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BOARD DYNAMICS, FINANCIAL RISK MANAGEMENT, AND CASH HOLDINGS: EVIDENCE FROM LISTED NIGERIAN DEPOSIT MONEY BANKS

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Abstract

This study was conducted to investigate how board dynamics interact with risk management to affect the cash holdings of listed deposit money banks (DMBs) in Nigeria. A balanced panel of 120 firm-year observations of 12 listed banks was analyzed based on 10-year window of analysis (2015-2024) using a fixed-effects regression technique, and ex post facto research design. In the empirical analysis, the findings show that both board gender diversity and meetings have significant and positive direct effects on bank cash holdings. Importantly, the interaction model supports the negative and significant moderation effect of the interaction between board gender diversity and cash retention, as predicted by liquidity risk. This study adds to the literature by combining two theories, agency and resource dependence theories in a single liquidity framework in sub-Saharan Africa. The novelty is on the one hand in the departure from the linear approach of the traditional paradigms, and on the other hand, in the creation of a tripartite moderated framework, thus showing that the credit and liquidity risks act as active moderators that substantially change the behavior of the members of the boards of directors and the strategies of asset protection in times of macroeconomic shocks.

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Introduction

The control of cash and cash equivalents is a pivotal factor in the financial soundness and survival of banks in the Nigerian banking system. The Operating environment of Listed Deposit Money Banks (DMBs) is very unstable as it is influenced by a variety of macro-economic factors such as aggressive monetary policies, volatility of cash reserve ratios, and foreign exchange instability [1]. This thereby presents an acute liquidity-profitability dilemma. Having strong cash reserves protects a bank from a sudden rush of deposits, penalties from authorities [2], but cash is a non-earning asset. The issue of too much cash hoarding in high inflation and high-interest rate climates results to huge opportunity costs which negatively affect asset returns and also restricts credit creation [3].

The historical banking distress in Nigeria and the problem of non-performing loan (NPL) as experienced in the banking system has shown that there is often a problem of inadequate liquidity management that results from agency problem where the management of the bank misallocates liquid assets to the disadvantage of the bank's stakeholders [4]. It is the job of the corporate board of directors to directly face this tricky balance. Board characteristics significantly shape the liquidity channels of the companies' liquidity systems, to meet transactional, precautionary and speculative liquidity objectives across the world [5].

These dynamics have been extensively discussed in the empirical scholarship in Nigeria [6]. The results revealed that board gender diversity significantly reduces corporate risks because it curbs overconfidence and NPL concentrations that have been reported by Adegboye et al., 2020; Emiaso & Okafor, 2023; Nwafor, 2025 [7]. At the same time, the size of the board and the frequency of holding the meeting can be regarded as proxies that have been actively applied in relation to financial discipline and the efficiency of monitoring in the company [8]. But current knowledge is disjointed and traditionally researchers have seen risk indices and corporate governance as two independent causative factors of performance, not inter-dependent layers of organizational strategy [9].

In addition, the research on cash holdings in the sub-Saharan region has mostly concentrated on non-financial companies [10], or on large-scale macroeconomic shocks, without taking into account the specific liquidity requirements of commercial banking frameworks. Most importantly, the links among these governance features on the board and a bank's cash holdings are difficult to address without taking into account the financial risks generally faced by a bank. In the context of the governance-liquidity nexus, this study suggested that risk management which has been operationalised into liquidity risk and credit risk has strong moderating effect on this governance-liquidity nexus [11]. However, the governance inputs of a board do not have a simple and linear relationship with cash strategy; their impact varies with the nature of threats to the institutions [12].

In times of low financial risks, board procedures might be inclined to follow the routine management decisions concerning liquidity. But, when the pressure of liquidity risk is felt during depositor's pressure the board's monitoring power is shocked to high-stakes action [13]; however, when the pressure of credit risk is felt when the rising of loan defaults is threatening to the capital adequacy of the bank, the board's monitoring power is shocked to high-stakes action [14]. In high-risk situations, proactive boards act to ensure a strategic shift towards cash and cash equivalents, with liquidity acting as a defensive measure to meet regulatory requirements and reduce default risk [15]. Although a lot of work has been done on bank governance in developing countries, there is an important empirical research gap of the intersection between the boardroom architecture, the bank's realities in terms of risks, and the management of liquidity.

