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CASH MANAGEMENT AND PROFITABILITY OF CONGLOMERATE FIRMS IN NIGERIA

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Abstract
The study investigated cash management and profitability of conglomerate firms in Nigeria. Specifically, the study examined the effect of Cash Conversion Cycle (CCC), Cash Ratio (CSR) and Cash Flow Ratio (CFR) on Return on Assets (ROA) of conglomerate firms in Nigeria. Cash is a component of working capital and an important source of liquidity for a business organizations, including the conglomerate firms. The study was motivated by the paucity of work in this area concerning conglomerate firms operating in Nigeria. A sample of five (5) conglomerate firms listed on Nigeria Exchange Group during the period of 2013 to 2023 was selected for the study. Panel Least Square Regression Model was used to analyses secondary data obtained from the annual financial statement of the selected conglomerate firms. Research results indicate that Cash Conversion Cycle (CCC) and Cash Flow Ratio negatively-affected Return on Assets (ROA) of the conglomerate firms in Nigeria in an insignificant manner, while Cash Ratio positively affected Return on Assets (ROA) of the firms in an insignificant manner. The study concludes that conglomerate firms in Nigeria are not prudently managing their cash flow as cash conversion cycle and cash flow ratio negatively affect return on assets of the firms. In view of this, the study recommends that conglomerate firms in Nigeria should increase their profitability by increasing their inventory level and account receivable turnover ratios while reducing account payable turnover ratio. The firms could also maximize profit by reducing their cash and cash equivalent to avoid idle funds. The study further recommends that conglomerate firms should increase profitability by keeping their net cash flow at an optimal level.

Keywords: Conglomerate Firms, Cash Conversion Cycle, Cash Flow Ratio, Cash Ratio. Return on Assets.

Introduction

The success of any business venture is predicated on how the management has planned and controlled its cash flows. Cash is a key component of a company's financial stability and a part of wealth portfolio (Akinsulire, 2003). Therefore, the present concern of business owners and firm managers all over the world is to devise a strategy of managing their cash inflows and outflows to meet their business obligations as they fall due and increase profitability and shareholder's wealth. Cash management in some cases are considered from the perspective of working capital management as most of the indices used for measuring corporate cash are a function of the components of working capital (Eljelly, 2004). Thus, an ideal business needs sufficient resources to keep it going and ensures that such resources are maximally utilized to enhance its performance and overall profitability. Cash is the most liquid of assets, which represents the lifeblood for growth and investment and it is essential for business survive (Ali & Mukhongo, 2016). If cash is not correctly and prudently managed, it can affect the operations of the organisation. Thus, cash management is one of the critical aspects of efficient working capital management, which is concerned with managing cash inflows and outflows (Debie, 2022).

Olowe (2008) cash management is concerned with the efficient management of cash so as to achieve an optimum level of cash in the firm's working capital. Kenton et al. (2024) described cash management as the collecting and managing of cash flows, which is important for long term sustainability of the firms. The cash flow statement is a central component of corporate cash flow management. Bartlett et al. (2014) also

defined cash management as the management of an entity's cash to ensure sufficient cash to sustain the entity's daily operations, finance continued growth and provide for unexpected payments while not unduly forfeiting profit owing to excess cash holdings. Universal Class (2020) noted that successful cash management involves making realistic projections, closely supervising collections and disbursements, initiating effective billing/collection processes, and following established budgetary constraints. Cash management techniques and practices have been confirmed and routinely used for decades, and are tried-and-true methods for keeping a business solvent, not close to bankruptcy, and profitable over the long term. Attom (2014) noted that effective and proper cash management increase the flexibility and competitive advantage of a business in dealing with emergency situations or taking advantage of opportunities as they arise, at a short notice.

Nyabwanga et al. (2012) stated that efficient cash management involves the determination of the most favourable cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. It consists of taking the necessary actions to maintain adequate levels of cash to meet operational and capital requirements and to obtain the maximum yield on short-term investments. Ogiriki et al. (2020) noted that cash management is a crucial facet of a company's financial management, particularly in manufacturing firms, where companies must balance their inventory levels with their cash flows to ensure they can meet demand while still maintaining adequate liquidity. Usman et al. (2019) stated that cash represents the basic input necessary to start and keep a business running. A company needs to maintain sufficient cash to keep its business running smoothly. Cash shortage will disrupt the firm's operation and can even lead to insolvency. Festus (2011) noted that some sources of cash inflow include cash from operating activities, sale of business assets, and dividends received from other companies, while cash out flows include settling creditors, purchasing inventory, and payments for expenses.

Al-Shubiri and Aburumman (2013) stated that one of the ways of measuring and evaluating the firm's liquidity and cash management is the use of cash conversion, which measures the time taken to process inventory into finished goods, disposal of the finished goods and collection of accounts receivable from customers of the firm. Osman (2021) also noted that cash ratio is a technique used by firms to measure liquidity, which indicates if the firm have cash or cash equivalents on hand to pay for its short-term expenses, such as payroll and overhead and also the ability of the firms to pay off its short term debts or raise cash by taking on new loans. Adelegan (2003) further identified net cash flow as a cash and liquidity measurement technique that represents the amount of money received or expended during a period by calculating the difference between cash inflows from outflows. The present study adopted three cash management techniques and examined their effect on profitability of conglomerate firms listed on Nigeria Exchange Group during 2013-2023.

