Cash Flow Management and Firm Performance: Moderating Effect of Corporate Governance Mechanism in the Era of Disruption in Emerging Economy

Abstract

The moderating effect of corporate governance mechanism on the relationship between cash flow management and performance of listed manufacturing firms in the era of disruptionin Nigeriawas empirically investigated in this study. Operating, financing, and investing activities were used as proxies for cash flow management.Net assets per share (NAPS) was used to measure firm performancewhile board independence was used as a proxy for the corporate governance mechanism (moderating variable). Panel least squares regression model operated with E-View 12 was utilized to perform the statistical test of parameter estimates, and six hypotheses were formulated to direct the investigation. Ex Post Facto design was used, and the data for thestudy was collected from the published annual financial reports and accounts of companies listed on the Nigerian Exchange Group (NGX) under the consumer goods sector, industrial goods sector, and oil and gas sector. The results of the study show that operating activities (OA) significantly affect firm performance (NAPS) at 5% significant level. Furthermore, it was discovered that, at 1% significant level, financing activities (FA) has a positive and significant effect on firm performance, whereas investing activities (FA) has the same effect on firm performance in Nigeria. Also, it was noted that, at 1-5% significant level, corporate governance mechanism (board independence) moderated the effect of cash flow management on firm performance in Nigeria. Thus, the study concludes that in this disruptive era in Nigeria, firms' performance is determined by their ability to manage their cash flow effectively. Moreover, strong corporate governance practices ensure the success of the company. In light of the study's findings, the study recommends that businesses should review their approaches to managing cash flow so that they can produce enough cash to cover both their operating and investing needs. On the other hand, net cash flow from financing activities ought to be preserved because it has a substantial impact on the financial results of the Nigerian listed companies.

Keywords: Operating Activities; Financing Activities; Investing Activities; Corporate Governance Mechanism

1.0 Introduction

The impact of cash flow management on business performance in the era of disruption in the emerging economy was examined in this study. A general proposition have surfaced andresurfaced time after time that the governance structure and control mechanisms ofcorporate entity significantly affect corporations' ability to respond positively to bothinternal and external factors and thus have a bearing on performance. Since it is commonly known that corporate governance practices vary among nations, this study expanded the body of literature by investigating the corporate governance link in Nigeria, which offers several important features for business and governance practices. According to Udeh, Abiahu, and Tambou (2017) corporate governance encompasses disclosure, investor involvement, accountability, boards, and related issues. This implies that boards' composition plays a significant role in determining an entity's performance. Thus corporate governance is a development of a balance between societal and economic objectives as well as between personal and group objectives.

Cash flow management on the other hand is one of the strategies managers oftenformulated. It is essential to evaluate how cash flow management affects the financial results of listed companies. Cash flows are defined as all inputs and outputs of liquidities and cash equivalents (Tonye, Emmanuel & Stanley, 2020). The cash flow statement typically mirrors the policies developed by managers to guarantee that their entities achieve the best possible liquidity position. It's a term from accounting and finance that describes how money comes in and goes out of a company. Cash receipts are represented by inflows, and cash expenditures are represented by outflows. When a company's cash inflow is greater than its cash outflow, it has enough cash on hand to make investments. Conversely, a low inflow that results in an excess outflow over the inflow reduces the operations of the organization.

Stakeholders, creditors and investors can forecast an entity's future performance, as well as its ability to generate future cash flows and cover changes to the scope and nature of its operations, with the use of cash flow information. While other studies' findings showed a range of outcomes, the majority of existing research on cash flow was concentrated on industrialized economies. Thus, it becomes necessary in the light of the contradictory results of the previous studies to investigate the study using panel data for the listed firms in Nigeria. Additionally, the overall outlook for Nigeria's manufacturing sector from a priori expectations is not very positive, according to corporate performance generally, because of the challenges that businesses are currently facing in this disruptive era caused by technology changes faster than the business can naturally adapt (Boluwatife, 2022). Hence, the need to determine if corporate governance mechanism could moderate the effect of cash flow management on firms' performance in this era of technological disruption using manufacturing firms listed on the Nigerian Exchange Group as a reference point.

