BOARD INDEPENDENCE AND VALUE OF CASH HOLDINGS OF LISTED CONSUMER GOODS MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT

Corporate governance codes around the world have consistently recommended that boards should be composed of greater number of non-executive directors to enhance board effectiveness. This study evaluated the effect of board independence on the value of cash holdings of consumer goods manufacturing listed on the Nigerian Exchange Group (NGX) from 2011 to 2023. The study retrieved data from the annual reports of 11 firms and Daily Official List of NGX. It measured board independence as the proportion on non-executive directors and cash holdings as cash plus marketable securities. The study was anchored on Agency Theory. It tested the formulated hypothesis using Feasible Generalized Least Square Regressions. Findings indicated that board independence significantly enhanced the value of cash holdings of listed consumer goods manufacturing listed on the NGX. The study recommended that firms should continue to ensure high board independence. It suggested further studies using more than one sector and complementing secondary data with primary data.

Keywords: Board independence, cash holdings, consumer goods manufacturing firms.

***JEL Classification code*: M41, O16**

1. INTRODUCTION

Since separation of ownership from control became the hallmark of modern firms, corporate entities have continued to experience agency problems, which arise from agency relationships. Jensen and Meckling (1976) define agency relationship as a

contract under which one person or owners engage another person (the agent) to perform some services on their behalf which involves delegating some decision-making authority to the agent. One area in which agency problems is pronounced is in cash holdings (Luo, 2005; Jensen, 1986). Cash is the most liquid asset and constitutes a significant proportion of total assets of firms. Firms hold cash for three most important motives - transaction motive, precautionary reason, and speculative motive (Bates *et al*., 2009; Harford *et al*., 2008; Jensen, 1986; Keynes, 1936). Low cash reserves may cause insufficient liquidity, underinvestment, lack of R&D expenditure, rising financing costs and a shock dividend policy, stunted future growth momentum and a negative impact on firms' speed of recovery after a financial crisis. Conversely, high cash holdings provide a converse to the above consequences. Indeed, cash directly determines financing, investments, operations, payouts, and consequently firm value (Chen *et al*. (2020).

Cash holdings compared to other assets are more exposed to the possibility of being exploited by management. As pointed out by Myers and Rajan (1998), it is easier to make cash disappear than to make a plant disappear. Managers generally have the proclivity of easily misallocating a firm's cash to extract private rent. Cash holdings especially excess cash allows managers to extract rent by engaging in managerial shirking, excessive consumption of perquisites, undertaking negative net present value projects and unnecessary acquisitions for empire building and compensation increase (Chen *et al*. 2020; Jensen,1986, Jensen & Meckling, 1976, Pizzini & Sterin, 2023). Lee and Powell (2011) found in Australian sample a lower marginal value of cash for firms with larger cash balances, suggesting misuse of cash balances.

Corporate governance theorists, regulators and stakeholders consider board of directors as a vital internal corporate governance mechanism for monitoring, advising and controlling managers so as to mitigate agency problems (Chen *et al*., 2020; Feng & Huang, 2020; Dittmar & Mahrt-Smith, 2007; Fama, 1980, Mengyun *et al*. 2021). The key function of the board is the formulation of firm's strategy and exercise of proper oversight throughout company operations in order to maximize shareholders' value. One of the most important corporate board characteristics is board independence. The code of corporate governance in Nigeria identifies the board as the custodian of corporate governance and recommends that the boards should be composed of greater number of non-executive directors to promote board

independence. The intuition is that board independence enhances board oversight thereby preventing managers from engaging in self-dealing transactions or value-destroying activities. Harford *et al*. (2008) show that in the absence of proper monitoring of managers by governance bodies, managers misuse cash thereby reducing its value.

Prior studies on the effect of board independence on value of cash holdings are quite scarce. Related studies concentrate on broad corporate governance mechanisms such as ownership structure (Boubaker *et al*., 2015, Dittmar *et al*., 2007; Fresard & Salva, 2010; Harford *et al*., 2008; Pinkowitz *et al*. 2006; Schauten *et al*., 2013;). The lacuna in the literature on the impact of board independence on value of cash holdings of listed consumer goods manufacturing firms in Nigeria motivates this study. To fill the observed gap, this study therefore, seeks to assess the effect of board independence on value of cash holdings in listed consumer goods manufacturing firms in Nigeria.
The rest of the paper is organized as follows: Section 2 deals with the review of review of literature and hypothesis development, followed by Section 3 detailing the methodology encompassing research design, sample and sampling techniques, data collection and measurement of variables, and empirical models. Section 4 presents the results of the study and discussion of findings, and finally, Section 5 is the conclusion.