Most empirical studies have focused on the effect of financial policy, dividend policy, capital structure, cooperate governance, firm size and so on financial performance and profitability of firms. The study of cash management on profitability of firms has not been given the required attention in empirical literature. The paucity of research on the effect of cash management on firm profitability is mainly attributed to the erroneous impression that large profits automatically guarantee sufficient cash flow for the firm. While profits represent the difference between revenue and expenses, cash flow refers to the actual money coming in and out of a business. A company can be highly profitable but still face cash shortages due to various factors like slow-paying customers, high operating expenses, or investments in assets that require cash up front. Thus, effective cash management can impact a firm's profitability. Cash management ensures a company has the right amount of cash at the right time to meet its obligations and invest in growth opportunities, ultimately boosting profitability (Obalemo et al., 2020).

Despite these benefits of good cash management, some conglomerate firms in Nigeria still exhibit high level of poor cash management. Some of the firms do not use cash management tools like cash conversion

cycle, inventory turnover, receivable turnover, cash flow and cash ratio to manage their cash. The firms end up having liquidity problems not because of lack of enough cash, but because their lack proper cash management whereby cash is locked-up unnecessarily in inventory and receivables which often leads to the firm not being able to meet their business obligations. This suggests a gap in the relationship between cash management and profitability in conglomerate firms in Nigeria, and requires. It is in view of this that the study examined cash management and profitability of conglomerate firms in Nigeria during 2014 to 2024 periods. Specifically, the study seeks to appraise the effect of cash conversion cycle, cash ratio and cash flow ratio on return on assets of conglomerate firms in Nigeria.

Review of Related Literature

Conceptual Review

Cash Management

Olowe (2008) described cash management as the efficient management of cash so as to achieve an optimum level of cash in the firm's working capital. Cash represents the basic input necessary to start and keep a business running and as such, a firm need to maintain sufficient cash to keep its business running smoothly. Cash shortage will disrupt a firm's operation and can even lead to insolvency, excessive idle cash on the other hand, generates no revenue and thus lower return on capital employed of the firm. Kenton et al. (2024) stated that cash is a primary asset that individuals and firms use to pay their obligations and invest. Managing cash is a daily task maintaining inflows and outflows. Proper cash management can improve a company's or individuals financial situation and liquidity problems. Corporate cash management involves business managers, treasurers, and chief financial officers. These professionals implement and oversee cash management strategies. Many companies may outsource their cash management responsibilities to service providers to meet payment obligations, plan future payments, and maintain stability.

Kenton et al. (2021) explained that firm have a multitude of cash inflows and outflows that must be prudently managed in order to meet payment obligations, plan for future payments, and maintain adequate business stability. In corporate cash management, also often known as treasury management, business managers, corporate treasurers, and chief financial officers are typically the main individuals responsible for overall cash management strategies, cash-related responsibilities, and stability analysis. There are several key metrics that are monitored and analyzed by cash management executive daily, monthly, quarterly and annual basis. Some of the metrics include, cash conversion cycle, net cash flow, cash ratio, receivable and payable turnover, inventory turnover among others. Dhruba (2019) noted that without adequate cash flow, a firm can become technically insolvent even though assets are sufficient to manage liabilities. To reduce the chances for a firm becoming technically insolvent, firm managers should properly manage their cash conversion cycle, which is the actual cash payment/expenditure for the purchase of productive/operational resources and the ultimate collection of cash from the sale of products/services.

Cash Conversion Cycle

Alematu (2014) described cash conversion cycle as the period it will take from the time inventory of raw material is purchased through production, sales of finished goods and collection of the cash from sales. It is the period of time, calculated in days that it takes for the cash to be collected after sales, determined from the time the firm finally made payment for goods. Al-Shubiri, and Aburumman (2013) also stated that one of the ways of measuring and evaluating a firm's liquidity position is cash conversion cycle, which measures the time taken to process inventory into finished goods, disposal of the finished goods and collection of accounts receivable from firm customers. Mohamed (2013) stated that cash conversion cycle is a very important component of working capital management and financial management because it

directly affects the liquidity and profitability of the company. It deals with current assets and current liabilities. The traditional link between the cash conversion cycle and the firm's profitability is that shortening the cash conversion cycle increases firm's profitability. However, Bilehsavar et al. (2013) stated that the assumption that shorter cash conversion cycle increase profitability has limitations as reducing the terms of credit for receivers would lead to a reduction of the product's attractiveness from a customer's perspective and lead to a reduction in sales volume and revenue; similarly delaying payment to suppliers will not be well received and is likely to lead to an increase in the cost of goods supplied. Institute of Chartered Accountants of Nigeria (2014) identified the three main elements or components of cash conversion cycle as: The mean period that inventory is held before it is used or sold; the average credit period taken from creditors and the mean length of credit time taken by (or given to) account receivables. This component are represented in the formula of the cash conversion cycle. Cash Conversion Cycle = Days Invetry Outstanding + Days Sales Outstanding - Days Payable Outstanding (That is, CCC= DIO+DSO-DPO). A shorter cash conversion cycle (CCC) generally increases the profitability of conglomerate firms by accelerating cash flow, reducing financing costs, and improving working capital efficiency. By speeding up inventory sales and receivables collection while optimizing payables, firms minimize capital tied up in operations, allowing reinvestment for growth.

