Enterprise Risk Management Practices (ERM) and Corporate Performance Among Tier 1 Banks in Nigeria

Nwachukwu Kingsley & Longsen Lawerence

Department of Banking and Finance, University of Jos
Bursary Department, Plateau State University

Article DOI: 10.48028/iiprds/ijasbsm.v10.i1.04

Abstract

This paper examines the influences of four key dimensions of enterprise risk management (ERM) on the corporate performance of Tier 1-SIBs in Nigeria. Credit risk management, regulatory and compliance risk management, market risk management, and liquidity risk management were identified as core enterprise risk management practices that affect the corporate performance of banks in the literature. The paper adopted a quantitative research approach and survey research design. The study's population consisted of risk management-focused units from Nigeria's Tier 1 commercial banks. The data were analyzed using Pearson matrix correlation and the ordinary least square estimation technique. Results suggest that, that credit risk management has the most significant effect on corporate performance ($\beta_1=0.346, p<0.005$). This is closely followed by liquidity risk management ($\beta_4=0.285, p<0.005$). The regulatory and compliance risk management ($\beta_4=0.104, p<0.005$). Market risk management has the least significant effect on corporate performance ($\beta_3=0.101, p<0.005$). This implies that, when compared to the other three dimensions, market risk management may not be a strong predictor of corporate performance among Tier 1-SIBs in Nigeria. The study concludes that a holistic bank-wide enterprise risk management framework improves corporate growth and performance in general, while also protecting shareholder value. Furthermore, it improves corporate investment decision-making and financial reporting quality. The paper recommends that the enterprise risk management approach should be bottom-top, starting by establishing branch levels ERM units rather than the current Head office ERM top-bottom approach in practice.

Keywords: Enterprise Risk Management, Corporate performance, Credit risk management, Liquidity risk management, Market risk management, Regulatory risk management

Corresponding Author: Nwachukwu Kingsley

http://internationalpolicybrief.org/journals/international-scientific-research-consortium-journals/intl-journal-of-business-vol10-no1-july-2022
Background to the Study

The Nigerian banking sector is vulnerable to a wide range of risks posed by both internal and external factors within its operating environment. Historically, risk management has been studied from two perspectives: traditional risk management and enterprise risk management (Senol and Karaca, 2017). Traditional risk management (TRM) is a risk management technique in which risks in business enterprises are handled separately and independently in silos. Risk is viewed as a single threat, and comprehension is reactive. The second type of risk management is enterprise risk management (ERM) which represents risks in the form of holistic bank-wide risk management of the business enterprises. Risk is viewed as a whole in enterprise risk management (ERM), rather than as individual components. It represents a proactive approach to both the opportunity and risk-threat dimensions. Enterprise risk management (ERM) is an innovative concept and is currently employed in banking, insurance, pension fund administration, and asset management globally.

Enterprise risk management (ERM) is a plan-based business strategy aimed at identifying, assessing, and preparing for any physical and figurative dangers, hazards, and other potential disasters that may interfere with an organization's operations and objectives. The discipline necessitates that businesses not only identify all of the risks they face and decide which risks to actively manage, but also make that plan of action available to all stakeholders, shareholders, and potential investors as part of their annual reports (Shima, Mahmood, Happy, and Akbar, 2013).

Banks are complex financial institutions that deal with risks such as credit risk, regulatory and compliance risk, interest rate risk, market risk, systemic risk, performance risk, operational risk, and liquidity risk. Enterprise risk management (ERM), emphasizes looking at risks collectively rather than individually. The need to institutionalize ERM in the banking industry means that each risk component must be treated collectively (Silva and Chan, 2014).

Academic and industry practitioners have discussed enterprise risk management (ERM)'s ability to reduce earnings and equity price volatility, lower foreign currency costs, increase capital efficiency, and create synergies between different risk management activities (Senol and Karaca, 2017). ERM raises risk awareness, resulting in better strategic and operational decisions (Hoyt and Liebenberg, 2011). Uncertainty presents both risk and opportunity in terms of potential depreciation or appreciation. Enterprise risk management (ERM) enables management to effectively deal with uncertainty, as well as the associated risk and opportunity, thereby improving the entity's ability to create value (Altanashat, Al Dubai, and Alhety, 2019).

