Maayan International Journal of Commerce and Foreign Trade
An Open Access and Peer Reviewed Journal

E-ISSN: 2584-069X
OPEN ACCESS

A Study on Working Capital Management on Financial Performance : Manufacturing Sector

V. Priyanga[1], Dr. SP. Mathiraj[2]
[1]*Ph.D. Scholar, Department of Commerce, Alagappa University, Karaikudi, India*
[2]*Professor, Department of Corporate Secretaryship, Alagappa University, Karaikudi, India*

Corresponding Author: V. Priyanga

Article Info:

Received 04-10-2023 | Accepted 25-10-2023 | Published 28-11-2023
Volume : 01 Issue : 02 November 2023 | Page No : 07-11

ABSTRACT

The article aims to demonstrate the study of working capital management on financial performance of the manufacturing companies in Tamil Nadu. The simple random sampling method used from 7 manufacturing companies in Tamil Nadu listed in BSE for the period 2012 to 2022. Descriptive statistics, Pearson correlation multiple regression were used for the study. The study aims the effect of working capital component i.e. cash conversion cycles, current ratio, debt equity ratio and the profitability Return on Assets (ROA) and Return on Equity (ROE). The data reflected the output that the cash conversion cycle has a negative impact on the profitability. Thus suggest the companies to manage the working capital effectively and efficiently will helps the organization to improve the profitability and capture the market.

Keywords:

Cash Conversion Cycle,Current Ratio, Profitability, Return on Asset, Return on Equity

Introduction

Management of working capital is regarded as one of the most crucial organizational management tasks because it is known as the lifeblood of every economic unit. The management of working capital has an enormous effect on the company's liquidity and profitability, making it an essential part of finance. In view of this, any type organization profit-oriented or not requires the appropriate amount of working capital, despite its size and type of industry. A straightforward and easy solution to guaranteeing that a company can finance the difference between short-term assets and short-term liabilities is working capital management. Current assets and liabilities are serviced. There are generally two ways to rate a company's working capital management. They are learning about balance sheets and examining current assets and liabilities and the Cash Conversion Cycle Concept. The length of time between actual cash commitments for the acquisition of raw materials and actual cash receipts from the trade in of goods or services is known as the Cash Conversion Cycle. Each entity is primarily concerned with how it can sustain and boost profitability, consequently they ought to be mindful of the elements that influence it. These entities focus to investigate how the cash conversion cycle, a sign of effective liquidity management, may affect the profitability of the units. Each enterprise nowadays works to improve profits due to the fluctuating global economy, technological advancements, and increased worldwide competition among businesses. To that end, firms make every effort to bring their cash conversion cycle to the ideal level in order to boost profitability. The term "cash conversion cycle" refers to the net amount of time that elapses between a company's purchase-related cash outlays and its final cash inflow from product sales. The average CCC can be computed by deducting the days payable outstanding (DPO) and adding the days sales outstanding (DSO) to the days sales of inventory (DSI). CCC assesses the effectiveness of working capital management since it shows how rapidly current assets are turned into cash. CCC is a summary of an integral financial procedure in businesses. When a company invests more money than is typical for that industry, costs go up and the firm becomes less competitive. Working capital investments frequently account for a significant portion of overall assets, which may serve as motivation for capital rationalization. To strengthen business performance, CCC management must plan, route, evaluate and monitor different capital structures. Certain investigation has been done on the impact of working capital management on profitability of different sectors. There is no empirical study on working capital management on the profitability of auto component manufacturing industries in Tamil Nadu. Thus, the absence of investigation the impact of working capital management on the profitability of the auto motive manufacturing industries in Tamil Nadu has been taken.