Additionally, it was observed from the literature, not much have been done empirically on cash flow management and corporate performance using market based measures. Thus, most of the studies on (cash flow management and corporate performance) focused on accounting measurements of performance such as return on investment,return on equity, return on assets etc while market measures such as stock price, net assets per share and the Tobin Q measure were ignored. The neglect of market measures may not provide a well-rounded perspective of corporate performance in this era of disruption in emerging economy like Nigeria. Thus,this

study is relevant to shedding light on financial performance of listed manufacturing firms since the capital markets now operate on global scale or cross-border basis and because investors invest to maximize their wealth.To achieve this purpose, the following hypotheses were formulated:

H_{01}: Operating activities has no significant effect on performance of listed manufacturing firms in Nigeria

H_{02}: Financing activities has no significant effect on performance of listed manufacturing firms in Nigeria

H_{03}: Investing activities has no significant effect on performance of listed manufacturing firms in Nigeria

H_{04}: Corporate governance mechanism does not moderate the effect of operating activities on performance of listed manufacturing firms in Nigeria

H_{05}: Corporate governance mechanism does not moderate the effect of financing activities on performance of listed manufacturing firms in Nigeria

H_{06}: Corporate governance mechanism does not moderate the effect of investing activities on performance of listed manufacturing firms in Nigeria

The remainder of this paper is divided into the following sections: Section 2 reviews relevant literature. Section 3, which covers the methodology, Section 4 presents the findings and a discussion of the findings while Section 5 deals with observations and recommendations,

2.0 Review of Related Literature

2.1 Conceptual Frame work

2.1.1Cash Flow Management

According to Ward (2020), cash flow management is the process of keeping an eye on, evaluating, and maximizing the difference between cash inflows and outflows. For any business, net cash flow is a crucial indicator of its financial health. To address cash flow issues like illiquidity, cash flow management requires regular cash flow analysis. This include keeping up banking relationships, investing extra cash, and forecasting, mobilizing, and managing the cash flow. The planning and supervision of an entity's cash inflows and outflows over a specific time frame is known as cash flow management. The total amount of money that an entity actually receives or pays out over a specific time period is known as cash flow (Albrecht, 2003 cited in Nangih, Ofor and Onuorah, 2020).

For the purpose of this study, cash flow management was proxy using operating activities, investing activities and financing activities. This is exposited below as thus:

2.1.2 Components of Cash Flow Management

The activities that generate and use cash are used to categorize cash flows. These activities include those related to operating, investing, and financing activities, according to the body of knowledge.

2.1.2.1 Cash flow from Operating Activities

IAS 7 states that the amount of cash flows from operating activities is a crucial indicator of how much the company's operations have produced enough cash flows to pay back debt, preserve the company's operating capacity, etc. It includes the payments and receipts for the company's regular operations as well as items like investing and financing that have nothing to do with the other activity group (Tonye, Emmanuel and Stanley, 2020). These are the company's primary revenue-generating activities. These are the operations that yield profit or loss for the organization.

Operating cash flows in the opinion of Ekwunife and Okoro (2022) is a company's capacity to produce future cash flows. However, the majority of financial analysts recommend two different uses for cash flows generated by operating activities: firstly, they believe that these funds should be used to buy new fixed assets so that the company can continue to operate at the same level and earn the same profits in the future; secondly, they believe that a portion of operating income should be distributed as a dividend and also be used to re-buy stock to satisfy shareholders.

2.1.2.2 Cash flow from Investing Activities

Tonye, Emmanuel, and Stanley (2020) define investing activities as cash flows associated with the purchase and sale of long-term investments and assets. These are the cash flows from the company's capital expenditures, acquisitions, and inter-corporate investments. This includes, among other things, cash receipts from the sale of non-current assets and cash payments for their acquisition. Because the cash flows from investing activities indicate the amount of resources that have been expended with the intention of generating future income and cash flows, they must be disclosed separately. Investing activities can only be defined as payments that produce an asset that is recorded in the statement of financial position. They involve realizing investments made outside of the company and cash related to those investments (Igben, 2017).

2.1.2.3 Cash flow from Financing Activities

Igben (2017) asserts that the discrete disclosure of cash flows from financing activities is required because it helps to anticipate claims on future cash flows made by capital providers to the company. These are the cash flows from the issuance and redemption of securities used to finance the business, along with any associated costs and interest or dividends paid. Financing activities are those that alter the entity's share capital and long-term debt structure. It has to do with capital structure altering transactions. According to Nanghih, Ofor, and Onuorah (2020), some instances of this include cash receipts from the issuance of shares, cash payments for the redemption of shares and debentures, proceeds from the issuance of debentures, cash payments for borrowing, and cash payments for loan repayment.

2.1.3 Firm Performance

According to Chibuike and Celestine (2022), financial performance measurement is the process of evaluating a company's operations and policies' outcomes into monetary terms. It is used to compare similar businesses within the same industry and to examine a company's overall financial health over a specified time period. Furthermore, according to Kenton (2021), a company's ability to generate revenue and use assets from its primary mode of business is measured subjectively by its financial performance. Business professionals across all kinds of organizations have also made it their top priority because financial performance affects an organization's viability on the long run. Net Assets Per Share (NAPS) was the financial performance metric used in this study. It was represented as Net Assets divided by Paid Up Capital.