H_0: Cash conversion cycle does not significantly affect return on assets of conglomerate firms in Nigeria.

Cash Ratio

Kenton (2021) described cash ratio, sometimes referred to as the cash asset ratio, as a liquidity metric that indicates a company's capacity to pay off short-term debt obligations with its cash and cash equivalents. Compared to other liquidity ratios such as the current ratio and quick ratio, the cash ratio is a stricter, more conservative measure because only cash and cash equivalents: a firm's most liquid assets are used in the calculation. Dhand (2023) stated that cash ratio compares a company's most liquid assets to its current obligations. The cash ratio is used to determine if a business can meet its short-term obligations. It also measures whether it has enough liquidity to continue operating. The cash ratio is the most conservative liquidity ratio in comparison to the current ratio and quick ratio. Since it considers only inventory and accounts receivable, it is the most cautious of all the liquidity measures (which is included in the quick ratio). Carlson (2021) noted that if a firm's cash ratio is less than 1, there are more current liabilities than cash and cash equivalents. It means insufficient cash on hand exists to pay off short-term debt. On the other hand, if a firm's cash ratio is greater than 1, the firm has more cash and cash equivalents than current liabilities. Cash ratio is calculating as: Cash Ratio = Cash and Near Cash Items/Current Liabilities. Liquid cash affects firm profitability by creating a vital trade-off between financial stability and investment returns. Adequate liquidity ensures smooth operations and ability to meet short-term obligations, improving profitability by lowering debt. Conversely, excess idle cash reduces returns on assets, while insufficient cash leads to high borrowing costs and potential insolvency. Most empirical evidence suggests that holding large cash reserves does not directly translate into improved profitability for firms.

H_0: Cash ratio does not significantly affect return on assets of conglomerate firms in Nigeria.

Cash Flow Ratio

Wingerard et al. (2013) stated that cash flow as the amount of money that the business is able to retrieve from customers and debtors (cash inflow) and the same amount of money that the business is able to spend (cash outflow) in a period. Cash flow is referred to the inflow of cash to the business as well as the outflow of cash from the business. Bhandari and Iyer (2013) noted that cash flow is an essential element of financial management process which is important for the successful performance of business organizations. Appuhami (2008) observed that statement of cash flows can offer useful insights for ratio analysis. Ratios

computed from statement of financial position can only provide a date-in-time perspective, whereas the statement of cash flow represents activity for a continuous period. Income statements report the results of operations for a period of time, but do not disclose other important changes in resources that result from activities in financing and investing. Cash management decision is one of the important decisions because of the scarcity of financial resources available of many firms. Cash is the most liquid assets and is considered an important element in the management of firm's operational process in order to business achieve success. Faulkenberry (2015) said that cash flow statement is divided into three sub-sections, cash flow from operating activities, cash flow from investing activities and cash flow from financing activities. The cash flow from **o**perating activities indicates the amount of money a firm brings in from its ongoing, regular business activities, such as manufacturing and selling of goods or providing a service to customers. Cash flow from investing activities shows the cash generated or spent relating to investment activities such as purchases of physical assets, investments in securities, or the sale of securities or assets. Cash flow from financing activities is the last section of cash flow that shows the cash inflows and outflows related to transactions with the providers of finance such as the owners and the creditors of the firm. It accounts for inflows and outflows of cash from debt issuance and financing, the issuance of any new stock, dividend payments, and any repurchase of existing stock. The net flows from these three sections represents the net cash flow of the firm.

The importance of cash flow is particularly pertinent when access to cash is difficult and expensive. When the real economy slips into recession, businesses, including conglomerate firms face the additional risk of financial difficulty and becoming unable to pay invoices. This can lead to scarcity of cash from non-operational sources such as bank loans. Therefore smooth cash flow boast profitability of conglomerate firms.

H_0: Cash flow ratio does not significantly affect return on assets of conglomerate firms in Nigeria.