In Nigeria, the previous research has mainly focused on the profitability of the boards through the prism of cash, thus cash being a mere control variable instead of a policy of the company [16]. Most important, current studies do not consider the effect of external risks on the nature of the board's actions, but rather that a board's impact on cash is unaffected by its own financial health or lack thereof, even as the bank itself experiences imminent failure or success [17].

The originality of this paper is given by the fact that it offers a tripartite moderated approach where the

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liquidity and credit risks become interactive moderating variables, which influence cash positions in the sub-Saharan Africa context, and thus modify the relationship between the board gender diversity, board size, and frequency of board meetings. Moreover, this study has immediate practical originality as it puts these relationships into perspective in the context of the strict modern regulatory environment of listed Nigerian DMBs, considering empirical realities through to recent recapitalisation requirements and monetary tightening. This paper delivers important empirical insights for emerging market central bank regulators, institutional investors and corporate governance policy makers, since it sheds new light on the extent to which corporate boards are able to buffer institutions from the impact of severe systemic shocks through the use of cash buffers.

Literature Review

Theoretical Framework

The theoretical basis of this study is built on an integrated approach which combines the concept of agency theory and resource dependence theory to explain the direct effect of corporate governance on bank liquidity from the economic perspective of the precautionary motive. In corporate governance, agency theory states that there is a basic tension between self-serving managers and wealth maximizing shareholders in which managers tend to favor large cash holdings to avoid external discipline from capital markets, to gain control over business operations and to build empires [18]. In the Nigerian banking industry, the managerial opportunism is often seen when banks keep a lot of cash on hand to cover up bad loans or poor operational efficiency [19]. To offset this, a structurally active corporate board, with equal sized, regularly meeting, and gender-balanced membership is needed to punish managers and the excess buildup of cash, and to ensure that liquidity is balanced to the interests of shareholders. On the other hand, the Resource Dependence Theory treats the board as a resource which connects the firm with important external resources, reduces environmental uncertainty and provides important funding channels [20].

A bigger and diverse board offers a deposit money bank (DMB) a valuable network of capital which comes from wider institutional banking networks and regulatory relationships in Nigeria and in the general prevalence of regulatory and macroeconomic instability [21]. This ability to quickly call-in external sources of funding is a regulatory countervailing force on banks' liquidity and means that they are less structurally compelled to keep large amounts of cash as a defensive buffer that they do not earn. The precautionary motive is a possible explanation for the governance options taken, as it states that firms keep cash and cash equivalents to protect against unforeseen financial problems and cash flow shortages when the opportunity cost of capital is high [22].

In the Nigerian banking industry, characterized by sharp monetary policy changes and fast changes in cash reserve ratio, this is a very dominant motive for a bank, thus allowing them to meet their daily withdrawals from their deposits and abide by the directives of the Central Bank without having to sell assets at a loss [23]. This study combines these views by proposing that board dynamics' effect on cash holdings is non-linear and dependent on the institutional risk thresholds, measured by liquidity risk and credit risk. If financial risks are low, board monitoring may be delegating to regular management decisions regarding agency costs versus access to resources. The precautionary motive is the overriding mandate, however, with increased credit risk through increased NPLs, and increased liquidity risk through depositor pressures [24]. This financial shock creates strong monitoring of the board according to agency theory, which may lead to managerial over-reservation, and at the same time, activates the external network of the board according to resource dependence theory, which leads to the stabilization of the fund. Hence, this combination of healthy board engagement and high financial risk is an institutional catalyst and triggers a rebalancing of cash and cash equivalents to maintain regulatory compliance and ensure the survival of the bank.