2. REVIEW OF RELATED LITERATURE AND HYPOTHESIS DEVELOPMENT

2.1 Conceptual Review

Board Independence

The Companies and Allied Matters Act, 2020 mandates all listed firms to establish board of directors with the power to exercise all the functions of the firm. The Code of Corporate Governance 2018 (FRC, 2018) identifies the board as the apex decision making body of firms and therefore the custodian of corporate governance. Basically, the board monitors, advises and control managers to ensure that management acts in the best interest of the shareholders and other stakeholders. FRC (2018) recommends that board composition should consist of greater number of non-executive directors some of which some should be independent directors. The empirical literature measures board independence as the proportion of non-executive directors. Non-executive directors are basically directors who are not be involved in the day-to-day operations of the firm. Independent non-executive director is a non-executive director

with no shareholdings in the company and is not a representative of a shareholder that has the ability to control or significantly influence Management.

Corporate cash holdings

Corporate cash holdings refer to the amount of cash and marketable securities held by firms at a given point in time (Bates *et al*., 2009). Cash comprises cash at hand, cash at bank and other cash equivalents and is usually shown as Current Asset in the Statement of Financial Position. It also refers to cash and other items that are readily convertible to known amounts of cash or that can be converted into known amounts of cash within a short period of time. The literature identifies three important motives for holding cash. These are transaction motive, precautionary motive and speculative motive (Bates *et al*., 2009; Harford *et al*., 2008; Jensen, 1986; Keynes, 1936; Zhang & Zhou, 2022). Cash holdings could enhance or destroy firm value. This depends on how firms use cash and the quality of corporate governance mechanisms (Harford *et al*., 2008). Idle cash has zero value and firm incurs opportunity cost of investing in projects with positive net present value. In contrast, low cash holdings expose firm to liquidity risk which could be injurious to the financial health of the firm and ultimate survival.

The value of cash holdings is a reflection of the value that equity market places on a Naira of cash (Faulkender & Wang, 2006). It denotes an investor's assessment of how cash is expected to be used. If there are unexpected changes in cash, the value placed by shareholders on an extra Naira of cash is termed the marginal value of cash. The value of cash holding depends on how firm use resources. investors value cash at a sizable discount when they anticipate that managers are likely to misuse corporate resources to extract private rents.

2.2. Theoretical Review

This study draws on Agency Theory to analyze the effect of board independence on cash holdings. The theory, credited to Jensen & Meckling (1976) attempts to predict and explains the behaviour of parties in an agency relationship. According to Jensen and Meckling (1976), agency relationship is a contract under which one or more persons (Principals) engage another person (agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. The Theory assumes that managers would not act in the best interest of shareholders. In

terms of cash holdings, this can manifest in misuse of cash for empire building through unnecessary acquisitions and excessive consumption of perquisites (Chung, Kim, Kim, & Zhang, 2015, Lee & Powell, 2011; Dittmar & Mahrt-Smith, 2007; Faulkender & Wang, 2006;). Investors are likely to value cash at a sizable discount when they anticipate that managers are likely to misuse for their benefit at the expense of shareholders. It therefore advocates that mechanisms be instituted to exercise oversight and control of managers. The board of directors is considered the best internal corporate governance mechanism to oversee managers (Fama, 1980).

2.3 Empirical Review

One of the strategic responsibilities of boards is to appoint the chief executives. Independent boards usually select candidates with high managerial ability. From the analysis of a US sample comprising 120,642 firm-year observations and 18,284 unique firms from 1980 to 2014 with respect to managerial ability, Tsai *et al*. (2021) provided evidence that skillful managers improved the value of their firms' cash holdings.