Numerous research studies have explored the effects of enterprise risk management on firm value, enterprise risk management implementation studies, and studies of the determinants or factors influencing enterprise risk management practices and performance. Some examples include Pagach and Warr (2010), Sekerci (2011), Hoyt, and Liebenberg (2011), McShane, Nair, and Rustambekov (2011), Baxter, Bedard, Hoitash, and Yezegel (2013), Bertinetti, Cavezzali, and Gardenal (2013), Li, Wu, Marshall, and Chipulu (2014), Abdel-Azim and...
Abdelmoniem (2015), Sempabwa and Kariuki (2017), and Senol and Karaca (2017), etc. There is, however, a dearth of literature examining the influences of enterprise risk management (ERM) practices within the Nigerian banking environment and those key dimensions of enterprise risk management (ERM) in particular on corporate performance of Tier 1-banks in Nigeria. As a result, the motivation and relevance of the study are established.

Statement of the Research Problem
Serious concerns continue to be raised about the health and financial soundness of the Nigerian Banking System. Of particular concern is the way banks treat or manage risk emerging from both their internal and external environment. Banks that had previously performed well suddenly revealed massive financial problems due to unfavorable credit exposures, regulatory compliance, market volatility, liquidity issues, and operational issues. These key risks from literature and experience jeopardize the financial viability and long-term sustainability of the banks and the banking system in Nigeria. Despite the Nigerian banking sector’s reforms and expansion, Regulatory and compliance risk, market risk, credit risk, and liquidity risk are some of the key banking risks that continued to be treated with traditional risk management techniques (TRM) and levity (Razali, and Tahir, 2011).

Banks that are highly exposed to those key risks may fail as a result of those exposures. Nigerian banks that continue to rely on traditional risk management techniques (TRM) see risk in silos and view them as a single threat, and comprehension is generally reactive. Where enterprise risk management (ERM) practices are in place generally, they are usually weak and poorly structured. Furthermore, on paper, based on financial reports, while well written, actual implementation in a holistic manner bank-wide, leaves much to be desired.

Bank tiers are a method of classifying banks based on their relative size to the overall banking market (as measured by total banking assets size, capital, and earnings as reported in the bank’s financial statements). The Nigerian banking sector is currently classified using a tier system (Proshare, 2022). Tier 1, Tier 2, and Tier 3 banks exist in Nigeria. Tier 1 banks, also known as FUGAZ banks and "Systematically Important Banks," are banks that are too big to fail based on asset size and a systematic plug-in to all facets of the banking and economic structure of a country. In Nigeria, the Tier 1-SIBs control more than 60% of total deposits and credit (CBN, 2021). Failure or distress of these Tier 1-SIBs could cause a systematic chain reaction and possible collapse of the banking sector in Nigeria, threatening Financial System Stability, a key pillar of the Central Bank of Nigeria mandate.

There is also a substantial body of literature that examines the impact of enterprise risk management globally. There is, however, a dearth of literature examining the impact of enterprise risk management practices on corporate performance within the context of the Nigerian banking sector and in particular the Tier 1-SIBs. As a result, there is a gap in the literature in this area.

Objectives of the Study
The broad objective is to investigate the effects of enterprise risk management practices bank-
wide on the corporate performance of Tier 1-SIBs in Nigeria. The specific objectives of the study are to:

1. To examine the effect of credit risk management practices and corporate performance of Tier 1-SIBs in Nigeria.
2. To determine the effect of regulatory risk management practices and corporate performance of Tier 1-SIBs in Nigeria.
3. To investigate the effect of market risk management practices and corporate performance of Tier 1-SIBs in Nigeria.
4. To ascertain the effect of liquidity risk management practices and corporate performance of Tier 1-SIBs in Nigeria.

**Research Hypothesis**

- **H₁**: There is no significant relationship between credit risk management practices and corporate performance of Tier 1-SIBs in Nigeria.
- **H₂**: There is no significant relationship between regulatory risk management practices and corporate performance of Tier 1-SIBs in Nigeria.
- **H₃**: There is no significant relationship between market risk management practices and corporate performance of Tier 1-SIBs in Nigeria.
- **H₄**: There is no significant relationship between liquidity risk management practices and corporate performance of Tier 1-SIBs in Nigeria.

