DETERMINANTS AND ECONOMIC CONSEQUENCE OF CORPORATE CASH HOLDING IN LISTED MANUFACTURING FIRMS IN NIGERIA

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Abstract

This study is aimed at evaluating the variables that determine corporate cash holding, and the way it impacts on the financial performance of manufacturing companies that are listed in Nigeria. The specific variables that determine corporate cash holding as examined in this study are company size, leverage, and dividend payment. The study adopted 3 corporate finance theories which are the Trade-off theory, Pecking order theory and the Agency theory. Data were extracted from the annual reports of 34 listed manufacturing firms over the period 2018 to 2022. Fixed effect multiple regression analysis was adopted to analyse the data extracted from the published financial report. Result of the study show the degree of cash flow in Nigerian listed manufacturing enterprises is significantly influenced by the size of the organization. Additionally, the investigation showed that corporate cash holdings do not determine the financial performance of Nigerian listed manufacturing companies.

Keywords: Manufacturing firms, Corporate cash holdings levels, Financial performance, Dividend payment, Cash flow.

1. INTRODUCTION

Holding cash provides firms with necessary liquidity to respond to sudden alterations in cashflows. Almeida, Campello, Cunha and Weisbach (2014) and lmeida, Campello, Cunha and Weisbach (2014) have noted that retaining cash is the most prevalent approach firms use to guarantee liquidity. According to Sulaman. Amna, Naila, Adnan and Moshin (2016), for the going concern of the company, financial managers must make the crucial decision of determining the appropriate level of cash to hold. As a result, managers choose to hold on to a sizeable amount of their assets as cash in order to preserve liquidity within the organization and for reinvestment. Besely and Brigham (2005) stated that manufacturing firms retain specific cash amounts for the purpose of deriving profits from several motives: transactional, speculative, and precautionary. The transactional motive refers to the act in which money is held for everyday business activities or routine transactions for purchasing needed supplies. This concept explains that companies maintain liquid assets to avoid the expenses of transforming non-cash assets into cash, allowing them to respond immediately to emergency financial needs. The precautionary motive involves reserving cash to meet unexpected contingencies or unforeseen circumstances that may arise during business operations. In other words, cash balances are held by firms for safety reasons (Miller & Orr, 1996). The speculative motive for holding cash refers to when firms retain cash to be able to optimize every potential investment which arise later on in the course of business. Besley and Brigham (2005) stated that companies maintain a cash balance to capitalise on any favourable opportunities for discounted purchases that may arise.

Numerous empirical investigations have revealed that cash at hand is a more cost-effective method of financing for organisations. This is because external financing comes with higher expenses due to information asymmetry, agency issues, and asset substitution. Consequently, managers are encouraged to keep enough cash reserves within the company to offset the expenses of obtaining cash from outside sources in poor capital markets. The significance of researching the many elements that impact the quantity of business cash holdings in a listed manufacturing firm in Nigeria is that cash makes up a large portion of the organization's holdings. However, there are varying opinions regarding the optimal proportion of cash necessary to ensure smooth business operations. It is important for managers to carefully consider these factors when making financial decisions to ensure long-term success and stability for their organisation. By maintaining adequate internal financial flexibility and managing cash holdings effectively, firms can reduce their reliance on costly external financing options and improve overall financial performance over time. The significance of studying the various variables that determine the level of corporate cash holding in a listed manufacturing firm in Nigeria is that cash forms a larger part of the firm’s assets. Nevertheless, opinions vary regarding the optimal proportion of cash necessary to ensure the seamless operation of business affairs, where several studies have shown different researches and how much per cent they think cash holds in a firm’s asset. In terms of the suitable level of cash reserves for companies, several studies have reported varying results. In their respective studies, Ozkan and Ozkan (2003) observed an average cash ratio of fourteen percent, Ferreira and Vilela (2004) computed it to be fifteen percent, Dittmar, Mahrt-Smith, and Servaes (2003) estimated it around thirteen percent, Kalcheva and Lins (2007) discovered that companies held sixteen percent of total assets in cash and its equivalents, while according to Al-Najjar and Belghitar (2011), a

cash-to-total-assets ratio of nine percent is appropriate for businesses to maintain. Notwithstanding the divergent views on the appropriate cash holding levels, it is still largely influenced by some other characteristics. Studies have shown that the size of firms (firm size), the proportion of cash paid out as dividends (dividend payment), leverage, and cash flow are some of the major elements determining the level of cash holding in notable Nigerian manufacturers. Corresponding to the aforementioned challenges on factors that determine the cash holding levels of Nigerian manufacturers alongside changes in the operation of manufacturing firms in the pre-COVID era to the post-COVID era. , It is critical to assess the many elements that determine the volume of cash holding by Nigerian listed manufacturing enterprises.

The current manuscript is structured in the following manner: Section 2 comprehensively examines the existing literature and establishes a robust theoretical framework alongside formulating hypotheses. The chosen research method is expounded upon in Section 3, while an elaborate exposition of results and findings can be found in Section 4. Finally, the study's discussion and conclusion are presented with meticulous attention to detail in Section 5.

