

## CREDIT RISK FACTORS AND FIRM VALUE OF DEPOSIT MONEY BANKS IN NIGERIA

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### Abstract

*This study examines the effect of credit risk factors on firm value among listed Deposit Money Banks (DMBs) in Nigeria using an eleven-year panel dataset (2013–2023). Employing a Panel Generalized Least Squares (PGLS) model to address heteroskedasticity and serial correlation, the findings reveal that the Trade Receivables Composite Quality Index (TRCQI) significantly and negatively impacts firm value, while Receivables Turnover (RT) and Cash Holdings (CH) also exhibit significant negative effects. In contrast, the Non-Performing Loan Ratio (NPLR) and Loan Loss Provisions (LLP) show insignificant effects. The results underscore the importance of maintaining high-quality receivables, balanced credit recovery practices, and optimized liquidity management to enhance market valuation. The study recommends rigorous credit risk assessment, proactive monitoring of loans, forward-looking provisioning, customer-focused receivables management, and strategic liquidity deployment to strengthen shareholder value and overall bank performance.*

**Keywords:** Credit Risk, Firm Value, Receivables Turnover, Non-Performing Loans, Liquidity Management

### 1. Introduction

The performance and sustainability of financial institutions are increasingly assessed not only through traditional accounting indicators such as profitability and earnings per share but also via market-based measures of firm value, including market capitalization, Tobin's Q, and economic value added (Achema, 2023). Firm value reflects investors' collective assessment of a company's ability to generate future cash flows, manage risks, and allocate resources efficiently (Niskanen & Niskanen, 2023). In Nigeria, sustaining firm value is critical for Deposit Money Banks (DMBs), which operate in an environment characterized by exchange rate volatility, persistent inflation, regulatory transitions, and elevated credit risk exposures (Olaoye & Fajuyagbe, 2020). Credit quality, capturing the likelihood of loan default, is a central determinant of firm value and is measured through indicators such as the non-performing loan (NPL) ratio, loan-to-deposit ratio (LDR), capital adequacy ratio (CAR), and trade receivables relative to total assets (Issackow et al., 2021). Poor credit quality increases provisioning costs, reduces profitability, and erodes investor confidence (Sanusi, 2012).

Trade receivables constitute a significant portion of banks' credit exposure and underpin liquidity, asset performance, and revenue stability. Globally, firms allocate substantial resources to receivables—about 11.9% of total assets in the U.S. with trade

credit representing over 21% of U.S. GDP, highlighting its systemic importance (Goncalves, 2016). In Nigeria, receivables embedded in various loan instruments influence banks' risk profiles and valuation outcomes (Tuoyo, 2023; Okoh et al., 2025). Their strategic role intensified during the COVID-19 pandemic, when restricted access to formal credit increased reliance on trade credit worldwide (Isibor & Giwa-Osagie, 2024), a trend also evident among Nigerian firms seeking liquidity (Uwuigbe et al., 2022), though elevated receivables increased credit risk during economic downturns (Okoye et al., 2020; Nworie et al., 2023).

Cash holdings further influence firm value by providing liquidity buffers that mitigate shocks and support long-term value creation (Confidence & Igoniderigha, 2023). Excessive cash reserves, however, may indicate inefficiencies or weak investment prospects, potentially reducing firm value (Maccarthy & Jibrin, 2023). The interaction between receivables quality and cash holdings is complex: poor credit quality may necessitate higher precautionary liquidity, while efficient receivables turnover can reduce cash requirements (Acharya et al., 2012). Despite their interconnectedness, studies often examine credit risk (Adiguzel, 2021) and liquidity separately (Ademokoya et al., 2020; Isibor & Giwa-Osagie, 2024), providing limited insight into their joint effects on firm value.

