

Regression and Correlation Analysis on Profitability of Working Capital (WC) and its Psychological Impacts on Entrepreneur & Employees

¹Anup Kumar Srivastava, ²Dr. John E P, ³Dr. Bhadrappa Haralayya, ⁴Dr. Gunjan Sharma, ⁵Dr. Renuka Deshmukh, ⁶Mrs. G. Thamaraiselvi

Received: 11- June -2023

Revised: 02- July -2023

Accepted: 08- August -2023

¹Assistant Professor, School of Business Studies, Sharda University, Greater Noida, Uttar Pradesh

anupsrivastava76@gmail.com

²Assistant Professor (Sr. Gr.), SRM Institute of Science and Technology, Chennai

³Professor and HOD, Department of MBA, Lingaraj Appa Engineering College Bidar-585403, Karnataka, India

⁴Institute of Business Management, GLA University, Mathura

⁵Assistant Professor, Department of School of Management (PG), Dr Vishwanath Karad MIT World Peace University, Pune, India

⁶Assistant Professor, Department of Commerce, Kalasalingam Academh of Research and Education, Krishnankoil.

Abstract

The research aims to study how capital management affects the economic performance of manufacturing firms. The study aims to examine the relationship between liquidity, measured by working capital (WC), and company viability, measured by Return on Total Assets (ROTA). The investigation is important as it can help managers find a balance between liquidity and business performance. The study uses secondary data from various national and international sources such as publications, books, and research papers. The research paper aims to assess how (WC) impacts the sustainability of businesses. Correlation analysis and regression analysis are commonly used statistical techniques to study the relationship between variables. These methods allow researchers to examine the relationship between multiple variables and determine its nature and strength. Regression analysis is a method used by researchers to determine how one variable predicts or influences another. Correlation analysis allows researchers to measure the strength and direction of the relationship between variables without implying causation. Regression analysis and correlation analysis are important tools in empirical research that help understand the relationship between variables and aid in data interpretation. The study examined the relationship between a dependent variable and ROTA using regression analysis, as well as a set of independent variables. The study examines several independent variables, including the ratio of current assets, the rapid ratio, the inventories turnover rate ratio, the liquidity ratio, the revenue ratio, the total assets ratio, and the net assets ratio. Regression analysis is used to determine the relationship between ROTA and independent variables. Correlation analysis, or correlation study, is a statistical method used to measure and assess the relationship between two variables, while considering the influence of other factors. (WC) is crucial for businesses as it enables them to manage daily operations, cover regular payments, handle unexpected expenses, and purchase necessary manufacturing inputs. The study aims to emphasize the importance of effective (WC) management in various organizations and its impact on profitability. Managing (WC) effectively is crucial for efficient operations and can lead to increased revenue and profitability for a company (Smith, 2019). Jones et al. published a study in 2017. Effective (WC) management is crucial for businesses as it allows them to optimize cash flow, mitigate liquidity risks, and improve financial performance. Effective (WC) management practices can improve a company's profitability by reducing financing and inventory holding costs and improving its ability to meet short-term obligations (Brown & Howard, 2015). Businesses need to focus on effective (WC) management strategies to improve financial performance and achieve sustainable growth (Johnson & Smith, 2020). The research highlights the importance of various aspects of (WC) management, including supply administration, receivables management, inventory management, and payable management.

Keywords: (WC) management & capital ratio, Returns on Total Asset (ROTA), Financial performance & Firm profitability.

Introduction

According to Kieschnick and Moussawi (2019), financial management plays a crucial role in the operations of corporate management. According to Helfert (2020), effective financial management plays a crucial role in providing firms with financial resources, enhancing operational efficiency, and enabling better control over corporate operations. The field of finance encompasses various aspects, including a longer-term finance, and short-term financial decisions. These components are crucial for effective financial management (Gitman & Zutter, 2019).

According to Deloof (2003), a company's (WC) is a reflection of its liquid assets and a measurement of its efficiency. According to Shin and Soenen (1998), it is a representation of the company's capacity to cover day-to-day operational expenditures as well as its short-term financial health. Because of this, the management of a company's (WC) has a significant impact on the performance of the company (Lamberson, 1995). Nguyen (2019) notes that Vietnamese businesses continue to struggle with implementing effective strategies for managing their (WC). It is essential to do statistical research into the link among (WC) management and firm success (Wang & Chien, 2007). This will provide Vietnamese managers with the solid and accurate foundations necessary for managing the operating capital of their businesses. If managers are aware of this link, they will be better equipped to make informed decisions and adopt strategies that will allow them to make the most of their (WC) management practices (Deloof, 2003).