Choi *et al*. (2021) investigated the effect of 10-K readability of US firms on the association between stock returns and changes in cash holdings and indicated that readability significantly increased the marginal value of cash holdings. It was also shown that the effect was stronger for firms with more severe managerial agency problems, less external monitoring, and greater financial constraints.

Bird *et al*. (2018) present empirical evidence of effect of board independence on financial performance of firms. Using the 2003 NYSE and NASDAQ listing rules for board independence as an exogenous shock to estimate the causal relation between board independence and the variability of firm performance, they employed a difference-in-difference approach and showed that board independence is negatively associated with the variability of (1) monthly stock returns, (2) return on assets, (3) Tobin's Q, (4) analyst forecast inaccuracy, (5) accounting accruals, (6) extraordinary items, (7) capital expenditures, (8) cash holdings and (9) the frequency of acquisition activities.

Boards have responsibility to ensure high earnings quality to engender investor trust. The literature shows that board independence is associated with high earnings quality (Alves, 2023; Kusnadi *et al*. 2022). Shin *et al*. (2018) explored the relationship between earnings quality and cash holdings using panel data from Korea's listed

firms. They documented a more likelihood of firms with poor earnings quality accumulating excess cash holdings, perhaps in an attempt to buffer themselves from information asymmetry problems. The study also found that firms with poor earnings quality were more likely to discount the marginal value of their excess cash holdings.

Ebirien (2019) investigated the effect of board independence on the value relevance of segment earnings and reported that board independence enhanced the value relevance of segment 1 and segment 2 earnings, but not that of segment 3, leading the paper to recommend that due diligence be conducted on prospective board members to enhance board quality. Similar suggestion was made by Ebirien and Chukwu (2022) who investigated the effect of board characteristics on trade receivables management in Nigeria's manufacturing company. A recommendation for inclusion of diverse mix of professionals to enhance board effectiveness was also made by Chukwu et al. (2020) who studied the effect of corporate governance proxies on tax aggressiveness and documented that board independence was negatively associated with effective tax rate in Nigeria.

Lu *et al*. (2017) investigated whether corporate social responsibility (CSR) reports mitigated the value destruction associated with increases in cash holdings. It was revealed that the issuance of a standalone CSR report increased the marginal value of cash holdings and this effect was more pronounced for firms in a less transparent information environment and for firms with weaker external monitoring.

Huang *et al*. (2015) argue that ineffective internal control over financial reporting (ICFR) resulting internal control weaknesses increases agency costs of cash by facilitating self-dealing transactions or outright fraud. They also argue that weak ICFR enhances the precautionary benefits of cash by increasing the probability of bypassing profitable investment projects. To validate these arguments, they analyzed the effect of ICFR on the value of cash using 3909 unique US firms and 15,409 firm-year observations in the period of 2004 through 2010. Findings revealed that the value of cash does not deteriorate but improves with material weaknesses in internal control.

Based on a sample of Austrian non-financial firms consisting of 4631 firm-year observations for 662 firms 1,952 firms the period 2004 to 2010, Yarram (2012) assessed the influence of board structure and cash holdings on the value. The panel data analysis unearthed a significant influence of board independence on the value of Australian firms three excess cash holdings.

Hypothesis Development.

Board independence is often viewed as an effective way to strengthen board monitoring. Fama (1980) contends that independent directors are motivated to exert more effective monitoring than executive directors because of the need to develop and retain a good reputation in the corporate directorship market as skilled decision control experts. Board independence enables board to ask tough questions, better evaluation of management proposals including cash management, investment and financing thereby restraining management from wasting cash. To the extent that a more independent board conducts more rigorous monitoring of managers, it is expected that a more independent board could better mitigate managerial agency problems associated with cash holdings and consequently improve value of cash holdings.

On the other hand, however, powerful chief executives are more likely to capture independent directors thereby accentuating intense board monitoring. Management is likely less willing to share strategic firm-specific information with independent directors who monitor management intensely and this could constrain board in evaluating management proposals (Adams & Ferreira, 2007). The effectiveness of independent board could also be adversely affected if non-executive directors are distracted by multiple board membership (Saleh *et al*., 2020; Fich & Shivdasani, 2006, Ferris *et al*. 2003).