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Conceptual Review

Conceptual review, the core variables of this study are defined and unpacked, and the theoretical and operational pathways linking board dynamics and risk management frameworks with liquidity structures of listed Deposit Money Banks (DMBs) in Nigeria are explored. Monitoring capacity and strategic orientation of the boardroom are reflected in the three factors – gender diversity of the board, size, and frequency of board meetings – at the top of the input of the corporate governance. Board gender diversity is defined as the percentage of women on the corporate Board and is becoming more associated with corporate stability. According to behavioral finance literature, women directors appear to be less overconfident in their management skills and more risk averse to severe downside risks than male directors [25]. In banking terms, this risk-conscious attitude is reflected in a more tightened asset quality management of banks and a desire to have well-balanced liquidity buffers to ensure solvency. The number of boards (board size) implies a trade-off between resources being captured and operational efficiency. Larger boards affording a wider network of institutional banking contacts and financial knowledge to secure external funding lines (Pfeffer & Salancik, 1978; Yusuf et al., 2023) also have problems of communication friction, coordination problems, and slow consensus building (Jensen, 1986). These coordination problems could result in the sub-optimal, delayed use of an idle cash, which may be inefficient coordination.These coordination failures may give rise to the sub-optimal and inefficient deployment of idle cash by passive accumulation. In addition to these structural characteristics, the frequency of the board meetings is a direct proxy for the level of directorial diligence, active monitoring and engagement in the boardroom. In contrast, the number of meetings does not necessarily stay constant as it depends on the extent to which a board monitors financial performance, assesses management decisions and acts to alter cash reserves as a function of these decisions in response to changing environmental conditions (Sanyaolu et al., 2020; Ahmad et al., 2024). The dependent variable is cash and cash equivalents, which is the most liquid asset that a bank holds to meet its transactional, precautionary and regulatory demands. The definition of cash and cash equivalents in commercial banking is the physical cash in the banks vault, balances held with the central bank, and short-term highly liquid placements with other financial institutions that can be readily converted to a known amount of cash with negligible risk of fluctuation in value (Ferreira & Vilela, 2004; Nwokoye, 2022). Deposit money banks are subject to a "straightjacket" in managing their cash holdings because they are subject to direct regulation of cash holdings in terms of capital adequacy, deposit insurance and monetary stability policy, while non-financial corporations have complete freedom in their cash management. This study makes a specific focus on risk management as an operational mechanism, namely risk management specifically operationalized through liquidity risk and credit risk, as the essential conditional mechanism, which determines the way of the corporate boards' management of these liquid assets. In banking, liquidity risk occurs when there are mismatches in the maturity between assets and liabilities of a bank, that is, situations where a bank may have a short-term funding shortfall or be unable to sell assets at a loss without forcing a fire sale of its assets (Acharya et al., 2007; Agha, 2023). Credit risk, however, is the risk of loss associated with a failure by a borrower to pay back a loan or fulfill contractual obligation to pay, and is usually manifested as an accumulation of non-performing loans (NPLs) which is a reduction in capital reserves (Umar & Binta, 2022; Ogundele, 2025). Combined, these risk vectors do not just run alongside governance – to a degree they are interacting shocks that transform the way boards operate. The moment that a bank's internal credit risk gets to a certain level or external liquidity risk gets tighter, the corporate board will be awakened to such risks to pay intense attention to them and rebalance cash and cash equivalents to ensure that the bank's survival is not jeopardized.

Empirical Review

There has been a significant volume of empirical research to examine the unique connection between boardroom structure, corporate risk and accumulation of liquid assets. The effect of women on the board on cash management is more of a structural one, because of behavioral and monitoring differences in