In Nigeria, systemic vulnerabilities persist despite reforms following the 2008–2009 banking crisis (Sanusi, 2012; Central Bank of Nigeria [CBN], 2018). Recent assessments report elevated NPL ratios and pressure on profitability, with the average NPL rising to 6.3% in 2022, above the prudential benchmark of 5% (CBN, 2022; Okoh et al., 2025). Many banks maintain liquidity buffers above regulatory minima, suggesting potential inefficiencies in capital deployment. Existing evidence remains theoretically fragmented—drawing from agency theory (Jensen & Meckling, 1976; Mustapha & Adejuwon, 2025), trade-off theory (Kraus & Litzenberger, 1973; Nworie et al., 2023), and pecking order theory (Myers & Majluf, 1984; Okwoli et al., 2022) with methodological limitations including short timeframes and absence of integrated models jointly examining receivables quality and cash holdings.

To address these gaps, this study investigates the influence of trade receivables credit quality and cash holdings on firm value in Nigerian DMBs. It examines trade receivables credit quality, NPL ratios, receivables turnover, and loan loss provisions, alongside cash holdings, focusing on DMBs listed on the Nigerian Exchange Group between 2013 and 2023, capturing significant economic, regulatory, and institutional shifts. This scope provides a robust foundation to understand how evolving credit and liquidity dynamics jointly shape firm value in Nigeria's banking sector.

## **2. Literature Review**

### **2.1 Conceptual Review**

#### **2.1.1 Firm Value**

Firm value reflects a company's overall worth, integrating financial health, operational efficiency, and long-term sustainability (Brigham & Daves, 2019; Arhinful et al., 2025). For deposit money banks (DMBs), it combines accounting measures like return on assets and equity with market-based indicators such as Tobin's Q and market capitalization (Ofoegbu & Megbuluba, 2016; Etim et al., 2022; Tuoyo et al., 2023). Effective credit risk management, low non-performing loans, and disciplined receivables enhance value by signaling governance quality (Olabisi et al., 2019; Appah, 2023), while optimal liquidity and strong governance promote investor

confidence (Medo-Uwa, 2019; Bencharles & Nwankwo, 2021; Oranefo & Ezu, 2023). Firm-specific factors further support efficiency and sustainability (Aduwo & Aduwo, 2023; Mshelia & Polycarp, 2024).

### **2.1.2 Credit Quality of Trade Receivables**

Trade receivables credit quality (TRCQ) in the banking sector reflects the extent to which loans and advances are collectible in full and on time, serving as a core indicator of asset quality and credit risk exposure. High TRCQ signals effective credit appraisal and monitoring, whereas deterioration indicates heightened default risk and reduced earnings predictability (Alhassan & Islam, 2021; Adiguzel, 2021). In empirical literature, TRCQ is often measured through a composite Trade Receivables Quality Indicator (TRQI), incorporating the NPL ratio, receivables turnover, loan loss provisioning trends, profitability, and credit growth dynamics (Melumad & Nissim, 2009; Olaoye & Fajuyagbe, 2020). The NPL ratio captures impaired credit exposures (Atanasova, 2012), turnover reflects collection efficiency (Ayunku & Uzochukwu, 2020), and loan loss provisions indicate anticipated credit losses. Secondary indicators such as ROA and aggressive loan expansion capture behavioral and performance dimensions of credit quality (Enwafor et al., 2021). Overall, TRCQ offers a comprehensive assessment of credit asset soundness and supports managerial and regulatory decision-making.

### **2.1.3 Non-Performing Loans Ratio**

The non-performing loan ratio represents the share of loans overdue for more than 90 days, serving as a key indicator of bank asset quality and credit risk (Jibril et al., 2021; CBN, 2022). Higher NPLR reflects deteriorating loan portfolios and increased default likelihood (Ozili, 2024). Empirical evidence reports mixed effects of NPLR on bank performance (Okoh et al., 2025; Arhinful et al., 2025).

