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# IMPACT OF WORKING CAPITAL MANAGEMENT ON PROFITABILITY OF MANUFACTURING INDUSTRY- A REVIEW

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***Abstract:*** The aim of this article is to explore the review concerning the significance of working capital and its efficacy on the profitability of any manufacturing industry. Working capital is the capital governing the day-to-day life of any industry. It floats the organization without sinking. The solvency of any organization is best ensured with the existence of adequate working capital.Indian industry is the largest domain which provides high employment opportunities next to agricultural sector. Earnings from industries are major source of revenues to the Indian Government. The present study explores and reviews the relevant literature regarding the efficacy of working capital on the various manufacturing industries, from the past studies. There exists always an inverse relationship between working capital management and profitability in the business operations. The reviews could explore a lot of challenging scope wherein many empirical studies on working capital can be made which further helps industries to focus their attention on enhancing the solvency, profitability, and efficiency of their concerns. The outcome of the reviews will also be helpful to the government to frame policies relating to working capital to ensure smooth functioning of any key industries to the economic development of the country.

***Keywords:*** Working capital, profitability, solvency, efficiency, working capital management.

## INTRODUCTION

Working Capital is indispensable for any concerns whether it is manufacturing, textiles, automobile, trading or services. A Concern without Fixed Assets is possible, but a business without working capital is seldom. Working capital is required for the purpose of raw materials and for meeting out day-to-day expenditure on salaries, wages, rents, advertising and so on. It can be Gross and Net Working Capital. The amount invested in current assets is gross, whereas the excess of current assets over current liabilities is the net working capital. The net working capital is the unique as it is the difference between current assets and current liabilities with which the solvency of the concern can best be assured.

Working capital management can be defined as the maintaining the proper levels of both current assets and current liabilities. The optimum level of working capital should be maintained for the effective and continuous business operations. Working capital management and profitability have an inverse relationship. Excess working capital exists in organisation lead to lesser profitability and vice versa. However, the Profitability of the concern can well be enhanced by maintaining

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the adequate working capital as it exploits market opportunities and ensures credit worthiness among interested parties to the organisations namely bankers, creditors and suppliers.Management of the ingredients of working capital, such as cash management, inventory management, management of debtors and payables management, will result in enhanced profitability and productivity. More researches were carried out on such topic in different sectors and hardly researches were done on export oriented units. This literature study may identify the potential areas to conduct empirical researches in the field of working capital as it is the key factor in the management of day to day affairs of the industry, thereby leading to organisational efficiency and productivity in the long run.

## LITERATURE REVIEW

Many researchers investigated on working capital management on profitability. Few reviews were collected to investigate for the present study.

Monica Singhania, Piyush Mehta (1) researched on "Working capital management and firms' profitability: evidence from emerging Asian countries". She states that excessive working capital can impair the profits and health of an organization and she has analyzed the impact of working capital management on the profitability of firms for a sample comprising of non-financial companies in countries of South East Asia, South Asia, and East Asia. She reveals that the study has a non-linear relationship between theprofitability of a firm and WCM for 11 economies of the Asia Pacific region.

Leonidas Ngendakumana, Nelson Jager and Francis Condo (2) studied on "The Impact of Working Capital Management on the Profitability of Smart Bags Limited Manufacturing Firm in Zimbabwe". They made an attempt to study the relationship between measures of working capital management efficiency and profitability. The study is based on secondary data. Their study outlined the significant and non-significant of the relationship between the dependent variable (profitability) and the independent ones. They found that there is a weak negative correlation between Average Collection Period and profitability as well as between the Cash Conversion Cycle and profitability. They also revealed that there is a strong negative relationship between the debt ratio and profitability and also between a company's aggressiveness of working capital financing policy and its profitability.

Shikha Bhatia, Aman Srivastava (3) explored the relationship between working capital management and firm performance in an emerging market. They found a negative relationship between the working capital management and firm performance, necessitating the need to efficiently manage the working capital for enhanced profitability.

Joseph Mbawuni & Mercy Hawa Mbawuni & Simon Gyasi Nimako (4) studied on “The Impact of Working Capital Management on Profitability of Petroleum Retail Firms: Empirical Evidence from Ghana”. They found that there is favorable net working capital for the firms and a favorable networking capital to total assets ratio. The most important WCM component that drives the firm’s profitability, measured in return on assets (ROA), is average days payable (ADP). The rest of WCM components, cash conversion cycle (CCC), average days inventory (ADI) and average days receivables (ADR) did not have asignificant relationship with profitability. They found that WCM practices among the five selected PRFs support the conservative strategy of WCM, rather than an aggressive WCM strategy.