Review of Literature

Jacek Jaworski and Leszek Czerwonka (2022) inspected the relationships between working capital management KPIs and profitability for 326 companies registered on the Warsaw Stock Exchange from 1998 to 2016. They result found that there is significant non-linear relationship between the working capital and current ratio and profitability i.e when the working capital and current ratio raises the profitability also raises but at slower pace and there is a linear negative relationship between the cash conversion cycle and profitability. Sumaiya Zaman (2022) studied on the working capital management of manufacturing companies. The 109 firm as the sample for five year 2014 to 2018.They result showed that company growth, profitability and leverage significantly related with working capital efficiency in manufacturing industry of Bangladesh. The shortening length of cash conversion cycle will give rapid profitability to manufacturing industry. Amant Fejzullahu and Florije Govori (2021) inspect the impact of working capital management on profitability of 36 companies from five countries districts for the period 2012-2013. The descriptive analysis along with multiple regression and Pearson's correlation, the results confirmed that working capital components have an impact on profitability. The study, prolonging the cash conversion cycle days has an upward impact on profitability. The days of conversion of inventory and receivables also adversely affect profitability. The payable outstanding has the negative relationship with profitability. Stretching the credit terms for receivables and retaining cash in operating activities for a longer period of time, the company may propel profitability. IbnuKhajar and Hersugondo (2020) studied on the working capital management and profitability of manufacturing firm listed in Indonesia Stock Exchange (IDX) for the period 2010 to 2017 using purposive sampling method. The ROA is the independent variable and on the other side the independent variable are the cash conversion cycle and the firm size is the total sales. The study found that the longer the cash conversion cycle the profitability will reduce and the larger firm size will give more profitability for the firm. Kien Xuan Pham (2020) examined the effects of working capital management on the profitability of steel listed companies on the Stock Exchange of Vietnam .the secondary data was collected from 20 listed companies for the year 2010 to 2019. The study found that the Average Collection Period, Inventory Conversion Period and Average Payable Period has the positive relationship on the profitability of the steel industry companies The Cash Conversion Cycle has the negative relationship between the profitability that is shortening the CCC will have better profitability. Ramya G and Pramod S G (2020) analysed on the efficiency of working capital management to know the liquidity position of JSW Steel limited for the period of 10 years (2009 to 2019). The study showed that the current ratio was not in good position the average payment of working capital has improved and the debt is fluctuates between the raising and decreasing thus the debt ratio of the firm is improved. They concluded that the company has the inadequate current assets and less working capital so the firm cannot able to maintain the adequate profit.

Statement of Problem

Effective working capital management is critical and fundamental to any business. Many manufacturing companies have collapsed as a result of improper management of working capital. The main goal of WCM is to guarantee the maintenance of an acceptable level of working capital in a way that will not lead to excessive or inadequate working capital. WCM is vital for the financial health of all businesses, irrespective of type and size. The study focused on the impact of working capital management on the profitability of some selected automotive manufacturing in Tamil Nadu for 2012-2022.

Research Methodology

The working capital management effect on the profitability of manufacturing company is the objective of the study. The cash conversion cycle is component independent variable of this study. The profitability is measured by ROA Return on Assets and Return on Equity. The current ratio and debt equity ratios are the control variables. The quantitative analysis is used data is collected from 7 automotive manufacturing company in Tamil Nadu for the period 2012 to 2022. The descriptive statistics, Pearson correlation, Regression model were used. This model is going to test the relationship between CCC and profitability

$$ROA\ Y = \alpha + \beta 1CCC + \beta 2CR + \beta 3DEQ + e$$

$$ROE\ Y = \alpha + \beta 1CCC + \beta 2CR + \beta 3DEQ + e$$

Objectives

To find the impact of working capital management on the profitability of selected auto motive manufacturing sectors in Tamil Nadu.

Hypothesis of the Study

H0: There is no relationship between the Cash conversion cycle and Profitability.

H1: There is relationship between the Cash conversion cycle and Profitability.

Descriptive Statistics

Table I
Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
ROA	70	29.46	-4.87	24.59	6.9413	5.32534	28.359
ROE	70	54.12	-10.25	43.87	12.5313	8.45375	71.466
CR	70	1.98	1.01	2.99	1.7073	.47517	.226
CCC	70	322.00	-1.00	321.00	81.9004	61.53763	786.880
DEQ	70	1.58	.00	1.58	.1950	.33508	.112
Valid N (list wise)	70						

The Table I represents average Return on Asset is 6.94 and standard deviation is 5.32534. The maximum and minimum of return on assets were -4.87 and 24.59 respectively. The average return on equity is 12.53 with the standard deviation 5.32534 while the minimum value of return on equity is -10.25 and maximum value is 24.59. The Current Ratio average is 1.7073 with the standard deviation of 0.47517. The maximum value of CR is 2.99 and the minimum value is 1.70. The average debt to equity ratio is 0.1950 with standard deviation 0.33508. The maximum value of DEQ is 1.58.

Correlation Analysis

Table II
Pearson Correlation Analysis

	ROA	ROE	CCC	CR	DEQ
ROA	1	0.955**	0.530**	-0.358**	-0.477**
ROE		1	0.352**	-0.380**	-0.371**
CR			1	0.119	-0.169
CCC				1	0.733**
DEQ					1

**Correlation is significant at the 0.01 level

The result of Pearson Correlation coefficient for dependent variable, independent variable and control variable are presented in Table II. This purpose to assess the association between the dependent variable and control variables on the dependent variable. The correlation between cash conversion cycle has negative with profitability Return on Asset and Return on Equity significant at 1 % level. The correlation between CCC and ROA -0.358**at 1 % level of significance. The correlation between the CCC and ROE -0.380** at 1 % level. The current ratio is 0.530** positive relation on ROA and 0.352** positively related on ROE at significant level 1% level. The correlation between DEQ and ROA is -0.477** negative and DEQ and ROA -0.371**significant at 1 %level.