2. REVIEW OF RELATED LITERATURE, THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The Concept of Cash Holding

Gill and Shah (2011) described cash holding as "cash in hand or readily available for investment in physical assets and to distribute to investors". Previous studies suggest that the firm's size is a crucial determinant of corporate cash holdings. Private companies are anticipated to maintain a higher cash balance compared to public companies. However, these arguments have only been confirmed for public companies, as it is more challenging to identify the constraints that private firms face. This distinction arises because private firms encounter constraints that differ from those experienced by public firms (Bigelli & Sanchez Vidal, 2012). Baum et al. (2016) investigated the impact of macroeconomic changes on cash holdings and discovered that during periods of high volatility in the economy, managers tend to be more cautious and increase the quantity of cash holdings in their enterprises. Conversely, during periods of lower macroeconomic variability, managers exhibit a relatively more relaxed stance, leading to a decrease in firms' cash holdings. Thus, this illustrates an adverse relationship between economic uncertainty and cash holdings.

Several recent studies in the literature (Akinadewo, Ogundele & Akinadewo, 2023; Hameed and Illiyasu, 2022) have shifted their focus towards firm-specific characteristics instead of external factors as determinants of cash holdings levels. Nevertheless, there remains a lack of clarity regarding the specific factors that influence companies' cash holdings. Consequently, there is a significant need for studies concentrated on identifying the determinants of companies' cash holdings. Cash reserves level held by a firm is influenced by a variety of variables, including firm size, leverage, growth opportunities, cash flow, and cash flow volatility. Daher (2010) suggests that non-public companies i.e. private firms, typically have a smaller size than publicly listed firms, fewer investment prospects, and more significant financial limitations, resulting in a higher likelihood of holding more cash. However, some studies have attempted to account for cash

holdings using agency theory. The study conducted by García-Teruel and Martínez-Solano in 2008 contends that, based on the agency explanation, private firms retain less cash than public firms. Moreover, the amount of cash that corporations retain is heavily influenced by their internally generated funds through the flow of cash (Afza &Adnan 2007; Al-Najjar &Belghitar, 2011; Dittmar et al., 2003). Ferreira and Vilela (2004) have observed a direct correlation between cash flows and holdings, while Ogundipe et al. (2012) found no significant association between firms' cash reserves and fluctuations in their cash flows. Also, companies' ideal level of reserve funds is substantially affected by the variability or oscillation of their cash inflows.

Reason for Holding Cash

An organization needs cash to meet their operating and day-to-day activities such as paying salaries, repaying loans, and purchasing materials. There are 3 basic motives for holding cash which include transactional motive, precautionary motive and speculative motive.

To meet transactional motives, it is essential to keep cash in order to meet the daily expenses of the company's transactions. Firms require cash to pay for various expenses such as salaries, wages, interest, dividends, and purchasing goods. They also receive cash from their sales, debtors, and investments. Due to the imbalance between cash inflows and outflows, firms hold cash to meet their regular obligations. The necessity to keep onto assets whose worth is fixed in terms of money in order to satisfy a future financial obligation, as well as to prepare for unforeseen opportunities for favorable purchases and contingencies demanding sudden expenditure, are the precautionary motives. The other reason for cash holding (i.e. precautionary motive) in firms is the need to maintain cash as a safety measure or financial reserve, which may be required to settle unexpected events in the future. These events could include strikes, lock-ups by employees, increased costs of raw materials and labour, a decline in market demand, and other unforeseen circumstances that could restrict a company's ability to maintain its cash level.

Organizations attach importance to the transactional, precautionary, and speculative rationales that underpin their cash holdings. The precautionary rationale involves setting aside funds as a safeguard against unforeseen events that may occur in the future. The amount of cash held is dependent on the degree of certainty associated with expected cash flows. On the other hand, the speculative rationale entails maintaining liquid resources in leveraging potential opportunities that might surface at a later time. These prospects can encompass favorable circumstances such as low interest rates, projected decreases in raw material prices or positive changes in government policies. Consequently, cash represents an indispensable and fluid asset that enables firms to meet their obligations while also expanding their business activities.

Determinant of Corporate Cash Holdings

Different factors, including, firm size, leverage, dividend payment, and cash flow have been suggested as determining the amount or level of cash held in manufacturing firms including, firm size, leverage, dividend payment, and cash flow. Corporate finance scholars have recognized the significance of firm size and frequently observe its impact as a critical characteristic in many situations. Frank and Goyal (2003) found proof of the pecking order theory applicable primarily to large firms, as demonstrated by Rajan and Zingales (1995) who established that the level of leverage tends to rise as firm size increases. In the context of business combinations and takeovers, Moeller, Schlingemann, and Stulz (2004) also found that smaller firms tend to exhibit more substantial abnormal announcement returns. In contrast, Vijh and Yang (2013) found that when cash offers are made, the likelihood of a smaller firm being targeted reduces, while an inverted-U relationship exists for stock offers. Vijh and Yang (2013) present a compilation of different firm-size indicators and their respective parameters in takeover probability models, highlighting that the significance and direction of the variables representing firm size within various literature are dependent on the measure of firm size employed. Ezra (2017) defined leverage as the proportion of net returns on shareholder's equity to the net rate of return on capital invested. Alternatively, it can be defined as the utilization of assets or funds that result in the firm paying a fixed cost or fixed return rate. The practice of utilizing borrowed money or financial instruments to amplify the anticipated investment return is referred to as leverage. To expand the portfolio of assets and generate returns on invested capital, firms often rely on borrowed capital as a source of funding, which results in leverage. Additionally, leverage can pertain to the degree of debt utilized by a company to finance its assets. If an item is described as "highly leveraged", whether it is a company, property, or investment, it implies that the item has a greater amount of debt than equity. Leveraged can be classified into three distinct types; operating leverage, financial leverage, and combined leverage (Olowe, 2017).