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the groups of directors. Corporate Boards with higher numbers of women have been shown to have higher risk awareness, lower tolerance for aggressive investment strategies and a greater sensitivity to regulatory compliance (Cruz et al., 2020). In the banking industry, gender inclusion is shown to positively impact the transparency of financial reporting, the prevalence of managerial overconfidence, and directly decreases the amount of non-performing loans (Adegboye et al., 2020; Emiaso & Okafor, 2023). Thus, empirical evidence suggests that gender diverse boards prefer a strong, precautionary cash buffer rather than seeking high-yield, but high-risk credit exposures (Nwafor, 2025). At the same time, there is a clear empirical discussion about a trade-off between the size of the board and its operation. Scholars based on the resource dependence theory argue that larger boards would work positively on the issue of access to liquidity in companies because they have a wider institutional network and corporate connections, which would allow them to move quickly into the mobilization of external funding lines, thus reducing the structural need to hold internal cash at low rates of return (Yusuf et al., 2023). On the other hand, agency-based empirical studies suggest that problems with coordination friction, communication issues, and slow decision making are significant hurdles in large-boards (Farouk & Isa, 2018). The lack of strategic capital deployment due to board room conflict (Ohaji & Atoyebi, 2026), the internal inefficiencies sometimes make it difficult to achieve the optimum accumulation of idle cash reserves. A dynamic mechanism in this structural relation involves the frequency of board meetings, and is an empirical proxy for the direct involvement of board members. The proactive boards with more frequent meetings are found to have better oversight of cash management by managers, to proactively rebalance their liquidity buffers in response to current operating demands, and to discourage managers from self-entrenchment and empire building activities by forcing them to allocate resources to other projects (Sanyaolu et al., 2020; Ahmad et al., 2024). While the relationship between these aspects of governance and impacts on finances is highly contextual, the empirical evidence on finance-governance relationships in sub-Saharan Africa is quite diverse. Previous empirical research in Nigeria has mainly adopted a linear approach to studying board dynamics, focusing on governance features as opposed to the overall financial performance of the firm, and cash holdings as a simple static control variable (Nwokoye, 2022). Moreover, existing empirical literature is very narrowly focused on non-financial corporations (NFCs) when addressing the determinants of cash holdings, largely ignoring the statutory cash reserve ratios (CRR) and strong policy stance of central banks toward cash holdings in commercial banking structures. Importantly, the literature lacks a fundamental empirical test of the role of corporate governance behavior as it neglects to consider the possibility that the effect of a board on liquidity can vary as a function of the state of a firm's operation. Existing empirical studies have not captured how increased institutional risks affect boardroom decision making and have left an unexplored void of research on how credit risk and liquidity risk actively moderate and re-frame the relationship between the inputs to the board and the liquidity outcomes of the firm. Based on the above succinct literature review, the following general null hypothesis is established to test the interactive financial dynamics in the context of listed Nigerian Deposit Money Banks to close the above gap in the knowledge of the study: The study testifies that cash holdings of listed deposit money banks in Nigeria are not significantly affected by the dynamics of the board of directors and the relationship is not significantly moderated by risk management.

H_1: Board dynamics do not have a significant effect on the cash holdings of listed deposit money banks in Nigeria.

H_2: Risk management do not moderate the relationship between board dynamics and cash holdings of listed deposit money banks in Nigeria**.**

Methodology

The research method used in this research is ex-post facto (after the fact) research with longitudinal research design and secondary panel data. The panel data is chosen because it offers a rich corporate data environment with more degrees of freedom, controls for individual firm-level characteristics and

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mitigates the effects of multicollinearity that may be present in pure time-series or cross-sectional data set (Baltagi, 2021).

The target population is the entire list of 14 deposit money banks as of 31st December 2024 from the Nigerian Exchange (NGX). Purposive sampling was used to narrow down the target population to those who provided the data and had a consistent listing throughout the entire study period and published complete audited financial statements for the whole period of the study. The successful application of these criteria results in a highly balanced number of 12 banks, and a total of 120 firm-year observations over 10 years from 2015 to 2024. This particular time frame is characterised by some key macroeconomic events which have occurred in the Nigerian financial system such as the 2016 economic recession, the 2020 global pandemic and the tough monetary policy tightenings and foreign exchange liberalisations of 2023-2024. All data for the independent as well as the dependent variables were collected manually from the annual reports of the banks and cross checked with financial databases which have standardized information such as Bloomberg and African Financials repository.

The variables are operationalised in terms of benchmark corporate financial and corporate governance variables, to assure empirical validity and to enable high quality statistical testing. Dependent Variable Cash Holdings (CH): Cash and cash equivalents divided by Total assets. Board Gender Diversity (BG): Female board members as a proportion of all the board members in a financial year. Board Size (BS): The value is the number of Directors sitting on the bank's Corporate Board in absolute numbers during the financial year. Board Meetings (BM): The total number of corporate board of directors' meetings during the 12-month period ending with the end of the fiscal year, which is an indicator of how diligently the board works.

Moderating factors (Risk Management) Liquidity Risk (LR): Total loans and advances to the customers/Total deposit of the customers. Credit Risk (CR) Total non-performing loans / gross loans and advances.

