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CASH CONVERSION CYCLE AND FINANCIAL PERFORMANCE OF QUOTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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ABSTRACT
The study ascertained the effect of Cash Conversion Cycle on financial performance of quoted Industrial Goods firms in Nigeria. The specific objective was to evaluate the effect of Days Inventory Outstanding, Days Sales Outstanding and Days Payable Outstanding on net asset per share of quoted Industrial Goods firms in Nigeria. Ex-post facto research design was adopted in the study. Thirteen listed industrial goods firms made up the population of the study while purposive sampling was used to select the sample size of nine firms. Secondary data were sourced from the firms' annual reports over a thirteen year period from 2012-2024. Descriptive tools were used to analyse the data. Pearson correlation was used to assess the relationship between the variables. Test of hypotheses was conducted using panel least square regression. The study found the following: Days Inventory Outstanding has a negative and significant effect on Net Asset Per Share of quoted Industrial Goods firms in Nigeria (β = -0.015358, p = 0.0000); Days Sales Outstanding has a positive and significant effect on Net Asset Per Share of quoted Industrial Goods firms in Nigeria (β = 0.043945, p = 0.0000); Days Payable Outstanding has a positive and significant effect on Net Asset Per Share of quoted Industrial Goods firms in Nigeria (β = 0.012739, p = 0.0000). In conclusion, working capital dynamics within the Nigerian industrial goods sector are uniquely structured in a way that accommodates longer receivables and payables periods without adverse effects on firm value, while delays in inventory turnover are penalized in terms of financial performance. The study recommends that operations and supply chain managers adopt more responsive inventory management strategies, such as Just-in-Time (JIT) systems, lean inventory methods, or demand-driven restocking models.

Key words: *Cash Conversion Cycle, Financial Performance, Days Inventory Outstanding, Days Sales Outstanding, Days Payable Outstanding.*

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INTRODUCTION

The Cash Conversion Cycle (CCC) is a measure of how long cash is tied up in working capital. It quantifies the number of days it takes a company to convert cash outflows into cash inflows and, therefore, the number of days of funding required to pay current obligations and stay in business. While large, one-off investments can be funded through raising new finance from the debt and equity markets, it is the funds from ongoing operations that service debt, pay dividends and pay for labour, goods and services. Such funds are generated by the receipt of income from the sale of goods and services. More specifically, a supplier (creditor) provides

stock, the stock is then sold on credit, creating a debtor. In due course, the debtor pays, thus providing the company with cash resources that are then used to pay the creditor, and the surplus cash is retained within the business. This is the working capital cycle. The management of Working Capital (WC) involves the ability of a firm to manage its inventory, receivables and payables efficiently with the aim of enhancing the value of the firm.

The Cash Conversion Cycle (CCC) is considered as a broad measure of working capital as this indicates the time between the payment for raw materials purchased and the realization of cash from the sales of finished goods (Eneh, Okegbe & Amahalu, 2019). It is very vital in determining the working capital management of an entity has commonly been regarded as a better measure of working capital because it takes in detail of how long inventory remain unsold, how long it takes the firm to recover receivables and how long it takes the firm to settle its current obligations. A lower Cash Conversion Cycle (CCC) period is considered better as it indicates lesser investment in current assets which signifies high liquidity, while a higher Cash Conversion Cycle (CCC) period implies larger investment in current assets and, therefore, shows greater need of financing the current assets. This implies that the lower the Cash Conversion Cycle (CCC) period, the better it is for the company and the higher the Cash Conversion Cycle (CCC) period, the worse it is for the company. Technically a cash conversion cycle can be traced for each item from sourcing of raw materials to work-in-progress, the sale and payments for finished goods and payment for the purchases needed for production. In reality, it is difficult to track a large number of individual transactions taking place on an on-going basis. Therefore, cash conversion cycle is typically estimated using firm-wide accounting data. In particular, the cash conversion cycle is derived from three components: inventory conversion period, receivable conversion period, and payable deferral period (Abdou, Ellelly, Elamer, Hussainey & Yazdifar. 2021).

The Cash Conversion Cycle affects firm performance by determining the length of time a company's cash is tied up in its operations. A longer CCC implies that a firm takes more time to convert its investments in inventory and other resources into cash flows from sales. This delay can negatively affect liquidity, increase financing needs, and expose the firm to operational risks. Liquidity is essential to firm performance as it ensures that a company can meet its short-term obligations, operate smoothly, and avoid financial distress (Ofulue, Okike, Nworie, Nworie, 2025; Nworie & Agwaramgbo, 2023; Nworie & Ofoje, 2022; Okeke & Nworie, 2025). Adequate liquidity also enables firms to seize investment opportunities and navigate unexpected disruptions without relying excessively on external financing.

Conversely, a shorter CCC indicates that a firm can swiftly recover its invested capital and reinvest it to drive profitability and growth. The CCC is composed of three components: Days Inventory Outstanding (DIO), Days Sales Outstanding (DSO), and Days Payables Outstanding (DPO). Firms that effectively manage these elements can reduce their reliance on external financing, mitigate interest expenses, and strengthen their balance sheets. In essence, optimizing the CCC contributes directly to improved financial performance, reflected in higher profitability ratios, better return on assets (ROA), and enhanced shareholder value. A poorly managed CCC can lead to liquidity shortages, missed investment opportunities, or even insolvency in extreme cases.

Every company needs working capital to stay afloat and be prepared in the event of an emergency. The negative cash conversion cycle indicates that the company's suppliers are paying for its operations. As their firm grows, no more cash is required. In fact, their cash balance suddenly grows more quickly as their sales increase. However, the majority of firms do not experience negative cash conversion cycles. This implies that working capital is always trapped for some period. Additionally, when a business expands, the amount of stuck cash will increase as well, necessitating ongoing capital infusions, thereby, keeping businesses cash-poor. Moreso, cash conversion cycles for businesses are predicated on three central factors: the number of days it takes customers to pay what they owe; the number of days it takes the business to make its product (or complete its service); the number of days the product (or service) sits in inventory before it is sold. A lengthy sales cycle can cause financial hang-ups, bad pricing can hurt a firm's revenue per-item sold, long payment times can tie up needed funds, and so on. On the other hand, if dividends are not paid to the shareholders on any account including insufficient profits, the financial standing of the company in the minds of the investors is damaged and they may like to dispose off their holdings. It adversely affects the market price of shares of the company. Some other factors which affect dividend policy include legal rules, liquidity position, the need to pay off debt, restrictions in debt contract, rate of expansion of assets, profit rate, stability of earnings and access to capital markets.