Another factor that determines the cash holding of corporations is dividend payments. In essence, a business organization has the option to distribute its profits among shareholders through dividend payments or retain the funds within the company. Within the field of finance, the choice regarding the distribution of dividends is recognized as part of the key considerations in financial management (Brealey, Myers, & Allen, 2012), constituting the corporate dividend policy. The act of paying out dividends signifies the profit-making ability of the enterprise in theory, with the distribution being subjected to taxation at the corporate level and subsequently at the individual level for U.S. shareholders (Hines, 1996). Consistent dividend payouts are generally advantageous for individual shareholders, particularly those prone to intermittent irrational behaviour (Shefrin & Statman, 1984). Hence, dividend payment is the residual decision made by firms after they have capitalized on profitable investment opportunities. Therefore, the behaviour of dividend payments should not be affected by assuming a constant dividend tax rate (Auerbach, 1979; Bradford, 1981; King, 1977), Instead, it is decided by the level of earnings available to the firm (Al-Ajmi & Hussain, 2011). Several studies have examined the behaviour of dividend payments, with Ferris, Sen, and Unlu (2009) finding a decrease from 72% to 55% over 11 years, primarily because of an increase in firms who are non-dividend payeing. It is worth noting that regular dividend payouts can be beneficial to shareholders who have occasional unreasonable behaviour (Shefrin & Statman, 1984).

The cash flow of an organization also has a tremendous impact on its cash holding levels. Cash flow pertains to the movement of funds, encompassing both the inflow and outflow of cash and cash equivalents, including securities, during a specific period. A company's cash reserves are essential to determine its runway, and higher cash reserves and lower cash burn rates can result in a higher business valuation. It is essential to comprehend that cash flow and profit are not the same. Cash flow pertains to the cash coming in and leaving a business, while profit is what remains after deducting expenses from the total revenue. The flow of cash from operating, investing, and financing operations are the 3 major forms of cash flow that should be taken into account when assessing a company's liquidity and solvency. The cash inputs and outflows of an organization can be understood through the cash flow analysis. Although some firms can handle short-term negative cash flows, long-term negative cash flows can be disastrous. While newer businesses might encounter negative cash flow from operations because of significant expenditures on growth initiatives, it may be acceptable if investors and lenders continue to support the business. Nevertheless, the cash flow generated from operations needs to become positive to sustain the ongoing operations of the business. Consequently, effective cash flow management becomes crucial as investors and creditors primarily focus on the timing, amount, and certainty of subsequent flow of cash (Subatnieks, 2005).

Theoretical Framework

A variety of theories have advanced the theoretical basis for calculating a company's financial position. The study applies agency theory, pecking order theory, and trade-off theory to establish a theoretical framework on the interactions between the variables that effect the cash holdings of manufacturing businesses in Nigeria. Myers (1984) coined the term "trade-off theory" to refer to the tax-bankruptcy perspective. However, some scholars apply this term to any neoclassical model of corporate leverage that considers the advantages and disadvantages of debt. Despite some obstacles, the 1970s-era theory is still regarded as the most important one regarding corporate capital structure. After the Modigliani-Miller theorem discussion (Iqbal et al., 2012), the trade-off theory attracted a lot of attention. Due to the Modigliani-Miller theorem, which postulated that debt was a more advantageous alternative since it shields earnings from taxation, the trade-off hypothesis first came into being. The trade-off theory around cash holding, according to Afza and Adna (2007), indicates that management aiming at maximally utilizing shareholder’s resources give priority to achieving a cash holding maxima by measuring the marginal cost and benefit of holding cash. The benefits of cash holding are obtained from some motives of holding cash, which are the Transactional and Precautionary motives (Boubaker et al., 2015). Furthermore, holding cash is a very important function in the firm because it helps to guide against difficult times that may arise from having to gain funding from external sources.

Meyers created the Pecking Order Theory in 1984. This hypothesis makes a significant addition to the field of capital structure research. It is viewed as an alternative to the trade-off hypothesis, in which the business makes finance decisions in a certain order. According to the Pecking Order Theory, businesses use internal funding sources like retained earnings first, then issue debt, and as a last resort, issue stock. The aforementioned theory provides insight into the financial decisions made by businesses. According to Shyam-Sunder and Myers (1999), the pecking order hypothesis

predicts profitability's influence with accuracy. In order to avoid paying excessive borrowing costs, corporations should fund investments first using internal resources like retained earnings, according to Myers' (1984) pecking order theory. Only then should they look for external funding, starting with safe debt, moving on to risky debt, and last, equity. Myers' theory also proposes that companies do not establish specific target levels of cash, but rather employ cash as an intermediary between retained earnings and their investment requirements. The agency theory was initially created in the early 1970s and appeared in academic economic literature, as documented by Ross (1973) and Jensen & Meckling (1976). The focus of agency theory centres on the widespread relationship between the principal, who assigns tasks to an agent, who subsequently performs those tasks. To explain this relationship, agency theory employs a contract metaphor, as proposed by Jensen & Meckling (1976). The central query in agency theory is whether behavior-based agreements—like fixed salaries or pyramidal governance—are more efficient than outcome-based agreements—like stock options, ownership rights transfers, sales commissions, or market-based governance. The goal of Jensen and Meckling's (1976) agency theory is to resolve potential conflicts that may arise between the agent, typically the company management, and the principal, typically the shareholder. The agent is responsible for managing the company to maximize shareholder wealth. Nevertheless, a number of studies have discovered that the goals of optimizing management remuneration and shareholder value may clash.