In view of the above discussions, the put forward the following hypothesis:

Ho_1: There is no significant effect of board independence on the value of cash holdings of listed consumer goods manufacturing firms in Nigeria.

3. METHODOLOGY.

The study adopted ex post facto research design since the event has already occurred. The sample of the study consisted of consumer goods manufacturing firms. The

study applied purposive sampling technique to select eleven firms which have completed required for analysis in the sample period stretching from 2011 to 2023. The study period of 2011 to 2023 was chosen to coincide with the code of corporate governance issued by the Securities and Exchange Commission in 2011 which began to stress that boards should have greater number of non-executive directors. This was inherited by subsequent codes of corporate governance in Nigeria. All the firms were in the food and beverages sub sector. Data were collected from the audited financial statements of the sample and Daily Official List of the Nigerian Exchange Group.
To test the hypothesis, the specification of the empirical model is as follows:

$$RET_{j,t} = \Psi_0 + \Psi_1 CCASH_{j,t} + \Psi_2 BODIN_{j,t} + \Psi_3 CBODIN_{j,t}\ \Psi_4 ACASH_{j,t} + \Psi_5 BCASH_{j,t} + \Psi_6 TCASH_{j,t} + \Psi_7 PBT_{j,t} + \Psi_8 NASST_{j,t} + \Psi_9 DIVD_{j,t} + \Psi_{10} LEV_{j,t} + \Psi_{11} LVCASH_{j,t} + \Psi_{12} INT_{j,t} + \Psi_{13} NF_{j,t} + \Psi_{14} BDSZ_{j,t} + \Psi_{15} YEAR\_DUMMY_{j,t} + \varepsilon_{j,t} \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

$$ABRET_{j,t} = \lambda_0 + \lambda_1 CCASH_{j,t} + \lambda_2 BODIN_{j,t} + \lambda_3 CBODIN_{j,t} + \lambda_4 ACASH_{j,t} + \lambda_5 BCASH_{j,t} + \lambda_6 TCASH_{j,t} + \lambda_7 PBT_{j,t} + \lambda_8 NASST_{j,t} + \lambda_9 DIVD_{j,t} + \lambda_{10} LEV_{j,t} + \lambda_{11} LVCASH_{j,t,} + \lambda_{12} INT_{j,t} + \lambda_{13} NF_{j,t+} \lambda_{14} BDSZ_{j,t} + \lambda_{15} YEAR\_DUMMY_{j,t} + \varepsilon_{j,t} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2).$$

The models were adopted from Faulkender & Wang (2006) and modified by including BODIN and BDSZ and excluding research and development expenditure because data constraint. Since the primary objective of this study is to determine the effect of board independence on value of cash holdings, the study added in the models board independence and the interaction between change in cash and board independence (CBODIN). A positive and statistically significant coefficient for CBODIN, Ψ_3, λ_3, suggests that board independence increases the value of cash holdings.

In the above models, j denotes firm, t denotes year, ε is the disturbance term assumed to be normal, independent and identically distributed. All the variables except RET. ABRET, BODIN, CBODIN, BDSZ, LEV are scaled by lagged market value of equity. RET is buy-hold -return computed as share price at the end 4th month after year end minus previous year share price all scaled by previous year share price. ABRET is abnormal return calculated as for the 12 months ending four months after the end of the fiscal year, using RET minus NGX benchmark return. BODIN is board Independence measured as proportion of non-executive directors on the board. CBODIN is interaction term computed as CCASH*BODIN. CCASH is change in cash plus marketable securities. ACASH is Cash plus marketable securities. BCASH is

lagged cash plus marketable securities. TCASH is interaction of BCASH and CCASH. PBT is change in profit before tax. NASST is change in noncash assets. Non cash assets are total assets minus cash plus marketable securities. DIVD is change in dividend paid. LEV is leverage computed as total liabilities deflated by total assets. LVCASH is interaction of LEV and CCASH. INT is change in interest and other financing charges paid. NF is change in net cash flow from financing activities. BDSZ is board size measured as number of directors. Ψ_0 and λ_0 are the intercepts of Model 1 and Model 2 respectively. $\Psi_1 \ldots \Psi_{15}$ and $\lambda_1 \ldots \lambda_{15}$ are the regression parameters of Model 1 and Model 2 respectively. The study followed Faulkender and Wang (2006) to control for other sources of value (PBT, NF, INT, DIVD, NASST, LEV,). BDSZ is a control variable because board size impacts board effectiveness.