Different studies have been carried out on cash conversion cycle and financial performance with varying findings ranging from positive to negative and non-significant relationship. For instance Nobanee and Haddad (2022); Amidu (2021); Olubukunola (2021); Salawu and Alao (2021); Ebenezer and Asiedu (2020) found a positive relationship between cash conversion cycle and financial performance. A negative relationship was reported by Ukaegbu (2022); Nobanee and Haddad (2022); Gyekye (2021); Yasir, Majid and Yousaf (2021) while Majeed,

Makki, Saleem and Aziz (2021); Yazdanfar and Öhman (2021) documented a non-significant relationship between cash conversion cycle and financial performance. The divergent results from the reviewed literature created a lacuna which this study tends to fill. In closing the variable gap, the focus of this study is on dividend policy contrary to prior study that concentrated on financial performance. Again, sectorial scope will be bridged by considering the industrial goods sector as against past studies that dwelt on consumer goods and food and beverage sectors.

Objectives

The main objective of this study is to ascertain the effect of Cash Conversion Cycle on financial performance of quoted Industrial Goods firms in Nigeria. The specific objectives will be to;

1. evaluate the effect of Days Inventory Outstanding on net asset per share of quoted Industrial Goods firms in Nigeria.
2. ascertain the effect of Days Sales Outstanding on net asset per share of quoted Industrial Goods firms in Nigeria.
3. determine the effect of Days Payable Outstanding on net asset per share of quoted Industrial Goods firms in Nigeria.

LITERATURE REVIEW

Cash Conversion Cycle

Cash conversion cycle (CCC) is a metric that expresses the time (measured in days) it takes for a company to convert its investments in inventory and other resources into cash flows from sales (Yazdanfar & Öhman, 2021). The Cash conversion cycle also known as cash cycle (CCC) is a measure of the length of time it takes to convert inventory investments into cash that means the time between cash disbursement and cash collection (Oseifuah, 2020). Cash conversion cycle measures how long a firm will be deprived of cash if it increases its investment in inventory in order to expand customer sales; it is thus a measure of the liquidity risk entailed by growth (Ehiremmen, 2017). Moreover, Yasir, Majid and Yousaf (2021) describe the cycle as the average period between payment to creditors in exchange for inventories and services delivered and cash receipt from customers for resale of the supplies or services. Its main elements includes the period that inventory is held before it is used or sold, the average credit period taken from creditors and the length of credit time taken by or given to account receivables. The cash cycle conversion (CCC) is the average time it takes a company to convert inventory into cash. It is also known as “cash cycle” or “net operating

cycle." It measures, or estimates, how much time a company needs to sell its inventory, collect receivables and pay its bills (Ebenezer & Asiedu, 2020).

Days Inventory Outstanding

Days inventory outstanding (DIO) is a working capital management ratio that measures the average number of days that a company holds inventory for before turning it into sales. The lower the figure, the shorter the period that cash is tied up in inventory and the lower the risk that stock will become obsolete (Mukhopadhyay, 2022). Days inventory outstanding (DIO) is the average number of days that a company holds its inventory before selling it. The days inventory outstanding calculation shows how quickly a company can turn inventory into cash. It is a liquidity metric and also an indicator of a company's operational and financial efficiency. Days inventory outstanding is also known as "inventory days of supply," "days in inventory," or "the inventory period (Vaidya, 2022).

Days Inventory Outstanding refers to the financial ratio that calculates the average number of days of inventory that the company has held before selling it to the customers, thereby giving a clear picture of the cost of holding and potential reasons for the delay in selling inventory **(**Odusanya, Yinusa & Ilo, 2018**).** Days Inventory Outstanding (DIO) measures the number of days it takes on average before a company needs to replace its inventory. Days Inventory Outstanding is an important key figure in inventory management. It indicates the period between the receipt of raw materials and the sale of the finished product. The Days Inventory Outstanding (DIO) ratio indicates the length of time a company's capital is tied up in its inventories. DIO is therefore important in liquidity management because the less capital is tied up in inventory, the more cash the company has available (Asokan, 2022).

H_o: *Days Inventory Outstanding has no significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.*

Days Sales Outstanding

Days sales outstanding (DSO) is a measure of the average number of days that it takes a company to collect payment for a sale. Days Sales Outstanding (DSO) represents the average number of days it takes credit sales to be converted into cash or how long it takes a company to collect its account receivables (Kenton, 2022). The period of time used to measure DSO can be monthly, quarterly, or annually. If the result is a low DSO, it means that the business takes a few days to collect its receivables. On the other hand, a high DSO means it takes more days to collect receivables. A high DSO may lead to cash flow problems in the long run. DSO

is one of the three primary metrics used to calculate a company's cash conversion cycle (Brock, 2022). Days sales outstanding (DSO) measures the number of days it takes a company to collect cash generated from sales. It is the average number of days between invoicing a customer and collecting payment (Boyle, 2022).

Days sales outstanding (DSO) is the average number of days that receivables remain outstanding before they are collected. It is used to determine the effectiveness of a company's credit and collection efforts in allowing credit to customers, as well as its ability to collect from them. When measured at the individual customer level, it can indicate when a customer is having cash flow troubles, since the customer will attempt to stretch out the amount of time before it pays invoices. The measurement can be used internally to monitor the approximate amount of cash invested in receivables (Kazel, 2022).

H_o: *Days Sales Outstanding has no significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.*

Days Payable Outstanding

Days payable outstanding (DPO) is a financial ratio that indicates the average time (in days) that a company takes to pay its bills and invoices to its trade creditors, which may include suppliers, vendors, or financiers. The ratio is typically calculated on a quarterly or annual basis, and it indicates how well the company's cash outflows are being managed (Bichaci, 2022). Days Payable Outstanding (DPO) measures the number of days a company takes on average before paying outstanding supplier/vendor invoices for purchases made on credit. The DPO metric is oftentimes a proxy for the bargaining power of the buyer – which is the extent to how much a company can exert pressure in negotiating favorable terms with suppliers/vendors (for example, price reductions, payment date extensions) (Beaver, 2022). Days Payable Outstanding (DPO) refers to the average number of days it takes a company to pay back its accounts payable. Therefore, days payable outstanding measures how well a company is managing its accounts payable. A DPO of 20 means that, on average, it takes a company 20 days to pay back its suppliers (Murphy, 2022).