### **2.1.4 Loan Loss Provisions (LLP)**

Loan loss provisions represent the estimated amount that banks set aside to absorb potential losses from loan defaults. They serve as a protective buffer against expected credit losses and closely relate to the non-performing loan ratio (Appah, 2023). When credit risk rises, banks typically increase provisions, which affects profitability and reported earnings (Tuoyo et al., 2023). Although LLP is essential for ensuring financial stability, it is also influenced by managerial discretion and can be used for earnings management (Mshelia & Polycarp, 2024). Empirical findings remain mixed: some studies report a positive effect of LLP on firm performance (Ngumbay, 2023), while others document negative relationships (Adiguzel, 2021; Aduwo & Aduwo, 2023).

### **2.1.5 Receivables Turnover (RT)**

Receivables turnover reflects how efficiently a bank collects its credit sales, computed as net credit sales divided by average receivables (Ngumbau, 2023). A higher ratio signals strong credit quality, while a lower ratio suggests collection weaknesses (Aliyu et al., 2024). RT complements ACP by capturing the operational dimension of credit risk management.

### **2.1.6 Cash Holdings**

Cash holdings represent a firm's most liquid assets, essential for meeting short-term obligations, supporting operations, and seizing investment opportunities (Medo-Uwa, 2019; Nnubia et al., 2020). In DMBs, cash levels are influenced by managerial decisions, risk tolerance, operational efficiency, macroeconomic conditions, and regulatory requirements (Jebran et al., 2019; Virginus, 2020; Ogundipe et al., 2022; Okoh et al., 2025). High precautionary cash mitigates liquidity risk from poor

receivables quality (Issackow et al., 2021; Dabai et al., 2023), though excessive holdings incur opportunity costs (Afolabi et al., 2023; Adegbite, 2024). Managerial behavior, financial constraints, and technological tools further shape liquidity strategies (Alao & Ifayemi, 2021; Ndu et al., 2024).

## **2.2 Empirical Review and Hypotheses Development**

### **2.2.1 Trade Receivables Credit Quality and Firm Value**

The empirical literature consistently underscores the importance of trade receivables credit quality (TRCQ) in shaping firm performance, liquidity, and overall value. Adiguzel (2021), using a dynamic panel and system GMM approach on U.S.-listed firms, found that deteriorating receivables quality proxied by rising average collection periods and migration into higher-risk categories prompted precautionary increases in cash holdings and a simultaneous decline in firm value. The study highlighted TRCQ as a leading indicator of operational inefficiency and value erosion, recommending rigorous credit monitoring and enforcement.

Jacobson and Schedvin (2015) reported that in Swedish banks and corporates, worsening credit quality increased the cost of capital, reduced earnings stability, and weakened firm value, particularly during economic downturns. Martínez-Sola et al. (2013) found an inverted U-shaped relationship between trade credit and firm value in Spanish firms, where moderate receivables enhanced value, but excessive credit constrained liquidity and reduced valuation. Similarly, Melumad and Nissim (2009) demonstrated that lower turnover and higher loan loss provisions in U.S. financial institutions significantly decreased firm value, confirming receivables quality as a strong predictor of cash flow reliability.

Other studies, including Asiedu (2019), Abuhommous and Almanaseer (2020), and Dabai et al. (2023), consistently show that efficient receivables management improves liquidity, investor confidence, and firm valuation. Based on this assertion, the following hypothesis is formulated:

**H<sub>01</sub>:** *Trade receivables credit quality has no significant effect on the firm value of listed Deposit Money Banks in Nigeria.*

### **2.2.2 Non-Performing Loan (NPL) Ratio and Firm Value**

Empirical evidence on the effect of non-performing loans (NPLs) on bank value is mixed. Aliyu et al. (2024) found that NPLs negatively affected the financial performance of Nigerian banks, though significance was not reported. Ngumbau (2023) observed a significant positive impact on Kenyan banks ( $\beta = 0.8240$ ;  $p < 0.05$ ), suggesting strong risk buffers. Bencharles and Nwankwo (2021) reported mixed, non-significant effects, emphasizing the importance of effective monitoring and loan recovery. Based on this assertion, the following hypothesis is formulated:

**H<sub>02</sub>:** *non-performing loan provisions has no significant effect on the firm value of listed Deposit Money Banks in Nigeria.*

### **2.2.3 Loan Loss Provisions and Firm Value**

Empirical studies on loan loss provisions (LLP) and firm value show mixed outcomes. Ngumbau (2023) found a positive but insignificant effect of LLP on Kenyan banks' firm value, highlighting its role in prudent risk management. Bencharles and Nwankwo (2021) reported a negative impact on ROA in Nigerian banks, though LLP to loans was positive but insignificant. Aliyu et al. (2024) observed that higher LLPs signaled anticipated credit losses, negatively affecting performance. Collectively, these studies underscore that LLP influences financial health and earnings quality,

depending on context and management practices. Based on this assertion, the following hypothesis is formulated:

**H<sub>03</sub>:** *loan loss provisions has no significant effect on the firm value of listed Deposit Money Banks in Nigeria.*

#### **2.2.4 Receivables Turnover and Firm Value**

Empirical evidence highlights the importance of receivables turnover (RT) for firm value in the banking sector. Hill et al. (2015) theorized that higher RT enhances asset efficiency, reduces credit risk, and supports valuation. Aliyu et al. (2024) found that higher RT mitigates the negative effects of NPLs and LLP on Nigerian banks' performance, emphasizing robust credit monitoring. Anetoh et al. (2021) reported that poor RT significantly reduces firm value, while strong operational controls improve it. Collectively, these studies underscore that efficient receivables management strengthens liquidity, earnings stability, and investor confidence, supporting firm value. Based on this assertion, the following hypothesis is formulated:

**H<sub>04</sub>:** *receivables turnover has no significant effect on the firm value of listed Deposit Money Banks in Nigeria.*

#### **2.2.5 Cash Holdings and Firm Value**

Empirical studies highlight the significant role of cash holdings in influencing firm value. Medo-Uwa (2019) found that optimal cash management enhances Nigerian DMB profitability by balancing liquidity and minimizing idle funds. Amahalu (2019) showed that firm size, growth opportunities, and market conditions shape cash holding decisions and performance. Nnubia et al. (2020) reported similar effects across African firms, while Umoru et al. (2023) linked liquidity and profitability to firm value. Habib et al. (2021) found a non-linear relationship internationally, and Hameed and Leah (2024) emphasized leveraging sales growth and profitability to optimize cash holdings. Based on this assertion, the following hypothesis is formulated:

**H<sub>05</sub>:** *cash holdings have no significant effect on the firm value of listed Deposit Money Banks in Nigeria.*

### **2.3 Theoretical Framework**

This study's theoretical framework is anchored in Agency Theory and Liquidity Preference Theory, explaining how trade receivables credit quality, cash holdings, and firm value interact in Nigerian deposit money banks (DMBs). Agency Theory (Jensen & Meckling, 1976) highlights conflicts from ownership–control separation, where managers may pursue personal goals such as relaxed lending standards, excessive cash accumulation, or short-term earnings manipulation, potentially increase non-performing loans and reduce firm value (Bencharles & Nwankwo, 2021; Oranefo & Ezu, 2023; Adedeji, 2021; Abdulai et al., 2020). Liquidity Preference Theory emphasizes maintaining liquid assets to absorb shocks while balancing profitability (Aduwo & Aduwo, 2023; Medo-Uwa, 2019; Amahalu, 2019; Mshelia & Polycarp, 2024). Together, these theories frame receivables quality and cash holdings as key determinants of firm value through managerial behavior, governance, and liquidity strategies (Mustapha & Adejuwon., 2025; Tuoyo et al., 2023).

## **3. Method and Model**

### **3.1 Research Design**

This study adopts a quantitative and deductive research design to examine the effect of credit risk factors on firm value among Nigerian Deposit Money Banks (DMBs). The research design is both descriptive and causal, covering the period 2013–2023 and

relying exclusively on secondary data obtained from published annual reports, financial statements, and the Nigerian Exchange Group (NGX).