4. RESULTS AND FINDINGS

Table 3 shows the descriptive statistics of the study. The mean of annual raw return (RET) is 0.92. The range of RET is from -0.9627792 to 111.7333. The minimum value suggests some firms suffered decline in RET. There is wide dispersion from the mean as suggested by the standard deviation. The descriptive of ABRET is similar to RET. On average, the boards have 70% of the directors are non-executive directors. The median suggests that 50% of the boards have not less than 63% of its members as non-executive directors. This is consistent with the National Code of Corporate Governance. Approximately 30% constitute the mean of cash plus marketable securities scaled by the lagged market value of equity (ACASH). The standard deviation of ACASH indicates wide dispersions from the mean.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
ret	143	0.9216372	-0.0455685	9.365029	-0.9627792	111.7333
abret	143	0.9209605	-0.0326	9.36156	-0.9890792	111.6992
ccash	143	0.0766483	0.0115	0.2659375	-0.7002	1.4773
bodn	143	0.7171764	0.625	0.1779518	0	1
acash	143	0.2984678	0.0956	0.4439487	0.0033	2.4199
bcash	143	0.1188811	0	0.3457898	0	2
pbt	143	0.0405736	0.0059	0.5074218	-1.31788	5.56178
nasst	143	0.3265864	0.0514832	1.501486	-1.091093	16.63754
divd	143	0.0008758	0	0.0278494	-.1048276	.1442194
lev	143	0.6113818	0.6157337	0.2077845	0.1936196	1.504471

bint	143	0.0059689	0	0.0709483	-0.47001	.41633
nf	143	-0.0142353	-0.0273311	0.2391234	-1.207651	1.109731
bdsz	143	10.23776	10	2.463703	6	15

Source: Authors' Computations, 2024

Table 4 is the Correlation Matrix which reports the result of correlation analysis, Correlation analysis explains whether there is an association between any two variables. The Pearson correlation results reveal that BODN is negatively correlated with RET (r=0.001) as well as ABRET (r= -0.000 and statistically insignificant at 5%. ACASH positively correlates with RET and ABRET respectively (r= .137, r= 0.136) but the correlation is not significant. CCASH exhibits positive and significant correlation with RET and ABRET respectively (r= 0.208, r= 0.207) and the correlation is not significant at the 5$ level.

Table 4.2: Correlation Matrix

	Ret	Abret	ccash	bodn	cbodn	acash	bcash	tcash
ret	1.0000							
abret	1.000*	1.000						
ccash	0.208*	0.207*	1.000					
bodn	-0.001	-0.000	-0.038	1.000				
cbodn	0.216*	0.215*	0.973*	-0.029	1.000			

Table 4.2: Cont

	Ret	Abret	ccash	bodn	cbodn	acash	bcash	tcash
acash	0.137	0.136	0.645*	-0.148	0.612*	1.0000		
bcash	-0.009	-0.010	0.050	-0.155	0.049	0.727*	1.000	
tcash	0.044	0.044	0.819*	-0.039	0.825*	0.460*	-0.023	1.000
pbt	0.918*	0.918*	0.285*	0.161	0.266*	0.154	-0.074	0.102
nasst	0.914*	0.914*	0.133	-0.028	0.116	0.1405	0.036	-0.068
divd	0.025	0.024	0.004	-0.162	-0.047	0.1309	0.128	0.074
lev	0.357*	0.356*	0.117	-0.118	0.121	0.131	0.086	0.039
lvcash	0.440*	0.439*	0.957*	-0.029	0.915*	0.619*	0.048	0.754*
bint	-0.067	-0.067	0.038	-0.203*	0.033	0.128	0.102	0.015
nf	-0.013	-0.014	0.241*	-0.073	0.186*	0.0795	-0.091	0.208*
bdsz	-0.014	-0.014	-0.108	0.035	-0.157	-0.123	-0.083	-0.179*