Days Payable Outstanding or DPO is the average number of days between the time the company receives an invoice and when the invoice is paid (Hindasah & Nuryakin, 2020). DPO is a key cash-flow metric that indicates how well a company manages its cash outflows. A high DPO is often desirable because if a company takes longer to pay creditors, it has more cash available in the short term to use for other purposes (Mukhopadhyay, 2022). A high DPO

is generally advantageous for a company. If a company takes longer to pay its creditors, the excess cash on hand could be used for short-term investing activities. However, taking too long to pay creditors may result in unhappy creditors and their refusal to extend further credit or offer favorable credit terms. Also, if the DPO is too high, it may indicate that the company is struggling to find the cash to pay its creditors (Beaver, 2021).

H_o: *Days Payable Outstanding has no significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.*

Financial Performance

Firm performance measures a company's ability to generate profits from its operations, typically quantified through metrics like net income or operating profit (Hussain, Ahmad, Fazal & Menegaki, 2024). It reflects the company's efficiency and effectiveness in utilizing resources, managing costs, and delivering value to stakeholders, serving as a core indicator of financial health. Strong financial performance directly impacts shareholder value, as consistently profitable companies can reinvest in their business, distribute dividends, and potentially increase their stock prices (İbrahim & Hakan, 2023). Firm performance is the surplus generated when a company's revenue exceeds its expenses, reflecting its capability to manage assets effectively. This concept is central to business professionals across various organizations because it significantly influences the company's overall health and survival. Strong financial performance indicates the efficiency and effectiveness with which a company uses its resources (Laghari, Ahmed & López, 2023).

A consistently high-performing company demonstrates effectiveness and efficiency in pursuing long-term success, adhering to standards, and leveraging its resources judiciously (Odhowa & Mutswenje, 2023). For managers, achieving high operational performance is a primary concern due to its broad impact on corporate endeavors. This includes the efficient use of limited resources, aligning with investor objectives of wealth maximization, and meeting obligations to lenders by ensuring timely repayment of debts and interest charges. Ultimately, robust financial performance is crucial for sustaining a company's viability and success in a competitive market. Profit-oriented organizations aim to achieve superior financial performance with the goal of maximizing shareholder wealth and increasing the company's value (Essien & Umo, 2023). This focus on profitability is not limited to management but extends to shareholders and other stakeholders as well. Thus, it is expected that managers of highly profitable firms would be motivated to provide more detailed and transparent information, setting themselves apart from their less profitable peers. Firm

profitability is a key indicator of how effectively a business generates profit by leveraging production factors such as labor, management, and capital. It involves examining the relationship between revenue and expenses and evaluating the level of profit relative to the investment made in the business. This dynamic between revenue, costs, and returns is crucial in defining a firm's financial health and its market reputation.

Highly profitable firms are generally more appealing to investors because robust profitability often signals effective management and strong competitive positioning, which can lead to increased investor interest and higher market valuations. Additionally, profitability serves as a safeguard against economic downturns and unexpected expenses. Companies with solid profit margins are better positioned to handle financial shocks and adjust to evolving market conditions. Consequently, profitability is a central concept in finance and business, encompassing various metrics and ratios that evaluate a company's financial health, operational efficiency, and competitive strength (Essien & Umo, 2023).

Net Asset Per Share

Net Asset Per Share refers to a financial metric used to assess a firm's investment performance by comparing the net asset to their ordinary shares (Jeroh & Edesiri, 2015). This measure is obtained by dividing the total net assets (assets minus liabilities) by the number of outstanding shares. Net Asset Per Share is a fundamental financial metric that provides investors and analysts with useful hints into a company's financial health and overall value (Miah & Islam, 2012). Essentially, it quantifies the value of a company's net assets in relation to each outstanding share of its common stock. To arrive at this significant metric, the total net assets, which encompass a company's assets minus its liabilities, are divided by the total number of outstanding shares.

By calculating Net Asset Per Share, investors gain a more granular understanding of the company's per-share value, reflecting the equity attributable to each shareholder (Miah & Islam, 2012). This metric serves as a key indicator of a company's intrinsic worth on a per-share basis, offering a snapshot of its financial stability and potential for growth. A higher Net Asset Per Share suggests a greater amount of net assets supporting each share, which can be indicative of a robust financial position and firm value. Furthermore, Net Asset Per Share plays a pivotal role in various financial analyses and comparisons (Jeroh & Edesiri, 2015). Investors often use this metric to assess the company's performance over time, making it a valuable tool for tracking financial trends and evaluating management effectiveness.

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Additionally, Net Asset Per Share can be compared across companies within the same industry, helping investors identify relative strengths and weaknesses among potential investment opportunities. In summary, Net Asset Per Share stands as a critical financial metric that encapsulates the essence of a company's financial strength and value on a per-share basis (Miah & Islam, 2012). Its calculation allows investors to make informed decisions, aiding in the assessment of a company's overall financial health and its potential for delivering returns to shareholders.

Theoretical Review

Bird in Hand Theory

Myron Gordon and John Lintner came up with this theory. The bird-in-hand theory for dividends or dividend preference theory argues that investors prefer stocks that pay high and stable dividends. The dividend preference theory was first proposed by Myron Gordon (1963) and John Lintner (1964). This theory is in response to the theory of Modigliani and Miller, who came up with the dividend irrelevance theory. Modigliani and Miller's theory implies that a company's dividend policy does not have any impact on the company's value or its capital structure. That theory further propounded that the investors see the overall returns and remain indifferent between returns from dividends or capital gains. The bird in hand theory implies that a company's regular dividend-paying policy does impact the company's share price and investors' behavior. The theory reasons that a low dividend payout increases the cost of capital of a firm. This is because the investor expects that more retained earnings will lead to higher growth and higher dividends in the future. And a higher dividend payout boosts the share price. This theory is based on an old saying – 'a bird in hand is worth two in the bush.' The dividend from stock is the "bird in hand." And the expectation of a big rise in the share price, which may or may not happen, is the "two in the bush" – capital gains. The bird-in-the-hand argument of dividend means that the near-future dividends are worth more than a distant-future dividend of equal amount. It considers that investors are always risk averse and so, they will discount distant future gains (capital gains) more heavily than the near future ones.