Padachi (2006) emphasizes the importance of effectively managing (WC) for the financial well-being of a business and long-term viability. Managing current financial obligations and assets is important for maintaining liquidity and uninterrupted operation (Bierman & Smidt, 2012). (WC) management challenges have been faced by many businesses (Eljelly, 2004).

Highly effective administration of working cash serves as essential to organizations as it allows them to meet instantaneous financial commitments and sustain ongoing operations (Ganesan, 2015). Gupta (2013) emphasizes the importance of (WC) management in financial management, comparing it to the vital function of the heart in the human body. Shin and Soenen (1998) state that financial managers have the task of determining the ideal amount to allocate to (WC) funds. The process of maintaining an equilibrium financial position entails handling current liabilities and assets carefully. Deloof (2003) emphasizes the importance of businesses having sufficient financing and meeting short-term obligations promptly.

Bhattacharya (2007) defines current assets as assets that have a limited duration and are used to support an organization's operational needs within an accounting period. Gupta (2013) found that cash balances are often unused briefly, while accounts receivable typically last for 30 to 60 days. Inventory is usually held for a period of thirty to one hundred days. Proper oversight of (WC) is essential for a company's growth and profitability (Pike & Neale, 2009).

Successful oversight of functioning capital is essential for maintaining an optimal quantity to support smooth operations and achieve revenue goals (Gupta, 2013). Ganesan (2015) states that corporations must balance profitability and liquidity in their day-to-day operations. Determining the ideal amount of (WC) is a difficult task for managers due to its variability among organizations and over time. The variability in business operations is influenced by factors such as the type of business, size of operations, manufacturing cycle length, credit policy, and raw material availability. (Gupta, 2013) Padachi (2006) suggests that allocating an adequate amount of funds regarding acquiring various current assets is essential for achieving desired sales levels. Having enough (WC) is important to address the time gap between selling goods and receiving cash (Ganesan, 2015).

Achieving optimal financial performance requires a harmonious balance of the economy and (WC). Deloof (2003) suggests that companies may need to borrow money to meet their ongoing (WC) needs, even if they are capable of efficiently converting cash from operations within the same operating cycle. Gupta (2013) emphasizes the importance of managing current asset investments for promptly distribution of products and services to clients. Management plays a crucial role in determining a company's profitability. Considering the potential impact on the cash operating cycle is crucial when dealing with resource constraints in the supply chain. Limited resources can cause the cash operating cycle to increase, which can harm profitability. (WC) inefficiency happens when the

costs of maintaining extra inventory and offering trade credit to customers outweigh the advantages gained (Ganesan, 2015).

Literature Review

According to a study conducted by Kumar and Sharma (2015), it has been identified that ineffective management of (WC) can significantly contribute to industrial illness. According to Pandey (2016), contemporary financial management places emphasis on the reduction of current assets while considering the risk of stockouts. Efficient (WC) management is widely recognized as a crucial indicator of an organization's financial well-being, as it aims to minimize unproductive capital immobilization and lower the expenses associated with financing (Gupta & Singh, 2014).

According to Sharma and Kumar (2014), (WC) can be classified into two distinct categories, namely gross (WC) and net (WC). According to Kumar and Sharma (2015), the concept of gross (WC) pertains to the entirety of a business's current assets. It is believed that proficient handling of these current assets has the potential to contribute to the overall value and expansion of the firm. Net (WC), as defined by Sharma and Kumar (2014), refers to the disparity among current assets and liabilities of an economic and financial nature. It is calculated by subtracting current liabilities from current assets.

According to Pandey (2016), profitability can be described as the net gain or growth achieved from a investment or business venture, once all expenses have been subtracted. The management of (WC) plays a crucial role in ensuring the financial well-being of a company, as it directly impacts both cash flow and profitability (Ganesan, 2007). According to Ganesan (2007), it is crucial for corporations to maintain a suitable level of liquidity in order to effectively meet their short-term debts and efficiently manage cash flow. This is essential for the overall success and prosperity of the business.

The management of (WC) involves the effective management of various components, including debtors, inventories, payments, and the optimal utilization of cash for day-to-day operations (Ganesan, 2007). According to Ganesan (2007), it has been found that maintaining a optimal (WC) balance can lead to a reduction in (WC) requirements and an increase in revenues. According to Sharma and Kumar (2014), there exists a significant linear relationship between a firm's profitability and its (WC) efficiency. Profitability is a crucial metric utilized to assess a company's financial performance and its ability to generate profit. It is calculated by deducting expenditures from revenue, as stated by Pandey (2016). According to Gupta and Singh (2014), it is crucial for companies to implement efficient control of (WC) strategies in order to enhance profitability and ensure their long-term market viability.