Profitability

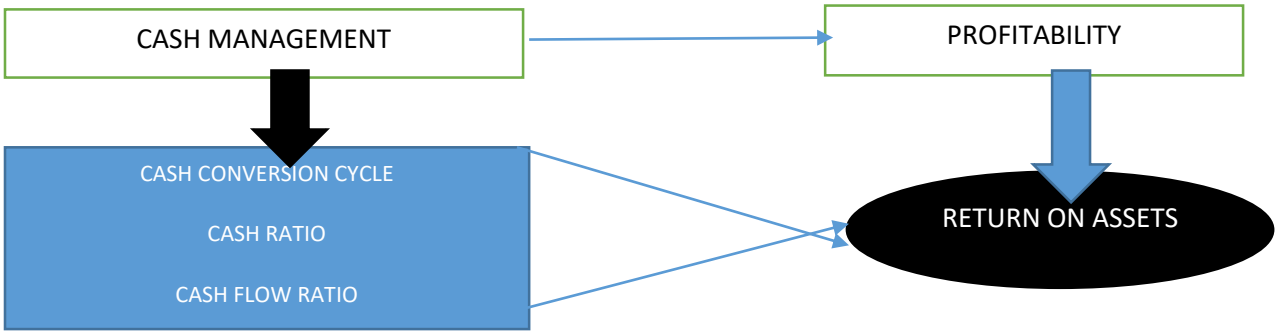
Sartono (2010) described profitability as a company's ability to make profit relative to sales, total assets, and capital. High profitability will support company's operational activities and its ability to achive its major corporate goals. It is impossible for a business to survive for a significant amount of time without making profit. Therefore, measuring a company's profitability, both current and future, is critical in evaluating the company's performance. Kasmir (2015) noted that profit is the many objectives for establishing a company because other company's goals or targets can be achieved by making profit. A healthy financial performance is ascertained by observing the company's profitability and the proficiency in processing the profits. Erti et al. (2020) stated that a company's profitability is influenced by some factors that should be recognized by the financial manager in order to maximize profit. Working Capital which is the synonym of current assets is one of such factors. Riyanto (2008) also opined that profits are influenced by operating costs and operating income which indicate the level of efficiency, company liquidity which shows the ability to pay obligations to third parties, the level of accounts receivable turnover which describes the activity ratio, growth in company sales or credit growth in savings and loan cooperatives and other variables.

Return on Assets

Zinn et al. (2024) defined return on assets as a profitability ratio that measures a company's profitability relative to its total assets. It shows how well or poorly a company is using its assets, from machinery to vehicles and intellectual property to earn money. Return on assets compares the value of a business's assets with the profits it produces over a set period of time. When a firm's return on assets rises over time, it indicates that the firm is squeezing more profits out of each naira it invested in assets. Conversely, a declining return on assets suggests a firm has made bad investments, thus, investing much money in assets

without a commensurate return on the investments. Boyte-White (2017) noted that return on assets calculation is used to analyze a company's ability to generate profit from its assets. When assessing a business's financial fitness, it is important to know how successful it is at turning what it already has into additional profits for owners and shareholders. The return on assets formula is a straightforward calculation, and its component parts are easily located on a company's financial statements. Return on Assets (ROA) = Net Profit ÷ Average Total Assets. Wulandari (2013) stated that large profits do not always reflect whether the company is working efficiently or not. Efficiency of performance can be determined by comparing profit for the year or net income with the assets at the disposal of the company.

Conceptual Framework



Theoretical Framework

Free Cash Flow Theory

The Free Cash Flow Theory was developed by Michael C. Jasen in 1986. Jensen (1986) argue that managers do not behave in a manner consistent with profit maximization objectives of the firms. Managers instead use increased cash flow to pursue objectives that have little to do with increasing profits and a great deal to do with making the managers lives better (such as increasing the size of their company). The agency cost explanation introduced by Jensen et al. (1995) suggests that monitoring difficulty creates the potential for management to spend internally generated cash flow on projects that are beneficial from a management perspective but costly from a shareholder perspective. It holds that investments reduce free cash flow available to pursue their personal opportunities consumption and suboptimal investments. Donaldson (1997), argues that managers of firms with free cash flows (cash flows in excess of profitable investment opportunities) tend to waste cash by taking excessive perquisites or by making unprofitable investments. Managers are more likely to use the free cash flows to make investments that will be incremental to the size of the firm (or to pay themselves excessive perks), than to pay dividends to the shareholders or repurchase outstanding shares. A testable implication of the agency hypothesis is that firms that have free cash flows are likely to grow beyond the optimal point of shareholder wealth maximization. Shareholders of such firms will benefit from any managerial decision that prevents these wasteful expenditures. Share repurchases prevent such waste by using up excess cash flows (Jensen & Smith, 1995).

Free cash flow theory posits that firms with high cash reserves relative to investment opportunities often face agency costs, as managers may waste excess cash on suboptimal projects rather than returning it to shareholders. Effective cash management alleviates this by directing free cash flow toward profitable investments or debt reduction, directly impacting profitability of the firm.

Liquidity Preference Theory

John Maynard Keynes developed the liquidity preference theory in 1936. Keynes (1936) stated that individuals and firms hold money for three motives, the transactions-motive, the precautionary-motive and the speculative-motive. The transactions motive refers to preference for liquidity to guarantee sufficient

cash for basic transactions because income is not always readily available. With this motive, the level of income determines that amount of liquidity will be demanded; higher income levels mean that more cash will be needed to accommodate increased spending. The precautionary motive is related to preference for liquidity as additional security in the event that an unexpected occasion or problem arises that requires a substantial outlay of cash. Individuals may also have a speculative motive, based on the belief that bond prices may begin to significantly decrease, thus offering the investor the opportunity to use liquid funds to make an investment offering a more attractive rate of return. Liquidity preference explains why investors value cash and liquid assets, especially during uncertain periods. Liquidity preference theory helps connect investor behavior, interest rates, and market cycles. While liquidity provides safety and flexibility, excessive preference can limit long-term returns.

