

# A Study on Working Capital Management And It's Impact on Profitability At VB Foam Manufacturing Company

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**Abstract-** This study examines the relationship between working capital management (WCM) and profitability at VB Foam Manufacturing of Polyurethane Foam & Allied Products, a Puducherry-based company. The research analyzes secondary financial data from 2020 to 2024, including balance sheets and profit and loss accounts. The primary objectives are to study the components of working capital and assess their impact on the firm's profitability using ratio analysis and regression. Key findings reveal a significant deterioration in financial health in 2024. Despite strong receivable collections, the company's liquidity weakened, with the current ratio falling from 1.54 to 1.20. Profitability collapsed, as the net profit margin plummeted from 10.46% in 2023 to just 0.10% in 2024, driven by rising short-term borrowings and inefficient asset utilization. Regression analysis indicated that working capital turnover did not have a statistically significant impact on profitability ( $p > 0.05$ ). The study concludes that while VB Foam showed past efficiencies, its recent sharp decline necessitates urgent improvements in cash management, debt reduction, and asset optimization to ensure financial stability..

**Keywords-** Profitability, Ratio Analysis, VB Foam, Working Capital Management, Financial Management

## I. INTRODUCTION

Working capital management is a vital aspect of financial management, ensuring the efficient use of a company's short-term resources. It involves managing current assets (cash, receivables, inventories) and current liabilities (payables, short-term borrowings). An organization's ability to balance liquidity and profitability depends on effective working capital management. Poor practices can lead to liquidity shortages and operational disruptions, making it a cornerstone of financial stability. This study, "A Study on Working Capital Management and Its Impact on Profitability," focuses on VB Foam Manufacturing, analyzing how its practices influence profitability. For a manufacturing firm like

VB Foam, WCM is crucial as it relates to raw materials, production cycles, and credit management.

## II. OBJECTIVES OF THE STUDY

- To identify and study the key components of gross working capital at VB Foam.
- To analyse the net working capital of the company.
- To evaluate the profitability position of the firm.
- To analyse the working capital and its impact on profitability.

## III. REVIEW OF LITERATURE

**Md. Abdul Baset & Md. Mizanur Rahman (2024):** This study analyzed Bangladeshi listed firms and found a strong negative relationship between the cash conversion cycle and profitability. The findings suggest that firms should shorten receivable and inventory days to improve overall returns.

**Rajni Chaudhary (2023):** This study found a negative relationship between the cash conversion cycle (CCC) and EBIT, suggesting that longer cycles in working capital components such as inventory and receivables reduce profitability.

**Dr. Abdul Rahman (2023):** This study analyzed Indian automobile companies and used correlation and multiple regression. Results showed that most working capital ratios (CR, LR, WCTR, ITR, RTR) are significantly and positively correlated with profitability, highlighting the importance of effective WCM.

**Amity Ijuwo (2022):** This study examined listed consumer goods companies in Nigeria. Using panel data analysis, it found a positive and significant link between the Cash Conversion Cycle (CCC) and Return on Assets (ROA), indicating that a strategic extension of the CCC can enhance profitability in that sector.

**Singh & Kumar (2021):** This study focused on Indian manufacturing firms and concluded that efficient receivable collection and effective inventory management strongly influence profitability.

#### IV. RESEARCH METHODOLOGY

##### Research Design:

This study uses an analytical research design. This design aims to understand the relationships between variables, identify patterns, and discern trends by critically analysing and interpreting financial data.

##### Data Collection:

**Secondary Data:** The study is based entirely on secondary data. This data was collected from the company's official published records, specifically the Balance Sheets and Profit and Loss Accounts.

##### Scope of the Study:

**Company:** The study is restricted to VB Foam Manufacturing Company only. Period covers The analysis covers a five-year period from the fiscal year 2020 to 2024.

##### Statistical Tools:

The collected data was analyzed using the following financial tools:

- Schedule of changes in working capital
- Ratios analysis
- Regression analysis

#### V. DATA ANALYSIS AND INTERPRETATION

##### 1. Schedule of changes in working capital

- To analyze the year-over-year fluctuations in the company's net working capital (NWC) position to understand its liquidity and operational funding.
- The following table: Net Working Capital Changes (2020-2024) (Rs. In Crore)

Period	NWC ( Net Working Capital)	Changes(+/-)
2020	30.67	-
2021	24.38	(6.29)

2022	20.44	(3.94)
2023	32.32	11.88
2024	19.62	(12.70)

##### INTERPRETATION:

**2020-2021:** Net working capital saw a decrease of ₹6.29 crore. This was driven by a sharp increase in current liabilities, which outpaced the growth in current assets, indicating emerging liquidity challenges.

**2021-2022:** The position weakened further with a decline of ₹3.94 crore in NWC. This was again due to a significant rise in liabilities, especially short-term borrowings, highlighting increased reliance on credit.

**2022-2023:** The company reversed the trend, achieving a strong increase of ₹11.88 crore in NWC. This improvement was primarily due to a significant reduction in short-term borrowings, which enhanced the firm's liquidity and financial stability for the period.