### 3.2 Population of the Study

The population of the study consists of all thirteen (13) Deposit Money Banks listed on the Nigerian Exchange Group (NGX). These banks represent the entire publicly traded commercial banking sector in Nigeria and provide consistent published financial data needed for the study variables.

### 3.3 Sampling Techniques

A census sampling technique is employed due to the manageable population size and availability of complete data. This ensures the inclusion of all listed DMBs, providing comprehensive coverage, eliminating sampling error, and enhancing the generalisability of the findings.

### 3.4 Sample Size

The sample size consists of all thirteen (13) listed DMBs in Nigeria. Since a census approach is adopted, every bank within the population is included, provided complete data are available for the eleven-year period under review.

### 3.5 Method of Data Analysis

Data analysis was conducted using EViews, employing panel generalized regression techniques to assess the relationship between credit risk factors and firm value. Diagnostic tests including multicollinearity, heteroskedasticity, and autocorrelation were performed to validate model assumptions and ensure robustness. Descriptive statistics were also generated to summarize key variables, offering insights into central tendencies, variability, and overall data structure.

### 3.6 Model Specification

The study adapts the models of Melumad and Nissim (2009) and Adiguzel (2021) to examine the effect of trade receivables credit quality (TRCQ), cash holdings, and related variables on firm value (FV) of Nigerian deposit money banks. The primary model is specified as:

$$FV_{it} = \beta_0 + \beta_1 TRCQ_{it} + \beta_2 NPLR_{it} + \beta_3 LLP_{it} + \beta_4 RT_{it} + \beta_5 CH_{it} + \beta_6 TANG_{it} + \varepsilon$$

Where: FV = Firm value

TRCQI = Trade Receivables Credit Quality Index,

NPLR = Non-Performing Loan

LLP = Loan Loss Provisions

RT = Receivables Turnover

CH = Cash holdings, TANG = Non-current Assets divided by Total Asset

$\varepsilon$  = Error term;  $\beta_0$  = Intercept;  $\beta_1$ – $\beta_6$  = Coefficients of explanatory variables.

This specification captures both the direct and composite effects of credit risk factors on firm value.

### 3.7 Operationalization of Variables

**Table 1:** Variable Measurement and Source

Acronym	Variable	Type	Measurement by Prior Study	Source
FV	Firm Value	Dependent	Tobin's Q = (Total assets – Book value of equity + Market value of equity) ÷ Total assets	Adiguzel (2021)

TRCQI	Trade Receivables Credit Quality Index	Independent	TRCQI = (NPL Ratio × Receivables Turnover) × LLP Trend × ROA Trend × Loan Growth	Adiguzel (2021)
LLP	Loan Loss Provision	Independent	Ratio of loan loss provisions to total loans	Achema et al. (2022)
NPLR	Non-Performing Loan Ratio	Independent	Ratio of Non-Performing Loans to Total Loans	Aliyu et al. (2024)
RT	Receivables Turnover	Independent	Total Loans ÷ Total Assets	Aliyu et al. (2024)
CH	Cash Holdings	Independent	Cash and Cash Equivalents ÷ Total Assets	Hameed & Leah (2024)
TANG	Tangibility	Control	Non-Current Assets ÷ Total Assets	Jebran et al. (2019)

Source: Researcher’s compilation (2025)