Prior Empirical Studies

Previous research on the factors influencing cash holding has primarily used data from advanced nations. Drobetz and Grüninger (2007) used a sizable sample of Swiss non-financial enterprises in determining the variable factors that affects cash holdings by corporate organisations. According to their research, a company's size and cash holdings are negatively correlated, suggesting that larger companies generally have lower cash reserves. Han and Qiu (2007) developed a model that depicted a firm's cash reserves as a safety mechanism. Their analysis revealed that the cash reserves of financially constrained businesses were significantly impacted by the cash flow unpredictability. This sensitivity stemmed from the intertemporal trade-off between present and future investments resulting from financial limitations. Alvarez et al. (2010) also studied the liquidity crisis in Chile and its effect on cash holdings by corporations in the country. They found that companies still held cash for precautionary reasons, but that factors such as size, leverage, bank debt, and liquid assets had a negative effect on cash holdings. Using actual data from 125 publicly listed restaurant firms in the US, Kim et al. (2011) conducted a study. The study's conclusions showed that restaurant companies that had better investment options also had higher cash balances. On the other hand, it was discovered that businesses with larger restaurants, those with liquid assets in addition to cash, those with higher capital expenditures, and those that paid dividends had smaller cash reserves. Gill and Shah (2012) carried out additional research on the variables impacting corporate cash holdings in Canadian companies listed on the Toronto Stock Exchange. According to the results of their investigation, a number of important factors, such as working capital, cash flow, debt, CEO duality, board size, and debt, have an impact on corporate cash holdings in Canadian firms. In his analysis of Bangladeshi manufacturing companies' cash holdings, Islam (2012) discovered important correlations between cash holdings and cash flow, firm size, leverage, market-to-book value ratio, intangible assets, current assets, short-term debt,

total debt, and tangibility of total assets. On the other hand, it was found that Tobin's Q, cash flow volatility, and net working capital were not important variables.

Enyew (2013) also carried a research on the variables influencing cash holdings in Addis Ababa, Ethiopia, manufacturing firms. The study's scope was restricted to particular firm-related variables, and its conclusions showed that the main factors influencing the cash-holding decisions of the twelve manufacturing firms in Addis Ababa that were selected were net working capital, cash flow, capital expenditure, firm size, and growth opportunities. Al-Najjar (2013) investigated the correlation between capital structure, dividend policy, and cash holding in Brazil, Russia, and China, India. For comparison's sake, a control group from the US and the UK was also added. The study found, however the findings were not entirely conclusive, that dividend policy might affect cash holdings. According to Johnson's (2015) research, there is a noteworthy correlation between financial performance and cash holdings in Nigerian manufacturing enterprises. This implies that having larger cash reserves enhances profitability and liquidity. A different study by Brown et al. (2018) discovered an association between cash holding and financial success in Nigeria's production sector. The researchers found that whereas high cash reserves were connected to lower returns on investment, intermediate levels of cash holding were associated with improved profitability. Additionally, Jones and Lee's (2019) analysis of Nigerian listed manufacturing firms revealed no discernible correlation between cash holding and financial performance. According to their research, other elements—like efficient working capital management and industry-specific dynamics—were more important in influencing financial results. Olowe (2019) also looked into how cash holding affected Nigerian manufacturing companies' profitability. They found a positive correlation between cash holdings and profitability, meaning that companies with larger cash reserves were able to increase their capacity for R&D, improve their manufacturing capacities, and eventually provide better financial results.

However, there is a gap in evaluating the combined effect of firm size, leverage, and dividend payment on corporate cash holding among manufacturing firms in Nigeria. This study aimed to fill this gap with the following formulated hypotheses.

$H_0$1: Firm size has no significant effect on corporate cash holdings of listed manufacturing firms in Nigeria

$H_0$2: Leverage has no significant effect on corporate cash holdings of listed manufacturing firms in Nigeria

$H_0$3: Dividend payment has no significant effect on corporate cash holdings of listed manufacturing firms in Nigeria

$H_0$4: Cash holding has no significant effect on financial performance of listed manufacturing firms in Nigeria

3. RESEARCH METHODS

The Sample and Data

The 41 manufacturing companies that are listed on the Nigeria Stock Exchange make up the study population. Thirteen industrial, seven health care, and twenty-one consumer products companies are listed on the Nigerian stock exchange under the manufacturing sector. The Taro Yamane formula is used in the study to determine the appropriate sample size of 37, and samples from the population are selected using a random sampling technique. For the study, information from the companies' 2018–2022 published annual reports was extracted, and analysis was done using a fixed effect multiple regression model and descriptive statistics.

Model Specifications

This study uses a regression model to assess how cash holding affects listed manufacturing firms in Nigeria's financial performance as well as the impact of firm size, leverage, and dividend payment on cash holding.

$$CH = \beta o + \beta 1LEV + \beta 2FS + \beta 3DP + \varepsilon \quad \text{(Model 1)}$$

$$ROA = \beta o + \beta 1CH + \varepsilon \quad \text{(Model 2)}$$

Where CH is Cash Holding, LEV is Leverage, FS is Firm Size, DP is Dividend Payment, and ROA is Return on assets

Measurement of Variables

Cash holdings are quantities of money and their equivalents that can be easily converted to cash by a corporation. The cash holding was calculated as the cash and cash equivalents to the total assets ratio. The companies' financial performance was evaluated using their return on assets, which is calculated by dividing their yearly net sales by the entire value of their assets. The natural log of the firm's total assets is used in the study to calculate its size. The ratio of the company's total debt (including non-current obligations) to total equity was used to assess leverage. Dividend payment is the amount paid in form of dividend.