This is expressed mathematically as

$$NAPS = \frac{\text{Net Assets}}{\text{Paid up Capital}}$$

2.1.4 Cooperate Governance Mechanism

From the literature, the board of directors is tasked with managing the affairs of a company and making sure that investors get their money back. This is known as the corporate governance mechanism. Okpala and Omaliko (2022) noted that the board of directors is mandated by law to safeguard the interests of investors and their shareholders to balance the achievement of corporate objectives with the alignment of corporate behavior to the expectations of society and accountability and transparency to shareholders and stakeholders.

Appah and Tebepah (2023) define corporate governance as processes and procedures used to direct and manage the activities and events of a firm. According to Hasibuan and Khomsiyah (2019), corporate governance refers to the strategies used by all parties involved in the expansion of the company to make sure that managers take decisions or put in place systems that safeguard the interests of the stakeholders.

2.2 Theoretical Framework

Agency Theory (AT) is the theoretical framework that gives the meaning of a word in terms of the theory on cash flow management and corporate performance moderated by corporate governance mechanisms established in this study. It is assumed that the understanding and acceptance of this theory that this study is based on.

2.2.1 Agency Theory

This study's theoretical foundation is the agency theory propounded by Jensen and Meckling in the year 1976. The theory describes the relationship between a principal (shareholder) and an agent (management). It is anticipated that the agents will act in the entity's owners' best interests. Because managers, also referred to as agents, and are chosen by shareholders, it is expected that they will oversee and manage the affairs of entities in order to maximize the profits for their

owners. This essentially means that the agents, who are the managers of companies, are in charge of all decision-making, strategy formulation, and execution. The managers bear the responsibility of guaranteeing profitability as well as maximizing shareholders' wealth. The degree to which the interest of entity shareholders is taken into account when the managers of listed companies in Nigeria formulate operational policies regarding cash flow management will be revealed by the empirical investigation of the relationship between cash flow management and performance of listed firms in Nigeria. The study is therefore based on this theory.

2.3 Empirical Review

Etim, Emmanuel, Ekwere, and Mary (2022) examined how Nigerian listed companies' financial performance was affected by cash flow management. The study used secondary data from sixty-three (63) selected listed companies on the Nigerian Stock Exchange (NSE) from 2013 to 2019 and employed an ex-post facto research design. Panel data was used. Return on Asset (ROA) is the dependent variable, and Operating Cash Flow Margin (OCFM), Operating Cash Flow Ratio (OCFR), Investing Cash Flow Ratio (ICFR), Financing Cash Flow Ratio (FCFR), and Net Cash Flow Ratio (NCFR) are the independent variables for cash flow management. For data analysis, both descriptive and inferential statistics were applied. The financial performance (ROA) of the selected listed companies in Nigeria was found to be positively and significantly influenced by OCFM, OCFR, ICFR, and NCFR, while FCFR had an insignificant and negative influence.

Chibuike and Celestine (2022) investigated how cash flow management affected financial performance using data from Nigeria's pharmaceutical sector. For the study, which included ten (10) pharmaceutical companies listed by the Nigerian Exchange Group in 2021, the ex post facto research design was used. Information was taken from the 2011–2020 annual reports of the selected listed pharmaceutical companies. With the help of the EViews10, multiple regression analysis and the Pairwise Granger Causality tests were utilized to examine the collected data. According to the study, operating activities have an insignificant and positive impact on liquidity. Additionally, it demonstrated that investing activities has an insignificant but positive impact on liquidity. Lastly, it was noted that financing activities has a negative but notable impact on the liquidity of Nigerian pharmaceutical companies.

Ekwunife and Okoro (2022) assessed the impact of cash flow on the corporate survival of manufacturing firms in Ghana and Nigeriaover a five-year period (2013–2017). Panel data gathered from the financial reports of the companies included in the study was used in this ex-post facto research study. Although some preliminary analysis, such as descriptive statistics and correlation analysis were done on the data, panel regression analysis was used to analyze the collected data. According to the findings, the degree of cash flow accounts for 65.7% of the corporate survival of manufacturing companies in Ghana and Nigeria. The study concludes that the cash flow from financing and investing activities have a negative, but no significant impact on the corporate survival of manufacturing firms in Ghana and Nigeria. The research also reveals that free cash flow and cash flow from operating activities have a positive and significant impact on the survival of manufacturing companies listed on the stock exchanges of Ghana and Nigeria.