Bird in Hand Theory is relevant to this study since it is based on the belief that investors place a high preference for the receipt of dividends and that entrepreneurs create value with what is available to them at the moment. Under the bird-in-hand theory, stocks with high dividend payouts are sought by investors and, consequently, command a higher market price. Similarly, firms making dividend payouts tend to have an increase in the value of the firm. A Bird in

Hand Theory is also relevant to this study as it talks about the importance of having the benefits in the current times than having the benefits in the future years. This theory rests on the premise that investors would choose certain returns (dividends) over uncertain flows (capital appreciation).

Empirical Review

Öner (2016) investigated the impact of working capital on profitability of firms in Turkey from the year 2005-2014. The sample comprised 110 manufacturing firms listed on Borsa Istanbul for the period of 2005-2014. The study used a panel data methodology to analyze the study. The study found that cash conversion cycle has a significant negative impact on profitability.

Oseifuah and Gyekye (2016) investigated the impact of working capital management components on profitability. The sample comprised 75 nonfinancial firms listed on the Johannesburg Stock Exchange (JSE) from 2003 to 2012. The study used panel data methodology to analyze financial data obtained from I-Net Bridge and BF McGregor. Profitability was proxied by return on assets. The study found a negative relationship between working capital management and corporate profitability.

Khan, Ayaz, Waseem, Abbasi and Ijaz (2016) examined the impact of cash conversion cycle on profitability in Pakistan. The sample comprised 19 cement companies listed on the Karachi Stock Exchange, over a 6 year period, from 2008-2013. The study relied on secondary data. The study found that gross profit is positively related to accounts receivable, but negatively related to accounts payable and inventory using regression analysis in the study. Kubasu and Langat (2016) analyzed the effect of working capital management on profitability from the period 2008-2013. The study employed a correlation research design. The sample comprised all firms listed under manufacturing and agricultural sectors listed at the Nairobi Stock Exchange. Secondary data was collected from annual published financial statements for the period 2008-2013. Pearson correlation was used to test the correlation between variables, and multiple regression used to test the effect of individual variables of working capital management practices. The study revealed that there was a significant negative correlation between payables period, receivable period and inventory period with profitability. Panigrahi (2017) examined the relationship between cash conversion cycle and profitability in India from 2001-2010. The sample comprised top five Indian cement companies from 2001 to 2010. The regression results showed that cash conversion cycle is significantly and positively related to return on equity; but had a non-significant positive association with return on assets.

Yasir, Majid, and Yausaf (2017) examined the relationship between cash conversion cycle (CCC) and performance of cement industry of Pakistan. The study used the sample of 16 firms selected from cement industry of Pakistan for the period of six years from 2007 to 2012. The correlation and regression analysis are used to examine the relationship between cash conversion cycle (CCC) and firm's performance. The findings of the study revealed negative relationship between firm's cash conversion cycle and profitability.

Mohammad (2018) investigated the relationship between cash conversion cycle and financial characteristics in Nigeria. A sample of Jordanian different industrial sector of 11 was selected covering the period 2005-2011 listed on the Amman Stock Exchange (ASE). Using correlation analysis, the result indicates that cash conversion cycle has a non significant positive relationship with the profitability. Ullah (2019) examined working capital management and profitability of manufacturing firms in Pakistan for the period of 2001-2006. Using correlation and regression analysis, result showed that there was a strong positive relationship between profitability and cash conversion cycle.

Uwuigbe (2019) examined the relationship between efficiency of working capital management and corporate profitability of selected companied in the Istanbul stock exchange for the period of 2005 – 2009. The panel data methods were employed in order to analyze the mentioned relationship. The cash conversion cycle (CCC) was used as a measure of working capital management efficiency, and return on assets (ROA) used as a measure of profitability. The study found out that reducing cash conversion circle (CCC) positively affects return on assets. Osisioma, Okoye, Ezejiofor and Okoye (2020) assessed the effect of operating cash flow on earnings management of Nigerian Banks from 2010-2019. Ex post Facto research design was adopted by the study. The study used sample of fifteen (15) Nigerian banks from 2010 to 2019. Data for the study was collected from annual reports and accounts of the banks. Regression analysis was used to test the hypothesis with the aid of E-view 9.0. The study found that operating activities are not statistically significant and have a negative effect on total accruals earnings of Nigerian banks. Anser and Malik (2020) evaluated the effect of cash conversion cycle on profitability of manufacturing organizations listed at Karachi Stock Exchange of Pakistan from 2007-2011. The dependent variables were return on equity and return on assets; and, firm size and debt ratio the control variables. The duration of the study is from 2007 to 2011. Regression results showed that cash conversion cycle has a significant inverse association with both return on assets and equity.

Khawaja, Bhutto, Butt and Abbas (2020) investigated the effect of working capital management on profitability of manufacturing firms in Asia. The sample comprised 332 manufacturing firms listed on stock exchanges in Asia (China, Japan, India, Pakistan, Bangladesh, Iran and Korea). Secondary data was obtained from financial statements of the companies from 2006- 2010. Pearson correlation and multiple regression was used to analyze data. The study found a negative significant relationship between receivable period, inventory period, and payment period with profitability. Nasir and Ali (2020) assessed the Relationship between Cash Conversion Cycle and Profitability from 2005-2015 in Kenya. The data was analyzed using the techniques of correlation coefficient and regression analysis is applied for testing the model reliability and significant relationship between variables. Result revealed significant positive relationship between net operating profitability and cash conversion cycle and average collection period. Ebenezer and Asiedu (2020) examined the effect of working capital management on the profitability of companies listed on the Ghana stock exchange for the period five years (2007-2011). The study used panel data regression analysis to analyze the study. The result showed that working capital management and cash conversion cycle had influence (positive) on the profitability of manufacturing companies.