Singhania, M., Sharma, N. &Yagnesh Rohit, J. Decision (5) analyzed the relationship between working capital management strategies of a firm and its profitability. They made an attempt to understand the impact of the global macroeconomic conditions on this relationship. Cash conversion cycle has been utilized as a measure of the working capital management, whereas gross operating profit is used as a proxy for a firm’s profitability. They revealed that cash conversion cycle of a company has a negative correlation with its profitability. They demonstrated that the working capital strategies should be formulated taking global macroeconomic conditions into consideration. They highlighted the importance of efficient working capital management practices to improve the profitability of companies.

NtuiPonsian, KiemiChrispina, GwatakoTago and Halim Mkiibi (6) researched on the effect of working capital management on company profitability. They examined that the statistical significance of company’s working capital management and profitability. They found that there exists a positive relationship between cash conversion cycle and profitability of the firm. This means that as the cash conversion cycle increases it will lead to an increase in profitability of the firm and managers can create a positive value for the shareholders by increasing the cash conversion cycle to a reasonable level and secondly, there is a negative relationship between liquidity and profitability showing that as liquidity decreases, the profitability also increases; Thirdly, there exists a highly significant negative relationship between average collection period and profitability indicating that a decrease in the number of days a firm receives payment from sales affects the profitability of the firm positively; Fourthly, there is a highly significant positive relationship between average payment period and profitability. This implies that the longer a firm takes to pay its creditors, the more profitable it is.; and Fifthly, there exists a highly significant negative relationship between inventory turnover in days and profitability hinting that firms which maintain sufficiently low inventory levels reduce the cost of storing the inventory which results in higher profitability.

Taghizadeh Khanqah Vahid (7) defines the effect of working capital management over the performance of firms Listed in Tehran Stock Exchange (TSE). To assess firms' performance, he used Average Collection Period, Inventory Turnover in days, Average Payment Period, Cash Conversion Cycle, Net Trading Cycle and Net Operating Profitability ratios. He showed that the increase in Collection Period, Payment Period, and Net Trading will lead towards the reduction of profitability in the company. He implies that managers can increase the profitability of their companies reasonably, by reducing Collection Period, Inventory Turnover, and Payment Period.

Richard Kofi Akoto, Dadson Awunyo-Vitor and Peter Lawer Angmor (8) states," Working capital management and profitability: Evidence from Ghanaian listed manufacturing firms. They used secondary data from all the 13 listed manufacturing firms in Ghana covering the period from 2005-2009. the study finds a significantly negative relationship between profitability and accounts receivable days using panel data methodology. They recommended that enactments of local laws that protect indigenous firms and restrict the activities of importers are eminent to promote increase demand for locally manufactured goods both in the short and long runs in Ghana.

Jakpar et al (9) researched on, "Working Capital Management and Profitability: Evidence from Manufacturing Sector in Malaysia". He examined the effect of working capital management on firm's profitability. He studied on a sample of 164 manufacturing firms listed on the Main Board of Bursa Malaysia, covering a span of five years from 2007 to 2011. He found that there is theexistence of asignificant positive relationship between exogenous variables, the average collection period, inventory conversion period and firm's size and its endogenous variable, which is firm's profitability. He also found that there was a significant inverse relationship between debt ratio (leverage) and firm's profitability, but the firm's capability to translate working capital into cash promptly, as aproxy in log cash conversion cycle has no impact on firm's profitability.

Pedro Juan García-Teruel, Pedro Martínez-Solano (10) examined on the " Effects of working capital management on SME profitability" . their object is to provide empirical evidence on the effects of working capital management on the profitability of a sample of small and medium-sized Spanish firms. They ensured that the relationships found in the analysis carried out were due to the effects of the cash conversion cycle on corporate profitability and not vice versa.

Maria Amélia Pais, Paulo Miguel Gama (11) studied the effects of working capital management on the profitability of small and medium-sized Portuguese firms. Their results were obtained when industry-specific effects are controlled, supporting the robustness of the previous analysis. They suggested that there was a decreasing trend of return on assets with increasing values of the working capital management characteristic variables.

Farrah Wahieda Kasiran (12) explored to analyze the efficiency of working capital management in the selected small medium enterprise companies in Malaysia. He analyzed the efficiency of working capital management through three indexes namely, performance index of working capital management (PIWCM), utilization index of working capital management (UIWCM), and efficiency index of working capital management (EIWCM). He revealed that the selected small medium enterprise company was less efficient in managing their working capital during this study period.

Baños-Caballero, S., García-Teruel, P.J. & Martínez-Solano (13) researched on the relation between working capital management and profitability for small and medium-sized enterprises (SMEs) by controlling for unobservable heterogeneity and possible endogeneity. Their resultsshowed that there is a non-monotonic (concave) relationship between working capital level and firm profitability, which indicates that SMEs have an optimal working capital level that maximizes their profitability. They also found that the firms' profitability decreases as they move away from their optimal level through robustness check.

