

Operational Resources Management and Profitability of Maritime Logistics Firms in Nigeria

Eteyen Sunday IKPONG, PhD¹, Aniefiok Usoro UKPANA², Owoidoho Sunday UDOH³

^{1, 2, 3} Department of Accounting, Faculty of Management Sciences, University of Uyo, Uyo, Akwa Ibom State, Nigeria

ABSTRACT

The aim of this study was to determine how profitable Maritime Logistics Firms operating in Nigeria were with the managing of their operational resources for the period 2016 to 2025 (10 years). The dependent variable was Profitability proxies with Operating Cash Flow while Operational Resources Management was independent variable and were expressed with Accounts Receivable Period, Inventory Holding Period, Accounts Payable Period, Cash Conversion Cycle and Liquidity Ratios. Data for the work were accessed from published financial statements of the companies for the period. Multiple linear regression technique was used to analyse the sourced data. The study showed that none of the independent variables had significant influence on profitability of the firms. One striking observation from the data collected showed that Accounts Receivable Period ranged from 1.8 to 1,489 days, Inventory Holding Period 2.8 to 8,785 days, Accounts Payable Period 9.53 to 2,440 days, Cash Conversion Cycle 4.05 to 6,366 days and Liquidity Ratios 1.17 to 20.91. All these data signalled severe financial, operational, or strategic distresses or abnormalities because in reality, it is difficult to believe that it should take a company between 4 to 24 years to get through with each of these variables. The anomalies are too pronounced and odd rather than indicate actual business performances. From the study, Corporate Managers should watch very closely their Accounts Receivable Periods, Inventory Holding Periods, Accounts Payable Period, Cash Conversion Cycle as well as their Liquidity Ratios, if they intend to remain in business and be profitable.

KEYWORDS

Operational Resources Management, Accounts Receivable Period, Inventory Holding Period, Accounts Payable Period

I. BACKGROUND TO THE STUDY

The maritime sector is an essential pillar of global economic progress. As the lifeblood of international trade, business, and connectivity, its importance goes well beyond the transportation of commodities across oceans; it is a vibrant and diverse industry that supports the world economy by connecting countries, businesses, and markets through a complex web of ports, shipping lanes, and logistics networks. Sea transportation, port operations, shipbuilding, maritime services, and marine tourism are just a few of the many activities that make up this industry. These activities all work together to support national and international economies. Marine activities are overseen by the Federal Ministry of

Marine and Blue Economy, with the following Specialized Agencies functioning under it. These are the Nigerian Maritime Administration and Safety Agency (NIMASA) functioning as the apex regulatory body, with the responsibility for maritime safety, security, maritime labour regulation, marine pollution prevention, and the promotion of commercial shipping. It also enforces the Cabotage Act. Nigerian Ports Authority (NPA) governs, manages and operates all port facilities in Nigeria while the Nigerian Shippers Council (NSC) regulates and protects the interest of the shippers. Other agencies are the National Inland Waterways Authority (NIWA), Nigeria Customs Service (NCS), National Oil Spill Detection and Response Agency (NOSDRA, which manages environmental issues related to oil spills in the marine environment), Maritime Academy of Nigeria (MAN), Oron, Council for the Regulation of Freight Forwarding in Nigeria (CRFFN) as well as the Nigerian Navy (which provides maritime security and enforces safety regulations in the coastal and territorial waters). This sector of the nation's economy is key to the expansion of the Gross Domestic Products (GDPs) and is held dear by the government of Nigeria. Many companies operate in this sector either directly or indirectly. Few of those listed companies constitute the population of our study here.

Operational Resources Management (ORM) has a direct impact on liquidity, operational effectiveness, and firm profitability. It is a fundamental aspect of corporate financial management. Operational Resources dynamics are especially important to businesses involved in maritime logistics, including shipping agencies, port service providers, freight forwarders, marine support firms, and terminal owners. The dynamics include high levels of corporate and governmental client receivables, a sizable store of fuel, replacement parts, and containers, significant immediate liabilities, such as port fees, customs charges, and vessel handling expenses, as well as the possibility of fluctuating exchange rates. Institutions like the Nigerian Ports Authority and the Nigerian Maritime Administration and Safety Agency have an impact on the intricate regulatory and operational framework that marine logistics companies operate within in developing nations like Nigeria. Operational resources difficulties are increased by infrastructural bottlenecks, delays in freight clearance, and foreign exchange restrictions. Understanding how operational resources components impact profitability is essential for financial sustainability and policy development because this industry is capital-intensive and trade-dependent. Thus, this study uses secondary panel data to examine the relationship between operational resources management and profitability of listed maritime logistics companies in Nigeria.

A. Statement of the Problem

Nigerian maritime logistics companies constantly struggle with financial issues brought on by prolonged cycles of receivables, operational delays and port congestion, instability in exchange rates, as well as expensive short-term financing, among others. Many logistics companies face diminishing profitability and erratic cash flows, despite the maritime sector's vital significance to Nigeria's blue economy and trade performance. Traditional ORM-profitability correlations may be different in marine companies due to their distinct operational structure. The lack of sector-specific empirical data leaves a knowledge gap about marine logistics, the ideal cash conversion cycle, the effects of managing accounts payable and receivable on profitability, and dynamic impacts of operational resources policies. This study seeks to assess operational resources management and profitability in the Nigerian maritime sector and to assess its strengths and weaknesses.

B. Objective of the study

To examine the effect of operational resources management on profitability of listed maritime logistics firms in Nigeria. Specific objectives are

- To determine the impact of accounts receivable period on profitability.
- To assess the relationship between inventory holding period and profitability.
- To evaluate the effect of accounts payable period on profitability.
- To examine the effect of cash conversion cycle on profitability
- To examine the influence of liquidity level on firm profitability.

C. Research Hypotheses

(H0 stated in null form)

- H01: Accounts receivable period has no significant effect on profitability.
- H02: Inventory holding period has no significant effect on profitability.
- H03: Accounts payable period has no significant effect on profitability.
- H04: Cash conversion cycle has no significant effect on profitability.
- H05: Liquidity ratio has no significant effect on profitability

D. Significance of the study

This study would be significant to the operators in this industry, analysts, government, researchers, and the general public. The operators will discover how each of the firms is fairing in terms of managing its operational resources for profitability. Analysts will be able to empirically see the performance of this sector to the development of the nation. Government will have a view of the activities going on in the industry and therefore take appropriate actions to better off the lot of the companies and its regulators. Further researchers will have a stool to stand upon to further their studies on other areas bordering on this research work. The general public will be well advised on how the companies in this industry are performing and managing the variables concerned with operational resources management and profitability.

E. Scope and limitations of the study

The work is limited to the companies enlisted below and covering the years 2016 to 2025.