**Literature Review**

**Conceptual Review**

**Enterprise Risk Management**

According to Altanashat et al. (2019), enterprise risk management (ERM) enables management to deal with uncertainty, as well as the associated risk and opportunity, enhancing the entity's ability to create value. Nwachukwu and Akim (2019) opined that enterprise risk management (ERM), is a holistic enterprise-wide risk management framework deployed across the business. Risk is viewed as a whole in enterprise risk management (ERM), rather than as individual components (Sempabwa and Kariuki, 2017). It represents a proactive approach to both the opportunity and risk-threat dimensions. Senol and Karaca (2017), state it is a risk management process that evaluates both risk and opportunity and provides reasonable assurance that business objectives are met. Furthermore, that enterprise risk management (ERM) is a risk management process that is entirely applied by the enterprise and is based on all of the risks encountered by the business.

Enterprise risk management (ERM) focuses on risks as a whole rather than individually (Silva and Chan, 2014). According to Shima et al. (2013), enterprise risk management (ERM) is a plan-based business strategy for identifying, assessing, and preparing for physical and figurative dangers, hazards, and other potential disasters that may interfere with an organization's operations and objectives. The enterprise risk management business strategy identifies and plans for risks related to the operations and goals of a company (Reuvid, 2012). ERM raises risk awareness, resulting in better strategic and operational decisions (Hoyt and Liebenberg, 2011).
Credit Risk Management
When a financial institution lends to a business, it assumes some risk, and as a result, some losses occur when certain obligors fail to repay their loans as agreed. The possibility of loss due to non-repayment of interest and principal, or both, or non-realization of securities on credit constitutes a bank's credit risk. Credit risk is defined by Koulaftetis (2017) as the risk of financial loss resulting from the failure of the borrower, bond issuer, or counterparty (the "obligors") to honor their financial obligations. Credit risk management, according to Mwangi (2012), is defined as the identification, measurement, monitoring, and control of risk associated with the possibility of loan repayment default. Credit extended to obligors may be at risk of default, which means that while banks extend credit with the expectation that obligors will repay their loans, some default, resulting in a decrease in bank income due to the need to provide for the default loans. Earnings will fluctuate when banks do not know what proportion of their obligors will default, exposing the banks to an additional risk of earnings volatility (Nwachukwu and Akim 2019).

Regulatory and Compliance Risk Management
Regulatory risk is the result of a change in laws and regulations that could result in losses for your company, industry, or market. According to Tanriverdi and Du (2009), regulatory risks, for example, could increase the costs of running a business, such as compliance costs. Nwachukwu and Akim (2019) opined that regulatory and compliance risk management refers to a business's efforts to comply with the laws, regulations, and agreements that govern its industry. Depending on the nature of a business, specific regulatory and compliance concerns vary widely based on different jurisdictions and sectors (Shipman, 2012).

Market Risk Management
Dowd (2007), defines market risk as the risk posed by changes in stock prices, interest rates, exchange rates, and commodity prices. Market risk is the risk of losing positions as market variables such as prices and volatility change (Penza and Bansal, 2001). The most common types of market risk are interest rate risk, equity risk, commodity risk, and currency risk. Market risk management, according to Andersen, Bollerslev, Kristoferson, and Diebold (2007), refers to management's ability to identify, measure, monitor, and control exposure to market risk given the institution's size, complexity, and risk profile.

Liquidity Risk Management
The risk of incurring losses as a result of failing to meet payment obligations on time or at a reasonable cost is referred to as liquidity risk (Nwachukwu and Akim 2019). According to Kumar and Yadav (2013), liquidity risk refers to a bank's inability to meet such obligations as they come due without negatively impacting the bank's financial condition. The financial risk that a given financial asset, security, or commodity cannot be traded quickly enough in the market without affecting the market price for a set period is known as liquidity risk (Arif, and Anees, 2012). Liquidity risk arises when an individual investor, business, or financial institution is unable to meet its short-term debt obligations. Liquidity risk management is the process and strategies that a bank employs to: Ensure that a balance sheet earns a desired net interest margin while not exposing the institution to undue risks from interest rate volatility (Goodhart, 2008; Kumar and Yadav, 2013).
Corporate performance