Sadiq R (14) studied on the "Impact of Working Capital Management on Small and Medium Enterprises' Performance in Nigeria". He measured that the impact of working capital management on small and medium enterprises' performance in Nigeria, Osun State as a focus area for the period 2010-2014 by using firm by afirm statement of financial position and income statement. He found a mixed effect of WCM on performance. He concluded that account payables period, cash conversion cycle and thenet trading cycle has apositive effect on performance. Account receivables period and inventories turnover in days have anegative relationship with performance.

Adediran A. Samson, Josiah Mary, Bosun-Fakunle Yemisi and Imuzeze Obehi Erekpitan (15) explored the impact of working capital management on the profitability of a sample of small and medium-sized Nigerian firms. They collected data from 30 SMEs covering the single period of 2009 by using the multiple regression analysis. They resulted that the managers can create value by reducing their firm's number of day's accounts receivable and inventories.

Baghiyan, Fatemes (16) states on "The Impact of Working Capital Management on Management Performance". His study aimed to provide empirical evidence about the impact of working capital management, performance management companies. He concluded that the Working capital management and performance management have a meaningful relationship and selection policy aggressively financing and investment in working capital will lead to improved management companies.

A.K. Sharma, Satish Kumar (17) carries out the Effect of Working Capital Management on Firm Profitability- Empirical Evidence from India. Their aim is to examine the effect of working capital on theprofitability of Indian firms. They revealed that working capital management and profitability is positively correlated in Indian companies. Also revealed that inventory of a number of days and number of days accounts payable are negatively correlated with a firm's profitability, whereas thenumber of days accounts receivables and cash conversion period exhibit a positive relationship with corporate profitability.

Jakpar S, Tinggi M, Siang TK, Johari A, Myint KT, et al. (18) defines the Working Capital Management and Profitability: Evidence from Manufacturing Sector in Malaysia. They found that there was an inverse relationship between debt ratio (leverage) and firm's profitability, but the firm's capability to translate working capital into cash promptly, as aproxy in log cash conversion cycle has no impact on firm's profitability.

Hamid, Muhammad, and Ahmad, Soban and Haider, Zeeshan and Rehman, Saif Ur (19),research on the relationship between Working Capital Management and Profitability: A Case Study from Textile Sector of Pakistan. They investigated the relationship between working capital management and profitability. They had selected a sample of 92 Pakistani firms of thetextile sector for a period from 2006 to 2014. They investigated the effect of different variables on net operating profit namely, Average collection period, Average payment period, Investing turnover in days cash conversion cycle, leverage, and size of thefirm. Correlation and regression analysis are used for analysis. They found that working capital management has significant negative effect on theprofitability of Pakistani textile sector and exists a positive relationship between size and profitability.

Dr. K. Senthikumar, Dr. A. Sengottaiyan (20) explored on the "Efficiency of Working Capital Management with Reference to Select Textile Industry in India". They aimed to study the growth and development of Indian Textile industry. Also analyzed the trends and patterns of theefficiency of Working capital utilization of selected Textile companies in India.They concluded that profitability in terms of profit margin is significantly and affected by the decline in days in accounts receivable, days in accounts payable and Cash conversion cycle in textile firms. They found that working capital variables have aconsiderable impact on return on assets of textile firms.

Mehmet and Eda(21), in his research, studied the significant relationship between theworking capital management of the firm efficiency level evidenced the efficient use of working capital by improving the management of total assets in which positively affect the firm profitability. This study used declared data from Istanbul Stock Exchange from 1993 to 2007 and indicates significance negative relationship of cash conversion period, current ratio and net working capital towards return on total assets.

The related and relevant reviews surveyed as above stated the significance of working capital and its efficiency on the functioning of export oriented units all over the world. Seasoned researchers came out with their views on working capitalMost of the reviews revealed the role of working capital management on profitability in various sectors. Factors like firms' performance, average collection period, cash conversion cycle, average days inventory, average days receivable were discussed and compared with the profitability of different companies to find out the relationship exists. Some of the researchersexplored the importance of working capital management on profitability to improve the productivity of the company. There exists always an inverse relationship between working capital management and profitability in the business operations.

## CONCLUSION

Overall from the literature review, many types of research were done on working capital management on profitability in different sectors. Few types of research concluded that there is a positive impact on working capital management and profitability and few showed a negative relationship and few concluded as the moderate relationship exists between working capital management and profitability.

Hence, the reviews reviewed so far motivates the future researchers to go in for empirical research on the efficacy studies on working capital management on profitability on any export oriented units especially in the areas of textiles and other manufacturing domains.

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