Control Variables

Leverage: Total debt divided by total assets

Firm Age: Log of year of Incorporation

Results and Discussion

Table 1 Descriptive Statistics

	BS	BG	BM	CR	LQR	LEV	AGE
Mean	14.333	2.692	6.683	0.287	1.276	0.880	1.360
Median	15.000	3.000	6.000	0.132	0.781	0.817	1.312
Maximum	21.000	6.000	10.000	1.713	47.434	4.366	1.724
Minimum	6.000	0.000	3.000	0.000	0.001	0.000	0.903
Std. Dev.	3.082	1.634	2.586	0.329	4.428	0.734	0.263
Skewness	-0.276	0.295	1.391	2.351	4.680	2.661	-0.024
Kurtosis	2.521	2.397	5.203	6.072	7.373	3.516	1.541
Jarque-Bera	2.670	3.557	62.985	36.579	41.400	64.551	10.652
Observations	120	120	120	120	120	120	120

Source: Author's Computation

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Descriptive Statistics

The descriptive statistics show that the dimension of the corporate board of listed Nigerian Deposit Money Banks (DMBs) is relatively large with an average of 14.33 directors (BS) with a minimum of 6 and a maximum of 21 directors. Gender representation in these boardrooms is in its infancy with a mean of 2.69 female directors (BG) but at least one had an all-male board (Min = 0.00). Board meetings are about 7 times per year (BM = 6.683) and can reach as high as 16 meetings in times of high operational or macro-economic volatility. The financial profiles are extremely leveraged: the mean leverage ratio is 88% (LEV = 0.880), and there are significant risk exposures. The mean of the credit risk (CR) is 28.7% with a maximum of 1.713, meaning the deterioration of the loan portfolio is high, and the mean of the liquidity risk (LQR) is 1.276 with right skew. Board Size (BS) and Bank Age (AGE) have mild negative skewness and platy kurtosis, and are closest to normal symmetry. The remaining three risks: Board Meetings (BM), Credit Risk (CR), Liquidity Risk (LQR), and Leverage (LEV) are skewed towards the right and have high leptokurtic kurtosis values.

Correlation Matrix

	BS	BG	BM	CR	LQR	LEV	AGE	VIF
BS	1.000							1.185
BG	0.553	1.000						1.286
BM	0.222	0.275	1.000					1.035
CR	-0.040	0.176	-0.207	1.000				1.194
LQR	-0.067	-0.056	-0.089	0.041	1.000			1.035
LEV	-0.072	-0.060	0.106	-0.172	-0.009	1.000		1.120
LAGE	0.029	0.093	-0.122	0.112	0.135	0.244	1.000	1.150

Source: Author's Computation

Correlation Matrix and Variance Inflation Factors

The correlation matrix shows weak to moderate correlation between the variables, which suggests that the indicators reflect different aspects of operation. The relation between Board Size (BS) and Board Gender Diversity (BG) is the strongest linear relation with a positive relationship of 0.553. This implies that the larger the size of the boardroom, the more the listed banks in Nigeria have the opportunity to create structure for appointing women as directorial members. Board size (0.222) and gender diversity (0.275) show positive relationships with board meetings (BM), and suggest that larger, more diverse boards are linked to greater corporate diligence. In terms of risk vectors, the agency theory hypothesis that more boardroom oversight may limit asset quality deterioration receives some initial empirical support in the case of credit risk (CR), which has a negative correlation with board meetings (-0.207). The same is true of liquidity risk (LQR), which has low negative relationships with board size -0.067 and board gender diversity -0.056. From a diagnostic point of view, the results confirm the complete lack of multi-collinearity, confirming the soundness of the regression model. Multi-collinearity can pose serious problems to the efficiency of the standard errors in empirical literature if the coefficients of the correlations are higher than 0.70 or 0.80. In this panel, all of the correlation values are below this ceiling.

The Variance Inflation Factor (VIF) statistic supports this finding. The lowest VIFs are 1.035 (for both BM and LQR) and the highest is 1.286 (for BG). All individual VIF values are well under the conservative limit of VIF value of 5.0, and the traditional limit of VIF value of 10.0, which indicates a stable and independent explanatory variable. This is an indication that these variables can be included in the upcoming panel regression models without risking inflated SEs or unstable estimates of the coefficients because they can be included in conjunction with the multiplicative interaction terms.