II. REVIEW OF RELATED LITERATURE*A. Conceptual Review**1. Operational Resources Management*

Operational resources is the money a business uses to fund operations: pay suppliers, keep inventory stocked, cover payroll, and more. It is calculated as current assets minus current liabilities, and it tells whether there is enough cash moving through the business to keep it

running. When operational resources is strong, an organization can pay bills, buy inventory, and cover short-term costs without borrowing. When it is not, even profitable businesses can face difficulties. Good operational resources management makes a business more stable, more flexible, and more ready to grow. It helps to avoid crunches, reduce reliance on outside capital, and take advantage of opportunities when they appear. Operational resources is a kind of a buffer that protects an enterprise against the loss of financial liquidity. Therefore, managing it is a key element from the point of view of financial security in every company.

Operational resources management involves managing two major items enlisted in the Statement of Financial Positions. These are current assets and current liabilities. Cash, receivables, inventory, and payables are the main components of these categories, and each one affects how quickly money moves through the business and how much of it gets held along the way. For instance cash and cash equivalents which is the most liquid part of operational resources is very vital for paying day-to-day expenses such as rent, salaries, and bills. Accounts receivable is money owed to the organization and customers should not take time to pay because the longer cash is tied up, the worse it is for the enterprise. Managing it involves setting good credit terms, invoicing quickly, and ensuring collections do not slip.

Inventory is the unsold unit of goods meant for sale. It must not be overstocked but must be enough to meet demand. Accounts payable is made up of indebtedness to outsiders. Timing matters here. Paying too early can drain cash while paying too late risks business relationships with the suppliers of goods and services. These components form a cycle: spend cash on inventory, sell it (often on credit), wait to collect, and use that cash to pay bills. If any part of the cycle slows down—for instance, a customer delays payment or inventory begins to pile up—that cycle can break. Operational resources management focuses on keeping the cycle moving so cash does not get stuck in the system (Kayani, et al (2023). Operational resources management is about assuring that your business can keep running and respond to opportunities without being restricted by issues of timing. Managing operational resources properly will free up funds to pay rent, payroll, supplier invoices, taxes, replenish inventory on time and fulfill customer orders. It will help the organization to rely less on borrowing, take advantage of a discount and improves the strength of the company. Excessive investment in operational resources increases operating costs associated with extended trade credit and inventory storage, which can erode profitability.

2. *Accounts Receivable Period*

It is disadvantageous for an enterprise to extend a 30-day payment term while requiring 50 days for the collection of funds, as this prolongs the collection cycle. Given that elevated accounts receivable days may signify suboptimal collection practices, it is essential to monitor this duration closely. Organizations are compelled to endure an opportunity cost when creditors are permitted to delay payments for protracted intervals. Consequently, firms would need to forgo investments in other ventures that yield a positive net present value as a result. The average number of days it takes a company to receive payment following a credit sale is known as the accounts receivable term, or average collection period.

It gauges the effectiveness of revenue collection; a shorter time frame denotes quicker cash flow. It aids organizations in ascertaining the duration for which their capital is immobilized due to outstanding invoices from clients. Generally, a diminished value signifies a more rapid transformation of receivables into liquid assets. For example, an average collection period of 38 days is observed when the stipulated term is also 38 days. In relation to the organization's credit policies, the accounts receivable duration is of paramount relevance.

3. *Inventory Holding Period*

Managers employ the inventory holding period as a vital performance indicator for assessing liquidity. It assesses the effectiveness of a company in managing its inventories and the duration it takes to convert them into cash or revenue. This metric illustrates the number of days an organization retains inventory prior to executing sales transactions. It elucidates the duration in days as the company's inventory circulates. By dividing the average inventory by the daily cost of goods sold, one can ascertain the inventory holding period, commonly referred to as days in inventory. It conveys to the enterprise the length of time that capital is immobilized in inventory until it is realized as sales revenue. Depending on the specific industry and nature of the business, varying inventory holding periods exhibit differing significances. Enhanced inventory turnover, a reduced inventory aging period, and alternative inventory management strategies can substantially elevate the financial performance of organizations. Since the service sector is characterized by the absence of inventory, the duration of inventory retention becomes inconsequential. In contrast to enterprises engaged in the sale of luxury items, those involved in the distribution of consumables tend to experience elongated inventory retention periods. Consequently, these entities are frequently assessed against industry benchmarks and comparable firms when determining the valuation of this ratio. Depending on the contextual comparison, the resulting value may be perceived as elevated or diminished. Excessive accumulation of raw material inventory, coupled with ineffective transformation of raw materials into work-in-progress and finished goods, constitutes the primary factors contributing to elevated inventory holding, which ultimately impairs profitability. An increased inventory holding signifies elevated inventory levels, inadequate working capital allocations, and a precarious liquidity position, thereby hindering organizational growth. A reduction in inventory holding leads to a decrease in holding expenses and an enhancement in profitability.

4. *Accounts Payable Period*

The accounts payable duration, commonly referred to as Days Payable Outstanding (DPO) or Accounts Payable Days (AP Days), serves as a significant financial metric that elucidates the average duration a business requires to remit payments to its vendors or suppliers for goods and services acquired on credit. This metric is vital for assessing a company's liquidity and cash flow management, as it reflects the length of time a company retains cash reserves prior to discharging its short-term financial obligations. While an elevated AP Day figure suggests that a firm engages in prolonged payment practices with its creditors, a diminished AP Day indicates that a company promptly compensates its suppliers, thereby potentially cultivating positive relationships, albeit possibly signaling inefficacious capital utilization. Such a scenario may imply that the company is proficiently managing its cash flow by retaining funds for an extended period; however, if the AP Days figure becomes excessively

high, it may indicate financial instability or challenges in fulfilling obligations. Industry standards for this metric typically vary, with customary ranges spanning from 30 to 90 days. Although most businesses are compelled to offer credit due to competition, they would prefer to sell for cash. Customers who have not paid for the products or services provided by the business are referred to as accounts receivable. The money that a business must pay out in the near future is known as accounts payable, and it is also a crucial part of operational resources management. For all firms, regardless of size or type, payables management is essential to their financial stability. Ineffective operational resources management may not be the only way to increase profit. Effective payables management guarantees that businesses can meet their short-term obligations in a timely and sufficient manner. Before paying suppliers, businesses can use funds for other immediate operational needs by optimizing the payment period. This statistic is used by analysts and investors to determine whether a company is experiencing liquidity problems (e.g., if the days suddenly increase). It aids in gauging how well the accounts payable division processes and pays bills.

5. *Cash Conversion Cycle*

In order to produce profits, companies often directly focus on two financial corporate aspects: capital structure and ownership structure. The firm's CCC, which consists of the transaction processes necessary to generate profits while improving firm performance, will be the exclusive subject of this examination. Effective operational resources management (ORM) is essential to a business's success from a financial standpoint. One of the most often used ORM efficiency measurement tools for companies today is CCC. CCC makes it easier to measure the amount of time that passes between acquiring raw materials and collecting costs associated with selling finished goods to customers. A financial indicator called the Cash Conversion Cycle (CCC) calculates how many days it takes a business to turn investments in resources and inventories into cash from sales. It determines how long money is spent on activities; a shorter or lower cycle denotes greater liquidity and efficiency. Businesses should enhance receivables collection and optimize their inventory management procedures. The length of the CCC can be greatly shortened and profitability increased by implementing effective systems like just-in-time (JIT) inventory management and more stringent credit control procedures. In order to find operational inefficiencies, businesses should periodically analyses key financial KPIs (DIO, DRO, and DPO). Regular performance monitoring is also essential. These reviews should ensure that the performance of the firm aligns with industry benchmarks and best practices. Faster cash turnover is indicated by a shorter CCC, which is desired. A negative CCC, which is typical for retail enterprises, indicates that the company sells products and collects money more quickly than it pays suppliers. A growing CCC over time could be a symptom of possible cash flow problems, such as sluggish collections or ineffective inventory management. Businesses usually concentrate on selling inventory more quickly, collecting receivables more quickly, or giving suppliers longer payment terms in order to enhance the CCC.