	Pbt	Nasst	divd	lev	lvcash	bint	nf	bdsz
pbt	1.000							
nasst	0.839*	1.0000						
divd	-0.006	0.027	1.000					
lev	0.211*	0.424*	-0.008	1.000				
lvcash	0.499*	0.374*	0.020	0.213*	1.000			
bint	-0.044	-0.020	-0.129	-0.004	0.033	1.000		
nf	0.042	0.125	-0.120	0.044	0.267*	0.490*	1.000	
bdsz	0.030	0.096	-0.021	-0.067	-0.078	-0.022	-0.017	1.000

Source: Authors' Computation, 2024

The study estimated Models 1 and 2 using fixed effect regressions and conducted likelihood ratio test to detect panel level heteroskedasticity. Heteroskedasticity biases the standard errors resulting in misleading results (Gujarati & Porter, 2009). The results of the tests showed the presence of heteroskedasticity at the 5% level of significance as displayed in Panel A of Table 4.3. The study also tested for first-order autocorrelation using Wooldrige test. The results in Panel B of Table 4.3 show the existence of serial autocorrelation as the p-values of the Chi-square Statistics and F-statistics are less than 0.05.

Table 4.3 Results of Test for Heteroskedasticity and Autocorrelation

	Panel A		Panel B	
	Likelihood ration test for Panel Level Heteroskedasticity		Wooldridge Test for autocorrelation in Panel Data	
Variables	Chi-square Statistics	p-value	F-statistics	p-value
RET	405.39	0.0000	7.099	0.0237
ABRET	398.84	0.0000	6.885	0.0254

Source: Authors' Computation, 2024

To overcome Heteroskedasticity and Autocorrelation as recommended by Cameron and Trivedi (2010), the study re-estimated the models using Feasible Generalized Least Square regressions. Table 4.4 presents the regression results.

Table 4.4: Regression Results

	(1)	(2)
VARIABLES	RET	ABRET
Cccash	-27.45***	-27.50***
	(7.548)	(7.560)
Bodn	-2.620**	-2.545*
	(1.331)	(1.334)
Cbodn	22.69***	22.61***
	(5.144)	(5.152)
Acash	-2.416*	-2.431*
	(1.359)	(1.361)
Bcash	1.548	1.552
	(1.287)	(1.289)
Tcash	-0.331	-0.309
	(1.420)	(1.422)
Pbt	8.881***	8.844***
	(0.911)	(0.912)
Nasst	2.560***	2.571***
	(0.351)	(0.352)
Divd	5.731	5.345
	(7.134)	(7.145)
Lev	0.467	0.393
	(1.029)	(1.031)
Lvcash	22.45***	22.61***
	(7.699)	(7.711)
Bint	-0.789	-0.756
	(3.070)	(3.075)
Nf	-3.706***	-3.724***
	(1.021)	(1.022)
Bdsz	-0.212***	-0.214***
	(0.0745)	(0.0746)
Constant	5.171***	5.195***
	(1.406)	(1.408)
Year Dummies	Yes	Yes
Observations	143	143

Source: Authors' Analysis, 2024. Note. Sign (***), (**), and (*) show the level of significance at 1%, 5%, and 10%, respectively. Standard errors are in brackets.

Table 4.4 shows the study utilized 142 firm-year observations to estimate the Models in order to test the formulated hypothesis. The models indicated good fit (Model 1,

Wald chi2(26) = 2994.70, p-value = 0.0000; Model2, Wald chi2(26) = 3006.56, p-value = 0.000). Without board independence, change in cash holdings recorded a significant negative effect on both annual returns and abnormal return (Ψ_1 = -27.45, λ_1 = -27.50) respectively in in both panel A and Panel B of Table 4.4. This suggests that in the face of without board independence, managers extract private rents from cash holding thereby destroying the wealth of shareholders. The coefficient on CBODIN is positive and significant at the 1% level in both Panel A and Panel B (Ψ_4 = 22.69, λ_4 = 22.61). Consequently, the null hypothesis that board independence has no significant effect on the value of the listed consumer goods manufacturing firms is rejected. Comparing the coefficients on change in cash alone and on the interaction term, it is observed that transitioning from a firm without board independence to a firm with board independence increases the marginal impact of change in cash on annual raw return (RET) and abnormal return (ABRET) by approximately 23 times respectively. The results demonstrate that board independence enhances the value of cash holdings. The findings provide support to the Agency prediction that board independence limits managerial discretion in dissipating cash and improves shareholder value. The results are also consistent with Bird *et al*. (2018) and Yarram (2012) who showed that board governance mechanisms improved the value of cash holdings.