Table Regression Analysis

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Variable	**Pooled**		**Fixed**		**Random**	
	Coeff	T-Stat	Coeff	T-Stat	Coeff	T-Stat
C	0.039	0.121	19.911	7.012**	8.548	9.696**
BS	0.031	0.314	-0.012	-0.235	-0.005	-1.154
BG	0.783	7.093**	1.031	4.995**	1.571	10.580**
BM	0.672	7.761**	0.282	3.557**	0.449	6.230**
BS*CR	0.925	1.280	0.457	0.359	0.659	1.225
BG*LQR	-0.623	-4.620**	-0.540	-3.840**	-0.710	-5.562**
LEV	-0.081	-0.254	-0.048	-0.207	0.025	0.124
AGE	3.807	6.651**	7.130	3.658**	0.653	1.119
Adjusted R^2	0.409		0.767		0.604	
F-Statistic	10.900	(0.000)	19.708	(0.000)	19.219	(0.000)
Durbin Watson	1.612		1.743		1.646	
Redundant test			7.931	(0.000)		
Hausman test			86.265	(0.000)		

Source: Author's Computation

Regression Analysis

A diagnosis strategy was followed to select the best panel estimator. The first step was the Redundant Fixed Effects Test with an F-statistic of 7.931 and a highly significant p-value of 0.000, which strongly rejected the null hypothesis of redundant individual banks' effects. This validates the panel structure for a better performance than the pooled Ordinary Least Squares (OLS) regression. Secondly, the Hausman Specification Test did not result in a significant chi-square statistic (86.265) or p-value (0.000). This p-value is below the 5 % significance level (< 0.05) and the null hypothesis of the efficient random effects parameters is well rejected. This suggests that unobserved bank-specific characteristics are correlated, in a systematic way, with the explanatory variables, thus justifying the choice of the Fixed Effects (FE) estimator for unbiased and consistent estimates of the parameters. Overall model's explained variance and structural validity are high. The adjusted R2 of 0.767 suggests that 76.7% of the variance in the cash holdings of listed Nigerian deposit money banks can be explained by the combined effect of the board dynamics, financial risks and bank-level controls. This condition is supported by the F-statistic which is of value 19.708 and the probability value is 0.000, indicating that the overall model is highly significant at the 1% level. The Durbin-Watson value is also close to the optimal value of 2.0, and shows that first-order serial correlation is not a problem with the efficiency of the standard errors. Results obtained from the fixed-effects regression indicate that direct effects of specific board characteristics and interactions of these effects with financial risk have significant influence on bank liquidity: Board Gender Diversity (BG) has a positive and statistically significant impact on bank cash holdings (t-stat = 4.995, $p < 0.05$). Board Meeting Frequency (BM) is directly related with cash holdings with a positive sign and statistically significant (t-stat = 3.557, $p<0.05$). The interaction term of Gender and Liquidity Risk (BG*LQR) has statistically significant negative sign (t-stat = -3.840, $p < 0.05$). Finally, this validates that liquidity risk is a strong moderator of the link between board gender diversity and cash retention. The corporate cash balances (AGE) have a positive and statistically significant direct effect on bank age (t-stat. = 3.658, $p < 0.05$). The findings rejected the two null hypotheses proposed: the first hypothesis which posited that there was no relationship between board dynamics and cash holdings of listed deposit money banks in Nigeria and secondly, that there was no interaction effect between board dynamics and cash holdings of listed deposit money banks in Nigeria and risk management.

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Discussion of Findings

The positive and statistically significant direct effect of board gender (BG) and board meeting (BM) on cash holdings give strong support to the agency theory and the precautionary motive. An Agency Board which has an active chairperson who meets regularly and who reflects a cross-section of opinion can be very effective as an Agency Discipline and is an effective brake on managerial opportunism. The active board structures force the executives to keep a strong pool of liquid assets, so that they will not be caught in the middle of a sudden crisis as they deploy free cash flows into high-risk and illiquid credit allocations, or the expensive empire-building projects they engage in. In the economic sense, the boards with gender diversity are more interested in building the resilience of their institution than in high profits in the short term. They believe that cash is a key asset that is meant to preserve stakeholder value.

The finding offers empirical support for the importance of having proper boardroom composition, for policy regulators such as the Central Bank of Nigeria (CBN). It establishes that gender inclusion and structural meeting frequency is not a corporate social responsibility checkbox, it's a real policy that can be enacted as a statutory risk-mitigation measure that helps ensure the structural solvency of the domestic banking ecosystem. This direct positive effect corroborates with the empirical results of Adegboye et al., (2020) and Emiaso and Okafor, (2023) which showed that gender-inclusive boardrooms in Nigeria have significant effect on non-performing loans (NPLs) as it helps to curb managerial overconfidence and hold the corporate accountable. It also backs up the claims of Ahmad et al. (2024) that there is a link between high boardroom diligence and high asset quality and strategic liquidity discipline.