Corporate performance is the level or measure of performance of an organization at a specific point in time (Brown and Laverick, 1994). According to Iliemena (2020), an organization's corporate performance measures are as diverse as the motivation for the measurement. Corporate performance is a metric used to assess the management team's stewardship of stakeholders. The most important aspect of this is determining a company's profitability, market value, and future growth prospects. Corporate performance can be defined or measured in various ways including profitability, increase in turnover, gauge return, market share growth, return on investment, return on equity, return on capital employed, and liquidity measures (Iliemena, 2020). The measures or means by which corporate organizations assess the effectiveness of their decision-making are known as performance appraisals. This allows them to assess the success or failure of their strategic or tactical planning (Brown and Laverick, 1994).

Theoretical Review

Firm risk management theory

The theory of firm risk management was later developed as an extension of firm finance policy (Eckles, Hoyt, and Miller, 2014). Risk management has been a hotly debated topic since the 1950s. The firm's value, according to the well-known Modigliani-Miller approach, is independent of its risk. According to Modigliani and Miller (1958), risk management does not affect firm value in an efficient market. In perfect competition and an efficient market, the risk is assumed not to increase in value despite an increase in the operator's borrowing and debt/equity ratio (Senol and Karaca, 2017). Enterprise risk management (ERM) adds value to the firm by influencing it at both the macro (firm) and micro (firm unit) levels (Senol and Karaca, 2017). Firms create value by quantifying and managing the macroeconomic risk-return balance of senior management. ERM, from this perspective, aids in reaching firm capital markets and providing other resources needed to implement strategy and firm plans. This approach, when adapted within the context of enterprise risk management and corporate performance, holds that banks must maximize their expected returns regardless of risk formation and that banks can transfer risk through appropriate portfolio allocation (Bertinetti et al, 2013).

The Too Big to Fail Theory

In 1984, US congressman Steward McKinney popularized the phrase "Too Big to Fail." (Nwachukwu and Akim, 2019). The theory of too big to fail is based on the assumption that certain corporations particularly financial institutions are so large and interconnected that their failure would be catastrophic to an economy. Proponents of this theory believe that to survive, these institutions should receive favorable financial and economic policies from the government and/or the Central Bank. However, some critics believe that large banks and other institutions should be allowed to fail if their risk management is ineffective. This theory has been held around the world, as well as in Nigeria, where the regulatory authority has bailed out systematically important banks that exhibit or show distress tendencies. When applied to enterprise risk management and corporate performance, this approach holds that some banks are "Systematically Important Banks," or too big to fail, based on capital levels, asset size, total
deposits, total loans and advances, and branch network and most importantly their plug-in into the economy of a country. As a result, regulatory authorities must ensure that systematically important banks implement enterprise risk management (ERM) practices that enable bank management to deal with uncertainty, as well as the associated risk and opportunity, thereby improving the bank's ability to create value and mitigate distress or failure.

Empirical Review
Enterprise risk management research is classified into three types: Studies of the effects of enterprise risk management on firm value, studies of enterprise risk management implementation, and studies of the determinants or factors influencing enterprise risk management practices and performance. Research into the effects of enterprise risk management on firm value. Abdel-Azim and Abdelmoniem (2015) investigated the impact of risk management and disclosure on firm value. The study's population consists of non-financial companies that were listed on the Egyptian Stock Exchange (EGX) at the end of 2012. The findings show that risk management and firm value have a positive relationship, that voluntary disclosure and market risk exposure have a negative relationship, and that voluntary disclosure and firm value have a positive relationship.

Bertinetti et al. (2013), explored how the 200 financial and non-financial European firm examples and enterprise risk management practices affected firm value. In the study, a positive relationship between firm value and enterprise risk management practice was discovered, which was also found to be statistically significant. Li et al (2014) used return on equity to represent firm value in a sample of 135 Chinese insurance firms (2010). The Pearson correlation matrix between enterprise risk management and firm value was found to be positive and significant in the study, but the level of relationship was statistically lower in the regression analysis.