The impact of cash flow accounting on the corporate financial performance of listed consumer goods companies in Nigeria from 2015 to 2019 was examined by Ebimobowei, Awuji, and

Anuogwu (2021). Ex-post facto and correlational research design were adopted in the study. The study used a population of 26 and a sample size of 23 firms. Descriptive, correlational, and panel ordinary least squares were used to analyze the data. The study found that while investing activities and financial leverage showed a negative and significant relationship, operating cash flow, financing cash flow, and firm size to profit after tax of listed consumer goods manufacturing companies revealed a positive and significant relationship.

The study conducted by Egwu, Orugun, and Adelajun (2021) examined the relationship between cash flow management and business performance in Nigerian enterprises. A survey research design was adopted in the study. Regression analysis and the descriptive method were used to analyze the collected data. According to the study, cash flow management techniques have an impact on how well Abuja-based businesses perform as well as how well financial obligations are fulfilled. The study found that a company's ability to manage its cash flow is essential to its success.

Nangih, Ofor, and Onuorah (2020) looked into the connection between quoted oil and gas companies in Nigeria's financial performance and cash flow management. The study employed a judgmental research design and gathered data from the 2013-2018 annual reports of five selected listed companies. Multiple regression analysis and correlation were used in the data analysis and it was reported that cash flow from financing activities had a positive and significant impact on firm performance in the oil and gas industry, whereas cash flow from operating and investing activities had a negative and insignificant relationship with profitability.

Tonye, Emmanuel, and Stanley (2020) looked at the connection between cash flow and the performance of Nigerian consumer goods firms. Sixteen (16) consumer goods firms listed on the Nigerian Stock Exchange were surveyed for the study, and multiple regression techniques were used to statistically analyze the relevant data. The investigation demonstrated a strong positive correlation between the operating and investing cash flow and the performance of Nigerian companies in the consumer goods sector. Additionally, a significant and negative correlation was noted between financing cash flow and the performance of Nigerian companies in the consumer goods sector.

Nwarogu and Iormbagah (2017) investigated the performance and cash management of Nigerian listed companies. Ex post facto design was employed in the study. Descriptive statistics, correlation matrix and pool ordinary least square regression were used in data analysis and it was reported that, cash flow and firm size have a negative relationship with return on assets, but there is a significant positive relationship between cash conversion cycle, cash holding, and return on assets of firms. The variables of firm size, firm growth, and cash flow in the return on equity model showed a negative correlation with the firm performance variable. Only the firm size variable, however, had significant and negative relationship with the dependent variable at 5% level of significance. However, there is a positive correlation between return on equity and cash conversion cycle.

Nimer and Munther (2017) investigatedthe impact of cash flow management using the operating, investing, and financing activities on financial performance of Jordanian Insurance Companies (JICs). The JICs, which comprise of 23 companies that make up the population of the study under observation. The study used annual reports from each of the selected companies

spanning from 2009–2013. The study found that, when compared to other activities, net cash flows from operating activities has the highest activities, indicating that the JICs make money from their primary business and are not experiencing a liquidity crisis. The study found that the net cash flows from the operating activities affect the return on assets when it comes to the impact of each orientation of these activities and their effect on financial performance. Furthermore, it was discovered that the financial performance was significantly influenced by the net cash from investing activities.

Duru, Okpe, and Chitor (2015) looked at how cash flow affected the performance of businesses in a Nigerian sub-sector. 6 food and beverage companies listed on the Nigerian Stock Exchange were surveyed in the study. Data for the study was gathered from the annual reports and accounts of the selected companies under investigation.Multiple regression analysis method was applied and study's findings showed that operating and financing cash flows significantly improve corporate performance in Nigeria's food and beverage industry. Additionally, a strong and negative relationship was found between cash flow investments and corporate performance.

3.0 Methodology

Since the data for the study is secondary in nature which already existed and cannot be altered,the study used an ex post facto design. The study's population covers all the 41 firms quoted under consumer goods, industrial goods, and oil and gas sectors between 2016 and 2022. Out of 41 firms that formed the population of the study, 2 of the firms; BUA Foods Plc (Consumer Goods Firm) and BUA Cement Plc (Industrial Goods Firm) were listed on the Nigerian Exchange Group (NGX) as at 5th January, 2022 and 19th January, 2022 respectively. Hence, the 2 firms were removed due to empty financial information within the period under coverage. Thus a total of 39 firms formed our sample size with 273 observations.