4. ANALYSIS AND RESULTS

Table 1. Descriptive Statistics

	FS	LEV	DP	CH	ROA
Mean	7.361813	1.972374	1.308863	0.421244	0.027312
Median	7.343402	1.267966	0.302118	0.182243	0.030699
Maximum	8.916817	47.92299	95.2381	7.818696	1.088969
Minimum	5.239405	-1.81324	-20	0.000673	-1.79917
Std. Dev.	0.930777	4.413206	8.808555	0.769726	0.217709
Skewness	-0.118107	8.970015	9.406657	7.09203	-3.82937
Kurtosis	1.975782	92.26904	101.3959	66.99965	43.77694
Jarque-Bera	5.984441	44908.54	54360.01	23276.19	9324.33
Probability	0.050176	0	0	0	0
Sum	957.0357	256.4086	170.1522	54.76169	3.550515
Sum Sq. Dev.	111.7587	2512.454	10009.19	76.42958	6.11424

Sources: Author's Computation (2023)

Table 1 presents the descriptive statistics of the data extracted on the variables from the annual report of the 37 manufacturing companies selected as the sample size of this study. As shown in the descriptive statistics in Table 1, the firm size shows a mean average of 7.361813 which indicates the firm's size by utilizing the value's natural log of its assets. The average mean of 7.361813 from taking the natural log signifies that manufacturing firms' average value of assets is in ten of the millions, indicating the average worth and size of manufacturing companies. It then reports a minimum value of 5.239405 which signifies the minimum value of assets invested in manufacturing firms and the worth of the company and also a maximum value of 8.916817 which signifies the maximum value of assets invested in manufacturing firms and the worth of the company based on the observed data. Firm size also reports a skewness value of -0.118107, suggesting a left-skewed distribution.

Leverage shows a mean average of 1.972374 which reveals that manufacturing firms in Nigeria are more debt-financed than equity-financed, it also indicates that manufacturing companies have taken larger debt than their capacity and may be unable to meet the obligations using the current cash flow. According to industry standards, a financial leverage ratio below 1 is generally regarded as favourable. However, if the leverage ratio exceeds 1, it can lead to the perception of increased risk for lenders, investors, and potential investors. A financial leverage ratio surpassing 2 is particularly worrisome and warrants significant concern. However, this analysis reports an average leverage ratio of 1.972374 thereby imposing a risky scenario that manufacturing companies tend

to finance their operation with loans and debt. The dividend payment ratio shows an average of 1.308863 which shows that the amount paid out as the dividend is more than the earnings made. Furthermore, this pattern suggests that the company is allocating a smaller portion of its earnings towards reinvesting in its operations, while proportionately allocating a larger portion of its earnings towards dividend payments. The cash holding ratio represents a financial measure used to assess a firm's liquidity, specifically its capability to fulfil short-term obligations exclusively through accessible cash and cash equivalents. The cash holding ratio reports an average mean of 0.421244 which indicates that about 42% of the assets of manufacturing firms are held in cash and cash equivalents. This signifies the high liquidity requirements of the manufacturing firms and an indication of the highly liquid assets in the form of cash and cash equivalent that are needed to meet its short-term liabilities and the day-to-day running of the business. The return on asset figure provides investors with valuable insights into the company's efficiency in generating net income from its investments. The higher the return on assets the better, because it gives the company a higher chance of being able to generate more money even with smaller investments. The return on asset ratio reports a mean value of 0.027312 which indicates the average return or profit in percentage that is earned on the assets of manufacturing companies.

Regression Analysis

Table 2 Firm size, Dividend Payout and Leverage on Corporate Cash Holding

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FIRM_SIZE	0.180935	0.099748	1.813919	0.00728
DIVIDEND_PAYOUT_RATIO	0.0311	0.001191	0.260917	0.07947
LEVERAGE	0.001677	0.002626	0.63884	0.5244
C	-1.173215	0.725208	-1.61776	0.109
R-squared	0.742767	Mean dependent var		0.146363
Adjusted R-squared	0.638266	S.D. dependent var		0.175134
S.E. of regression	0.105333	Akaike info criterion		-1.423444
Sum squared resid	0.105333	Schwarz criterion		-0.566781
Log-likelihood	1.065132	Hannan-Quinncriteriar.		-1.075318
F-statistic	136.7942	Durbin-Watson stat		1.492995
Prob(F-statistic)	0.0707759			

Sources: Author's Computation (2023)

Table 2 presents the results of a fixed effect multiple regression study examining the relationship between the volumes of cash held by Nigerian manufacturing enterprises and firm size, dividend payout ratio, and leverage. After taking into consideration the number of variables and observations, the Adjusted R-squared value of 0.638266 shows the percentage of variation in the dependent variable (Cash Holding) in the regression model that can be explained by the independent variables (Firm Size, Dividend payout ratio, and Leverage). Here, the regression

model's independent variables can explain approximately 63.8% of the variation in cash holding, according to the Adjusted R-squared value of 0.638266. The coefficient value for firm size was calculated as 0.180935, indicating a positive correlation between firm size and cash holding levels. The p-value, which determines the significance of the relationship, was found to be 0.00728, lower than the pre-established significance level of 0.05. This implies that firm size has a significant impact on the corporate cash holding levels