According to Gupta and Singh (2014), effective management of (WC) allows organizations to minimize their investment in present resources and allocate funds towards profitable projects, thereby increasing their potential for growth and generating higher returns for shareholders. Insufficient investment in (WC) can potentially result in liquidity challenges. According to Sharma and Kumar (2014), the effectiveness and efficiency with which financial managers handle receivables, inventory, and payables significantly influence the overall success and profitability of a business.

This research aims to explore how effectively managing (WC) can affect the financial well-being of manufacturing companies. This research aims to investigate the relationship between liquidity, measured by its (WC), and the viability of a firm, measured by the ROTA metric. This inquiry is relevant because it helps managers balance liquidity and firm performance. Where this study makes use of secondary data gleaned from a wide number of publications, journals, and research papers originating in both the United States and other countries across the world. This piece of study will focus mostly on analysing the effect that a company's (WC) has on the amount of money it makes in profits. The statistical procedures of regression evaluation and correlation analysis are often used in practice for the purpose of investigating the relationship between variables. Researchers are able to investigate the nature and degree of the link between two or more variables by using these methodologies. Researchers are able to evaluate the degree to which one variable predicts or impacts another variable by using the technique of regression analysis. On contrary, correlation analysis gives researchers the ability to quantify the degree of association between variables as well as the direction of that relationship without necessarily stating

that one variable caused the other. Both regression analysis and correlation analysis are useful techniques in empirical research because they shed light on the dynamic relationship between the variables being studied and make it easier to evaluate the results of the study. The statistical method known as regression analysis is one that is often used in the field of research. Its purpose is to investigate the connection that exists between a dependent variable, known as Return on Total Assets (ROTA), and a number of independent factors. Within the scope of this investigation, the ratio of current assets, rapid ratio, turnover rate of inventory ratio, liquidity ratio, revenue ratio, aggregate assets, and net assets are all examples of independent variables that have been taken into consideration. Researchers plan to use regression analysis in order to determine the scope and character of the connection that exists between ROTA and the independent variables they have chosen to study. Quantifying and evaluating the statistical link between two variables while controlling for the effect of extraneous factors is the goal of correlation analysis, which is often referred to as correlation studies. (WC) is a vital component in the day-to-day operations of companies because it supplies the required cash flow to cover normal payments, unplanned costs, and the acquisition of critical manufacturing inputs. (WC) is an essential component in the day-to-day operations of businesses. In light of the finding that efficient management of (WC) has a significant bearing on profitability, the purpose of this research study is to place an emphasis on the significance of efficient management of (WC) for managers in a variety of businesses. According to Smith (2019), the management of a company's (WC) is not only essential for ensuring that operations run smoothly but also has the potential to boost sales and increase overall profitability. According to Jones et al. (2017), businesses are able to enhance their financial performance, optimize their cash flow, and reduce the risks associated with their liquidity via effective management of their (WC). According to the findings of this study, efficient procedures for managing a company's (WC) may have a beneficial influence on a business's profitability (Brown & Howard, 2015). This is accomplished by lowering the expenses associated with financing and inventory holding, as well as enhancing the capacity of the business to fulfil its short-term commitments. According to Johnson and Smith 2020, it is essential for organizations to make the adoption of efficient (WC) management methods a priority in order to optimize their financial performance and achieve sustainable development. In addition, the study stresses the relevance of essential components in (WC) management, such as the administration of stocks, receivables, and inventory management, and it takes into consideration payment management. All of these are important aspects of managing (WC). In their study, Roni et al. (2018) examined the relationship between the effective oversight of (WC) and the profitability levels attained by state-owned processing enterprises in Indonesia. The study found that there was no significant impact of liquidity, cash turnover, and receivable turnover on profitability. However, it was observed that inventory turnover and structure of assets had a positive effect on profitability. In a study conducted by Sharif and Islam (2018), the relationship between the total amount of (WC) and the profitability of pharmaceutical companies in Bangladesh was investigated. The study conducted an analysis on the relationship between profitability and operational capital metrics, including payment account turnover, receivables turnover, turnover of inventory, and cash conversion cycle. The researchers utilized a dataset consisting of a five-year time series obtained from publicly traded companies. The findings revealed a strong correlation between these operational capital metrics and profitability.

Jana (2018) found a significant correlation between (WC) control and profitability in the Indian FMCG industry. Effective (WC) management is crucial for a company's profitability, as supported by extensive research. Madushanka and Jathurika (2018) examined the correlation between liquidity and profitability in Sri Lankan industrial sector listed on the stock exchange in the city of Colombo. The study found a significant link between liquidity levels and cash flow in businesses, highlighting the importance of managing liquidity for improving profitability.