Regression Analysis

Table III
Regression Analysis

	ROE		ROA	
	co-efficient	**sig**	**co-efficient**	**sig**
CCC	-0.062	0.007	-0.040	0.001
CR	7.292	0.000	6.521	0.000
DEQ	0.666	0.872	-0.224	0.920
R	0.552[a]		0.704[a]	
R Square	0.305		0.496	
Durbin Watson	0.932		0.876	
Adi r Square	0.273		0.473	
F	9.639		21.664	
Sig	0.000[b]		0.000[b]	

The Table III r^2 of the model is 30.5% and value for the adjusted r^2 in this model is 27.3%. The Durbin Watson test 0.932 which is within the limits thus indicating non-auto correlation among the data. The f test value is 9.639 significance value 0.000b. In view of this view of this, the model is considered as significant. The coefficient of CCC is -0.062 negative with Return on Equity and is significant at 0.007. It implies that increase of Return on Equity and the decrease the Cash conversion Cycle. The coefficient of current ratio has the coefficient 7.292 positive with Return on Equity 0.000. The coefficient of debt equity ratio has the coefficient 0.666 positive with Return on Equity 0.872. It has non-significant relationship on profitability. For the model, adjusted r^2 of the model is 47.3% and value for the r^2 in this model is 49.6%. The Durbin Watson test 0.876 which is within the limits thus indicating non-auto correlation among the data. The f test value 21.664, significance value 0.000b. In view of this view of this, the model is considered as significant. The coefficient of CCC is -0.040 negative with Return on Asset and is significant at 0.001. It implies that increase of Return on Asset and the decrease the Cash Conversion Cycle. The coefficient of current ratio has the coefficient 6.521 positive with Return on Equity 0.000. The coefficient of debt equity ratio has the coefficient -0.224 positive with Return on Equity 0.920. It has non-significant relationship on profitability.

Conclusion

The study carried out for the 7 manufacturing companies for the period 2012 to 2022. These companies are randomly selected from the all listed companies in Bombay Stock Exchange. The relationship between cash conversion cycle and regression coefficient has the negative impact on (ROA) Return on Asset and Return on Equity (ROE). Thus shortening the cash conversion cycle will lead to increase the profitability of the industries. Therefore, the study shows strong relationship between the working capital and profitability. Thus, the financial managers should keep eye in the cash conversion cycle which promotes the profitability. So the industries maintaining shortening cash conversion cycle helps to create value for the shareholders.

References

[1]. Jacek JaWorskiand., and Leszek Czerwonka. (2022). Profitability and Working Capital Management: Evidence from the Warsaw Stock Exchange. Journal of Business Economics and Management, 23(1), 180–198. ISSN 1611-1699/eISSN 2029-4433

[2]. Sumaiya Zaman. (2022). Working capital management of manufacturing companies in Bangladesh: What factors make significant impact?. Journal of Global Business Insights, 7(2), 140- 150.

[3]. AmantFejzullahu., and FlorijeGovori. (2021). Working Capital Management and Profitability of Manufacturing Companies in Kosovo. Journal of Contemporary Management Issues, 26(2), 277-294. DOI https://doi.org/10.30924/mjcmi.26.2.16.

[4]. IbnuKhajar., and Hersugondo. (2020). Working Capital Management, Firm Size and Firm Profitability. International Journal of Economics and Management Systems, 5, 111-117. ISSN: 2367-8925

[5]. Kien Xuan Pham. (2020). Effect of Working Capital Management on the Profitability of Steel Companies on Vietnam Stock Exchanges. Journal of Asian Finance, Economics and Business, 7(10), 741–750.

[6]. Ramya, G., and Pramod. S G, (2020). Impact of working capital management on profitability in JSW steel limited. International E Conference on adapting to the New Business Normal – The way ahead, 1-20. ISBN: 978-93-83302-47-5.

[7]. NdonwabileZimasaMabandla., and Patricia LindelwaMakoni. (2019). Working Capital Management and Financial Performance: Evidence from Listed Food and Beverage Companies in South Africa. Academy of Accounting and Financial Studies Journal, 23(2), 1-10. 1528-2635.

How to cite this article: Priyanga, V., & Mathiraj, SP. (2023). A Study of Working Capital Management on Financial Performance. *Maayan International Journal of Commerce and Foreign Trade, 1*(2), 07-11. Retrieved from https://mijcf.com/index.php/mijcft/article/view/11