McShane et al. (2011) used S&P enterprise risk management credit rating scores to represent enterprise risk management and control variables that can influence firm value and Tobin's Q as a firm value representative. There was a positive relationship between enterprise risk management and firm value in their study, but the firm value did not increase as the enterprise risk management application level increased. In a study of the American insurance industry from 1998 to 2005, Hoyt and Liebenberg (2011) discovered that enterprise risk management had a positive effect on the firm. Sekerci (2011) used questionnaire-derived data from a study of 150 Nordic firms listed on the stock exchanges of Sweden, Denmark, Norway, and Finland to investigate the effects of enterprise risk management implementation on firm value. Results suggest that there was no statistically significant link between enterprise risk management and firm value.

ERM implementations studies. Eckles et al. (2014) investigated the hypothesis that implementing enterprise risk management would lower firms' risk-reduction costs. The study found that after implementing enterprise risk management, the fluctuations of earnings belonging to the shares of enterprise risk management applying firms decreased and the profitability of operating per risk (fluctuation of return on assets/return of shares) increased.
Beasley, Clune, and Hermanson (2005) conducted an exploratory study that looked at factors associated with the stage of enterprise risk management implementation at a variety of US and international organizations. They discovered that the presence of a CRO was positively related to the stage of enterprise risk management implementation. Liebenberg and Hoyt (2003) used the appointment of the chief risk officer CRO, who is responsible for the implementation and management of the enterprise risk management. Findings revealed that size and leverage are determinants of enterprise risk management applications.

Studies of the determinants or factors influencing enterprise risk management practices. Sempabwa and Kariuki (2017) investigated the impact of enterprise risk management practices on the corporate performance of Rwandan commercial banks. The findings revealed that credit risk management, liquidity risk management, market risk management, and operational risk management all have a positive impact on the performance of Rwandan commercial banks. Senol and Karaca (2017), explore the impact of enterprise risk management on firm financial performance as well as the determinants of enterprise risk management. The effects of enterprise risk management on firm performance were not determined in panel data analysis, whereas firm size was found to be a determinant of enterprise risk management applications in panel logistic regression.


Bertinetti et al. (2013) used 200 financial and non-financial company examples to test the determinants of ERM. The determinants of enterprise risk management for firm size, firm beta, and firm profitability were discovered in the study, which was based on data obtained from annual financial statements. Pagach and Warr (2010) examined the effects of enterprise risk management on long-term firm performance by describing how enterprise risk management altered financial assets, and market characteristics. In a study of 106 firms that were publicly traded and risk managers (Chief Risk Officer-CRO), it was discovered that enterprise risk management reduced earnings volatility in some firms, but in general, the enterprise risk management effect on firm variables was low. The study’s findings indicate that enterprise risk management will not support the situation in terms of value creation.

Methodology
Research design
The paper adopts a qualitative research approach (McCusker and SauGunaydin, 2015) and a survey research design. Qualitative research entails collecting non-numerical data through
observational methods to investigate the phenomenon under investigation. The paper adopts the survey research design and the research design is consistent with those of similar studies by Sempabwa and Kariuki (2017).

**Population and Sample**
The study population included the following Tier 1- SIBs that were licensed by the Central Bank of Nigeria as of December 31, 2021. Access Bank, First Bank of Nigeria, Guarantee Trust Bank, United Bank of Africa, Zenith Bank. This classification is predicated on their capital base, asset size, and earnings as of December 31, 2021. However, the target population and sample were drawn from mid-senior personnel in risk management-focused units (Credit risk management, Liquidity risk management, Market risk management, and regulatory and compliance risk management) across these banks. Adopting the Yamane (1973) formula, a valid sample size of 205 respondents was calculated, 150 questionnaires were returned (73 percent response rate), and the sample was determined to be valid and adequate for the study.

**Type and Source of Data**
To achieve the study objectives, primary data was collected via a well-structured survey questionnaire. The survey questionnaires were administered to mid-senior personnel in risk management-focused units (Credit risk management, Liquidity risk management, Market risk management, and operational risk management) across these banks. The type and source of data are consistent with those of Sekerci (2011), Sempabwa, and Kariuki (2017).