Empirical Review

Figlioli et al. (2024) investigated the relationship between cash conversion cycle and the financial and market performances of publicly traded firms in six Latin American (LatAm) countries: Argentina, Brazil, Chile, Colombia, Mexico, and Peru. The analysis covers the period from 2000 to 2018. The secondary data obtained from the annual report of the selected firms were analyzed using regression and correlation analysis. Results indicate that increases in CCC negatively impact the generation of operating cash flows and long-term investments, and increase financial risk. Other findings suggest that the mechanisms through which CCC affects a firm's financial performance can provide a satisfactory explanation of its market performance. Johan et al. (2024) examined relationship between cash conversion cycle and firm performance in the five major emerging markets, namely Brazil, Russia, India, China, and South Africa (BRICS) as a single region during 2009-2019 periods. Generalized method of moments and dynamic quartile regression show that there is an inverse association between cash conversion cycle and firm performance across all BRICS countries. Specifically, firms with longer cash conversion cycle periods exhibit lower profitability compared to those with shorter cash conversion cycle periods.

Adelabu and Adelabu (2024) examined cash conversion cycle and financial performance of listed non-financial firms in Nigeria during 2005-2021 periods. The study was based on secondary data collected from the audited financial statement of the listed non-financial firms. The methods of analysis used were descriptive statistics and pooled ordinary least square methods. Results show that the coefficient for cash conversion cycle (Beta = -0.566) is statistically significant ($p = 0.037$), indicating its influence on Log GP. However, the average payment period's coefficient is not statistically significant ($p = 0.478$). Karim et al. (2023) studied cash conversion cycle and financial performance of manufacturing companies in Bangladesh. The study was based on data of 61 Dhaka Stock Exchange (DSE)-listed firms from the 10 distinct manufacturing industries of Bangladesh for 18 years, from 2003 to 2020. Generalized method of moment regression model was used for the analysis. The findings indicated that CCC has a negative connection with profitability ROA and EPS), with the connection between CCC and EPS being highly significant. This indicates that reducing the inventory conversion time, reducing the period of receivable collection and making payments to creditors with potential delays might help Bangladeshi manufacturing firms boost their profitability.

Mmaduka et al. (2022) analyzed the effect of cash conversion cycle on capital structure of quoted manufacturing firms in Nigeria. The sample consists of fifteen (15) manufacturing firms listed on Nigeria Stock Exchange during 2008-2020 periods. Pearson correlation coefficient, Heteroskedasticity test and Panel least square regression analysis were used to examine data obtained for the study. Results show that inventory turnover period, average collection period and average payment period have a significant but negative effect on debt-to-equity ratio. Obalemo et al. (2020) appraised the effect of the cash conversion cycle period on the profitability of selected food and beverage companies in Nigeria during 2014-2018. The population is 43 food and beverage companies listed on the Nigerian stock exchange ten (10) were selected using judgmental sampling techniques. The study used panel regression and analyzed to examine the data.

Results show that the cash conversion cycle (CCC) has a significant negative relationship with profitability (measured by ROA). Indriaty and Thomas (2022) studied the influence of inventory, cash turnover and receivable turnover on profitability at telecommunication companies in Indonesia during four quarters of 2020. Purposive sampling method was used to select nine (9) telecommunication companies listed on Indonesia Stock Exchange. Data were extracted from financial statements of the public companies of the telecommunication sector during four quarters of 2020. The panel data regression analysis was used to examine the data collected from the firms. The study found that the cash turnover has a significantly positive effect on profitability, whereas the inventory turnover and the receivable turnover have no significantly effect on profitability.

Fitria and Suartini (2021) investigated the effect of cash turnover, account receivable turnover and inventory turnover on profitability of Automotive Industry Companies listed on the Indonesia Stock Exchange in 2014-2018. The sample consists of thirteen (13) Automotive Industry Companies listed on the Indonesia Stock Exchange during the period. Results of multiple linear regression analysis suggest show that cash turnover had negative and insignificant effect on profitability while Account receivable turnover had negative and insignificant effect on profitability. Inventory turnover had positive and significant effects on profitability. Maro et al. (2021) studied the effect of cash turnover, receivables turnover and inventory turnover on liquidity which is represented by the current ratio at Mutiara Harappan Regional Public Company, Alor Regency, either partially or simultaneously during 2015-2019. Results of multiple linear regression technique show that partially cash turnover had a significant positive effect on company liquidity, accounts receivable turnover has a significant positive effect on the company's liquidity, while inventory turnover has a significant positive effect on the company's liquidity.

Chintha and Prasad (2020) investigated the impact of cash management on the financial performance of the listed manufacturing companies from Muscat Securities Market, Sultanate of Oman. It focused on its connection with many important areas such as the effect on the liquidity of the business, its financial performance, bankruptcy, and the overall working capital itself. A sample of 36 companies listed in Muscat Securities Market had during 2014 ending to 2019 periods was selected. Findings show that current ratio (CR) has a statistically significant positive correlation with ROA and net profit ratio (NPR) values. The OC-DR also has a statistically significant positive relationship ROE, and NPR. Shrestha (2020) examined the impact of cash management on sustainability of Small manufacturing business in Dhulikhel Municipality. Some specific objectives of the study to find the effect of cash management on profitability of small and medium manufacturing businesses and the effect of cash management and sustainability of small manufacturing businesses in Dhulikhel Municipality. Results of correlation matrix show that there was an insignificant relationship between Cash management and sustainability. This descriptive study, using a quantitative research paradigm and a sampling method targeted a sample of more than 50% of registered businesses in the chosen area.