3.1 Operationalization and Measurement of Variables

3.1.1Dependent and Independent Variable

The dependent variable used in the study is firm performance and it was proxy and measured using net assets per share. The independent variable i.e cash flow management was captured using operating activities (OA), financing activities (FA) and investing activities (IA) while moderating variable i.e corporate governance was proxy using board independence. This is shown on Table 1 as thus:

Table 1:Variables Measurement

Variable	Abbreviation	Measurement	A Priori Expectations	Signs
Dependent				
Firm Performance	**NAPS**	**Net Assets Per Share** = Net Assets measured by Paid up Capital	Nahiba (2017),Omaliko, Mordi and Aluoreronye (2022).	
Independent				
Operating Activities	**OA**	Logarithm of cash flow from operating activities	Nangih, Ofor and Onuorah (2020), Etim, Emmanuel and Ekwere (2022), Chibuike and Celestine (2022)	It is expected to have a positive effect.
Financing Activities	**FA**	Logarithm of cash flow from financing activities	Nangih, Ofor and Onuorah (2020), Etim, Emmanuel and Ekwere (2022), Chibuike and Celestine (2022)	It is expected to have a positive effect.
Investing Activities	**IA**	Logarithm of cash flow from investing activities	Nangih, Ofor and Onuorah (2020), Etim, Emmanuel and Ekwere (2022), Chibuike and Celestine (2022)	It is expected to have a positive effect.
Moderating				
Corporate Governance Mechanism	**BI**	**Board Independence** = Number of independent directors divided by total number of directors	Ogbeide and Obaretin (2018); Chytis, Tasios and Gerantonis, (2020), Appah and Tebepah (2023)	It is expected to have a positive effect.

Source: Empirical Survey (2023).

3.2 Model Specification

In line with the previous studies, the study adapted and modified the Model of Nangih, Ofor and Onuorah (2020) in determining the moderating effect of corporate governance mechanism on cash flow management and performance of quoted firms in Nigeria. This is shown below as thus:

Nangih, Ofor and Onuorah (2020):$\mathbf{PFM = \beta_0 + \beta_1 OCF + \beta_2 ICF + \beta_3 FCF + \mu}$

The explicit form of the regression modified for the study is expressed as thus:

Model 1: $\mathbf{NAPS_{it} = \beta_0 + \beta_1 OA_{it} + \beta_2 FA_{it} + \beta_3 IA_{it} + \mu}$

To examine the moderating effect of corporategovernance mechanism on the relationship between cash flow management and corporate performance, the regressionmodel is expressed as thus:

Model 2: $\mathbf{NAPS_{it} = \beta_0 + \beta_1 OA_{it} + \beta_2 FA_{it} + \beta_3 IA_{it} + \beta_4 BI_{it} + \beta_5 BI*OA_{it} + \beta_6 BI*FA_{it} + \beta_7 BI*IA_{it} + \mu}$

Where:
NAPS = Net Assets Per Share
OA = Operating Activities
FA = Financing Activities
IA = Investing Activities
BI = Board independence (moderating variable)
μ = Stochastic Term
$\beta_1 - \beta_7$ = Coefficient of Regression Equation
β_0 = Constant coefficient (intercept) of the model
Decision Rule: accept Ho if P-value > 5% significant level otherwise reject Ho.

4.0: Results and Discussion

Table 2: Descriptive Statistics

	NAPS	OA	FA	IA	BI
Mean	4.019853	2.738810	3.030403	2.526007	2.107106
Median	1.240000	0.090000	3.000000	2.800000	2.300000
Maximum	76.25000	10.97000	10.50000	6.100000	2.900000
Minimum	1.120000	4.19900	6.400000	3.900000	0.300000
Std. Dev.	9.499596	3.720377	0.825329	0.734810	0.636734
Skewness	4.766205	10.60321	0.067649	0.397739	0.195497
Kurtosis	2.031204	4.987232	2.909699	1.845709	2.704758
Jarque-Bera	9345.158	162531.7	0.300981	22.35383	2.730495
Probability	0.898722	0.408172	0.860286	0.981726	0.255317
Sum	1097.420	20.15000	827.3000	689.6000	575.2400
Sum Sq. Dev.	24545.91	3764.809	185.2777	146.8653	110.2770
Observations	**273**	**273**	**273**	**273**	**273**

Source: E-View 12 Computational Results (2023)

Table 2demonstrates thaton the average, in a 7-year period (2016-2022), the listed consumer goods firms, industrial goods firms and oil and gas firms in Nigeria were characterized by positive net assets per share (NAPS) value of 4.02. This is an indication that the selected firms in Nigeriahave positive net assets per share at a degree risk of 9.49%. The average operating activities (OA) value for the sampled firms was 2.74 with a standard deviation value of 3.72.Accordingly, businesses with OA values of 2.74 and above have a positive operating cash flow management at a 3.72% risk level. The maximum and minimum values of OA, which were 10.9 and 4.19, respectively, also varied greatly. Since the researcher assumes that firms with high OA values have better operating cash flow performance than those with low OA values, the wide variation in OA values among the sampled firms justifies the need for

this study. Operating activities (OA) also has a leptokurtic distribution because there are many outliers, as indicated by the kurtosis (4.98) being greater than 3. Given that 0.41 Jarque-Bera probability is larger than 0.05, the distribution of operating activities is assumed to be normal.