Oseifuah (2020) investigated the relationship between working capital management and corporate profitability for a sample of 1009 large Belgian non financial firm for the period 2000-2019. The study was analyze using regressions and the result from the analysis showed that there was a negative relationship between profitability and cash conversion circle. Yazdanfar and Öhman (2021) investigated the impact of cash conversion cycle on profitability of Swedish Small and Medium-sized Enterprises (SMEs). The study used cross-sectional panel data covering 13,797 SMEs in four industries over the period 2008-2011. The data was analyzed using seemingly unrelated regression (SUR). The study found that cash conversion cycle significantly affects profitability. Yasir, Majid and Yousaf (2021) examined the relationship between cash conversion cycle and performance. The study used a sample of 16 firms selected from the cement industry of Pakistan, for a six year period from 2007 to 2012. Correlation and regression was used to examine the relationship. The study found a negative relationship between cash conversion cycle and profitability, measured via return on assets.

Salawu and Alao (2021) examined the effect of working capital management on performance of in Nigeria. The sample comprised sixty purposively selected non-financial quoted companies between the periods 2000 to 2009. The study relied on secondary data which were collected from the annual report and accounts and analyzed using regressions. The results showed that average collection period, average payment period, are significant and positively related to profitability. Majeed, Makki, Saleem and Aziz (2021) examined the relationship of cash conversion cycle and profitability in Pakistan for the period of 2006-2017. The sample comprised 32 randomly selected companies from three manufacturing sectors which include chemical, automobiles and construction & material for a period. Correlation and regression were used to analyze the data. The study found that average receivables collection period, average inventory conversion period, and cash conversion cycle have negative relationship with firms performance (ROA, ROE, and EBIT). Nobanee, Abdullatif and AlHajjar (2021) investigated the relationship between cash conversion cycle and profitability. The sample comprised all non-financial firms listed in Tokyo Stock Exchange over the period 2005-2019. The final sample contained 34771 firm year observations. The study used a dynamic panel data analysis to test the hypotheses applied at the levels of full sample and subsets of sample by industry and size. The results showed a strong negative relationship between cash conversion cycle and profitability.

Gyekye (2021) examined the working capital management and corporate profitability in Nigeria from 2005-2019. The study used the sample of Nigerian quoted non-financial firms and analyzes using multiple regressions. The study found a significant negative relationship between working capital management and corporate profitability. Olubukunola (2021) examined working capital management and its impact on firms' performance in Nigeria from 2000-2018. The study employed regression analysis in the study. The findings of the study showed a strong significant relationship between working capital management and profitability. Amidu (2021) investigated the relationship between cash conversion cycle and profitability of firms in Greece from 2007-2018. The study was analyzed using ordinary least square during the study. The study found significant, positive relationship between cash conversion cycle and profitability of firms.

Nobanee and Haddad (2022) examined the relationship between working capital management and profitability of firms in Japan from 2003-2018. The sample consisted of 2,123 non-financial firms listed on the Tokyo Stock Exchange. The study applied robust regression to

test the relationship. The results showed that inventory conversion period was significant and positively related to profitability for all companies.

Ukaegbu (2022) examined the relationship between working capital efficiency and corporate profitability in South Africa from 2005-2019. Secondary data was obtained from Orbis database for the period 2005–2019. The results showed that there is a strong negative relationship between profitability and capital efficiency using ordinary least square. Karim, Al Mamun and Kamruzzaman (2023) investigated the impact of the cash conversion cycle (CCC) on the financial performance of manufacturing companies in Bangladesh. The study analyzed data from 61 firms listed on the Dhaka Stock Exchange (DSE) across ten distinct manufacturing industries over an 18-year period from 2003 to 2020. Utilizing a two-step system generalized method of moments (GMM) regression model, the researchers assessed profitability indicators, including return on assets (ROA) and earnings per share (EPS), as dependent variables. CCC served as the independent variable, while asset turnover (ATO) and financial leverage (LEV) were control variables. The results revealed a negative relationship between CCC and profitability metrics, particularly noting a highly significant association with EPS. These findings suggest that Bangladeshi manufacturing firms could enhance their profitability by reducing inventory conversion time, speeding up the collection of receivables, and delaying payments to creditors. Additionally, the study highlighted that firm-specific characteristics such as ATO and LEV significantly influence profitability.

In a related study, Johan, Kayani, Naeem, and Karim (2024) examined the effect of the cash conversion cycle on firm performance within the BRICS countries (Brazil, Russia, India, China, and South Africa) over the period from 2009 to 2019. Despite the importance of this relationship, limited research has focused on the CCC's impact within this region as a cohesive group. To address this gap, the authors employed various regression analyses, including seemingly unrelated regression, system GMM, dynamic quantile regression, and difference-in-difference regression. The findings provided empirical evidence of an inverse relationship between the cash conversion cycle and firm performance across all BRICS nations. Specifically, firms experiencing longer cash conversion cycle periods demonstrated lower profitability compared to those with shorter cycles, reinforcing the need for effective management of cash conversion processes to enhance financial performance in these emerging markets.

MATERIALS AND METHOD

This study employed an ex-post facto research design to investigate the effect of the Cash Conversion Cycle (CCC) on the financial performance of quoted Industrial Goods firms in Nigeria. The ex-post facto design is appropriate for this research as it allows the examination of existing data and relationships without manipulating independent variables, which is particularly suitable when analyzing financial performance metric such net asset per share in relation to the CCC. By collecting historical financial data from the annual reports of selected Industrial Goods firms listed on the Nigerian Stock Exchange over a specified period, the study aims to identify the nexus between the CCC and the firms' financial outcomes. This approach enables a comprehensive understanding of how variations in the CCC influence the financial performance of these firms. The population of this study comprised of all the thirteen (13) industrial goods firms quoted on the floor of the Nigerian Stock Exchange as at 31st December, 2024. They include: Dangote Cement Plc; Beta Glass Plc; CAP Plc; Berger Paints; CutixPlc; DN Meyer Plc; Premium Paints Plc; Austin Laz& Company Plc; Portland Paints Plc; Greif Nigeria Plc, BUA cement, Lafarge Cement, and Tripple Gee Plc.