6. *Liquidity Ratio*

A liquidity ratio is a financial indicator that assesses how well a business can use its current, or liquid, assets to pay off its short-term debts and financial obligations (those that are due within a year). It assesses whether a business can pay its costs without raising outside

funding. The Quick Ratio (Acid-Test Ratio) employs only the most liquid assets, omitting inventories, and the Cash Ratio computes the most conservative liquidity, using only cash and cash equivalents to meet current liabilities, whilst the Liquidity Ratio is the difference between Current Assets and Current Liabilities. The ability of an organization to pay back short-term liabilities, such as operating costs and financial expenses that arise inside the organization in the near future, is reflected in liquidity management, which is a crucial tool for management. Numerous liquidity ratios, including the current ratio, quick ratio, cash ratio, and defensive interval ratio, are employed by businesses to manage their liquidity and have a significant impact on their financial performance. Strong solvency is indicated by a high liquidity ratio, which enables a business to pay debts, wages, and suppliers with ease. These ratios are used by creditors and investors to determine the risk of making a loan to a business. Although there are different ideal ratios, a quick ratio above 1.0 is advantageous and a current ratio above 1.5 is frequently regarded as healthy.

Ratios used for this study were calculated as follows:

- Accounts Receivable Period (ARP) = (Accounts Receivable / Turnover) × 365
- Inventory Holding Period (IHP) = (Inventory / Cost of Sales) × 365
- Accounts Payable Period (APP) = (Accounts Payable / Cost of Sales) × 365
- Cash Conversion Cycle (CCC) = ARP + IHP – APP
- Liquidity Ratio (Current Ratio) = Current Assets / Current Liabilities

III. THEORETICAL REVIEW

A. *Cash Conversion Cycle (CCC) Theory*

Gitman, L. J. (1974), introduced the “cash cycle” concept which became popularized by Richards, V. D. and Edgar J. Laughlin, E. J. (1980) as cash conversion cycle theory. A crucial operational resources management tool, the cycle is a thorough analytical tool that calculates the net time (in days) it takes a business to turn its expenditures in inventory and other resources into cash flows from sales. It computes the time interval between the ultimate cash inflow from collecting receivables and the cash outflow for buying raw materials. According to Gitman, the cash cycle is an additive metric made up of three primary components: The average time needed to sell inventory is known as the Inventory Conversion Period (DIO, or Days Inventory Outstanding); the average time needed to collect cash from customers is known as the Receivables Collection Period (DSO, or Days Sales Outstanding); and the average time a business takes to pay its suppliers is known as the Payables Deferral Period (DPO, or Days Payable Outstanding). It is a crucial indicator for evaluating liquidity and operational resources efficiency. It calculates the amount of time (in days) that passes between a business paying for raw materials and getting paid by customers. According to this hypothesis, a shorter cash conversion cycle is a sign of effective operational resources management, which boosts the company's value, profitability, and solvency and frees up cash for operations. In the unstable marine industry, it aids in assessing how to strike a balance between investing to maximize profit and keeping adequate cash on hand to function.

This theory is especially relevant to this study because logistics firms are identified with high inventory and quick receivable turnover.

B. Operating Cycle Theory

The Operating Cycle Theory was developed by Warnecke, H. T. (1963) to describe the time duration from procurement of goods to cash realization, specifically regarded as the "natural business year" concept which informs modern operating cycle analysis. Further advancements and formal modeling of this theory led to the cash conversion cycle popularized by Richards and Laughlin in 1980. This study primarily hinges on the Cash Conversion Cycle theory.

C. Empirical Review

Tobazaa and Gatsi (2025) researched on Cash Conversion Cycle and Profitability: Empirical Evidence from Ghana's Energy Sector. This study looked into how Ghanaian energy sector companies' profitability was affected by the Cash Conversion Cycle (CCC). The study used descriptive statistics, correlation analysis, and regression techniques to examine the relationship between CCC components—Days Receivable Outstanding (DRO), Days Inventory Outstanding (DIO), and Days Payable Outstanding (DPO)—and important profitability metrics, such as Return on Equity (ROE) and Return on Assets (ROA), using data from four (4) firms between 2014 and 2022. The results showed that while DIO and DRO had a beneficial impact on ROA, a lengthier CCC had a negative correlation with profitability. Both ROA and ROE were found to be negatively impacted by longer payment terms. The significance of optimising CCC to improve financial performance in Ghana's energy sector was highlighted by these findings. By offering actual data on the financial performance of energy sector businesses, especially in relation to working capital management, this study added to the corpus of previous material. It emphasised the crucial connections between profitability measures like ROA and ROE and the Cash Conversion Cycle. Furthermore, the results provided practical suggestions that can help businesses improve their financial performance, closing the gap between theory and reality in financial management in the energy industry.

Ogbuigwe, et al (2025) researched on the Effect of cash conversion cycle on financial performance of listed consumer goods firms in Nigeria. This study looked at how listed consumer goods companies in Nigeria performed financially in relation to the cash conversion cycle. The precise goals were to determine how the turnover ratios of accounts receivable, accounts payable, and inventories affected the return on assets of Nigerian listed consumer products companies. Using a panel data set of 150 pooled observations collected from fifteen (15) listed consumer goods companies in Nigeria over a ten-year period (2014-2023), the study used an ex-post facto research design. Additionally, it used the E-views 10.0 statistical program to analyse the data using a panel multiple regression technique. According to the study's findings, the return on assets of listed consumer goods companies in Nigeria was significantly positively impacted by the account receivable turnover ratio (Coeff. = 0.0778{0.0012}) and negatively impacted by the account payable turnover ratio (Coeff. = -0.0590{0.7897}). Additionally, it showed that the inventory turnover ratio significantly improved return on assets (Coeff. = 1.5166{0.0472}). Thus, it was determined that the financial performance of Nigerian listed consumer products companies was significantly impacted by cash conversion. In order to improve financial performance, listed consumer products companies in Nigeria were advised to prioritise strong accounts

receivable management by putting in place efficient credit policies, credit monitoring, and debt collection techniques.