Research Methodology

The present study employed secondary data as its primary source of information. The secondary data utilized in this report was acquired from the annual report of the various companies that have been listed on the National Stock Exchange. One of the primary benefits associated with utilizing this particular source lies in the enhanced reliability of the financial statements. The selection of the cement production industry for this study was based on its significant presence and contribution within the manufacturing sector. The cement industry, comprising a number of organizations listed on the NSE (National Stock Exchange), has been the subject of research. A

representative sample of 10 companies has been carefully selected to provide insights into roughly fifty percent of the population within this sector. This research investigation spans a period of ten years, encompassing the preceding decade.

Table 1: The companies that are included in the sample are given below:

Ultra Tech	Shree Cements	Ambuja Cement	JK Cement	Birla Corporation
Dalmia	Ramco Cements	Orient Cement	Mangalam Cement	ACC Ltd.

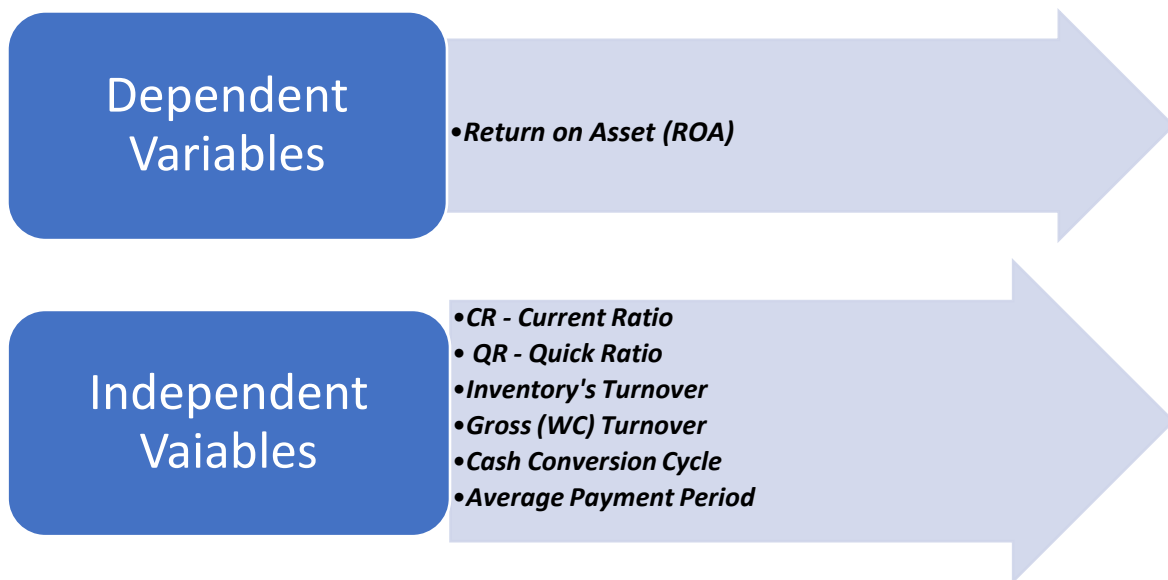


Fig 1: Conceptual Framework

Variables which have been taken into consideration

Variables that are dependent:

Return on Equity - ROE

ROE statistic is a widely used metric in financial analysis that evaluates the effectiveness of ordinary owners' investments. To determine the ratio, it is necessary to divide the annual net earnings by the total equity held by common stockholders. The return on investment (ROI) is a commonly utilized indicator for assessing growth and profitability in various industries. When evaluating the efficacy of an investment, it is helpful to compare the profits or losses created to the original investment and use this comparison as a criterion to evaluate the success of the investment. Stakeholders may acquire knowledge concerning the financial success and effectiveness of a given enterprise or project by conducting an analysis of the resulting return on investment (ROI). This metric enables decision-makers to make informed judgments regarding the viability and success of investments, thereby aiding in strategic planning and resource allocation. The evaluation of a company's performance relative to its competitors can be achieved through the examination of its return on equity (ROE) and its subsequent comparison with another company.

ROE = Net Profit after deducting taxes / Stockholders' equity

Variables that are not dependent:

Current Ratio (CR)

The relationship among an organization's current assets and its liabilities is often quantified through the use of a financial metric known as a current ratio (CR). The consideration of an elevated current ratio as indicative of effective financial management is a commonly observed practice in various studies and research. According to a study conducted by the Federal Trade Commission in 2008, there exists a statistical measure that assesses a company's ability to meet its short-term obligations in a timely manner. The variable in question was utilized in the studies which was conducted by Shin and Soenen (1998) as well as Sharma and Kumar (2001).