## 4. Results and Discussion

### 4.1 Descriptive Statistics

Table 2: Descriptive Statistics

	FV	TRCQI	NPLR	LLP	RT	CH	TANG
Mean	1.0221	0.0000	0.0803	0.0168	1.3808	1.4859	0.7763
Median	1.0151	0.0000	0.0800	0.0130	0.9757	1.4548	0.8425
Maximum	1.3839	0.0047	0.1700	0.0982	12.2729	3.7550	2.1677
Minimum	0.5902	(0.0003)	0.0230	0.0065	0.2980	0.0834	0.0005
Std. Dev.	0.0667	0.0004	0.0299	0.0159	1.5031	0.7594	0.2856
Skewness	(0.2599)	11.6299	0.4562	3.5266	4.2347	0.4355	0.3724
Kurtosis	21.9730	137.9249	3.5854	15.1758	25.5086	3.2314	10.7814
Jarque-Bera	2,146.4520	111,693.4000	7.0022	1,179.7270	3,446.1010	4.8386	364.0849
Probability	0.0000	0.0000	0.0302	0.0000	0.0000	0.0890	0.0000
Observations	143	143	143	143	143	143	143

Source: Researchers’ Compilation (2025)

The descriptive statistics for 143 firm-year observations reveal considerable variability across the variables. Firm Value (FV, Tobin’s Q) has a mean of 1.0221, SD = 0.0667, negatively skewed (−0.2599) and leptokurtic (21.97), JB = 2,146.45 (p < 0.01), indicating outliers. TRCQI shows extreme skewness (11.63) and kurtosis (137.92), JB = 111,693.40 (p < 0.01), reflecting heterogeneous receivables credit quality. NPLR (mean = 0.0803, SD = 0.0299, skew = 0.4562, kurtosis = 3.59, JB = 7.00, p = 0.0302) and CH (mean = 1.4859, SD = 0.7594, skew = 0.4355, kurtosis = 3.23, JB = 4.84, p = 0.0890) are approximately normal. LLP (mean = 0.0168, SD = 0.0159, skew = 3.53, kurtosis = 15.18, JB = 1,179.73, p < 0.01), RT (mean = 1.3808, SD = 1.5031, skew = 4.23, kurtosis = 25.51, JB = 3,446.10, p < 0.01), and TANG (mean = 0.7763, SD = 0.2856, skew = 0.3724, kurtosis = 10.78, JB = 364.08, p < 0.01) exhibit high skewness and leptokurtosis, suggesting outliers. These patterns justify using robust regression techniques to address heterogeneity and non-normality.

### 4.2 Correlation Analysis

Table 2: Correlation Matrix

	FV	TRCQI	NPLR	LLP	RT	CH	TANG
FV	1.0000						
TRCQI	-0.0888	1.0000					
NPLR	-0.1057	0.0939	1.0000				
LLP	-0.0748	-0.0286	-0.3419	1.0000			

<b>RT</b>	-0.1221	-0.0385	0.2855	-0.1742	1.0000		
<b>CH</b>	-0.0554	-0.1493	0.2086	-0.2567	0.1280	1.0000	
<b>TANG</b>	-0.0129	0.0665	0.2232	0.0359	-0.1078	0.1814	1.0000
<b>FAGE</b>	-0.1539	-0.1002	0.0645	0.2801	-0.2004	-0.0028	-0.1380

**Source:** Researchers' Compilation (2025)

Table 2 shows weak negative correlations between the explanatory variables and firm value, with no evidence of multicollinearity as all coefficients remain low. Trade receivables credit quality ( $r = -0.0888$ ), NPLR ( $r = -0.1057$ ), LLP ( $r = -0.0748$ ), RT ( $r = -0.1221$ ), CH ( $r = -0.0554$ ), and TANG ( $r = -0.0129$ ) all exhibit mild inverse associations. Overall, correlations are weak, indicating limited linear influence on firm value.