5. CONCLUSION AND RECOMMENDATIONS

The study evaluated the effect of board independence on the value of cash holdings of consumer goods manufacturing firms listed on the Nigerian Exchange Group in the period 2011 to 2023. With the aid of STATA 12, it deployed technique to estimate the empirical models using Feasible Generalized Least Square regressions, thereby addressing heteroskedasticity and serial autocorrelation that usually plague panel data analysis. Findings reveal unambiguously that board independence enhances the value of cash holdings of consumer goods manufacturing firms listed on the Nigerian Exchange Group.

The study contributes to the literature on corporate cash holdings by showing specific corporate governance mechanism that influences the value of cash holding in Nigeria. It also fills that yearning gap of dearth of literature on how board affect the value of cash holdings in Nigeria. Regulators would find this study relevant in formulating policies geared towards maximizing shareholder value. The findings will

be a good guide in electing directors to advance the interest of shareholders. Students and other researchers would find this study a solid basis for further studies.

This study concentrates on firms from one sector. It is suggested that future studies should consider more from more sectors. The study relied on secondary data. Secondary data might not reflect the unobserved behaviour of managers and the ever-changing business environment. Future studies should therefore consider complementing secondary data with primary data.

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REFERENCES

Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The Journal of Finance, 62*(1), 217–250.

Alves, S. (2023). CEO duality, earnings quality and board independence. *Journal of Financial Reporting and Accounting, 21*(2), 217-231.

Bates, T. W., Kahle, K. M., & Stulz, R. M. (2009). Why do US firms hold so much more cash than they used to? *The Journal of Finance,* 64, 1985–2021.

Bird, R.,Huang, P., & Lu, Y. (2018). Board independence and the variability of firm performance: Evidence from an exogenous regulatory shock. *Australian Journal of Management, 43*(1), 3–26.

Boubaker, S., Derouiche, I., & Hassen, M. (2015b). Family control and the value of cash holdings. *The Journal of Applied Business Research*, 647-667.

Chen, R., Guedhami, O., Yang, Y., & Zaynutdinova, G. R. (2020). Corporate governance and cash holdings: Evidence from worldwide board reforms. *Journal of Corporate Finance,65 101771.* https://doi.org/10.1016/j.jcorpfin.2020.101771

Choi, S., Chung, C. Y., Kim, D., & Lee, J. (2021). Market value of 10-K readability and corporate cash holdings. *Economics Letters,* 1-5.

Chung, K. H., Kim, J. C., Kim, Y. S., & Zhang, H. (2015). Information asymmetry and corporate cash holdings. *Journal of Business Finance & Accounting,* 42, 1341–1377.

Cameron, A. C., & Trivedi, P. K. (2010*). Microeconometrics Using Stata.* Stata Press.

Chukwu, G. J., Appah, E., & Awogbade, A. (2020). Corporate governance mechanism and tax aggressiveness of listed consumer goods firms in Nigeria. Paper presented at 3rd Annual International Academic Conference of the Chartered Institute of Taxation of Nigeria at Igbinedion University, Okada, Edo State, Nigeria, 9th - 11th November, 2020. Conference Proceeding

Dittmar, A., & Mahrt-Smith, J., (2007). Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83, 599–634.

Ebirien, G. I. (2019). Effect of board characteristics on the value relevance of segment earnings. *The International Journal of Business & Management*, *7*(5). https://doi.org/10.24940/theijbm/2019/v7/i5/BM1905-032

Ebirien, G. I. & Chukwu, G. J. (2022). Board characteristics and trade receivable management of Nigerian listed consumer goods manufacturing firms. *KPA Journal of Accounting, Finance and Business 2*(1),1-19.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy,* 88, 288–307.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics,* 26, 301–325.