The calculation of the current ratio involves the division of a company's total current assets by its entire current liabilities. The assessment of the liquidity of a business and its ability to fulfil its short-term obligations is a widely utilized financial metric in practice. By conducting a comparative analysis between the current assets and liabilities at the moment, current ratio offers valuable insights into the company's capacity to meet its short-term financial obligations and debts by utilizing its short-term resources.

Quick Ratio - QR

QR is additionally referred to be the Acid-Test Ratio, is an economic metric that is used to evaluate a firm's capability of meeting its short-term commitments using the assets that are immediately accessible to the organization. In order to determine it, divide the entire amount of liquid assets, cash equivalents, and convertible debt by the total amount of current obligations. A company's liquidity situation and its ability to fulfil urgent financial commitments without depending on the sale of stocks or other assets that are less liquid may be gleaned from the quick response (QR) code, which gives insights into these aspects of a business. When contrast to other liquidity ratios, the Quick Ratio is a more conservative indicator of a company's ability to remain solvent in the near term since it takes into account just the most liquid assets. The phrase "quick ratio" is often used to allude to this idea. The capacity of an asset to be changed into cash without suffering a loss in value, either quickly or over a prolonged period of time, is what determines an asset's level of liquidity. According to the findings of many pieces of study, cash is generally considered to be the asset with the greatest liquidity. This phenomenon may also be described using the idea of the acid test ratio, which is also referred to as the FTC (2008). Both of these terms relate to the same thing.

$$\text{QR} = (\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities}$$

Cash Conversion Cycle -CCC

Where the procurement of fundamental supplies is an essential aspect of the (CCC), however, it does not reach its conclusion with immediate payment. In the event of non-payment, the payment deadline will be extended. The utilization of raw materials is a fundamental aspect of the production process within this organization, leading to the creation of finalized products that are subsequently made available for purchase. In a study conducted by Sharma and Kumar (2011), it was found that industry professionals, such as Shin and Soenen (1998), emphasize the significance of reducing the (CCC) to a manageable duration. This reduction is believed to be crucial for managers to effectively generate value for the company's owners.

$$\text{Receivables Turnover in Days} + \text{Inventory Turnover in Days} - \text{Payment Turnover in Days} = \text{Cash Conversion Cycle}$$

Inventory Turnover in Days (ITD)

The frequency at which inventory is rotated within a given year is referred to as inventory turnover. According to Shim and Siegel (1998), there exists a relationship among the typical cost for goods sold as well as the average amount of inventory at cost.

$$\text{ITD} = (\text{Inventory}/\text{Cost of Items Sold}) \times 365$$

Gross (WC) Turnover

The metric under consideration provides an assessment of the efficiency with which the company's available (WC) is being utilized. The (WC) turnover ratio, also referred to as the sales-to-(WC) ratio, is a metric used to assess the relationship between sales and (WC). Gross turnover of (WC) is the term used to describe the frequency with which (WC) is transformed into new assets over the span of a year. The connection aspect between the gross financial resources and sales is served by it.

GWCT = Gross (WC)/Sales

Average Payment Period (APP)

The research investigates the average duration required for the procurement of materials and the remuneration of laborers in cash transactions. The firm's request for an extension in payment time was granted, resulting in a delay in clearing its dues. However, this delay had a positive impact on the firm's profitability.

APP=Accounts Payable/Net Purchase * 365

Hypothesis:

The study develops a set of testable hypotheses to investigate the relationship between (WC) management and profitability.

H1: CCC and Return on Equity have a connection.

H2: The Quick Ratio and Return on Equity have a link.

H3: There is a link between Average Payment Period and Return on Investment.

H4: Gross (WC) Turnover and Return on Equity have a link.

H5: Inventory Turnover and Return on Equity have a link.

H6: The Current Ratio and Return on Equity have a link.

H7: All independent factors affect the dependent variable (ROE)

In this study, two distinct approaches to data analysis were employed, namely descriptive analysis and quantitative analysis.

The present inquiry commences with a comprehensive examination. The present study facilitated the elucidation of fundamental attributes while also offering comprehensive insights into each principal variable. The study utilized two techniques in its methodology. In the realm of research, correlation models serve as a valuable tool for evaluating the extent of association between two variables. In this study, multiple regressions are utilized to consider the potential impact of additional constructs on the proposed hypotheses. The utilization of these measures provided supplementary insights into the underlying patterns of variable correlations, facilitating a comprehensive investigation of the proposed hypotheses.