### 4.3 Diagnostic Tests of the Regression Model

**Table 3:** Diagnostic Test Estimates

Variance Inflation Factors		Breusch-Godfrey Serial Correlation LM Test:	
Variable	Centered (VIF)	F-statistic	Obs*R-squared
<b>C</b>	NA	12.59997	22.77872
<b>TRCQI</b>	1.0625	Prob. F(2,133)	Prob. Chi-Square(2)
<b>NPLR</b>	1.4593	0.0000	0.0000
<b>LLP</b>	1.3931	<b>Heteroskedasticity Test: ARCH</b>	
<b>RT</b>	1.2369	<b>F-statistic</b>	<b>Obs*R-squared</b>
<b>CH</b>	1.1824	3.796643	3.749207
<b>TANG</b>	1.2347	Prob. F(1,140)	Prob. Chi-Square(1)

**Source:** Researcher's Computation (2025)

Diagnostic tests were conducted to ensure the reliability of the regression results. VIF values for all variables—TRCQI (1.0625), NPLR (1.4593), LLP (1.3931), RT (1.2369), CH (1.1824), and TANG (1.2347) were below 10, indicating no multicollinearity. However, the Breusch-Godfrey test confirmed serial correlation ( $p = 0.0000$ ), and the ARCH test revealed heteroskedasticity ( $p \approx 0.04$ ). Since OLS assumptions were violated, the study employed Panel GLS, which corrects for both issues and improves estimate efficiency.

### 4.4 Regression Results

**Table 4:** Panel Generalized Least Squares Regression Estimates

Dependent Variable: FV				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
<b>C</b>	1.0180	0.0165	61.6160	0.0000
<b>TRCQI</b>	-16.8114	5.4671	-3.0750	0.0026
<b>NPLR</b>	-0.0206	0.0420	-0.4902	0.6248
<b>LLP</b>	0.0591	0.1400	0.4220	0.6738
<b>RT</b>	-0.0097	0.0022	-4.4772	0.0000
<b>CH</b>	-0.0052	0.0018	-2.9444	0.0039
<b>TANG</b>	-0.0145	0.0040	-3.6768	0.0004
<b>R-squared</b>	0.7032	<b>F-statistic</b>	15.3396	
<b>Adjusted R-squared</b>	0.6574	<b>Prob(F-statistic)</b>	0.0000	
<b>S.E. of regression</b>	0.0533	Durbin-Watson stat	1.9200	

**Source:** Researcher's computation (2025)

The Durbin-Watson value of 1.9200 indicates no significant autocorrelation, supporting model reliability. The PGLS results show the model is highly significant ( $F = 15.3396$ ,  $p = 0.0000$ ), with strong explanatory power ( $R^2 = 0.7032$ ;  $\text{Adj. } R^2 = 0.6574$ ). The intercept is positive and significant ( $\beta = 1.0180$ ), confirming a high baseline firm value independent of the explanatory variables.

#### **4.5 Test of Hypotheses**

The results of the Panel Generalized Least Squares (PGLS) regression reveal varied and insightful effects of trade receivables credit quality indicators and cash holdings on the firm value of listed Deposit Money Banks in Nigeria, underscoring the financial and operational dynamics within the sector.

Trade Receivables Composite Quality Index (TRCQI) has a negative and statistically significant effect on firm value ( $\beta = -16.8114$ ;  $p = 0.0026$ ), indicating that poor receivables quality—potentially stemming from weak credit policies or ineffective collection strategies—significantly reduces firm value.

Non-Performing Loan Ratio (NPLR) has a negative and statistically insignificant effect on firm value ( $\beta = -0.0206$ ;  $p = 0.6248$ ), suggesting that changes in the proportion of non-performing loans are not strong predictors of market valuation, possibly due to risk mitigation measures or regulatory expectations.

Loan Loss Provision (LLP) has a positive and statistically insignificant effect on firm value ( $\beta = 0.0591$ ;  $p = 0.6738$ ), implying that although provisioning may reflect prudent risk management, it does not significantly affect investor perception or valuation outcomes.

Receivables Turnover (RT) exhibits a negative and statistically significant effect on firm value ( $\beta = -0.0097$ ;  $p = 0.0000$ ), which may suggest that an aggressive or overly stringent credit collection approach could adversely affect customer relations or revenue streams, thereby diminishing firm value.