Tobazaa and Gatsi (2025) researched on Accounts Receivable Management and Financial Performance of Public Universities in Ghana. This study looked at how Ghanaian public universities' financial performance was impacted by accounts receivable management. The study used regression models, correlation analysis, and descriptive statistics to assess important financial metrics, such as Return on Assets (ROA), Current Ratio (CUR), Accounts Receivable Turnover (ART), and Accounts Receivable Period (ARP), using secondary data from 13 public universities over a five-year period (2017–2021). The significance of timely collections was highlighted by key findings that showed a somewhat favourable association between ROA and CUR, a large positive correlation between ROA and ART, and a negative correlation between ARP and ROA. Additionally, the favourable impact of university size on both ROA and CUR indicates that larger universities typically perform better financially. The study found that although some universities have good financial management, there is a lot of variation, which emphasises the need for better procedures. Policymakers and university administrators looking to improve the financial performance of Ghana's higher education industry found these insights to be helpful.

Abotsi, et al (2025) researched on Inventory Management and Financial Performance: Efficiency Level Investigation of Listed Food & Beverage Manufacturing Companies. Descriptive statistics, the unit root test, and the panel regression model were the analytical methods utilised in the study, which used an ex post facto research methodology using data from the firms' published financial reports. The net operational profit of the listed manufacturing companies was found to be significantly positively impacted by average days to sell inventory and inventory turnover.

Nonetheless, there was a negative correlation between the enterprises' net operating profit and the inventory conversion duration. The study came to the conclusion that inventory management is essential to a company's existence since improper inventory management can result in major financial issues and eventually jeopardise the company's ability to continue operating. Managers of manufacturing companies were advised to use modern inventory forecasting techniques, which would enable them to determine fast-moving or slow-moving commodities and predict the ideal inventory levels to hold at any given time. This will always guarantee a low average days to sell inventory. Furthermore, manufacturing firms should adopt a perpetual inventory control system as described in IAS 2, to enable them track inventories on real-time basis.

Ajibola, et al (2024) studied on Inventory Management and Financial Performance of Listed Manufacturing Companies in Nigeria. They claimed that the majority of Nigerian manufacturing enterprises had failed due to poor inventory management. The performance of the business may be enhanced by reducing waste and increasing efficiency when the proper type of inventory was used throughout manufacturing. The study looked at listed manufacturing businesses' financial performance and inventory management. The study made use of ex post facto research. The financial statements of ten chosen listed industrial businesses from 2014 to 2023 served as the source of secondary data. Regression analysis, correlation, and descriptive statistics were employed at the 0.05 significance level. Return on asset was found to be considerably impacted by inventory turnover, significantly

impacted by inventory to asset ratio, and unaffected by inventory collection period. It was determined that while stakeholders cannot rely on inventory conversion duration to anticipate return on asset, inventory turnover and inventory asset ratio as measures of inventory management were good predictors of return on asset of listed manufacturing companies in Nigeria. In order to increase their inventory conversion period, officers in charge of inventories were advised to concentrate more on strategies for reducing inventory days and swiftly recovering accounts receivable.

Asiani and Rahayu (2024) looked at the Analysis of Liquidity Ratios and Profitability Ratios to Assess Financial Performance. According to them, PT. GoTo Gojek Tokopedia Tbk experienced a profit that continued to decline from 2019 to 2022. The goal of this study was to ascertain how the profitability ratio was perceived at PT. GoTo Gojek Tokopedia Tbk for the 2019–2022 period from gross profit margin, net profit margin, return on assets, and return on equity, and how the liquidity ratio was perceived at PT. GoTo Gojek Tokopedia Tbk for the same period from current ratio, quick ratio, and cash ratio. Quantitative descriptive analysis was employed to examine the company's financial performance data from 2019 to 2022 utilising financial ratio analysis based on information from PT. GoTo Gojek Tokopedia Tbk's official website and data listed on the Indonesia Stock Exchange. It might be considered good based on the Liquidity Ratio analysis results. Due to its tendency to fall short of the industry norm, the profitability ratio was in a bad position. The business was able to guarantee and settle its debts to creditors. Since the company's financial situation remained solid, the findings of this financial ratio study could also serve as a signal to potential investors.

Kayani, et al (2023) studied on Working capital management and firm performance: evidence from emerging African markets. The purpose of the study was to examine the empirical effects of working capital management (WCM) on firm performance (FP) in Africa's emergent markets. Investigating this association during the 2008 global financial crisis (GFC, 2008) was another goal of this work. Based on the MSCI world market categorisation list for the years 2007–2020, Egypt and South Africa, two of Africa's top emerging economies, made up the study's sample. Several regression techniques, including system generalised method of moments and fixed effect, were used in the study. The authors used a number of preliminary tests in addition to baseline regressions and, lastly, robustness measures. The study employed explanatory variables at the corporate and national macroeconomic levels in addition to the dependent, independent variables. The study's findings showed that: (1) there was a direct correlation between Working Capital Management (WCM) and Firm Performance (FP); (2) there was a significant inverse relationship between WCM components like cash conversion cycle, average collection period, and average age of inventory, while there was a direct correlation between FP and the average payment period. By choosing a different proxy for FP measurement, adjusting for industry, nation, year effect, and excluding the Global Financial Crisis (GFC) of 2008, the robustness results were evaluated.

For practitioners, managers, investors, and regulators, this study had a number of theoretical, sociological, and practical ramifications. In terms of theoretical ramifications,

This was the first study to add to the corpus of knowledge already available in corporate finance and managerial accounting about the investigation of this relationship in the African

region. Lastly, the study's conclusions could help practitioners—including regulators—develop investment guidelines for local investors. More precisely, these results could be taken into account by the financial regulatory authority (FRA) in Egypt and the financial sector conduct authority (FSCA) in South Africa when developing financial policies intended to support the FP. Social consequences The results of the study also benefit society. The efficient management of the WCM components would raise firm profits and investment opportunities for the society in Egypt and South Africa. A firm with good performance levels would increase salaries and provide compensation to their employees in terms of bonuses. These compensations were one of the sources for achieving FP, which was evident from existing literature as well in the case of corporate governance studies. These compensations have psychological impacts as well. As society has its basic needs and goods, compensation levels will be tilted less toward societal ethical issues. The study had various distinguishing features, which prior studies mostly lacked, as most of these studies were on an individual country dataset, shorter periods, mixed results, lesser explanatory variables and no country-related control variables. The authors addressed all these challenges and provided robust results based on various measurement alternatives for the African markets. The study's results confirmed a direct relationship between WCM and FP for South Africa and Egypt reflecting the emerging markets in Africa.

Lazarus, et al. (2023) did an Empirical Study on the Impact of Account Receivables and Inventory Conversion Cycle on Profitability of Manufacturing Firms Listed on Ghana Stock Exchange. The purpose of the study was to investigate the effect of account receivables and inventory conversion cycle on performance of Manufacturing Firms Listed on Ghana Stock Exchange. The paper adopted cross-sectional study which adopts quantitative research approach. A panel data of six (6) listed Ghanaian manufacturing firms on the Ghana Stock exchange for the periods 2011 to 2020 was used for the study. Data was obtained from the audited financial statements of the firms. Correlation and Ordinary Least Square (OLS) multiple regressions were employed to analyse the data. The finding revealed that there was statistically negative (Beta = -0.201) and significant (P-value = 0.000) effect of account receivables period on return on assets. The study revealed that there was statistically significant negative effect between inventory conversion period and return on asset (Beta = -0.273 , $P < 0.05$). The results indicated that (current ratio, sales growth and cash to sales) had no significant positive effect (Beta = 0.115 , $P > 0.05$), (Beta = 0.071 , $P > 0.05$), (Beta = 0.092 , $P > 0.05$) on return on asset.