The investigation begins with a detailed descriptive analysis. The study aimed to understand different phenomena involving multiple variables and provide comprehensive insights into each variable. Descriptive statistics summarize the central tendency and variability of multiple variables in a study. Summary: The statistics commonly used to analyse data include the mean, which is the average value of the variables, and the standard deviation, which measures the spread of the data points around the mean. The investigators can gain insights into the characteristics and distribution of variables by examining descriptive measures. The software displays the minimum and maximum values of variables, making it easier to identify their upper and lower limits. The study used balance sheet data, specifically book value, to calculate all variables. The book value was used in the research because the firms being investigated did not have a market value for the factors being examined. The study assessed profitability using revenue statement figures instead of market prices.

Table 2: Indian businesses' descriptive statistics

	<i>Maximum</i>	<i>Minimum</i>	<i>Median</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>ROE</i>	92.73%	-37.11%	12.41%	18.45%	27.14%
<i>CCC</i>	58.10	-25.88	5.21	3.82	17.48

APP	74.8	10	31	34.3	16.6
CR	3.38	0.27	0.92	1.22	0.78
QR	4.09	0.05	0.76	0.99	0.81
GWCT	4.90	0.69	2.86	2.79	0.98
ITD	98.33	13	27	32.20	18.55

In table (a), it was determined that the current ratio (CR) has a mean value of 1.22 times and a standard deviation value of 0.78 times. On average, the current ratio (CR) that is being maintained falls short of the minimum requirement of 2:1. During the course of a single year, the current ratio of a company may encounter values that span a broad spectrum, with the possibility that it may reach a high of 3.38 times and a low of 0.27 times. It is possible that the presence of surplus current assets that are producing issues for the firm is indicated when the current ratio of a company is larger than the average or the number that is commonly acceptable for that ratio. The standard deviation for the number of days it takes to sell a product is 18.55 days, while the average number of days it takes to sell a product is 32.20 days. The time it takes to convert inventory into money can range anywhere from 13 days to 98 days at its maximum. The minimum amount of time required is 13 days.

The mean Gross (WC) Turnover (GWCT) is 2.79, and the standard deviation is 0.98, according to the descriptive data. The GWCT values that are the greatest are 4.90, and the ones that are the lowest are 0.69.

According to the descriptive data, the cash conversion cycle (CCC), which is used as a complete measure of cash flow maintenance, has a mean of 3.82 days and a standard deviation of 17.48 days. Additionally, the cash conversion cycle has a standard deviation of 17.48 days. Maximum cash conversion periods are set at 58.10 days, while lowest cash conversion periods are set at -25.88 days.

In addition, the mean value of the quick ratio (QR) is 0.99, and the standard deviation is 0.81 times the value. In the course of one year, the fast ratio of a corporation may range from a high of 4.09 times to a low of 0.05 times.

According to descriptive data, the mean Gross (WC) Turnover (GWCT) is 2.79, and the standard deviation is 0.98. The numbers 4.90 and 0.69 for the GWCT are considered to be the extremes.

Quantitative Analysis

Two methods are used in this analysis:

1. Correlation
2. Regression

A numerical analysis technique for identifying the extent and type of a relation between two variables is correlation analysis. The technique is used to figure out how strong the relationship between the variables is. A coefficient is a unique number that describes how these two variables are related. The coefficient value "r" is a measure that shows how closely two variables are linked (Washington, 2010). In this study, the correlation coefficient analysis is utilised to determine the relationship between the two variables below (Washington, 2010).

The correlation coefficient analysis is used in this study to determine the link between the two variables:

- Independent variable
- dependent Variable

The Pearson coefficient of correlation is utilised in this study to determine the link between variables. The correlation coefficient (r) is a number that ranges from +1 to -1.

Regression is a method approach used to determine one variable's effect on another. Creating a numerical equation that describes the value of one variable on another is part of the process. The mathematical solution that "best

fists" the result recorded for the two variables is described by regression analysis. The hypothesis (H7) that individual variables have a major impact on profitability is tested using regression analysis in this study.

Correlation Analysis

To explore the link between capital structure and profitability, correlation analysis is performed. The link between these variables is evaluated using Pearson correlation coefficients.