The findings were however contrary to the empirical findings of Farouk and Isa (2018) and Ohaji and Atoyebi (2026) who hypothesized that frequent (more than three) board meetings or different group of board members would cause internal conflict and communication gap thereby affecting the board's monitoring ability and thus asset management. The negative and statistically significant interaction between board gender and liquidity risk is indicative of a critical, non-linear conditional effect: The effect of board gender diversity on a bank's level of cash holdings is significantly weakened when the liquidity risk in the bank increases. The discovery is a strong combination of using the theory of resource dependence and the precautionary motive. As liquidity risk rises (seen in an increased LDR ratio of loans to deposits, with the assets bound up in a lot of loans), a gender-balanced board changes its approach. Resourceful and risk-averse female directors engage in active cash hoarding of institutional funds outside the country wherein Nigeria suffers from high inflation, as opposed to the passive hoarding of internal cash which comes with huge opportunity costs. They take advantage of their external relational networks, regulatory goodwill and interbank relationships to obtain backup lines of credit and external funding buffers.

The economic implication is very deep diversified boardrooms don't respond to risk in a linear way, by "panic hoarding". Rather, they aim for capital efficiency, with external liquidity pipelines helping them meet the safety requirements and not piling low-yielding cash on internal capital. It is a testament to the fact that gender diversity offers a monetary stabilizing impact during financial crises for bank shareholders and policymakers, as it not only provides protection, but also contributes to corporate profits. This finding is interactive, as Yusuf et al. (2023) and Nwafor (2025) found that with high stakes risk exposures, the proactive board dynamics were disrupted and forced to make strategic adjustments to their assets, rather than linear operations. It also lends credence to the arguments put forward by Acharya et al. (2007) who had assumed that the decision of a firm between a line of credit and a holding of cash is strongly dependent on the inherent environment of risk.

This interactive answer, however, contradicts the traditional accounts of static governance variables that have been tested in isolation and which have assumed that the influence of governance variables on bank cash policies is always the same, irrespective of external financial distress or balance sheet shocks as in Nwokoye (2022) and Cycle (2026). Bank Age would add to the evidence for the Precautionary Motive in new financial environments as it has a positive and statistically significant coefficient. Older and established commercial banks that have been listed in Nigeria have higher liquid reserves due to the

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large amount of transactions they process, navigate through intricate clearing networks and have systemic institutional responsibilities. This finding resonates with the findings of Adeniji et al. (2026) which revealed that larger and older corporations in sub-Saharan Africa (SSA) have strong cash buffers, which enable them to sustain their large markets operations in the face of sudden shocks from macroeconomic events and regulations.

Conclusion

The study has shown that the architecture of the boardrooms is one of the basic factors that influence the configuration of liquid assets of the listed Nigerian Deposit Money Banks (NDMBs) and that the effect of the boardroom architecture is strongly influenced by the institutional risk environment. This corporate governance-liquidity relationship is different when financial risks are rising, as enhanced board gender diversity and recurring meetings are linked by fostering a strong and precautionary cash cushion to help avert sudden financial distress. In particular, where there is a high degree of liquidity risk, gender-diverse boards transition from an internal cash hoarding to external institutional funding network. Finally, financial risk exposures are the catalysts that jolt boardroom responses from the status quo to a more dynamic process of mobilizing institutional resources to manage the risk–return tradeoff in the efficient use of capital.

Recommendations

Based on the results of the study, the study recommends that the Central Bank of Nigeria (CBN) and bank shareholders should proactively continue to support the gender-inclusion policy of the boardroom; women have a unique risk-aware approach which brings diversity to the boardroom and thus diversifies the external network of the bank, enhancing bank liquidity. As directors are required to have more meetings, they need to ensure that they are hyper-active and continuously rebalancing cash assets against varying market conditions and the risks to boards' balance sheets. Bank executives need to shift their mindset from a cash management paradigm that is based on static cash structuring to flexible asset allocation approaches that react automatically to the prevailing credit and liquidity risk levels.

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