**2023-2024:** Financial health deteriorated sharply, with a net decrease in working capital of ₹12.7 crore. This was caused by a massive spike in short-term borrowings (an increase of ₹28.25 crore), indicating significant liquidity strain.

##### 2. Ratios Analysis

Ratio analysis is a quantitative tool used to evaluate the financial performance of a VB foam manufacturing company by comparing various financial figures. It helps in assessing profitability, liquidity, solvency, and operational efficiency.

##### PROFITABILITY RATIO:

Profitability ratios measure a company's ability to generate profit from its sales, assets, and equity. They indicate how efficiently resources are used to earn income and sustain growth. Higher profitability ratios reflect better financial performance and management efficiency

- Gross Profit Ratio
- Net Profit Ratio
- Operating Profit Ratio
- Return on Assets (ROA)
- Return on Equity (ROE)
- Earnings per Share (EPS)
- Return on Capital Employed (ROCE)

**WORKING CAPITAL RATIO:**

The working capital ratio measures a firm’s ability to meet short- term obligations using current assets. It shows the liquidity position and financial stability of the company. A higher ratio indicates strong liquidity, while a lower ratio signals potential cash flow issues.

- **Current Ratio**
- **Quick Ratio (Liquid Ratio)**
- **Working Capital Turnover Ratio**
- **Inventory Turnover Ratio**
- **Debtors Turnover Ratio**
- **Creditors Turnover Ratio**
- **Cash Turnover Ratio**

**3. Regression Analysis:**

To determine the relationship between the independent variable (Working Capital Turnover) and the dependent variable (Profitability, measured by ROE and ROA).

**HYPOTHESIS:**

**NULL HYPOTHESIS (H<sub>0</sub>):** There is no impact of working capital on profitability.

**ALTERNATIVE HYPOTHESIS (H<sub>1</sub>):** There is an impact of working capital on profitability.

Model	R Square	F	Sig.(p-value)
1	.296	1.113	.347

(Model 1: Dependent Variable = ROA)

Model	R Square	F	Sig.(p-value)
1	.292	.586	.599

(Model 1: Dependent Variable = ROE)

**INTERPRETATION:**

The regression analysis shows p-values of 0.347 (for ROA) and 0.599 (for ROE). Both of these values are significantly higher than the standard significance level of 0.05. The R- Square values are also extremely low (0.296 and 0.292), indicating that working capital turnover explains less than 30% of the variance in profitability.

**VI. FINDINGS**

The current ratio declined from 1.54 in 2020 to 1.20 in 2024, and the quick ratio remained below 1, indicating weakening liquidity and a growing reliance on inventory to meet short-term obligations.

- Profitability collapsed as the net profit margin dropped from 10.46% in 2023 to 0.10% in 2024, along with a decline in gross profit margins, ROA, and ROE, reflecting poor cost control and weak overall financial performance.
- Net working capital decreased significantly, especially in 2023–2024, mainly due to rising short-term borrowings, highlighting increased financial stress and operational inefficiency.
- Asset management became less efficient in 2024, as inventory turnover slowed and receivable turnover worsened, showing a buildup of unsold goods and delays in collecting payments from customers.
- Accounts payable turnover declined in 2024, suggesting delayed payments to suppliers, which may weaken supplier relationships and disrupt the smooth flow of operations

**VII. SUGGESTION**

- The company should strengthen liquidity by reducing short-term liabilities, maintaining adequate cash balances, and restructuring debt to lessen reliance on borrowings.
- Working capital efficiency can be improved by adopting better inventory forecasting, accelerating receivable collections, and optimizing supplier payments to shorten the cash conversion cycle.
- The company should improve asset utilization by prioritizing investments with higher returns, automating processes, and divesting underperforming assets to achieve better ROA and ROE.
- Strong supplier and customer relationships should be maintained by avoiding delayed payments, negotiating favorable credit terms, and ensuring smooth supply chain operations.
- The company should revisit its financial strategies by focusing on cost reduction, debt restructuring, and exploring alternative financing options to improve shareholder returns and long-term stability.

## VIII. CONCLUSION

From the study, I conclude that VB Foam Manufacturing Company has shown efficient management of receivables and payables, which enabled the firm to maintain operational stability and steady cash flow throughout most of the study period. The company also displayed strong control over production costs and a healthy Return on Capital Employed (ROCE), proving its ability to use available funds effectively to generate profits. These positive aspects highlight that the company's working capital management practices have played a vital role in enhancing its financial performance.

However, the study also revealed several areas that require improvement. The company experienced a sharp decline in profitability and liquidity in 2024, largely due to an increase in short-term borrowings, poor cash management, and inefficient utilization of assets

To overcome these challenges, VB Foam should focus on improving cash flow control, reducing short-term debt, and optimizing asset usage. Strengthening these areas will help the company achieve higher profitability, maintain stability, and ensure long-term sustainable growth

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