Table 3: Correlation Analysis

	<i>ITD</i>	<i>GWCT</i>	<i>CCC</i>	<i>CR</i>	<i>APP</i>	<i>QR</i>	<i>ROE</i>
<i>ITD</i>	1						
<i>GWCT</i>	0.108	1					
<i>CCC</i>	0.578	0.040	1				
<i>CR</i>	-0.043	-0.084	0.403	1			
<i>APP</i>	0.436	0.003	-0.432	-0.479	1		
<i>QR</i>	-0.142	-0.354	0.275	0.738	-0.411	1	
<i>ROE</i>	-0.156	0.141	-0.354	0.471	0.143	0.480	1

There is a tangentially positive relationship between the average payment time and the return on investment (ROI) (APP). It demonstrates that an increase in profitability may be achieved by extending the payment time. Because of the connection between APP and Return on Equity (ROE), less profitable firms should delay paying their bills until their suppliers have completely reimbursed them in order to maximise their return on equity and maximise their APP. The correlation coefficient for this item is 0.143. The significance of the ultimate result is comparable.

As can be seen from looking at Table (b), the connection between the inventory turnover in days (ITD) and the return on investment (ROI) is a negative one. The coefficient of correlation comes in at -0.156. This demonstrates how a reduction in the amount of time needed to convert shares into revenue may have a positive impact on a company's profitability. The end product is also a significant factor.

With a correlation of -0.354, the cash flow (CCC), which is utilised as a complete indication of management of (WC), has a weak association with the Return on Equity (ROE). (ROE). It is hypothesised that if a company is successful in lowering its CCC, it would be able to increase its profitability and, as a consequence, create value for its shareholders.

This indicates that better earnings are connected with paying debts on time, collecting money from consumers sooner, and having things in stock for a shorter length of time overall. It is possible to draw the conclusion from the data that problems with inventory control, payables, and receivables need to be treated seriously since they have a significant effect on a company's capacity to turn a profit. Deloof (2003) found quite comparable outcomes in his poll of Belgian businesses and published them.

There is a positive link between the Gross (WC) Turnover (GWCT) and the Return on Investment (ROI), as shown by the correlation test between the two variables. The correlation coefficient was found to be 0.141. This demonstrates that an increase in the firm's gross (WC) turnover also results in an increase in the ROE of the company. Companies that are already successful but might stand to make more money by increasing the number of times their (WC) is turned over. The results are also important to notice.

There is a positive correlation between the quick ratio and the return on equity (ROE), which is denoted by QR. This relationship between Quick Ratio and Return on Equity runs counter to the conventional wisdom, which maintains that Quick Ratio and profitability are intrinsically linked to one another. The correlation between ROE and QR ($r = 0.48$) was found to be the strongest one that emerged from our study.

The findings of the correlation analysis indicate that Gross (WC) Turnover (GWCT) and Return on Investment (ROI) have a positive association with one another. The coefficient of correlation comes in at 0.141. This demonstrates that a rise in the firm's ROE may be expected whenever there is an increase in the gross (WC) turnover. Companies that aren't doing as well financially might boost their profitability by increasing the amount of time their (WC) is turned over. The end product is also a significant factor.

According to the findings of the investigation, the CR possesses a substantial unfavourable correlation with ROE. The correlation coefficient is found to be -0.471. This suggests that the return on equity (ROE) of the corporation would drop as the current ratio increased.

Regression Analysis

Return on equity (ROE) is analysed using simple linear regression using - • Current Ratio (CR) • Quick Ratio (QR) • Gross (WC) Turnover ratio (GWCT) • Cash Conversion Cycle (CCC) • Average Payment Period (APP) • Inventory Turnover in Days (ITD)

Regression Equation is:

$$ROE = a + b CR + c QR + d GWCT + e APP + f ITD + g CCC$$

The effect of free variables on the dependent variable is shown by the coefficient. Return on investment (ROE)

Dependent Variable: ROE

Method: Least Squares

Table 4:

INDEPENDENT VARIABLES	COEFFICIENT
CCC	-0.015552
GWCT	0.09202
QR	0.184164
APP	0.01579
ITD	-0.012663
CR	-0.022769

Findings and Discussion

The coefficient of correlation (CCC) between ROE and CCC is -0.016, which indicates that a one-day increase in CCC would result in a loss of ROE of -0.016. This number indicates that CCC and ROE are negatively correlated. It illustrates how a rapid Cash Conversion Cycle (CCC) can lead to an increase in a company's overall production. Assessing how well one manages their (WC) may be done with the use of a method called the Cash Conversion Cycle, which is both simple and effective. In order for businesses to generate value for its shareholders, this must be kept to an absolute minimum at all times. Both Shin and Soenen (1998) and Azam and Haider (2001) arrived to the same findings. As a consequence, H1 is acceptable.

The quick ratio (QR) has a moderately positive impact on the performance (ROE) of the sample firms. This suggests that the profitability (ROE) of cement firms will increase in tandem with the growth in the value of fast assets. These views (2013) find confirmation in the findings that Hassani uncovered. As a consequence of this, we are willing to consider H2 for inclusion.