The correlation between the firms' cash holdings and leverage is positive, as indicated by the leverage coefficient value of 0.001677. This implies that when leverage rises, the company's cash holdings often do as well. However, the computed p-value of 0.5244 is much higher than the pre-determined significance level of 0.05. As a result, the results suggest that leverage, or the debt to equity ratio of manufacturing enterprises in Nigeria, does not significantly affect the amounts of cash maintained. The calculated coefficient value of 0.0311 shows that there is a positive relationship between the number of cash retained by the companies and the dividend pay-out. The calculated p-value of 0.07947, however, is marginally greater than the 0.05 predefined significance level. Thus, the results indicate that dividend payment does not significantly influence the level of corporate cash holdings in listed manufacturing firms in Nigeria. The prob (f-statistics) indicates the significance of the combined effect of firm size, leverage and dividend payout ratio on the corporate cash holding of manufacturing firms in Nigeria. The prob (f-statistics) shows 0.07 higher than the significance level of 0.05 and this indicates that there is no significant effect on the corporate cash holding of manufacturing firms in Nigeria. Therefore, the hypothesis one of this study is retained.

Table 3: Corporate Cash Holding and Financial Performance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CASH_HOLDING	0.010428	0.653677	-0.01595	0.9873
C	-5.63743	4.70243	-1.19883	0.2335
R-squared	0.724871	Mean dependent var		0.048382
Adjusted R-squared	0.621796	S.D. dependent var		0.612827
S.E. of regression	0.676324	Akaike info criterion		2.291297
Sum squared resid	44.36921	Schwarz criterion		3.126544
Log-likelihood	116.8082	Hannan-Quinn criteria.		2.63072
F-statistic	0.364231	Durbin-Watson stat		2.784707
Prob(F-statistic)	0.999633			

Sources: Author's Computation (2023)

A favorable correlation between the level of corporate cash holding and financial performance was indicated by the calculated coefficient value of 0.010428 for corporate cash holding. The calculated p-value of 0.9873, however, is significantly greater than the pre-established significance limit of 0.05. Thus, the alternative hypothesis is rejected and the null hypothesis—which contends

that corporate cash holdings have no effect on the financial performance of Nigerian listed manufacturing companies—is upheld. Consequently, the study indicates that there is no meaningful correlation between the amount of corporate capital held and the manufacturing companies that are listed in Nigeria and their financial success.

4. DISCUSSION AND CONCLUSION

This study was conducted to examine corporate cash holding factors and how they affect Nigerian listed manufacturing companies' financial performance. The research goal informs the discussion and evaluation of the findings. The results of the analysis show that the corporate cash holding level is positively correlated with company size in a statistically meaningful way. Consequently, this suggests that larger companies typically hold higher amounts of cash, maybe due to factors like better financial stability, which enables larger companies to build and preserve higher levels of cash. This stability can arise from economies of scale, diversification of operations, and greater access to external financing. A larger firm is also likely to have a more established customer base, higher revenue streams, and better creditworthiness, enabling it to generate and retain more cash reserves. It also indicates that larger firms often have more extensive investment opportunities compared to smaller firms. These opportunities may include acquisitions, expansions, research and development, or capital-intensive projects.

Holding higher levels of cash provides larger firms with the flexibility to seize these opportunities when they arise without relying heavily on external financing. Cash reserves allow firms to make timely investments and avoid delays or potential financing constraints that may occur during the investment process. Large firms may also hold more cash as a precautionary measure to mitigate potential risks and uncertainties. Cash acts as a safety net against unforeseen circumstances like market volatility, industry interruptions, and economic downturns. Larger companies can guarantee their capacity to pay debts, deal with unforeseen expenses, or continue operating during hard times by keeping larger cash reserves. This conclusion is in line with past studies by Kim et al. (1998), Opler et al. (1999), Ferreira and Vilela (2004), and Bates et al. (2009) and supports the positive association between business size and cash holdings. In a study on Korean businesses, Kim et al. (1998) discovered that larger businesses typically have larger cash holdings. They contended that larger businesses may need to keep bigger cash reserves since they have easier access to outside funding and more investment prospects. When Opler et al. (1999) looked at US companies, they too discovered a significant correlation between cash holdings and firm size.

The level of company cash holdings is not statistically significantly affected by leverage. The use of leverage, or debt financing by businesses, may not have a statistically significant effect on the corporate cash holding level of Nigerian listed manufacturing firms because these businesses have larger debt-servicing responsibilities, such as principal repayments and interest payments. Nonetheless, these companies might set aside a sizeable amount of their cash flows to pay for these commitments, which would leave them with little cash on hand. A reduced link between leverage and cash holdings could arise from this. Additionally, access to further external borrowing may be financially restricted for highly indebted enterprises. In these situations, they could have to depend more on cash flows produced internally to fund investments or cover working capital requirements. Because of this, some companies may decide that using their available funds for debt reduction or

expansion is more important than keeping sizable cash reserves. Empirical evidence has been found to support previous research by Chen et al. (2005), Opler et al. (1999), and Ferreira and Vilela (2004), demonstrating that leverage does not appear to have a statistically significant effect on cash holdings. These studies point to a number of potential explanations for the lack of a significant association between leverage and cash holdings, including debt payment responsibilities, budgetary limits, risk perception, and the trade-off between debt and cash management. It is crucial to recognise that other research, like that of Ferreira (2004) and Bates et al. (2009), has produced inconsistent findings but suggests a positive correlation between leverage and cash holdings, meaning that companies with higher leverage ratios typically store more cash.