Odo and Ohazuluike (2021) investigated the effect of cash flow on financial performance of food and beverage firms in Nigeria. This study made use of secondary data covering a period of 10 years (2010-2019) obtained from the financial statements of the selected food and beverage firms in Nigeria. Results of panel data regression model revealed that cash from operating activities significantly affect profit for the year of food and beverage firms in Nigeria. Cash from financing activities has significant effect on profit for the year of food and beverage firms in Nigeria and cash from investment activities significantly affect profit for the year of food and beverage firms in Nigeria. Rajapaksha and Weerawickrama (2020) investigated the effect of free cash flow on the profitability on the Diversified Holding companies listed in the Colombo Stock Exchange during 2014-2019. The population consisted of nineteen (19) companies listed as Diversified Holdings on the CSE at June 2019, out of which 17 companies were selected using Purposive sampling method. Secondary data was extracted from audited financial statements and annual reports of the firms, sourced from CSE for a period of five years (2014-2019). Results of Panel Data

regression model suggest that Free cash flows have significant impact on profitability of the listed diversified holdings companies in Sri Lanka. Ningsih and Soesetio (2021) studied the effect of free cash flow and dividend policy with various measures of stock return and announcements for three days. The population of consists of listed companies in Indonesia Stock Exchange during 2013-2015 periods, out of which 285 companies were selected using the criteria of dividend payment. Results of multiple regression analysis indicate that the free cash flow significantly affect stock returns while the dividend policy shows that the firms exhibit weak governance, government ownership, and dividend signals also affect stock returns of the firms.

Rahman and Sharma (2020) examined the impact of operating cash flows on the companies' financial performance in the manufacturing and insurance sectors listed on the Tadawul, Saudi Arabia stock exchange during 2015-2018 for insurance companies, and 2014–2018 for manufacturing companies. The study sample consists of five (5) companies from each sector totaling 10. The results report a positive and significant association between financial performance (ROA and ROE) and operating cash flows (CFOs), and a negative association for SIZE and LEV. Therefore, the study concludes that the firms' operating cash flows in the insurance and manufacturing sectors in Saudi Arabia affect financial performance. Eryatna et al. (2020) studied the effect of cash turnover, receivable turnover, and inventory turnover Towards Profitability of Consumer Goods Companies in Indonesia Stock Exchange in the period of 2016-2018 with total population of 51 companies. Sampling technique used in this study was purposive sampling and the number of samples obtained were as many as 21 companies. Results of the multiple regression suggest that cash turnover partially does not have significant effect on profitability. Receivable turnover and inventory turnover partially have significant effect on profitability. Heliania et al. (2020) investigated the effect of cash turnover, account receivable turnover and inventory turnover on return on assets in Mining and Quarrying Sector Companies Listed in Indonesia from 2017-2019. The population consists of the mining and quarrying sector companies listed on Indonesia Stock Exchange during 2017-2019 totaling 43 companies. The purposive sampling method was used in determining the sample which resulted in 33 samples. Results shows that cash turnover, accounts receivable turnover and inventory turnover have no effect on ROA because this is due to a decrease in the amount of production, cash flow constraints due to low turnover of accounts receivable and low sales so that inventory turnover is slow and inventory costs are higher.

It could be ascertained from the empirical review that not much work has been conducted in this areas of study in conglomerate firms in Nigeria. It was further observed that no study covered 2024 with empirical data analysis, just as a few works used panel least square regression model to analyze the time series data. These research gaps motivated the present study to evaluate cash management and profitability of conglomerate firms in Nigeria during 2014 to 2024 period.

Methodology

The study adopted ex-post facto research design. This suggest that historical data were collected from the annual reports and financial statements of the selected conglomerate firms listed on Nigeria Exchange Group during 2014 to 2024 periods. The area of the study is in Nigeria and precisely on conglomerate firms listed on Nigeria Exchange Group during 2014 to 2024 periods. Secondary data is the source of data for the study. The data were obtained from the annual reports and financial statements of the selected conglomerate firms listed on Nigeria Exchange Group during 2014 to 2024 periods. The population of the study are all the conglomerate firms quoted on the Nigeria Exchange Group during 2014-2023 periods. A total of six (6) conglomerate firms were quoted on Nigeria Exchange Group during the period. The choice of conglomerate sector is because of its level of inventory, bot as raw materials, work-in-progress and finished goods. The conglomerate firms are: John Holt Plc, Chellarms Plc, Scoa Nigeria Plc, Transnational Corporations Plc, United African Companies Plc and Custodian Investment Plc. One of the conglomerate firms, Custodian Investment Plc renders services and does not have cost of sales, which is required for computation of Cash

Conversion Cycle. Therefore, purposive sampling method was used to select the remaining five (5) conglomerate firms.

The following regression model, which is in line with the variables of the study was adopted from and also from Adelabu and Adelabu (2024), as well as from Lufthansa and Parasetya (2024).