The sample size of this study comprised nine (9) industrial goods firms that were continuously listed and actively trading on the floor of the Nigerian Exchange (NGX) Group during the period 1st January 2012 to 31 December 2024 and whose financial statements are available and have been consistently submitted to NGX for the period under study. Purposive sampling technique was adopted to select the companies with up to date and complete annual reports and accounts for the studied period (2012-2024). The sample firms include: Dangote Cement Plc; Beta Glass Plc; CAP Plc; Berger Paints; Cutix Plc; Meyer Plc; Austin Laz& Company Plc; Lafarge Cement, and Tripple Gee Plc. This study made use of secondary data that were extracted from the annual reports and statements of account of the selected industrial goods firms in Nigeria for the period of interest 2012 to 2024.

Table 1: Variables Definition and Measurement Units

Variable Type	**Proxy**	**Variable Symbols**	**Variables Explanation**
Independent Variable (Cash Conversion Cycle)			
	Days Inventory Outstanding	DIO	$\frac{\text{Inventory}}{\text{Cost of Goods Sold}} \times \frac{365}{1}$
	Days Sales Outstanding	DSO	$\frac{\text{Accounts Receivable}}{\text{Sales Revenue}} \times \frac{365}{1}$
	Days Payable Outstanding	DPO	$\frac{\text{Accounts Payable}}{\text{Cost of Goods Sold}} \times \frac{365}{1}$
Dependent Variable (Financial Performance)			

	Net Asset Per Share	NPS	Net Asset / Number of Outstanding Ordinary Share

Source: Researcher's Compilation (2025)

This study adapted and modified the model of Nweke, Udeh and Amahalu (2022) in determining the effect of Cash Conversion Cycle on Dividend Policy of quoted Industrial Goods firms in Nigeria:

$PAT = \beta_0 + \beta_1 ITP + \beta_2 ACP_t + \beta_3 APP + \varepsilon$ …….. Eqn 1.

Where:

$PAT_{i,t}$ = Profit after Tax

ITP = Inventory Turnover Period

ACP = Average Collection Period

APP = Average Payment Period

The Modified Model used for the study is shown below as thus:

$NPS = \beta 0 + \beta 1\ DIO_{it} + \beta 2\ DSO_{it} + \beta 3\ DPO_{it} + \mu_{it}$ ……. Eqn 2.

Where:

βo = Constant term

$\beta_1 - \beta_3$= Regression coefficient of the independent variable

μ_t = Error Term of firm í in period t

í = individual firms (1,2,3...14)

t = time periods (2008, 2009 ... 2021)

NPS_{it} = Net Asset Per Share of firm í in period t

DIO_{it} = Days Inventory Outstanding of firm í in period t

DSO_{it} = Days Sales Outstanding of firm í in period t

DPO_{it} = Days Payable Outstanding of firm í in period t

The variables of this study were analyzed to determine the effect of Cash Conversion Cycle on Dividend Policy of quoted Industrial Goods firms in Nigeria using Descriptive and Inferential statistics with the aid of E-Views 10.0 statistical software. Descriptive statistics was adopted to summarily describe the mean, median, standard deviation, skewness, kurtosis, maximum and minimum of the studied variables. On the hand, this study will employ inferential statistics tools such as: Furthermore, for the purpose of hypotheses testing, panel Least Square regression analysis was used to predict the effect of the independent variable on

the dependent variable. The decision rule was to accept H_o, if the P-value of the test is greater than 0.05, otherwise reject.

ANALYSES AND RESULTS DISCUSSION

Table 2 Descriptive Statistics

	NPS	DIO	DSO	DPO
Mean	20.39624	115.9662	62.19271	158.7479
Median	3.573840	103.7086	39.62289	131.2940
Maximum	126.0917	631.6717	338.3634	1521.264
Minimum	0.286230	0.000000	0.000000	0.000000
Std. Dev.	28.58197	78.79231	71.62722	161.8887
Skewness	1.623906	3.349097	1.971679	5.279046
Kurtosis	4.756010	19.76876	6.482226	44.12262
Jarque-Bera	66.45528	1589.528	134.9203	8787.398
Probability	0.000000	0.000000	0.000000	0.000000
Sum	2386.360	13568.04	7276.547	18573.50
Sum Sq. Dev.	94763.73	720154.5	595133.2	3040122.
Observations	117	117	117	117

Source: E-Views 10.0 Descriptive Output, 2024

Net Asset Per Share (NPS): From Table 2, the descriptive statistics for Net Asset Per Share (NPS) indicate a mean value of approximately 20.40, suggesting that on average, shareholders had about ₦20.40 worth of net assets per share across the observed firms. However, the wide disparity between the mean and the median value of 3.57 points to a positively skewed distribution, where a few firms with extremely high net asset per share values (maximum of 126.09) raise the average significantly. The standard deviation of 28.58 further underscores the high variability in financial performance among the firms. A skewness of 1.62 and kurtosis of 4.76 confirm that the data is moderately skewed to the right and leptokurtic—meaning it has a sharper peak and heavier tails than a normal distribution. The Jarque-Bera probability of 0.0000 confirms the data is not normally distributed, which could influence model selection and inferential techniques in subsequent analysis.

Days Inventory Outstanding (DIO): The DIO values in Table 2 reveal that, on average, firms held inventory for about 116 days before selling it. The median DIO is 103.71 days, slightly lower than the mean, indicating a right-skewed distribution. The standard deviation of 78.79 is substantial, pointing to considerable variability in inventory turnover practices among the firms. The maximum DIO value of 631.67 days is exceptionally high and could signify inefficiencies or stockpiling in some firms. Skewness (3.35) and kurtosis (19.77) indicate a highly skewed and sharply peaked distribution, respectively, further confirmed by the Jarque-Bera p-value of 0.0000, implying non-normality. This suggests that while some

firms manage inventory efficiently, others exhibit significant delays, which could adversely affect their cash cycles and financial performance.

Days Sales Outstanding (DSO): In Table 2, DSO has a mean of 62.19 days, suggesting that, on average, firms collect payment from customers within roughly two months. However, the median is just 39.62 days, which, when compared with the maximum of 338.36 days, indicates a few firms take an exceedingly long time to collect receivables, pulling the average upward. The standard deviation of 71.63 days highlights considerable variation in receivables collection efficiency. The positive skewness (1.97) and high kurtosis (6.48) reveal a right-skewed and leptokurtic distribution, indicating that while most firms collect within a reasonable time, outliers exist with very lengthy collection periods. The Jarque-Bera probability of 0.0000 once again confirms the data is not normally distributed, which may affect the generalizability of regression outcomes if not properly addressed.