**Validity and Reliability of Instrument**
The administered questionnaire was tested for the validity and reliability of the research instrument. The structured questionnaire was given to industry experts with good knowledge of enterprise risk management (ERM) practices to ensure a reasonable level of validity. The structured questionnaire was tested and pre-tested with 20 randomly selected industry experts with good knowledge of enterprise risk management (ERM) practices in a pilot study. Following the incorporation of feedback, questions were revised.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>No of Items</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Risk Management</td>
<td>5</td>
<td>0.734</td>
</tr>
<tr>
<td>Regulatory Risk Management</td>
<td>9</td>
<td>0.703</td>
</tr>
<tr>
<td>Market Risk Management</td>
<td>5</td>
<td>0.729</td>
</tr>
<tr>
<td>Liquidity Risk Management</td>
<td>6</td>
<td>0.715</td>
</tr>
<tr>
<td>Corporate Performance</td>
<td>15</td>
<td>0.728</td>
</tr>
<tr>
<td>Overall Cronbach Alpha</td>
<td></td>
<td>0.7218</td>
</tr>
</tbody>
</table>

Table 1 shows the results of a Cronbach's alpha diagnostic test for the reliability of research instruments. The results of Cronbach's alpha overall coefficient show a measure of 0.7218 and are considered sufficient proof of the instrument reliability (Nunnally, 1978).
Method of Data Analysis
Pearson matrix correlation and the ordinary least square estimation technique were used to analyze the data. The method of data analysis is consistent with those of Li et al. (2014).

Empirical Model
\[ Y = f(X) \] ... 1

Where; \( Y \) is the dependent variable, and \( X \) is the vector of the independent variable. Specifically, equation 1 can be rewritten as:
\[ CA = f(CRM^*, RRM^*, MRM^*, LRM^*) \] ... 2

Where
- \( CA \) = Corporate performance of Tier 1-SIBs in Nigeria.
- \( CRM^* \) = Credit Risk Management
- \( RRM^* \) = Regulatory and Compliance Risk Management
- \( MRM^* \) = Market Risk Management
- \( LRM^* \) = Liquidity Risk Management

The econometric equation for the model is specified as;
\[ CA = \beta_0 + \beta_1 CRM^* + \beta_2 RRM^* + \beta_3 MRM^* + \beta_4 LRM^* + \mu \] ... 3

Where; \( \beta_0 \) = Constant parameter/Intercept
- \( \beta_1 \)
- \( \beta_2 \)
- \( \beta_3 \)
- \( \beta_4 \) = Parameters of the independent variables
- \( CA \) = Corporate performance
- \( \mu \) = Error term

The apriori expectations is stated as \( \beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0 \)

Results and Conclusion
Table 2 shows that all of the correlation statistics values are positive, indicating that these variables move in the same direction as Tier 1-SIBs corporate performance. At the 5% level of significance, the correlation statistics show that corporate performance is significantly positively correlated with the independent variables. The independent variables with corporate performance did not exhibit multicollinearity because none of the variables correlated greater than 0.90.

The correlation statistics display the mean of the four ERM practice dimensions: credit risk management, regulatory and compliance risk management, market risk management, and liquidity risk management. According to the data, Nigerian Tier-1-SIBs prioritize according to the following order, credit risk management (mean=3.623), liquidity risk management (3.455), and regulatory and compliance risk management (mean=3.368). Market risk management is the lowest component of ERM practices (mean=3.210). The average score across the four dimensions was 3.414.
Table 2: Pearson Correlation Coefficient

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>CA</th>
<th>CRM</th>
<th>RRM</th>
<th>MRM</th>
<th>LRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>3.521</td>
<td>1.115</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRM</td>
<td>3.623</td>
<td>1.017</td>
<td>0.445</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRM</td>
<td>3.368</td>
<td>1.030</td>
<td>0.363</td>
<td>0.503</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRM</td>
<td>3.210</td>
<td>1.094</td>
<td>0.312</td>
<td>0.363</td>
<td>0.392</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>LRM</td>
<td>2.455</td>
<td>1.216</td>
<td>0.387</td>
<td>0.318</td>
<td>0.400</td>
<td>0.367</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Given that the scale was a 5-point scale (those who strongly agreed (1) as well as those who strongly disagreed (5)). As a result, Nigerian Tier-1-SIBs are adopting ERM at a significantly higher rate than the average mean.