Additionally, the sampled firms' average financing activities (FA) value was 3.03, with a standard deviation of 0.83. Accordingly, companies with FA values of 3.03 and above perform well in terms of financing cash flow management at a degree of risk of 0.83%. The minimum and maximum values of FA,were 6.4and 10.5 respectively, also varied greatly. Since we assume that firms with high FA values have better financing cash flow performance than those with low FA values, the wide variation in FA values among the sampled firms justifies the need for this study. Because there are few outliers and the kurtosis (2.91) is less than 3, the financing activities distribution is platykurtic. Given that the Jarque-Bera probability of 0.86 is larger than 0.05, the financing activities distribution is equivalent to a normal distribution.

The average investing activities (IA) for the sampled firms, value was 2.53, with a standard deviation of 0.73. This indicates that companies have a positive investing cash flow performance when their FA values are 2.53 or higher. The IA maximum and minimum values, which were 6.10 and 3.90, respectively, also varied greatly. Since we assume that firms with high IA values have a better investing cash flow performance than those with low IA values, the wide variation in IA values among the sampled firms justifies the need for this study. Because there are few outliers and the kurtosis (1.85) is less than 3, the distribution of investing activities is platykurtic. Because the Jarque-Bera probability of 0.98 is higher than 0.05, the distribution of investing activities is considered to be normal.

Also, for the sampled companies, the average board independence (BI) value was 2.12. This suggests that corporate performance is determined by corporate governance mechanism proxy by board independenceat a risk of 0.64%. For the study, 2.90 was the maximum value and 0.30 was the lowest. This study is justified by the variation in maximum and minimum BI values among the sampled companies that firms with such variability have effective corporate governance mechanisms in practice. Furthermore, because the kurtosis (2.70) for the corporate governance mechanism (board independence) is less than 3 and Jarque-Bera probability of 0.26 is greater than 0.05 suggests that there are few outliers. Thus, the distribution is platykurtic which indicates that corporate governance mechanism distribution does not deviate from the normal distribution,

Table 3: Correlation Matrix

Variables	NAPS	OA	FA	IA	BI
NAPS	1.000000				
OA	0.275902	1.000000			
FA	0.398767	-0.087190	1.000000		
IA	0.109734	0.073593	0.602485	1.000000	
BI	0.179053	0.047390	-0.093836	0.317701	1.000000

Source: Result Output from E-Views 12 (2023).

Table 3 above shows the relationship between the independent variables and dependent variable used in the model. It shows that all independent variables and moderating variable have a

positive relationship with the dependent variable (NAPS) while some of the components of cash flow management have negative relationship with one another. Every value on the diagonal is 1, suggesting that every variable has a perfect correlation with itself. It was also discovered that there was no perfect correlation between any two exogenous variables when we tested for multi-collinearity which suggests that our model does not have multi-collinearity.

4.1. Test of Hypothesis

Table 4:Panel Least Square Result on Effect of Cash Flow Management on Firm Performance for Model 1 (Direct Effect)

Dependent Variable: NAPS
Method: Panel Least Squares
Date: 09/29/23 Time: 13:55
Sample: 2016 2022
Periods included: 7
Cross-sections included: 39
Total panel (balanced) observations: 273

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OA	0.904847	0.153657	5.888746	0.0000
FA	0.836769	0.231781	3.610171	0.0010
IA	1.590955	0.399896	3.978720	0.0001
BI	3.385452	1.018006	3.325570	0.0080
C	9.662605	3.008697	3.211558	0.0215

R-squared	0.849873	Mean dependent var	4.019853
Adjusted R-squared	0.825467	S.D. dependent var	9.499596
S.E. of regression	9.372563	Akaike info criterion	7.331596
Sum squared resid	23542.44	Schwarz criterion	7.397703
Log likelihood	995.7628	Hannan-Quinn criter.	7.358132
F-statistic	6.855793	Durbin-Watson stat	1.941509
Prob(F-statistic)	0.000000		

Source: Result Output from E-Views 12 (2023).