$ROAti = \beta_0 + \beta_1 CCCti + \beta_2 CSRti + \beta_3 CFRti + \varepsilon$

Where:

ROA = Return on Assets

CCCY = Cash Conversion Cycle

CASR = Cash Ratio

CFR = Cash Flow Ratio

ε = error term

Panel Least Square Regression Analysis was used to test the null hypotheses formulated for the study while Descriptive Statistics and Unit Root Test were the diagnostic test of the study. Jacque-Bera Statistics, Skewness and Kurtosis Tests were used to test the distribution of the data set. Adjusted Coefficient pf Determination (R^2) F-Statistics were used to test the predictive power of the independent variables while Durbin Watson Statistics was used to test for the presence of autocorrelation in the model of the study. Cash Conversion Cycle, Cash Ratio, Cash Flow Ratio are the independent variables and measures of cash management While Return on Assets is the dependent variable and proxy for firm profitability.

Results

The data analyses for the study were conducted using Descriptive Statistic, Unit Root test and Panel Least Square Regression Analysis. The Descriptive Statistic, Unit Root test are the diagnostic tests while Panel Least Square Regression Analysis is the main test used to test the three null hypotheses formulated for the study. Results of these analysis are presented in tables 1 to 3.

Table 1: Descriptive Statistics

	ROA	CCC	CSR	CFR
Mean	-0.013455	-92.78182	0.296364	1.921273
Median	0.010000	48.00000	0.110000	0.110000
Maximum	0.420000	477.0000	3.560000	74.61000
Minimum	-0.580000	-1531.000	-0.040000	-0.620000
Std. Dev.	0.128643	387.9884	0.545196	10.37368
Skewness	-1.531525	-1.663000	4.193968	6.539116
Kurtosis	11.48025	6.086408	24.59142	45.68141
Jarque-Bera	186.3053	47.18127	1229.587	4566.703
Probability	0.000000	0.000000	0.000000	0.000000
Sum	-0.740000	-5103.000	16.30000	105.6700
Sum Sq. Dev.	0.893644	8128891.	16.05087	5811.113
Observations	55	55	55	55

Source: Eview 8.0 Output

Presented in table 1 is the descriptive statistics of all the variables of the study. The variables are: Return on Asset (ROA), Cash Conversion Cycle (CCC), Cash Ratio (CR) and Cash Flow Ratio (CFR). Results from the table show that the Mean of the variables are: -0.013455, -92.78182, 0.296364 and 1.921273 for ROA, CCC, CSR and CFR respectively, while the Standard Deviations are: 0.128643, 387.9884, 0.545196 and 10.37368 reactively. These results show that the Standard Deviations of all the variables are greater than their mean. This result suggest that the data used for the study are volatile during the period. The results from Jarque-Bera Statistics, Skewness and Kurtosis show that the data used for the study are normally distributed during the period. This was observed from the p-value of Jarque-Bera Statistics are all the less

than the critical value of 0.05 (P-value<0.0000). Likewise, the coefficient of the Kurtosis are all greater than the benchmark rate of 3, just as all the Skewness coefficient of the variables are greater than the benchmark rate of one, with the exception of ROA which is less than one (-1.1531525). Thus, all the measures indicate that the data set are used are normally distributed.

Table 2: Breitung t-stat Unit Root Test

Method	Statistic	Prob.**
Breitung t-stat	-1.67519	0.0469

Intermediate regression results on D(ROA,2)

Cross section	S.E. of Regression	Lag	Max Lag	Obs
1	0.09372	1	1	11
2	0.16602	1	1	11
3	0.12825	1	1	11
4	0.04872	1	1	11
5	0.35887	1	1	11

	Coefficient	t-Stat	SE Reg	Obs
Pooled	-0.59243	-1.675	0.354	55

Source: Eview 8.0 Output

The Unit Root test was conducted investigate the presence of unit root in a time series data which was used to carry out the study. This test is important because the presence of a unit root in data set could result in spurious regression results, hence, the test was conducted to ensure that the data are stationary before proceeding with regression analysis. The results from the Breitung t-stat Unit Root test in table 2 suggest that the variables of the study, namely, ROA, CCC, CSR and CFR are integrated of order 2(2) with p-value = 0.0469. This implies that the variables contain unit roots, but were stationary after the second differencing.

Table 3: Panel Least Square Regression Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CCC	-6.392205	4.771005	-1.339852	0.1877
CSR	0.040254	0.035365	1.138239	0.2616
CFR	-0.001510	0.001935	-0.780271	0.4397
C	-0.028411	0.020302	-1.399474	0.1692

R-squared	0.553690	Mean dependent var	-0.013455
Adjusted R-squared	0.417056	S.D. dependent var	0.128643
S.E. of regression	0.127541	Akaike info criterion	-1.065428
Sum squared resid	0.666935	Schwarz criterion	-0.554471
Log likelihood	43.29928	Hannan-Quinn criter.	-0.867837
F-statistic	1.072076	Durbin-Watson stat	2.115658
Prob(F-statistic)	0.004202		

Source: Eview 8.0 Output

Presented in table 3 is the panel least square regression model of Nigeria conglomerate firms. Results from the table suggest that the Adjusted Coefficient of Determination (R^2) of the model is 0.417056. This implies that about 42% of the variations in the Return on Assets of the conglomerate firms is explained by

the predictor variables, comprising of Cash Conversion Cycle, Cash Ratio and Cash Flow Ratio while the remaining 58% is explained by other factors not captured in the model of the study. The model also indicates that Durbin Watson Statistics Coefficient is 2.115658, which even within the range acceptable range of 2-4. In view of this, we conclude that there is no autocorrelation in the model of the study.