Nkwasibwe, et al (2023) researched on Accounts Payable Management and Financial Performance of Manufacturing Firms. A Case of Kazire Health Products Limited. The study focused on establishing the relationship between accounts payable management and financial performance in Kazire Health Products Company Limited. It was based on the following objectives; to find out the accounts payable management strategies used by Kazire health products Ltd, to assess the level of financial performance in Kazire health products Ltd and to establish the relationship between accounts payable management and financial performance of Kazire health products Ltd The researcher used a cross sectional research design consisting of quantitative approaches of data collection and analysis. The study population consisted of the management and operational staff consisting of employees from administration, marketing department, accounts, Sales Department and customers of Kazire health products limited. A sample size of 66 respondents was used. Questionnaires were used to collect data. Data collected was analysed using Statistical Package for Social

Sciences (SPSS). The study revealed that Kazire health products limited has an effective accounts payable Management Policy. It was further revealed that as much as the company is earning profits, her profitability levels in the past three years have been declining compared to the past years. The study findings established that there is a positive significant relationship between accounts payable management and financial performance of Kazire health products Ltd at $r=0.872(**)$ with $P\text{-value} = 0.000$. Accounts payable was one of the major sources of unsecured short-term financing resulting from transactions in which merchandise was purchased.

Ebire et al, (2021) studied on Working Capital Management and Financial Performance: Evidence from Alternative Energy Firms in the United Kingdom. This study examined the impact of working capital management on the financial performance of alternative energy in the UK from 2015 to 2022. The proxy used included receivable turnover, payable turnover, inventory turnover and return on asset. The study employed an ex-post facto research design using panel data from the sampled firms' annual reports. The panel data were analysed using descriptive statistics, correlation matrix and panel regression analysis. The Hausman specification test showed that the fixed effect was more appropriate. The findings showed that receivable turnover had a significant positive impact on the return on assets of the alternative firm in the UK. In addition, payable turnover had a significant negative effect on return on assets, while the findings on inventory turnover had an insignificant impact on return on assets. These findings implied that working capital management significantly affects the financial performance of alternative energy firms in the UK. Based on the conclusion, the study recommended that oil and gas firms should increase their net cash flow from operating activities to increase their financial performance. Globally, it is acknowledged that many companies fail due to poor working capital management. This study contributed to knowledge by examining the effect of working capital management on the financial performance of alternative energy firms in line with sustainable development goals in achieving a sustainable UK economy.

Ibrahim and Isiaka (2021) researched on Working capital management and financial performance of non-financial quoted companies in Nigeria. This study examined the effect of working capital management on the financial performance of Non-financial companies quoted on the Nigerian Stock Exchange over the period 2014-2018 while using a panel research design. This work was unique because it considered a sample of 71 companies drawn from all the 10 non-financial sectors of the Nigerian Stock Exchange (NGX). Unlike most extant studies, financial performance was captured by earnings per share as a proxy, while the right-hand side variable being working capital management was denominated by Accounts receivable period, Inventory turnover period, and Accounts payable period. This study also considered the effect of some control variables namely annual capital expenditure, age of firm, GDP, firm size, growth of the company, and firm leverage on EPS. Data were retrieved from the Nigerian Stock Exchange 2019 Factbook. The model estimation technique adopted was the Pooled Ordinary Least Squares, fixed effect, and random effect methods. Results from this study were consistent with the theoretical position that all aspects of working capital management have a significant effect on financial performance. While Inventory Turnover Period (ITP) and Accounts Receivable Period (ARP) were negatively related to EPS, Accounts Payable Period (APP) was found to have a positive relationship with EPS. The research results also revealed that although all the control variables were found to be significant, only the age of the firm was deemed to be positively

related to EPS. Based on the findings, the research recommended that firms should focus their managerial attention on lowering their ITP and ARP while increasing their APP, as results indicate that management of these elements of working capital can translate into liquidity and higher profitability.

Dan (2020) conducted a study on Account Receivable Management and Corporate Performances: An empirical evidence from quoted manufacturing companies in Nigeria. This study examined the effect of account receivable period on Corporate Performance of quoted manufacturing firms in Nigeria. The population of this study was made up of listed manufacturing firms in Nigeria for the period of 2010 to 2019. In order to obtain a homogenous sample for the study the researcher further screened the population from possible sample bias by removing seven consumer goods companies that did not provide all related and relevant information necessary for the study. Therefore, the final population of the study became nineteen (19) consumer goods companies. The study employed secondary data extracted from published financial reports of the sampled companies and ordinary least square (OLS) regression technique was used as econometric tool employed in testing the hypotheses. Return on Asset was used as the proxy for corporate performance while the explanatory variable was account receivable period. Furthermore, the study was controlled by firm size and leverage. Findings from the study confirmed that there was a positive effects between account receivable period and return on asset of listed manufacturing firms in Nigeria. Conclusively, this study accepted the alternate hypothesis which stated that Account receivable period significantly affect return on asset of quoted manufacturing firms in Nigeria, and rejected the null hypothesis; Account receivable period did not significantly affect return on asset of quoted manufacturing firms in Nigeria. The study recommended that management should pay attention to the ongoing calibration between liquidity and performance in order to meet the operational and expansion process requirements as well as to achieve the aspirations of the shareholders through enhancing their wealth. It was suggested that a comparative study could be carried out to establish whether liquidity affected corporate performance of other sectors or otherwise.

Madushanka and Jathurika (2018) researched on The Impact of Liquidity Ratios on Profitability (With special reference to Listed Manufacturing Companies in Sri Lanka. According to the Researchers, the ultimate goal of the companies is to enhance the wealth of the shareholders. For that purpose the liquidity and profitability plays the vital and crucial role. Especially the liquidity and its management are caused to great extent of the growth and profitability of a firm. The liquidity management becomes most important one as the inadequate liquidity may injurious to the smooth operations of the firm as well as the excess liquidity can be disturbed to achieve the greater profits. In this way, the present study is aimed to investigate the relationship between liquidity and profitability. The analysis was based on 15 manufacturing companies listed on the Colombo Stock Exchange over a period of past five years from 2012 to 2016. Correlation and regression analysis as well as the descriptive statistics were applied in the analysis and findings suggested that Liquidity ratios (Quick ratio) had positive and significantly related to the firm profitability among the listed manufacturing companies in Sri Lanka. Overall this research gave a recommendation for the Manufacturing Companies in Sri Lanka that they should pay more attention on the liquidity ratios as they have the significant impact on the profitability of the firms. Further they should devise new strategies for the proper liquidity management as their current ratio values implies the lack of management in liquidity assets.