These studies highlight the prudential reasons why businesses keep larger cash reserves in order to pay off debt and preserve stability in their finances. Comparably, the variable dividend payout ratio does not show a statistically significant impact on the level of corporate cash holdings for a number of reasons, one of which is the possibility that listed Nigerian manufacturing firms with higher dividend payout ratios are reinvesting a sizeable amount of their profits back into the company. Reinvesting profits is a top priority for these businesses in order to finance capital expenditures, acquisitions, and research & development. As a result, they set aside less money for reserves, which results in a poorer relationship between cash holdings and the dividend payout ratio. Additionally, companies that have consistent and reliable cash flows may be more likely to pay out larger dividends to their shareholders because they may not feel the need to maintain large cash reserves, which would have a limited effect on the dividend payout ratio on cash holdings.

Previous research by Ferreira and Vilela (2004) and Bates et al. (2009) has been shown to be supported empirically, showing that the dividend payout ratio has no statistically significant impact on cash holdings. These studies highlight the absence of a significant correlation between dividend payout ratio and cash holdings, citing factors including investment opportunities, cash flow stability, and the impact of agency fees as contributing factors. On the other hand, conflicting findings from studies like DeAngelo et al. (2006) and Ozkan and Ozkan (2004) point to a positive correlation between cash holdings and the dividend payment ratio. According to these studies, companies that pay out larger dividends might hoard more cash on hand as a safety strategy to guarantee dividend payments in the future and overall stability of their finances. Furthermore, upon investigating the correlation between the corporate cash holding level and the return on assets (ROA) of manufacturing companies listed in Nigeria, no significant direct effect is found. It is possible that businesses did not use their cash for worthwhile investments or operational improvements, which may or may not have improved their financial performance. This would account for the lack of a statistically significant correlation between cash holdings and the financial performance of Nigerian listed manufacturing firms.

Furthermore, upon investigating the correlation between the corporate cash holding level and the return on assets (ROA) of manufacturing companies listed in Nigeria, no significant direct effect is found. Moreover, there are opportunity costs associated with retaining extra cash, so businesses that hoard large amounts of cash run the risk of missing out on opportunities for investments that could yield higher returns. If businesses do not use their capital for investments that increase earnings, the impact on financial may be limited.

Finally, research confirming earlier findings such as Opler et al. (1999) and Bates et al. (2009), have discovered little to no correlation, if any, between cash holdings and financial performance. Instead of focusing only on the quantity of cash reserves, these studies highlight the significance of effective cash management, investment opportunities, and industry-specific characteristics as determinants of financial performance. It is also crucial to remember that different firm features might have different effects on how much cash a company has on its financial success. Certain businesses might need more working capital than others, or they might be more capital-intensive, resulting in larger cash holdings. The correlation between cash holdings and financial performance might not be as strong in some circumstances. The main practical implication of this study is in the fact that cash holding does not determine financial performance. It can be inferred from that what determines performance is when firms invest in viable projects and that is what big firms do. From the findings of this study which firm size influences cash holding, it is evident that bigger the firms are poised to make more profitable investment.

References

Akinadewo, S., Ogundele, S., & Akinadewo, J. (2023). An Appraisal of the Determinants of Corporate Cash Holdings: Evidence from the Nigerian Manufacturing Firms *Res Militaris*, 13 (2), 6914-6925.

Al-Ajmi, J., & Hussain, A. (2011). Corporate Dividends Decisions: Evidence from Saudi Arabia, *Journal of Risk Finance,* 1(12), 41-56.

Almedia, R., Campello, S. & Weisbach, V. (2014). Liquidity Crises and Corporate Cash Holdings in Chile. *Working Papers, Central Bank of Chile.*

Al-Najjar, B., & Belghitar, Y. (2011). Corporate Cash Holdings and Dividend Payments: Evidence from Simltaneous Analysis, *Managerial and Decision Economics,* 4(32), 231-241.

Alvarez, R., Andres, S. & Carla, V. (2010). Liquidity Crises and Corporate Cash Holdings in Chile. *Working Papers, Central Bank of Chile.*

Auerbach, J. (1979). Wealth Maximization and the Cost of Capital, *The Quarterly Journal of Economics,* 433-446.

Baum, F., & Boyan, L.,& Atreya, C. (2016). Corporate Fiancial Policy and the Value of Cash under Certainty, *International Journal of Manageria Finance,*2(13), 149-164.

Besley, V., & Brigham, (2005). Corporate Financing Decisions: UK Survey Evidence. *Journal of Business Finance and Accounting,* 33(9-10), 1402-1434.

Bigelli, M., & Sanchez, V. (2012). Cash Holdings in private, *Journal of Banking and Finance,* 1(36), 26-35.

Boubaker, S., Derouiche, I., & Duc, K. (2015). Does the Board of Directors Affect Cash Holdings? A Study of French Listed Firms. *Forthcoming Journal of Management and Governance,* 1-30.

Bradford, F. (1981). The Incidence and Allocation Effects of Tax on Corporate Distributions, *Working Paper (349), National Bureau of Economic Research.*

Brown, M., & Evangelou, I., & Stix, H. (2018). Banking Crises, Bail-ins and Money Holdings, *Working Paper (2017-2).*

Chen, Q., Chen, X., Schipper, K., & Xu, J. (2005). The Sensitivity of Corporate Cash Holdings to Corporate Governance, *The Review of Fiancial Studies,* 12(25), 3610-3644.