Discussion of Findings

Three hypotheses, which were formulated in their null forms were used to conduct the study. The test of the hypotheses form the basis for the findings of the study, conclusion and recommendations. The decision rule for the test of hypotheses is to accept the null hypotheses if the p-values is more than 0.05 level of significance and to rejected the null hypothesis if the p-value is less than 0.05.

Hypothesis One

Findings from the regression model indicate that the coefficient of Cash Conversion Cycle (CCC) is negative at -6.392205 while the p-value (0.1877), which is greater than 0.05 (p=0.1877>0.05). This requires the acceptance of hypothesis 1, and implies that Cash Conversion Cycle negatively, but insignificantly non-significantly affect Return on assets of conglomerate firms in Nigeria. This result is in line with liquidity preference theory as propounded by John Maynard Keynes in 1936. Keynes (1936) stated that firms hold money for three motives, the transactions-motive, the precautionary-motive and the speculative-motive. These three motives not only assist the firms take advantage of business opportunities to increase profitability, it also help the firms ensure lobg term survival of the business. This result is consistent with: Figlioli et al. (2024), who found that firms with longer cash conversion cycle periods exhibit lower profitability compared to those with shorter cash conversion cycle periods; Adelabu and Adelabu (2024), who observed that cash conversion cycle negatively and significantly affects financial performance of listed non-financial firms in Nigeria; Karim et al. (2023), who discovered that reducing the inventory conversion time, reducing the period of receivable collection and making payments to creditors with potential delays might help Bangladeshi manufacturing firms boost their profitability; and Obalemo et al. (2020), who noted that the cash conversion cycle has a significant negative relationship with profitability (measured by ROA).

Hypothesis Two

Findings from hypothesis two revealed that the regression coefficient of Cash Ratio (CSR) is 0.040254 while the p-value 0.2616 is greater than 0.05 (p=0.2616>0.05). This requires the acceptance of hypothesis 2, and implies that Cash Ratio positively, but non-significantly affect Return on assets of conglomerate firms in Nigeria. This result is in line with liquidity preference theory as propounded by John Maynard Keynes in 1936. Keynes (1936) stated that firms hold money for three motives, the transactions-motive, the precautionary-motive and the speculative-motive. These three motives not only assist the firms take advantage of business opportunities to increase profitability, it also help the firms ensure long term survival of the business. The result is in line with: Indriaty and Thomas (2022), who found that the cash turnover has a significantly positive effect on profitability, whereas the inventory turnover and the receivable turnover have no significantly effect on profitability. The result is, however, differs from: Fitria and Suartini (2021), who found that cash turnover had negative and insignificant effect on profitability of telecommunication companies in Indonesia.

Hypothesis Three

Findings from the table 3 further showed that the regression coefficient of Cash Flow Ratio (CFR) is -0.0001510, which is negative while the p-value (0.4397) is greater than 0.05 (p=0.4397>0.05). This necessitates the acceptance of hypothesis 3, meaning that Cash Flow Ratio negatively, but insignificantly affect Return on assets of conglomerate firms in Nigeria. This result is consistent with Free Cash Flow Theory, developed by Michael C. Jasen in 1986. Jensen (1986) argue that managers do not behave in a manner consistent with profit maximization objectives of shareholders. The theory stated that Managers

use increased cash flow to pursue objectives personal to themselves rather than profits maximization which is the main objective of firm owners. The result differs from: Rajapaksha and Weerawickrama (2020), who found that Free cash flows have significant impact on profitability of the listed diversified holdings companies in Sri Lanka; Odo and Ohazuluike (2021), who found that cash from financing activities has significant effect on profit for the year of food and beverage firms in Nigeria and cash from investment activities significantly affect profit for the year of food and beverage firms in Nigeria; and Ningsih and Soesetio (2021), who observed that the free cash flow significantly affects stock returns of listed companies in Indonesia Stock Exchange.

Conclusion

The study found that Cash Conversion Cycle (CCC) and Cash Flow Ratio negatively and insignificantly affected Return on Assets (ROA) of the conglomerate firms in Nigeria, while Cash Ratio positively and insignifcantly affected Return on Assets (ROA) of the firms during the period. Consequently, the study concludes that below an optimal inventory level, Cash Conversion Cycle (CCC) and Cash Flow Ratio could adversely affect the profitability of conglomerate firms in Nigeria, just as increase in Cash Flow Ratio will boast the profitability of the firms.

Recommendations

In view of these, the study recommends that:

1. The conglomerate firms in Nigeria should reduce their cash conversion cycle in order to increase their profitability. This can be achieved by increasing their inventory and account receivable turnover ratios while reducing account payable turnover ratio.
2. The firms should also maximize profit by increasing their cash ratio. This is achievable by increasing cash and cash equivalent of the firms while reducing items of current liabilities, such as bank overdraft and account payables as much as possible.
3. The firms should further increase profitability by keeping their net cash flow at an optimal level. Excessive cash flow should be discouraged as it gives the opportunistic managers the power to misuse the free cash use to pursue their personal objectives at the detriment of profit maximization objective of firm owners.

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