Cash Holdings (CH) also show a negative and statistically significant effect on firm value ( $\beta = -0.0052$ ;  $p = 0.0039$ ), indicating that excess liquidity may be interpreted by investors as inefficient capital utilization, thereby exerting downward pressure on firm valuation.

These findings highlight the complex relationship between trade receivables credit quality, cash holdings, and firm valuation, emphasizing the need for banks to adopt balanced and strategic asset management practices that align with investor expectations and long-term value creation.

#### **4.6 Discussion of Findings**

This section summarises how trade receivables credit quality, non-performing loans, loan loss provision, receivables turnover, and cash holdings influence firm value, using empirical evidence and Agency and Liquidity Preference theories.

The study finds that TRCQI negatively and significantly affects firm value, indicating that declining receivables quality reduces valuation. This aligns with Adiguzel (2021) and Jacobson and Schedvin (2015), consistent with Agency Theory and Liquidity Preference Theory.

The result shows that NPLR negatively but insignificantly affects firm value. Evidence from Bencharles and Nwankwo (2021), Aliyu et al. (2024), and Ngumbau (2023) reveals mixed outcomes, reflecting governance and monitoring differences highlighted by Agency Theory.

The analysis indicates that LLP has a positive but insignificant effect on firm value. Findings by Ngumbau (2023) and Aliyu et al. (2024) support this, with Agency Theory and liquidity arguments suggesting earnings smoothing and tied-up resources.

The findings reveal that RT has a negative and significant effect on firm value. This aligns with Anetoh et al. (2021), contrasting Hill et al. (2015), and reflects managerial trade-offs and liquidity concerns explained by Agency and Liquidity Preference theories.

The study confirms that CH negatively and significantly affects firm value. Habib et al. (2021) and Hameed and Leah (2024) support this value-reducing effect, consistent with Agency concerns about inefficiency and Liquidity Preference Theory's emphasis on optimal liquidity.

## **5. Conclusion and Recommendations**

This study examined the effect of trade receivables credit quality and cash holdings on firm value among listed Deposit Money Banks in Nigeria using an eleven-year panel dataset (2013–2023) and a Panel GLS model to enhance estimate precision. The results show that the Trade Receivables Composite Quality Index (TRCQI) significantly and negatively affects firm value, indicating that declining receivables quality reduces market valuation. The Non-Performing Loan Ratio (NPLR) and Loan Loss Provisions (LLP) exhibit insignificant effects, suggesting limited valuation sensitivity to isolated credit-risk changes. Receivables Turnover (RT) shows a significant negative impact, implying that overly aggressive recovery practices may harm long-term value. Cash Holdings (CH) also significantly reduce firm value, reflecting investor concerns about inefficient liquidity management. Overall, the study highlights the importance of maintaining high-quality receivables and optimizing liquidity to enhance shareholder value, recommending strategic credit oversight and prudent cash deployment for improved firm performance.

The study highlights the following recommendation:

- i. Adopt rigorous credit risk assessment frameworks, enforce strict credit approval procedures, implement efficient collection systems, invest in credit-monitoring technologies, and continuously train credit personnel to sustain receivables performance and improve asset quality.
- ii. Intensify credit monitoring, improve borrower assessment, utilize early warning systems, conduct regular loan portfolio evaluations, and enhance recovery efforts through legal recourse, asset restructuring, and collaboration with credit bureaus.
- iii. Implement forward-looking, predictive models for expected credit losses in line with IFRS 9, maintain transparent and consistent provisioning policies, and align with global risk governance standards to safeguard financial soundness and boost investor confidence.
- iv. Avoid overly aggressive collections, employ client segmentation, optimize credit terms, use technology-driven collection processes, and maintain clear communication and flexible repayment arrangements to preserve long-term customer trust.
- v. Align cash reserves with operational needs and strategic objectives, allocate resources to value-generating activities, conduct regular cash flow assessments, and integrate investment planning to improve capital efficiency and demonstrate responsible financial stewardship.

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