Days Payable Outstanding (DPO): The statistics in Table 2 show that, on average, firms delay payments to their suppliers for about 159 days—an unusually long period. The median value of 131.29 days is substantially lower than the mean, pointing to a highly skewed distribution. The maximum DPO of 1,521.26 days is extreme and likely represents one or more firms with either outdated or unpaid obligations. The large standard deviation (161.89) further supports high variability in payment practices. The skewness of 5.28 and kurtosis of 44.12 indicate an extremely skewed and peaked distribution, and the Jarque-Bera p-value of 0.0000 confirms strong deviation from normality. Such a distribution suggests that while some firms delay payment as a cash management strategy, others may be at risk of default or are exploiting unusually long credit terms, which could distort the cash conversion cycle and influence financial stability.

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Test of Hypotheses

Hypothesis One

H_o: Days Inventory Outstanding has no significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.

H_i: Days Inventory Outstanding has significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.

Table 3 Test of Hypothesis I

Dependent Variable: NPS
Method: Panel EGLS (Cross-section SUR)
Date: 06/19/25 Time: 05:54
Sample: 2012 2024
Periods included: 13
Cross-sections included: 9
Total panel (balanced) observations: 117
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIO	-0.015358	0.002122	-7.238887	0.0000
C	21.62357	0.537315	40.24373	0.0000
	Weighted Statistics			
R-squared	0.345858	Mean dependent var		-1.031550
Adjusted R-squared	0.340170	S.D. dependent var		4.363033
S.E. of regression	0.928346	Sum squared resid		99.11005
F-statistic	60.80282	Durbin-Watson stat		1.569829
Prob(F-statistic)	0.000000			

Source: Eviews 10 Output (2025)

Table 3 shows the test of hypothesis which ascertained the effect of days inventory outstanding on net asset per share. The model is statistically valid and meaningful, as indicated by the Prob(F-statistic) = 0.0000, which is well below the 5% level. This means the regression model significantly explains variations in Net Asset Per Share. The R-squared value is 0.3459, showing that approximately 34.59% of the variation in NPS is explained by DIO. The Durbin-Watson statistic = 1.5698, suggesting no serious autocorrelation in the residuals. The constant term represents the expected value of NPS when Days Inventory Outstanding is zero. Although zero inventory days is unrealistic in practice, this constant suggests that firms would have an average NPS of ₦21.62 when inventory does not affect performance. The p-value confirms this constant is statistically significant.

The coefficient for Days Inventory Outstanding is -0.0154, meaning that each additional day a firm holds inventory results in a ₦0.0154 decrease in Net Asset Per Share, all other factors held constant. This indicates a negative marginal effect, suggesting that inefficient inventory management or prolonged stock turnover erodes shareholder value. The p-value of 0.0000 confirms that this effect is statistically significant at the 5% level. Since the p-value is less than 0.05, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). Therefore, Days Inventory Outstanding has a significant negative effect on Net Asset Per Share of quoted Industrial Goods firms in Nigeria.

The negative and statistically significant effect of Days Inventory Outstanding (DIO) on Net Asset Per Share implies that the longer industrial goods firms in Nigeria hold inventory, the lower their financial performance, as measured by shareholder value. This outcome is intuitive since high inventory holding periods can signal inefficiencies in inventory turnover, increased storage costs, potential obsolescence, and tied-up capital. For firms in the industrial goods sector—which often deal with bulky, capital-intensive stock—efficient inventory management is crucial. The result indicates that shorter inventory cycles help free up resources, minimize costs, and ultimately enhance returns to shareholders. This finding is consistent with the works of Khawaja et al. (2020) and Khan et al. (2016), both of whom found that inventory periods negatively affect firm profitability. Similarly, Kubasu and Langat (2016) reported that longer inventory periods are inversely related to profitability, supporting the view that sluggish inventory turnover can dampen firm value. Conversely, however, Nobanee and Haddad (2022) also observed a positive association between inventory and net profit margin. This suggests that while negative inventory effects dominate in Nigeria's industrial goods context, sector-specific and regional dynamics may influence how inventory strategies affect firm performance elsewhere.

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Hypothesis Two

H_o: Days Sales Outstanding has no significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.

H_i: Days Sales Outstanding has significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.

Table 4 Test of Hypothesis II

Dependent Variable: NPS
Method: Panel EGLS (Cross-section SUR)
Date: 06/19/25 Time: 05:55
Sample: 2012 2024
Periods included: 13
Cross-sections included: 9
Total panel (balanced) observations: 117
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DSO	0.043945	0.003600	12.20728	0.0000
C	16.88141	0.192213	87.82639	0.0000
	Weighted Statistics			
R-squared	0.586669	Mean dependent var		-1.811052
Adjusted R-squared	0.583074	S.D. dependent var		8.112750
S.E. of regression	0.955483	Sum squared resid		104.9890
F-statistic	163.2271	Durbin-Watson stat		1.619884
Prob(F-statistic)	0.000000			

Source: Eviews 10 Output (2025)

Table 4 shows the test of hypothesis which ascertained the effect of days sales outstanding on net asset per share. The model is highly statistically significant, with a Prob(F-statistic) = 0.0000, which means that the model significantly explains the variations in NPS. The R-squared value = 0.5867, indicating that 58.67% of the variation in Net Asset Per Share is explained by Days Sales Outstanding, a strong explanatory power. The Durbin-Watson statistic = 1.6199 also suggests that autocorrelation is not a major issue. The constant (C = 16.88141, p = 0.0000) indicates that if DSO were zero (hypothetically), the firm would have a baseline Net Asset Per Share of ₦16.88. The p-value shows that the constant is statistically significant.

The coefficient for Days Sales Outstanding is 0.04395, which means that for every additional day it takes a firm to collect receivables, NPS increases by approximately ₦0.044, all else being equal. This represents a positive marginal effect, implying that longer credit periods

might lead to increased sales, possibly enhancing shareholder value. The p-value is 0.0000, indicating that this positive effect is statistically significant at the 5% level. Given the p-value is below 0.05, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). Therefore, Days Sales Outstanding has a significant positive effect on Net Asset Per Share of quoted Industrial Goods firms in Nigeria.