Sunday and Joseph (2017) studied on Inventory Management and SMEs Profitability: A Study of Furniture Manufacturing, Wholesale and Eatery Industry in Delta State, Nigeria. The authors claim that inventory makes up the majority of current assets for small and medium-sized businesses (SMEs), including bakeries, quick food restaurants, chain stores, and furniture manufacturing companies. In order to evaluate the advantages of alternative strategies, SMEs must comprehend the actual expenses related to inventory management and low inventory productivity. The study's goal was to investigate how inventory management affected Nigerian SMEs' profitability. A descriptive research design was employed in the study. Every SME that operates in Delta State makes up the population. Stratified random sampling was utilised in the investigation. For the study, ten SMEs were chosen at random from each strata, for a total of thirty enterprises. A self-designed questionnaire was given to managers or accountants of the sampled organisations in order to collect data for the study. The purpose of the questionnaire was to gather data regarding the financial and trading activity throughout the previous two accounting years. The model developed for the investigation was tested using a multiple regression analysis. The study's conclusions showed a strong positive correlation between inventory turnover and SMEs' financial performance.

Additionally, the study found no significant positive correlation between inventory leanness and profitability and a negative correlation between inventory conversion period and profitability. According to the study's findings, inventory management has a significant impact on a company's corporate financial performance. As a result, companies' inventory systems must maintain suitable inventory levels to boost profitability and lower the inventory costs related to keeping excess stock in the warehouses. According to the study's conclusions, businesses should adopt contemporary manufacturing technologies that will speed up production and reduce the time it takes to convert inventory, which will increase inventory turnover and profitability.

Oseifuah and Gyekye (2016) wrote on Cash Conversion Cycle Theory and Corporate Profitability: Evidence from Non-Financial Firms Listed on the Johannesburg Stock Exchange. This study examined the effects of working capital management efficiency and its individual components on the profitability of a sample of 75 non-financial companies listed on the Johannesburg Stock Exchange (JSE) using Richards and Laughlin's (1980) Cash Conversion Cycle theory. To ascertain the relationship between working capital management and profitability (measured by return on assets), panel data regression methodology was employed to evaluate financial data from I-Net Bridge and BF McGregor for the ten-year period, 2003 to 2012. The study's findings supported the CCC theory, which states that: 1) working capital management and corporate profitability are negatively correlated; 2) inventory conversion period and profitability are negatively correlated; 3) accounts receivable conversion period and profitability are negatively correlated; and 4) accounts payable deferral period (PDP) and profitability are positively correlated. According to the results, corporate managers can increase shareholder value by lowering the CCC to a level that improves profitability.

Ikechukwu and Nwakaego (2015) studied on the Effect of Accounts Payable Ratio on the Financial Performance of Food and Beverages Manufacturing Companies in Nigeria. Suppliers whose invoices for products or services have been processed but have not yet been paid are referred to as accounts payable. The impact of the accounts payable ratio on

the financial performance of Nigerian food and beverage manufacturing companies was investigated in this study. The hypotheses were tested using an analytical tool called multiple regression. The companies' annual reports served as the source of the data. The findings demonstrated that the profitability ratio was significantly impacted negatively by the accounts payable ratio. Additionally, the study found that the debt ratio had a positive but non-significant impact on profitability, and the sales growth rate had a positive but non-significant impact on the profitability ratio of these Nigerian food and beverage enterprises.

IV. METHODOLOGY

A. Research Design

Ex-post facto research design was adopted in this study. This design was appropriate because past data was used in the study and will not be manipulated hence the behaviour of the data would not be changed. Eight (8) companies which border on maritime industry in Nigeria were used in the study. These were C. & I. Leasing Plc, (providing marine and offshore services, including chartering of vessels and security patrol ships), Eterna Oil (a major player in the oil and gas sector that provides fuels and lubricants to the marine shipping industry, Red Star Express, (integrated logistics including freight forwarding, warehousing, haulage, and support services, ABC Transport Plc (transportation services, mainly road coach services, *not explicitly maritime but part of the broader logistics ecosystem*), Transnational Express Plc (handling express and logistics services which are supportive of supply chains overlapping port logistics), MRS Oil (engaged in the marketing and distribution of marine fuels and lubricants, SCOA Plc (rendering specialized services in the industry too), and Total Energies Plc (involved in the supply of specialized lubricants and fuels for shipping and maritime operations). Others which were quoted but did not have the required data for the years of study were Calverton Offshore Support Group Plc. (*have explicit marine/offshore revenue streams and maritime asset bases*), Global Spectrum Energy Services Plc., (*extended logistics sample supporting Blue Economy*) and Japaul Gold & Ventures Plc (engaged in offshore support services, marine logistics, and vessel chartering).

Data for the work covered a ten year period of 2016-2025 and were derived from the published accounts of each of the companies. Variables used were Operating Cash flow (OCF) as dependent, while independent variables were Accounts Receivable Period (ARP), Inventory Holding Period (IHP), Accounts Payable Period (APP), Cash Conversion Cycle (CCC), and Liquidity Ratio (LQR).

B. Model Specification

The following specification was formulated to ascertain the contributions of the independent variables to the dependent variable and was expressed in regression models. The linear regression model was therefore expressed in the form:

$$OCF = \beta_0 + \beta_1 X + \epsilon$$

Model 3.1

Where:

- β_0 = intercept
- β_1 = coefficient of the independent variable
- X = independent variable (e.g., ARP)
- ϵ (epsilon) = error term

This was expressed in regression models as follows:

OCF = $\beta_0 + \beta_1 \text{ARP} + \epsilon$	Equation 3.1
OCF = $\beta_0 + \beta_2 \text{IHP} + \epsilon$	Equation 3.2
OCF = $\beta_0 + \beta_3 \text{APP} + \epsilon$	Equation 3.3
OCF = $\beta_0 + \beta_4 \text{CCC} + \epsilon$	Equation 3.4
OCF = $\beta_0 + \beta_5 \text{LQR} + \epsilon$	Equation 3.5

Where

OCF	=	Operating cash flow
ARP	=	Accounts Receivable Period
IHP	=	Inventory Holding Period
APP	=	Accounts Payable Period
CCC	=	Cash Conversion Cycle
LQR	=	Liquidity Ratio

C. Method of Data Analysis

In this study descriptive and inferential analysis which include mean (averages), minimum, maximum, standard deviation skewness kurtosis, were carried out. The decision statistics are t-values, f-values, R, R², and Adjusted R². The hypotheses were tested at 5% level of significance.

V. DATA PRESENTATION, ANALYSIS AND FINDINGS

A. Data Presentation

The study was made up of Operating cash flow, as Dependent Variable while Accounts Receivable Period, Inventory Holding Period, Accounts Payable Period, Cash Conversion Cycle, and Liquidity Ratio were Independent Variables.

B. Presentation and analysis of empirical results

The data was analysed using descriptive statistics, t-statistic, f-statistic and table as presented below.

