, (WGET) and Flexible Generalized Least Square, (FGLS) was used as estimation techniques but the nature and behaviour of the dataset will determine the best fit for the research analysis (González, Santomil and Herrera, 2020; Breitung, Bruggemann, & Luetkepohl, 2021).

Studies in the past mostly preferred the use of primary data by adopting a structured questionnaire or qualitative research strategy to get their information regarding the Performance of Deposit Money Banks which invariably could miss vital points and needs couple with inability of the respondents to divulge certain information which might be useful for the research and not make the data biased. The study will be making use of a secondary data which was collected over time and in the cautious of this, the true intention is not violated since it was just for record purposes not to expose their shortcomings.

4.Results

In this study, the author hypothesizes that enterprise risk management indicators have a linear and significant relationship with net financial per share. This hypothesis is tested using three estimation methods. The results of the test are reported in tables 1, 2 and 3 respectively.

Table 1
Test based on Random Effect Model for Enterprise Risk-NFPS Nexus

Regressor	Coef.	Std. Err.	Z-stat	P-value
cro	0.4724922	0.2486214	1.90	0.057
rcm	-0.9234546	0.4638354	-1.99	0.046
rmp	-0.2087249	0.1982246	-1.05	0.292
diferr	0.151296	0.5975081	0.25	0.800
dihcr	-0.1850101	0.5712757	-0.32	0.746
cons	0.694116	0.4334473	1.60	0.109

Note: dipr omitted because of collinearity

Table 1 shows the coefficient value of chief risk officer, risk committee member, risk mapping, derivative instruments for hedging foreign exchange rate risk, and derivative instrument for hedging credit risk are approximately 0.47, -0.92, -0.21, 0.15, and -0.19 respectively. This implies that chief risk officer and derivative instruments for hedging foreign exchange rate risk have positive influence on net financing per share although only chief risk officer is statistically significant. Suggesting that any increase in chief risk officer and derivative instruments for hedging foreign exchange rate risk will lead to a rise in net financing per share. The coefficient of risk committee member, risk mapping, and derivative instrument for hedging credit risk are inverse. This is an indication that risk committee members, risk mapping, and derivative instrument for hedging credit risk all have an indirect relationship with net financing per share. The relationship between chief risk officer and net financing per share is significant at 10% alpha value. In the same vein, the connection between risk committee member and net financing per share is significant at 5% level of significance. Thus, these results are verified by the WG with VC estimation and FGLS methods.

4.2 Robustness Checks for the Random Effect Model Results based on Enterprise Risk-ROA Nexus

Robustness checks are used to confirm the accuracy of parameters across various techniques. In this regard, two additional methodologies confirm the above-tested hypothesis' findings. Tables 2 and 3 display the outcomes of these analyses.

Table 2
Test based on WG-VC Estimation Method for Enterprise Risk-ROE Nexus

Regressor	Coef.	Std. Err.	Z-stat	P-value
cro	0.7358058	0.4806967	1.53	0.160
rcm	-1.532987	0.4098201	-3.74	0.005
rmp	0.2032003	0.3185674	0.64	0.539
diferr	0.0991578	0.3185038	0.31	0.763
dihcr	-0.2589573	0.0637008	-4.07	0.003
cons	0.9567035	0.2249762	4.25	0.002

Note: dipr omitted because of collinearity

As shown in Tables 2, the result of the WG-VC Estimation Method. The coefficient of chief risk officer, risk committee member, risk mapping, derivative instruments for hedging foreign exchange rate risk, and derivative instrument for hedging credit risk are approximately 0.74, -1.53, 0.20, 0.10, and -0.26 with an associated probability value of 0.16, 0.00, 0.54, 0.76, and 0.00 respectively. It is clearly observed that chief risk officer and derivative instruments for hedging foreign exchange rate risk have a positive impact on net financing per share. This result is the same as the one obtained from the random generalized least square. Thus, there is overwhelming evidence that the interaction between chief risk officer, derivative instruments for hedging foreign exchange rate risk, and net financing per share is direct. The result of both random generalized least square and the WG-VC Estimation Method shows that risk committee member and net financing per share are negatively but significantly related. Derivative instrument for hedging credit risk is a negative determinant of net financing per share as seen from the output of random generalized least square. Risk mapping has a positive coefficient and this is contrary to the result of the random generalized least square.