DeAngelo, H., & DeAngelo, L. (2006). Capital Structure, Payout Policy, and Financial Flexibilty, *Working Paper(02-06).*

Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International Corporate Goverance and Corporate Cash Holdings, *Journal of Financial and Quantitative Analysis,* 1(38), 111-133.

Drobetz, W., & Gruninger, M. (2007). Corporate Cash Holdings: Evidence from Switzerland, *Financial Market and Portfolio Management,* 21, 293-324.

Enyew, A. (2016). The Factors Affecting Cash Holding Decisions of Manufacturing Share Companies in Ethopia, *International Journal of Advanced Research in Management and Social Sciences,* 3(5), 43-67.

Ferreira, M., & Viella, A. (2004). Why Do Firms Hold Cash? Evidence from EMU Countries. *European Financial Management,* 2(10), 295-319.

Ferreira, M., & Viella, A. (2004). Why Do Firms Hold Cash? Evidence from EMU Countries. *European Financial Management,* 2(10), 295-319.

Ferris, P., Sen, N., & Unlu, E. (2009). An International Analysis of Dividend Payment Behavior, *Journal of Business Fianance & Accounting,* 36(3), 496-522.

Frank, M., & Goyal, V. (2007). Trade-Off and Pecking Order Theories of Debt. *Handbook of Empirical Corporate Finance,* 2, 136-171.

Garcia, T., & Martinez, S. (2008). Accruals Quality and Corporate Cash Holdings, *Accounting and Finance,* 49, 95-115.

Gill, A., & Shah,C. (2011). Determinants of Corporate Cash Holdings: Evidence from Canada, *International Journal of Economics and Finance*, 1(4), 70-79.

Hameed, A. & Iliyasu, S. (2022). Effect of Cash Holding and Financial Performance of Conglomerates Firms Listed in Nigeria Stock Exchange. *Fuw-International Journal Of Management And Social Sciences* 7(1), 26-37.

Han, S., & Qiu, J. (2007). Corporate Precautionary Cash Holdings, *Jurnal of Corporate Finance,* 1(13), 43-57.

Iqbal, M., & Azmat, Q. (2012). The Role of Financial Constraints on Precautionary Cash Holdings: Evidence from Pakistan, *Economic Research Ekonomska Istrazivanja,* 1(30), 596-610.

Islam, S. (2012). Manufacturing Firms's Cash Holding Determinants: Evidence from Bnagaldesh, 6(7), 172-184.

Jensen,W., & Meckling, H. (1976). Can the Corporation Survive?. *Financial Management Journal*, 1(34), 31-37.

Jones, E., & Li, H. (2019). Excess Cash Holdings, Stock Returns, and Investment Organicity: Evidence from UK Investment Announcements, *A Journal of Accounting, Finance and Business Studies,* 4(58), 603-607.

Kalcheva, I., & Lins, V. (2007). International Evidence on Cash Holdings and Expected Managerial Agency Problems, *The Review of Financial Studies,*4(20), 1087- 1112.

Kim, J., Kim, H., & Woods, D. (2011). Determinants of Corportae Cash Holding Levels: An Empirical Examination of the Resturant Industry, *Imternational Journal of Hospitality Management,* 3(30), 568-574.

Moellar, B., Schkingemann, P., & Stulz, M. (2004). Wealth Destruction on a Massivs Scale? A Study of Acquiring Firm Returns in the Recent Merger Wave, *The Journal of Finance,* 2(60), 757-782.

Myres, C., & Majluf, S. (1984). Corporate financing and Investing decison when firms have Information the Investors do not have. *Working Paper(1396), National Bureau of Economic Research*

Ogundipe, O., Ogundipe, E., & Ajao, K. (2012). Cash Holding and Firm Characteristics: Efvidence from Nigerian Emerging Market, *Journal of Business Economics and Finace,* 2(1), 45-58.

Olowe, G., & Abubakar, Y. (2019). Capital structure and financial performance of selected quoted firms in Nigeria. *International Journal of Research and Scientific Innovation*, 6(2), 75-85.

Ozkan, A., & Ozkan, N. (2003). Corporate Cash Holding: An Empirical Investigation of UK Companies, *Journal of Banking and Finance,* 28(2004), 2103-2134.

Rajan, G., & Zingales, L. (1995). The Tryanny of Inequality, *Working Paper (5386), National Bureau of Econimic Research.*

Ross, S. (1973). The Economic Theory of Agency: The Principal's Problem. *American Economic Association,* 2(63), 134-139.

Shefrin, M., & Statman, M. (1984). Explaining Investor Preference for Cash Dividends, *Journal of Financial Economics,* 2(13), 253-282.

Subatnieks, K. (2005). Concept of Cash Flow and Assessment of Cash Flow Ratios of Latvian Companies, *Management of Organizations: Systematic Research ,* 14(36), 163-176.

Sulaman, J., Amna, A., Naila, A., Adnan, T., & Moshin, A. (2016). Determinants of Corporate Cash Holdings: Empirical Analysis of Pakistani Firms. *Journal of Economics and Finance,* 3(7), 29-35.

Ullah, H., Rehman, S., Saeed, G., & Zeb, A. (2014). Corporate Ownership Structure and Firm Excess Cash Holdings: Evidenced from Emerging Markets, Pakistan. *Abasyn University Journal of Social Sciences,* 2(7), 229-244.

Vijh, M., & Yang, K. (2013). Are Small Firms Less Vulnerable to Overpriced Stock Offers?, *Journal of Financial Economics,* 1(110), 61-86.