C. Test of hypotheses

The hypotheses were tested in line with the model specifications. The equations used for this study were not logged, but expressed in their normal forms in order to observe their behaviours as follows:

OCF	=	$\beta_0 + \beta_1 \text{ARP} + \epsilon$	Equation 3.1
OCF	=	$\beta_0 + \beta_2 \text{IHP} + \epsilon$	Equation 3.2
OCF	=	$\beta_0 + \beta_3 \text{APP} + \epsilon$	Equation 3.3
OCF	=	$\beta_0 + \beta_4 \text{CCC} + \epsilon$	Equation 3.4
OCF	=	$\beta_0 + \beta_5 \text{LQR} + \epsilon$	Equation 3.5

Where

OCF	=	Operating cash flow
ARP	=	Accounts Receivable Period
IHP	=	Inventory Holding Period
APP	=	Accounts Payable Period
CCC	=	Cash Conversion Cycle
LQR	=	Liquidity Ratio.

D. Test of Hypothesis One

The null hypothesis (H_{01}) stated that there was no significant relationship between Accounts Receivable Period (ARP) and Profitability (represented with operating cash flow) in maritime logistics firms in Nigeria between 2016 and 2025.

Dependent variable: Operating cash flow

Independent Variable: Accounts Receivable Period (ARP)

Table 1: Regression coefficients for test of hypothesis 1

R	f. Cal	f. Crit	t. Cal	t. Crit
0.056	0.242	4.0012	(0.492)	1.671

Source: Researcher's computation, 2026

The correlation coefficient (R) in Table 4.1 describes the relationship between the dependent variable Operating cash flow and the independent variable (Accounts Receivable Period). The 0.056 being 5.6% shows a very weak positive relationship between the variables. The R^2 of 0.003 (3%) is the coefficient of determination showing the extent of variation or changes in the dependent variable (Operating cash flow) brought about by the independent variable (Accounts Receivable Period). This result shows that 3% of the changes in Operating cash flow was caused by Accounts Receivable Period while 97% was accounted for by error term. From the table, the f critical value is 4.0012 greater than the f calculated 0.242 at 0.05 level of significance. In the same vein, t critical value is 1.671 greater than the t calculated (0.492) at the same level of significance hence the null hypothesis was accepted and the alternate rejected. This means that there is no significant relationship between Accounts Receivable Period and Operating cash flow of Maritime Logistics Firms operating in Nigeria between 2016 and 2025.

E. Hypothesis 2

This was stated in the null form that Inventory Holding Period (IHP) as no significant effect on profitability.

Dependent variable: Operating cash flow

Independent Variable: Inventory Holding Period (IHP)

Table 2: Regression coefficients for test of hypothesis 2

R	f. Cal	f. Crit	t. Cal	t. Crit
0.06	0.282	4.0012	(0.531)	1.671

Source: Researcher's computation, 2026

The correlation coefficient (R) in Table 4.2 describes the relationship between the dependent variable Operating cash flow and the independent variable (Inventory Holding Period). The 0.06 being 6% shows a very weak positive relationship between the variables. The R^2 of 0.004 (4%) is the coefficient of determination showing the extent of variation or changes in the dependent variable (Operating cash flow) brought about by the independent variable (Inventory Holding Period). This result shows that 4% of the changes in Operating cash flow was caused by Inventory Holding Period while 96% was accounted for by error term.

From the table 4.2, the f critical value is 4.0012 greater than the f calculated 0.282 at 0.05 level of significance. In the same vein, t critical value is 1.671 greater than the t calculated (0.531) at the same level of significance hence the null hypothesis was accepted and the alternate rejected. This means that there is no significant relationship between Inventory Holding Period and Operating cash flow of Maritime Logistics Firms operating in Nigeria between 2016 and 2025.

F. Hypothesis 3

This was stated in the null form that Accounts Payable Period (APP) has no significant effect on profitability.

Dependent variable: Operating cash flow

Independent Variable: Accounts Receivable Period (ARP)

Table 3: Regression coefficients for test of hypothesis 3

R	f. Cal	f. Crit	t. Cal	t. Crit
0.056	0.0248	4.0012	(0.498)	1.671

Source: Researcher's computation, 2026

The correlation coefficient (R) in Table 4.3 describes the relationship between the dependent variable Operating cash flow and the independent variable (Accounts Payable Period). The 0.056 being 5.6% shows a very weak positive relationship between the variables. The R^2 of 0.003 (3%) is the coefficient of determination showing the extent of variation or changes in the dependent variable (Operating cash flow) brought about by the independent variable (Accounts Payable Period). This result shows that 3% of the changes in Operating cash flow was caused by Accounts Payable Period while 97% was accounted for by error term.

From the table 4.3, the f critical value is 4.0012 greater than the f calculated 0.0248 at 0.05 level of significance. In the same vein, t critical value is 1.671 greater than the t calculated (0.498) at the same level of significance hence the null hypothesis was accepted and the alternate rejected. This means that there is no significant relationship between Accounts Payable Period and Operating cash flow of Maritime Logistics Firms operating in Nigeria between 2016 and 2025.

G. Hypothesis 4

This was stated in the null form that Cash conversion cycle has no significant effect on profitability.

Dependent variable: Operating cash flow

Independent Variable: Cash Conversion Cycle

Table 4: Regression coefficients for test of hypothesis 4

R	f. Cal	f. Crit	t. Cal	t. Crit
0.05	0.194	4.0012	(0.44)	1.671

Source: Researcher's computation, 2026

The correlation coefficient (R) in Table 4.4 describes the relationship between the dependent variable Operating cash flow and the independent variable (Cash Conversion Cycle). The 0.05 being 5.6% shows a very weak positive relationship between the variables. The R^2 of 0.003 (3%) is the coefficient of determination showing the extent of variation or changes in the dependent variable (Operating cash flow) brought about by the independent variable (Cash Conversion Cycle). This result shows that 3% of the changes in Operating cash flow was caused by Cash Conversion Cycle while 97% was accounted for by error term.

From the table 4.4, the f critical value is 4.0012 greater than the f calculated 0.194 at 0.05 level of significance. In the same vein, t critical value is 1.671 greater than the t calculated (0.44) at the same level of significance hence the null hypothesis was accepted and the alternate rejected. This means that there is no significant relationship between Cash Conversion Cycle and Operating cash flow of Maritime Logistics Firms operating in Nigeria between 2016 and 2025.

H. Hypothesis 5

This was stated in the null form that Liquidity ratio has no significant effect on profitability

Dependent variable: Operating cash flow

Independent Variable: Liquidity Ratio

Table 5: Regression coefficients for test of hypothesis 5

R	f. Cal	f. Crit	t. Cal	t. Crit
0.118	1.093	4.0012	(1.046)	1.671

Source: Researcher's computation, 2026

The correlation coefficient (R) in Table 4.5 describes the relationship between the dependent variable Operating cash flow and the independent variable (Liquidity Ratio). The 0.118 being 1.18% shows a weak positive relationship between the variables. The R^2 of 0.014 (14%) is the coefficient of determination showing the extent of variation or changes in the dependent variable (Operating cash flow) brought about by the independent variable (Liquidity Ratio). This result shows that 14% of the changes in Operating cash flow was caused by Liquidity Ratio while 86% was accounted for by error term. From the table 4.5, the f critical value is 4.0012 greater than the f calculated 1.093 at 0.05 level of significance. In the same vein, t critical value is 1.671 greater than the t calculated (1.046) at the same level of significance hence the null hypothesis was accepted and the alternate rejected. This means that there is no significant relationship between Liquidity Ratio and Operating cash flow of Maritime Logistics Firms operating in Nigeria between 2016 and 2025.