Faulkender, M., & Wang, R. (2006). Corporate financial policy and the value of cash. *The Journal of Financ*e, 61, 1957–1990

Feng, Z. Y., & Huang, H. W. (2020). Corporate governance and earnings management: A quantile regression approach. *International Journal of Finance & Economics, 26*(4), 5056–5072.

Ferris, S. P., Jagannathan, M., & Pritchard, A. C. (2003). Too busy to mind the business? Monitoring by directors with multiple board appointments. *Journal of Finance, 58*(3),1087-1111.

Fich, E., & Shivdasani, A. (2006). Are busy boards effective monitors. *Journal of Finance,* 6, 689-724.

Financial Reporting Council of Nigeria (2018). *National Code of Corporate Governance*. Federal Printers.

Frésard, L., & Salva, C., (2010.) The value of excess cash and corporate governance: Evidence from US cross-listings. *Journal of Financial Economics*, 98, 359-384.

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics (5th ed.).* McGraw-Hill.

Harford J., Mansi S. A., Maxwell W. F. (2008). Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87, 535–555.

Huang, P., Guo, J., Ma, T., & Zhang, Y. (2015). Does the value of cash holdings deteriorate or improve with material weaknesses in internal control over financial reporting? *Journal of Banking and Finance*, 54, 30–45.

Jensen, M. C (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review, 76*(2), 323–329.

Jensen, M. C., & Meckling, W. (1976). Theory of the firm: Managerial behavoir, agency costs and capital structure. *Journal of Financial Economics*, 3, 305–360.

Keynes, J. M. (1936). The general theory of interest, employment and money. MacMillan.

Kusnadi, Y., Srindhi, B., Sun, Y., & Wang, J. (2022). Active independent directors and earnings quality. *Theoretical Economics Letters, 12*(3), 897-915.

Lee, E., & Powell, R. (2011). Excess cash holdings and shareholder value. *Accounting and Finance,* ,51, 549–574.

Luo, L. (2005). Corporate governance, cash holdings, and firm value: Evidence from Japan. *Review of Pacific Basin Financial Markets and Policies, 8*(4), 613–636.

Liu, L., Y., Shailer, G., & Yu, Y. (2017). Corporate social responsibility disclosure and the value of cash holdings. *European Accounting Review, 26*(4), 729-753.

Mengyun, W., Habiba, U.-E., Akbar, M. I. U. D., Memon, M. A. B., & Husnain, M. (2021). Analyzing the role of board independence towards corporate cash holding: evidence from listed family firms of emerging economy. *Journal of Contemporary Issues in Business & Government, 27*(3), 1360–1369.

Myers, S. C., & Rajan, R. G. (1998). The paradox of liquidity. *Quarterly Journal of Economics, 113*(3),733-771.

Pinkowitz, L., Stulz, R. & Williamson, R. (2006). Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis. *Journal of Finance, 61*(6), 2725-2751.

Pizzini, M., & Sterin, M. (2023). The relation between cash reserves, governance, and donations in nonprofit organizations. *Journal of Accounting, Auditing & Finance. Advance* online publication. https://doi.org/10.1177/ 0148558X221142953

Saleh, M. W. A., Shurafa, R., Shukeri, S. N., Nour, A. I., & Maigosh, Z. S. (2020). The effect of board multiple directorships and CEO characteristics on firm performance: evidence from Palestine. *Journal of Accounting in Emerging Economies, 10*(4), 637-654.

Schauten, M. B. J., van Dijk, D., & van der Waal, J. -P. (2013). Corporate governance and the value of excess cash holdings of large *European firms. European Financial Management, 19*(5), 991–1016.

Shin, M., Kim, S., Shin, J., & Lee, J. (2018). Earnings quality effect on corporate excess cash holdings and their marginal value. *Emerging Markets Finance and Trade. 54(4), 901-*920.

Tsai, J.-F., Mai, N. T., & Bui, D. G. (2021). Managerial ability, financial constraints, and the value of cash holding. *Applied Economics Letters,* 1–7.

Yarram, S. R. (2012). Corporate governance, cash holdings and value of a firm: Evidence from Australian firms. *Information Management and Business Review, 4*(12), 606-614.

Yang, H., & Xue, K. (2023). Board diversity and the marginal value of corporate cash holdings. *Pacific-Basin Finance Journal,* 79, 102048