Table 3: Ordinary Least Square Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistics</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>7.096</td>
<td>2.462</td>
<td>2.882</td>
<td>0.005</td>
</tr>
<tr>
<td>CRM</td>
<td>0.346</td>
<td>0.098</td>
<td>3.543</td>
<td>0.001</td>
</tr>
<tr>
<td>RRM</td>
<td>0.104</td>
<td>0.101</td>
<td>1.025</td>
<td>0.307</td>
</tr>
<tr>
<td>MRM</td>
<td>0.101</td>
<td>0.094</td>
<td>1.073</td>
<td>0.285</td>
</tr>
<tr>
<td>LRM</td>
<td>0.285</td>
<td>0.101</td>
<td>2.812</td>
<td>0.006</td>
</tr>
</tbody>
</table>

R² = 0.278  Adjusted R² = 0.259  F-Stat (Prob) = 13.987 [0.000]  Durbin –Watson = 1.872

Table 3 displays the results of the ordinary least square regression estimation. The coefficient of determination (R-square) of 0.278 indicates that credit risk management, regulatory and compliance risk management, market risk management, and liquidity risk management explained 27.8 percent of the systematic variations in the corporate performance of Tier 1-SIBs in the Nigerian banking sector during the observation period. This indicates that the model is well-fitting. As a result, the model is useful for statistical forecasting.

The F-statistic of 13.987 with a probability of 0.000 indicates a simultaneous linear relationship between the dependent variable and all explanatory variables combined. As a result, we reject the hypothesis of a non-linear concurrent linear relationship between corporate performance and all explanatory variables combined. This implies that the combined effect of all of the variables included in the model is significant in explaining corporate performance in the Nigerian banking sector.
The results revealed that credit risk management had a positive coefficient (0.346) and a significant influence on the corporate performance of Tier 1-SIBs at a 5% significance. These findings indicate that a unit increase in good credit risk management practices results in a 34.6% increase in corporate performance among the Tier 1-SIBs. This implies a robust bank-wide credit risk management could positively influence corporate performance among Nigerian banks. These results agree with similar findings by Sempabwa and Kariuki (2017).

The results in table 3 also revealed that regulatory and compliance risk management is not statistically significant with corporate performance at a 5% level of significance. This means that the variable is a weak determinant of corporate performance among Tier 1-SIBs. These results are at variance with similar findings by Sempabwa and Kariuki (2017). The results also revealed that market risk management is not statistically significant with a corporate performance at a 5% level of significance. This means that the variable is a weak determinant of corporate performance among Tier 1-SIBs in Nigeria. These results are at variance with similar findings by Sempabwa and Kariuki (2017).

The results revealed that liquidity risk management had a positive coefficient (0.285) and a significant influence on the corporate performance of Tier 1-SIBs at a 5% significance. These findings indicate that a unit increase in good credit risk management practices results in a 28.5% increase in corporate performance among the Tier 1-SIBs. This implies a robust bank-wide liquidity risk management could positively influence corporate performance among Nigerian banks. These results agree with similar findings by Sempabwa and Kariuki (2017).

Analyzing the strength to which the independent variables affect the dependent variables, the coefficient results show that credit risk management has the most significant effect on competitive advantage ($\beta_1=0.346, p<0.005$). This is closely followed by liquidity risk management ($\beta_4=0.285, p<0.005$). The regulatory and compliance risk management ($\beta_4=0.104, p<0.005$). Market risk management has the least significant effect on corporate performance ($\beta_3=0.101, p<0.005$). This implies that, when compared to the other three dimensions, market risk management may not be a strong predictor of corporate performance.

Conclusion
This paper investigates the effects of four key dimensions of enterprise risk management (ERM) on the corporate performance of Nigeria's Tier 1-SIBs. The paper established that a comprehensive bank-wide actionable enterprise risk management policy can improve corporate performance in Nigerian banking sectors and help to stem the wave of bank failures and distress. The study concludes that a holistic bank-wide enterprise risk management framework improves corporate growth and performance in general, while also protecting shareholder value. Furthermore, it improves corporate investment decision-making and financial reporting quality.
**Recommendations**

1. The paper recommends that the enterprise risk management approach should be bottom-top, starting by establishing branch levels ERM units rather than the current Head office ERM top-bottom approach in practices.

2. The paper also established that one of the reasons for their constant distress and failure in the Nigerian banking sector, is the current practice of risk assessment in silos. Banks must constantly look for ways to adapt to their competitive environment. Existing structures and strategies should be prompted to change and adapt to current realities and technology.

**Reference**