VI. SUMMARY, CONCLUSION AND RECOMMENDATIONS

A. *Summary of Findings*

The aim of this study was to determine how profitable Maritime Logistics Firms operating in Nigeria are with the managing of their operational resources for the period 2016 to 2025. The dependent variable was Profitability proxies with Operating Cash Flow while Operational Resources Management was independent variable and were expressed with Accounts Receivable Period, Inventory Holding Period, Accounts Payable Period, Cash Conversion Cycle and Liquidity Ratios. Data for the work were accessed from published financial statements of the companies in Nigeria for the period 2016 to 2025 (10 years). Multiple linear regression technique was used to analyse the sourced data.

Major findings of the study were that none of the independent variables had significant influence on profitability of the firms. One striking observation from the data collected showed that all the companies paid no attention to their Accounts Receivable Period, Inventory Holding Period, Accounts Payable Period, Cash Conversion Cycle as well as Liquidity Ratios. These variables rose to an unacceptable levels ranging from 1.8 to 1,489 days for Accounts Receivable Periods, 2.8 to 8,785 days for Inventory Holding Period, 9.53 to 2,440 days for Accounts Payable Period, 4.05 to 6,366 days for cash conversion cycle, and 1.17 to 20.91 for Liquidity Ratio.

VII. CONCLUSION

The study showed that none of the independent variables had relationship with the Profitability of the companies during the years under study. Looking at the periods for each of the independent variables, An Accounts Receivable (A/R) period or Days Sales Outstanding (DSO) of 1,489 days was exceptionally high and signalled severe financial, operational, or strategic distress. It means that, on average, it took the company over four years to collect payment after making a credit sale. This metric generally portrayed that the companies were faced with cash flow crisis struggling to pay its own bills (suppliers, payroll and rent) because their cash were locked up in unpaid invoices. To sustain operations, the companies probably had to borrow money, resulting in high interest expenses that eat into profitability. The companies might have been selling to customers with poor creditworthiness, leading to an inability to pay and the accounts receivable department may have poor or non-existent procedures for collecting overdue invoices. At 1,489 days, many of these receivables were likely to be written off as bad debts because the customers may have gone out of business or the legal time to collect has passed. A healthy DSO is generally under 45 days, though it varies by industry.

An inventory holding period of 8,785 days which equates to roughly 24 years, portrayed an extreme, likely catastrophic, level of inefficiency in inventory management. This figure, also known as Days Sales of Inventory (DSI) or Days Inventory Outstanding (DIO), indicates that the company was taking 24 years to sell through its average inventory (stocks). It portrayed that massive amount of cash was "frozen" in the warehouse, unusable for other business needs like marketing, R&D, or paying down debt, and that the companies were likely having extremely poor cash flow, making it difficult to pay suppliers or meet short-term obligations. With inventory sitting for over two decades, the goods were almost

certainly obsolete, expired, damaged, or out of fashion. The inventory likely had little to no market value, meaning the companies would have to write them off as losses. Holding inventory for this long incurs massive costs, including storage rent, insurance, security, and potential theft. These holding costs drastically reduce, or entirely eliminate, net profit margins.

An Accounts Payable (AP) Period of 2,440 days indicates that, on average, it took the companies approximately 6.7 years to pay their suppliers and vendors. This was an extremely high and unrealistic figure for standard operating businesses. In financial analysis, such a result typically portrays one of three things: serious financial distress, fundamental accounting error, or a highly specialized business model with unique credit terms. In most industries, the standard AP period ranges from 30 to 90 days. A period of 2,440 days suggests the companies were severely delinquent in their obligations to settle debts, leading to massive build-up of unpaid invoices. In such situations, vendors would unlikely continue to do supplies to companies that takes years to pay, which could lead to a total shutdown of operations. In rare cases, what is labelled as "Accounts Payable" might actually represent long-term financing disguised as trade credits, and this, therefore, will highlight very wrong information to the public? For example, if a parent company provides goods to a subsidiary and allows them years to pay without interest, it functions more like a capital injection or a long-term loan than a standard trade payable. An Accounts Payable Period of 2,440 days is commercially unsustainable in almost any industry.

A Cash Conversion Cycle (CCC) of 6,366 days was extremely high and indicated severe, structural inefficiencies in a company's working capital management. The CCC measures how many days it takes for a company to convert its investments in inventory and other resources into cash from sales. While a typical, efficient company might aim for a CCC under 30-60 days, a value in the thousands suggests that cash is locked up for years signaling a desperate need for external financing to cover daily operating expenses. Such a long cycle increases the risk of holding obsolete inventory and significantly reduces the company's ability to pay its own short-term obligations (payroll, suppliers). It shows that the company is inefficient at managing the three levers of the cycle: turning over inventory, collecting receivables, and paying suppliers. It is a sign of distress, except for very specialized, long-term project businesses like shipbuilding or large-scale construction companies, where revenue is only recognized at the very end of a multi-year project, although 6,366 days (roughly 17 years) is still extraordinarily high, even in those sectors.

A liquidity ratio of 20.91 was exceptionally high, portraying a company that has 20.91 times more liquid assets than current liabilities. This level of liquidity is far beyond the typical "healthy" target range for most businesses. Depending on the context, this figure indicates that the companies were in an incredibly strong position to meet their immediate financial obligations. They could pay off all their current debts nearly 21 times over using their current assets. This suggested virtually zero risk of defaulting on short-term bills in the near future. While high liquidity is safe, a ratio of this extreme often signals inefficiency. It suggests the company may be holding a massive amount of "idle" cash or non-productive assets that are not being reinvested into growth, technology, or research. From an investor's perspective, this might be viewed as a missed opportunity to generate higher returns. A high ratio is common for tech companies that just received a massive round of funding or are keeping large cash reserves for future acquisitions or R&D but for these sectors, a ratio of 20.91

would be highly unusual and likely indicated a failure to manage inventory or a lack of expansion strategy. Service businesses often have higher ratios due to low inventory, but 20.91 remains significantly above the typical range.

A. *The Big Ponder*

The big question about this study is: Were data used real? The ponder can be assuaged with the fact that the values were extracted from their published financial statements. Another ponder is: Would the published financial statements wrongly indicate “thousands” instead of “millions” or vice versa? This would be difficult to answer because the data were taken from the companies’ sites from the net even though the anomalies are too pronounced and odd rather than indicate actual business performances.

RECOMMENDATIONS

It is therefore recommended that Corporate Managers should watch very closely their Accounts Receivable Periods, Inventory Holding Periods, Accounts Payable Period, Cash Conversion Cycle as well as their Liquidity Ratios, if they intend to remain in business and be profitable.

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