Table 4 above displays the model's R-squared, which is 0.85 percent. This means that only 85% change in the dependent variable of corporate performance (NAPS) was accounted for in the model, while the remaining 15 percent remaining unaccounted for. The panel least-squares model is statistically significant at the 1% level as indicated by the F-statistic value of 6.86 and its P-value of 0.0000. This suggests that the regression model is appropriate for the study. It was also discovered that there was a strong and positive correlation between the firm's operating, financing, investing activities and firm performance. Additionally, it was discovered that in Nigeria, the relationship between cash flow management and firm performance was determined by corporate governance proxy with board independence.

Autocorrelation Test: Durbin Watson's thumb rule is supported by the DW statistic of 1.94. This indicates that there is no autocorrelation in the data which implies that it is appropriate for interpreting panel least squares model result. The model's goodness of fit is confirmed by the Schwarz and Akika info criteria, which are 7.39 and 7.33, respectively, and further bolster the dependability of our result.

Table 5: Panel Least Square Result on Moderating Effect of Corporate GovernanceMechanism on Cash Flow Management and Performance for Model 2 (Moderation Effect).

Dependent Variable: NAPS
Method: Panel Least Squares
Date: 09/29/23 Time: 13:59
Sample: 2016 2022
Periods included: 7
Cross-sections included: 39
Total panel (balanced) observations: 273

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OA	5.218500	1.746022	2.988794	0.0300
FA	6.715676	1.277731	5.255939	0.0000
IA	5.935200	1.827444	3.247815	0.0080
BI	7.841086	2.110225	3.715758	0.0020
BI*OA	2.527645	0.301306	8.388963	0.0000
BI*FA	2.409763	0.869512	2.771397	0.0394
BI*IA	1.836470	0.713048	2.575521	0.0475
C	8.751499	1.944140	4.501476	0.0001

R-squared	0.571001	Mean dependent var	4.019853
Adjusted R-squared	0.557562	S.D. dependent var	9.499596
S.E. of regression	9.345428	Akaike info criterion	7.336518
Sum squared resid	23144.31	Schwarz criterion	7.442290
Log likelihood	993.4347	Hannan-Quinn criter.	7.378977
F-statistic	5.292597	Durbin-Watson stat	1.979401
Prob(F-statistic)	0.000000		

Source: Result Output from E-Views 12 (2023).

As can be seen in Table 5 above, the model's R-squared was 0.57 percent, meaning that 57 percent of the variation in the dependent variable of firm performance (NAPS) was explained by the variables taken into account in the model, with the remaining 43 percent not being explained by the model. According to the panel least-squares model's F-statistic value of 5.29 and P-value of 0.0000, it is statistically significant at the 1% level. This demonstrates that the regression model is appropriate for the study and valid.

Autocorrelation Test: Durbin Watson's thumb rule is supported by the calculated DW statistic of 1.99. This indicates that there is no autocorrelation in our data. Hence, its suitable for interpretation using panel least squares regression model. The model's goodness of fit is confirmed by the Schwarz and Akika info criteria, which are 7.44 and 7.33 respectively. Thusbolsters the dependability of our result.

4.2: Discussion of Findings

The result of the analysis of the study using OLS Model is expressed as follows:

H_{01}:Operating activities has no significant effect on performance of listed manufacturing firms in Nigeria. This hypothesis was tested, and the results of the test as shown on table 5 shows that there is a positive and significant relationship between operating activities and firm

performance (NAPS), with a model's P-value (significance) of 0.0300, which is less than the 5percent level of significance adopted in the study. Similarly, the positive coefficient result demonstrates that effective operating cash flow management ensures firms' performance by 5.22%. As a result, alternate hypothesis was accepted which holds that the performance of Nigerian listed manufacturing companies is significantly impacted by their operating activities. This is consistent with the a priori expectations ofTonye, Emmanuel, Stanley (2020), Etim, Emmanuel, Ekwere, and Mary (2022), and others who discovered a significant and positive correlation between operating cash flow management and business performance. In disagreement, Chibuike and Celestine (2022), Nangih, Ofor and Onuora (2020) found insignificant relationship between operating cash flow management and corporate performance.