It was shown that inventory turnover in days (ITD) has a negative connection with the business performance indicator known as Return on Equity (ROE), which suggests that reducing the amount of time a firm spends hanging onto its inventory in days might potentially increase the company's performance. A one-day reduction in

the inventory holding time results in a 1.2663 percent increase in ROE, which corresponds to a coefficient of - 0.012663. These findings are strikingly similar to those that Azam and Haider (2011) discovered. As a direct consequence of this, H5 is permitted.

It has been shown that the Average Payment Time (APP) has a substantial positive relationship with Return on Equity (ROE), which suggests that increasing the amount of time that a company takes to pay its suppliers improves the company's overall performance. There is a correlation between a one-day increase in APP and a 1.58 percent increase in ROE with a coefficient of 0.01579. The normal credit settlement periods of the organisation need to ideally coincide with the term of the accounts payable at the company. This enables a company to make use of any and all available financing without jeopardising its credit rating or the ties it has with its suppliers. These results are in line with those that Raheman and colleagues (2011), Azam and Haider (2011), and other researchers (2011) found. As a direct result of this, the H3 is acknowledged.

There isn't much of an impact from the Current Ratio (CR), a theoretical measure of liquidity, on the profitability of cement manufacturing businesses in India. The findings of Raheman et al. (2010) and Azam & Haider (2011) are in agreement with this observation. As a direct consequence of this, H6 gets removed.

The Gross (WC) Turnover Ratio (GWCT) is another factor that contributes to increased profitability. The turnover of (WC) will increase, which will lead to increased levels of profitability. There is a correlation between an increase in GWCT and a 9.202 percent rise in ROE, as indicated by a coefficient of 0.09202. This illustrates the efficiency of the company's (WC); the larger the turnover, the better the efficiency. The findings of Raheman et al. (2011) are consistent with these findings. As a direct result of this, we do not reject H4 as unacceptable.

According to the findings of this research, the Return on Equity (ROE) of the sample enterprises drops by 1.6 percentage points for every day that the Cash Conversion Cycle (CCC) is prolonged by one day. The Gross (WC) Turnover (GWCT) of the sample enterprises is expected to grow by one time, which would result in a 9.2 percent increase in their Return on Equity (ROE). A single increase in Current Ratio (CR) will result in a drop of 2.3 percentage points in Return on Equity (ROE). The return on equity (ROE) is improved by 18.4% when there is a one-time increase in the Quick Ratio (QR), whereas the return on equity (ROE) is only improved by 1.6 percent when there is a one-day increase in the Average Payment Period (APP). Inventory Turnover in Days (ITD), also known as the inventory holding time of chosen companies, may be reduced by one day to achieve a return on equity (ROE) that is 1.3 percentage points higher.

Conclusion

The growth of the cement industry in India is the focus of this research, which explores the role that effective management of (WC) had in its evolution. (WC) Management was used as the independent variable in this study, while ROE was used as the dependent variable to determine the impact that WCM has on a company's profitability. Independent variables included things like ITD, CCC, QR, CR, GWC, and APP. When researching the influence of managing (WC) on a company's profitability, the least squares technique is the method of choice in the Indian cement industry.

According to the statistics, there is a negative correlation between the cash conversion cycle (CCC), the inventory turnover in days (ITD), and the average payment period (APP). The efficiency of (WC) management may be simply evaluated using these parameters, which are not difficult to use. In this particular investigation, the current ratio (CR) was not statistically significant; nonetheless, it did have a detrimental impact on ROE. From the researches of Myers and Majlof (1984), Rajan and Zingales (1995), Shin and Soenen (1998), at last Deloof (2003), came to the same conclusion.

The management of a company's (WC) and liquidity may, without a doubt, have a positive impact on its profitability. Because of the findings of this research, it is abundantly clear that the cement business in India has a great deal of room to improve its profitability by more effectively managing its (WC). Inventory management, in particular, has the potential to have a significant positive influence on a company's profitability when it is carried out in an efficient manner.

The cash conversion cycle, often known as the CCC, was found to have a negative connection with the profitability of companies in this research. This finding is supported by a multitude of studies, including Shin and Soenen (1998), Lazaridis and Tryfonidis (2006), and a wealth of additional research. This study makes a contribution to the body of prior research by, among other things, establishing that there is a connection between a company's profitability and its cash holding position. Cement firms should also forecast their sales and keep sufficient cash on hand in order to take advantage of their negotiating position when making cash purchases, which will ultimately result in a reduction in the expenses incurred by the company.

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