Table 3
Test based on Flexible GLS Method for Enterprise Risk-NFPS Nexus

Regressor	Coef.	Std. Err.	Z-stat	P-value
cro	0.5238591	0.2296229	2.28	0.023
rcm	-0.9791783	0.4636107	-2.11	0.035
rmp	-0.2180165	0.1749654	-1.25	0.213
diferr	0.1330301	0.6111856	0.22	0.828
dihcr	-0.1782933	0.5878754	-0.30	0.762
cons	0.7260302	0.4385955	1.66	0.098

Note: dipr omitted because of collinearity

Tables 3, shows the outcome of the analysis based on Flexible GLS Method for enterprise risk-net financing per share nexus. From the table, the coefficient of chief risk officer and derivative instruments for hedging foreign exchange rate risk is positive and significant. This shows that these variables have a direct and significant influence on net financing per share. However, risk committee member, risk mapping and derivative instrument for hedging credit risk are inversely relating to net financing per share. This result given by the Flexible GLS Method is same as the one of the random generalized least square.

Table 4
Post Estimation Tests based on Enterprise Risk-Net Financing per Share Nexus

Model	R-sq	BP LM Test	Wald Test	Modified
Wald Test				
Enterprise Risk-ROE Nexus:				
Enterprise Risk-Net Financing per Share Nexus:				
Random Effect	0.05	126.111(0.00)	6.94(0.23)	-
WG-VC Estimation	0.05	124.210(0.00)	-	3.97(0.95)
Flexible GLS	-	126.291(0.00)	9.36(0.095)	3.66(0.96)

Note the figures in parentheses are the probability values.

The result of the post-estimation tests on the three models adopted for this study is presented above. From the result of the BP LM test, the three models (Random effect, WG-VC estimation, and Flexible GLS) have a high coefficient value with zero probability value. Although, results shows that the three models failed the serial correlation tests. However, considering the Modified Wald test result the probability value is greater than 5%. This means that the null hypothesis cannot rejected for homoscedasticity, that is there is constant variance. Thus, WG-VC and Flexible GLS passed the test of homoscedasticity. The Wald test reveals very poor fit for Random GLS except for the Flexible GLS that is marginally significant at 10 percent. For the coefficients of determination or R-squares for enterprise risk management-net financing per share nexus with respect to the random GLS, and WG-VC estimate are 0.05 and 0.05 respectively. This suggests that the two models display very low coefficient of determination.

4. Discussion

In this study, the author hypothesizes that Net Financing per share is linearly dependent on enterprise risk management indicators. This hypothesis is tested using three estimation methods.As an outcome of the test, the chief risk officer and

risk committee member parameters were found to be positively strong and statistically significant. An increase in these two factors will result in a higher net financing per share because they have a favourable impact on net financing. This is in line with research by Almeida (2019), which found that a company's profit margin increases with its earnings per share. Conversely, a company's profit margin decreases with declining earnings per share. Increasing an organization's worth or abundance for investors is the goal of emphasising its purpose. Enhancing the organization's worth means raising the present value of all benefits that investors will receive in the future, which is a clear sign and validation of the close relationship between ERM and EPS. Similar documentation can be found in Bratamanggala's (2018) works, which assert that an organization's value is indicated by its consistent and rising stock price, where a higher stock price corresponds to a larger organization's capital. The risk mapping parameter and the derivative instrument used to hedge against exchange rate, price, and credit risk are not statistically significant. This indicates that these factors and net financing per share do not positively correlate. Similar results were obtained by Julia & Muhammad (2021), whose case study revealed that SIZE effectively mediates the link between the two variables, with a DIV SIZE PBV coefficient value of 0.412 and a p-value of 0.001. The study's results, which are consistent with past research (Alduais 2020; Hanifah, 2019) showing that earnings per share decreases enterprise value, contradict the first hypothesis, which holds that earnings per share positively increases firm value. It makes sense. Investors need more information to evaluate a Deposit Money Bank's success than only whether the company's income has increased or decreased; they also need to take changes in income into account when determining how their investment will be affected.

Derivative instruments for hedging foreign exchange rate risk have positive coefficient values, as do the chief risk officer and risk committee members. This is a proof that there is presence of positive link between these variables and net financing per share. Additionally, this is similar with findings from Bratamanggala (2018) and Islam et al., (2014) confirming earnings per Share to have a favourable effect on business value and increases company value. Net financing per share is typically not positively correlated with risk mapping or derivative instruments used to hedge credit risk. The variables (member of the risk committee, derivatives for hedging credit risk, and derivatives for hedging foreign exchange rate risk) and net financing per share further shown a substantial link with the WG-VC approach.