H_{02}: Financing activities has no significant effect on performance of listed manufacturing firms in Nigeria. This hypothesis was tested, and the results of the study as shown on table 5 signifies that there is a positive and significant relationship between financing activities and firm performance (NAPS), with a model's P-value (significance) of 0.000, which is less than the 1 percent level of significance adopted in the study. Similarly, the positive coefficient result indicates at an increase in firms' financing activities as other variable are held constant increases firms net assets per share (NAPS) by 6.72. As a result, alternate hypothesis was accepted which maintains that financing activities has significant effect on performance of listed manufacturing firms in Nigeria.The findings of Chibuike and Celestine (2022), Ebimobowei, Awuji and Anuogwu (2021), Tonye, Emmanuel and Stanley (2020), and Nangih, Ofor and Onuora (2020) that financing cash flow management ensures corporate performance are in line with our presumptions. This disagrees with the status quo of Ekwunife and Okoro (2022), Etim, Emmanuel, Ekwere and Mary (2022) who found insignificant and negative relationship between the variables.

H_{03}: Investing activities has no significant effect on performance of listed manufacturing firms in Nigeria. This hypothesis was investigated, and the regression model's result, as shown in Table 5, shows that there is a positive and significant relationship between investing activities and firm performance (NAPS). The model's P-value (significance) is 0.0080, which is less than the 1 percent level of significance adopted in the study. Similarly, the positive coefficient result demonstrates that an increase in firms' investing activities as other variable are held constant increases net assets per share (NAPS) by 5.94%. As a result, we decided to reject the null hypothesis and accept the alternate one, which states thatinvesting activitieshas significant effect on performance of listed manufacturing firms in Nigeria. In agreement, Tonye, Emmanuel and Stanley (2020), Etim, Emmanuel, Ekwere and Mary (2022 found positive and significant relationship between investing activities and firm performance. This is not in tandem with the priori expectations of Nangih, Ofor and Onuora (2020), Ekwunife and Okoro (2022who found insignificant relationship between investing cash flow management and corporate performance.

H_{04}: Corporate governance mechanism does not moderate the effect of operating activities on performance of listed manufacturing firms in Nigeria.The relationship between operating activities and firm performance (NAPS), moderated by corporate governance mechanism was found to be positive and significant, with a P-value of 0.0000 for the model, which is below the assumed 1 percent level of significance. This implies that effective corporate governance practices ensure firm performance as demonstrated by the model's positive coefficient of correlation of 2.53%. As a result, the alternate hypothesis which states that corporate governance

mechanism moderates the effect of operating activities on performance of listed manufacturing firms in Nigeria.

Additionally, when corporate governance mechanism (board independence) was examined separately as a control variable, it shows a significant and positive correlation with corporate performance. The test is deemed statistically significant at the 1 percent level with a p-value of 0.0020.

H_{05}: Corporate governance mechanism does not moderate the effect of financing activities on performance of listed manufacturing firms in Nigeria.

The relationship between financing activities and firm performance (NAPS), as moderated by the corporate governance mechanism, was found to be positive and significant, with a P-value of 0.0394 for the model, which is below the 5 percent level of significance adopted. Also, the result of the positive correlation of 2.41% between cash flow management and firm performance implies that effective corporate governance practices ensures firm performance. Consequently, the alternate hypothesis was accepted, which contends that corporate governance mechanism moderates the effect of financing activities on performance of listed manufacturing firms in

H_{06}: Corporate governance mechanism does not moderate the effect of investing activities on performance of listed manufacturing firms in Nigeria. This hypothesis was also tested, and the results usingpanel least squares model demonstrates that there is a positive and significant relationship between investing activities and firm performance (NAPS) mediated by the corporate governance mechanism. With a p-value 0f 0.0475, the test is statistically significant at 5% level. The coefficient of correlation of 1.84 signifies that effective corporate governance practices moderatesthe relationship between investing activities and firm performance by 1.84%. Thus, the alternative hypothesis was accepted which holds that corporate governance mechanism moderates the effect of investing activities on performance of listed manufacturing firms in Nigeria.

5.1 Conclusion

The statistical analysis of the study revealed that the performance of Nigerian listed manufacturing firms is significantly and positively impacted by cash flow management proxy as operating, financing, and investing activities. Also, corporate governance mechanism was found to moderate the effect of cash flow management on firms' performance in Nigeria. In lieu of this, it was concluded that cash flow management ensures corporate performance in thisera of disruption in Nigeria.Also, effective corporate governance practice moderates the relationship between cash flow management and firm performance.By this implication, effective corporate governance practice ensures firm performancein Nigeria.

5.2 Recommendation

In the light of the above, the study made the following recommendations;

1. Nigerian listed companies ought to be urged to develop a feasible cash flow management plan that will increase the company's efficiency and improve its financial performance.

2. Maintaining net cash flow from financing activities is important as it has shown to have positively impacted the financial performance of listed firms in Nigeria.

3. The study further suggested the need for corporate organizations to review their cash flow management strategies in order to generate enough cash to fund their investing activities.

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