The significant positive relationship between Days Sales Outstanding (DSO) and Net Asset Per Share suggests that extending credit to customers is beneficial to quoted industrial goods firms in Nigeria. This might appear counterintuitive at first, as delayed collections typically hurt liquidity. However, in practice, longer receivables periods may enable firms to stimulate more sales by offering flexible payment terms, especially in a credit-constrained market like Nigeria. Higher sales volumes, even when collected later, may translate to increased profitability and shareholder value if well-managed. It reflects a customer relationship strategy that rewards patient capital with improved firm value. This finding aligns with Khan et al. (2016), who found that accounts receivable had a positive impact on profitability. Similarly, Salawu and Alao (2021) observed a positive and significant relationship between average collection period and ROCE in Nigerian firms. However, the result contrasts with Majeed et al. (2021), who found a significant negative relationship between average receivables period and profitability in Pakistan. This indicates that while extending credit may benefit firms in Nigeria's industrial sector, the effect may be negative in more competitive or liquidity-sensitive environments.

Hypothesis Three

H_o: Days Payable Outstanding has no significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.

H_i: Days Payable Outstanding has significant effect on Net asset per share of quoted Industrial Goods firms in Nigeria.

Table 5 Test of Hypothesis III

Dependent Variable: NPS
Method: Panel EGLS (Cross-section SUR)
Date: 06/19/25 Time: 05:54
Sample: 2012 2024
Periods included: 13
Cross-sections included: 9
Total panel (balanced) observations: 117
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.012739	0.001318	9.665985	0.0000
C	18.40108	0.364086	50.54047	0.0000
	Weighted Statistics			
R-squared	0.472682	Mean dependent var		-3.031356
Adjusted R-squared	0.468096	S.D. dependent var		6.283248
S.E. of regression	0.952027	Sum squared resid		104.2308
F-statistic	103.0846	Durbin-Watson stat		1.555306
Prob(F-statistic)	0.000000			

Source: Eviews 10 Output (2025)

Table 5 shows the test of hypothesis which ascertained the effect of days payable outstanding on net asset per share. The model is statistically strong with a Prob(F-statistic) = 0.0000, confirming that the model significantly explains variation in financial performance. The R-squared value = 0.4727, indicating that 47.27% of changes in NPS are explained by Days Payable Outstanding. The Durbin-Watson statistic = 1.5553 shows minimal concern for serial correlation. The constant (C = 18.40108, p = 0.0000) suggests that when DPO is zero, a firm's expected Net Asset Per Share would be ₦18.40. It is statistically significant, confirming that the model has a meaningful intercept.

The coefficient for Days Payable Outstanding is 0.01274, meaning that each additional day a firm delays payment to its suppliers results in a ₦0.0127 increase in NPS, ceteris paribus. This positive marginal effect suggests that by holding onto cash longer before paying bills, firms might improve liquidity and channel funds into profitable activities, boosting net asset

value. The effect is statistically significant, with a p-value of 0.0000, well below 0.05. Since the p-value is highly significant, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). Hence, Days Payable Outstanding has a significant positive effect on Net Asset Per Share of quoted Industrial Goods firms in Nigeria.

The significant positive impact of Days Payable Outstanding on Net Asset Per Share implies that firms that take longer to pay their suppliers tend to perform better financially. This supports the notion that delaying payments allows firms to utilize cash for other revenue-generating activities before settling obligations. In the Nigerian industrial goods sector, where firms often face capital constraints, maximizing the payable period can serve as an informal financing source, enhancing cash flow management. However, this strategy only works if firms maintain healthy supplier relationships and avoid penalties or strained credit terms. This finding is reinforced by Salawu and Alao (2021), who found that average payment periods are positively and significantly associated with ROCE in Nigerian firms. Similarly, Panigrahi (2017) confirmed a positive link between CCC and ROCE, indirectly supporting this result. However, Khan et al. (2016) and Kubasu and Langat (2016) found that accounts payable were negatively related to profitability, suggesting that prolonged payment periods may strain supplier relationships or incur costs elsewhere. The divergence implies that context matters—delayed payments may be beneficial where supplier flexibility exists, as in parts of Nigeria, but not in markets with stricter credit enforcement

CONCLUSION AND RECOMMENDATIONS

The findings on the effect of the Cash Conversion Cycle (CCC) on the financial performance of quoted industrial goods firms in Nigeria reveal critical insights into how working capital components influence shareholder value. The statistically significant relationships suggest that the efficiency with which firms manage their inventory, receivables, and payables directly affects their financial outcomes. The implication is that cash flow timing and liquidity strategies are not merely operational concerns but are deeply tied to the firms' valuation metrics such as Net Asset Per Share. These results indicate that financial performance in the sector is highly sensitive to the duration of asset and liability cycles, reflecting the strategic importance of internal cash flow management.

More broadly, the findings imply that working capital dynamics within the Nigerian industrial goods sector are uniquely structured in a way that accommodates longer receivables and payables periods without adverse effects on firm value, while delays in inventory turnover are penalized in terms of financial performance. This reveals a sectoral characteristic where

operational leverage, supplier terms, and customer credit practices are intertwined with financial outcomes. It also underscores the role of firm-level decisions in navigating liquidity and operational constraints in an emerging economy context. The statistically significant effects observed across all components of the CCC point to a direct and measurable impact of operational cycle choices on the enhancement or erosion of shareholder wealth.

The study therefore recommended that:

1. Operations and supply chain managers adopt more responsive inventory management strategies, such as Just-in-Time (JIT) systems, lean inventory methods, or demand-driven restocking models. These strategies can help minimize holding periods, reduce associated costs (e.g., warehousing and obsolescence), and thereby improve asset efficiency and shareholder value.
2. Credit Control Units and Sales Managers are encouraged to design flexible but controlled credit policies that support customer retention and revenue growth without exposing the firm to excessive default risk. The ability to offer credit effectively appears to strengthen firms' financial positions, potentially through increased sales volumes and improved customer loyalty.
3. Chief Financial Officers (CFOs) should consider strategically extending payment cycles where possible, through supplier negotiations or favorable contract terms. Efficient use of trade credit not only enhances liquidity but also allows firms to reallocate working capital into productive or profit-yielding operations, ultimately reinforcing firm value.

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