The only difference is that the value of the coefficient of the benchmark method is slightly significant as compared with the value of the flexible GLS which is highly significant. The notion that the chief risk officer, members of the risk committee, and derivatives for hedging foreign exchange rate risk have a favourable impact on net

financing per share is fully supported by the available data. According to this study, whenever the chief risk officer, members of the risk committee, and derivative instruments for hedging foreign exchange rate risk grew, net financing per share climbed as well.

The BP LM test statistics is associated with a large probability value that is greater than 5 percent alpha value. Based on this result the null hypothesis is not accepted for autocorrelation. therefore, the residuals exhibited serial correlation. the Wald test also reveals that the relationship has good fit except in the case of flexible GLS. This is similar to that of the modified Wald test statistics which shows WG-VC method and flexible GLS are good fit estimators. There is no presence of heteroscedasticity in the two models.

5. Conclusion

This study looked at the connection between net financing per share in Nigerian Deposit Money Banks (DMBs) and Enterprise Risk Management (ERM) metrics. To ascertain the effect of different ERM components on bank performance, the analysis employed flexible GLS, WG-VC, and pooled OLS techniques. The findings revealed that the presence of a chief risk officer and a risk committee significantly enhances net financing per share, indicating that structured risk management positively influences financial outcomes in Nigerian banks. However, risk mapping and the use of derivative instruments for hedging credit, price, and exchange rate risks did not show a statistically significant impact, suggesting that these measures alone may not directly translate into improved financial performance.

The study underscores the importance of robust ERM frameworks, particularly the roles of chief risk officers and risk committees, in promoting better financial performance in the banking sector. While some ERM components did not exhibit a direct positive correlation with net financing per share, the overall evidence supports the notion that effective risk management is crucial for the stability and profitability of banks.

6. Recommendations

1. **Strengthen Risk Management Frameworks:** Banks should continue to enhance their ERM frameworks, focusing on the critical roles of chief risk officers and risk committees. These positions should be empowered with adequate resources and authority to implement effective risk management strategies.

2. **Standardize Risk Reporting:** It is recommended that banks standardize their risk reporting systems. Consistent and transparent reporting can enhance the effectiveness of risk management practices and ensure that all stakeholders have a clear understanding of the bank's risk profile.
3. **Utilize Effective Risk Committee Members:** Banks should use risk committee members whose involvement has shown a significant influence on performance. These members can provide valuable oversight and guidance in managing risks effectively.
4. **Empower Chief Risk Officers:** The importance of a chief risk officer, who with all their expertise can make the correct judgment calls to stimulate performance in banks and maintain regulatory compliance, cannot be overstated. Financial institutions should ensure that their chief risk officers have the necessary authority and resources to fulfill their roles effectively.
5. **Tailored Risk Management Approaches:** Given the mixed results on the effectiveness of risk mapping and derivative instruments, banks should consider developing more tailored risk management approaches that align closely with their specific risk profiles and operational contexts.
6. **Weigh Risks vs. Rewards:** Financial institutions should weigh the risks versus the potential rewards to decide whether the risk is worthwhile. This strategic evaluation can help banks make informed decisions that balance risk and return.
7. **Endorse Derivative Instruments for Hedging Foreign Exchange Risk:** Banks should endorse the use of derivative instruments for hedging foreign exchange rate risk, as this has been shown to yield positive performance on foreign exchange transactions.
8. **Continuous Monitoring and Evaluation:** Regular monitoring and evaluation of ERM practices should be conducted to ensure they are responsive to the evolving risk landscape. Banks should invest in training and development programs to keep their risk management teams updated on the latest trends and techniques in risk mitigation.
9. **Policy and Regulatory Support:** Regulatory bodies should support banks in their ERM efforts by providing clear guidelines and frameworks that promote

best practices in risk management. This support could include offering incentives for banks that demonstrate robust and effective ERM practices.

10. **Research and Development:** Further research is needed to explore the nuanced relationships between different ERM components and bank performance. Banks and academic institutions should collaborate on research initiatives to identify innovative risk management strategies that can enhance financial performance and stability.

By implementing these recommendations, Nigerian banks can better navigate the complexities of the financial environment, ultimately leading to improved performance and greater resilience against potential risks.

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