Impact of working capital ratios on profitability in selected four-wheeler automobile companies

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Abstract

Purpose: *The purpose of this study is to assess whether or not working capital ratios have an impact on the profitability of selected four-wheeler automobile companies.*

Design/methodology/approach: *To assess the working capital management ratios on profitability in selected four-wheel automobile companies, the author applied the coefficient of correlation, correlation matrix, and multiple regression analysis methodology in selected four-wheel automobile companies listed on the CMIE prowess and secondary data considered also in annual reports. Ten passenger car manufacturing companies were selected for the period between 2011–12 to 2020–21, to choose a sample from the universe for research purposes., the purposive (judgmental) selection method is preferred for secondary data. Six different working capital component ratios (current ratio (CR), liquidity ratio (LR) are moderate ratios, working capital turnover ratio (WCTR), inventory turnover ratio (ITR), receivables turnover ratio (RTR), and cash turnover ratio (CTR)) are independent ratios have been measured for their impact on profitability using the coefficient of correlation and regression. Profit before tax to asset ratio (PBT/Total assets (dependent ratio).*

Findings: *The study found that Working capital ratios (CR, QR, WCTR, ITR, RTR, and CTR) are positively correlated with profitability ratios. Of the six working capital component ratios, five of them are significant at a 5-percentage level, except cash turnover ratios.*

Contribution/Originality: *Managers at four-wheeler companies need to improve the efficiency and effectiveness of the firm's financial management to avoid working capital ratios that put the company in jeopardy. To help with investing decisions, it may be used as a benchmark of firms who have demonstrated strong financial success.*

Key words: Working capital, working capital ratios, profitability ratio, automobile industry, passenger car

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I. Introduction

Company's profitability is determined by its resources and liabilities. Companies manufacture products based on the nature of the business to produce profits and create capital for future growth. Managerial decisions have financial implications for businesses. So, companies must understand the relevance of financial (profit) operations and their relation. (I.M. Pandey, 1997). According to Horward and Upton (1953), profitability can be defined as the capacity of an investment to generate a return as a result of its utilization. Book value, which is derived from accounting, is one component of profitability, while market value is the other (marketing-based measurement). A company's working capital should be managed to ensure both its short-term viability and its long-term profitability. Working capital ratio illustrates the asset-to-liability ratio, which represents the number of times a company's current assets can cover its current obligations. The working capital ratio is calculated as the current assets minus the current liabilities. Profitability in the auto industry will increase as less money is stuck in unproductive current assets, but the industry's financial health will be jeopardized. It is generally true that a better rate of return on capital employed may be attained with a smaller value of working capital, and that a lower value of working capital can provide a higher rate of return. Consequently, the link between profits and working capital is the primary focus of this investigation. The effect of working capital on profitability has been studied by calculating the coefficient of correlation and regression between profits and six different working capital component ratios. These ratios are the current ratio (CR), the liquidity ratio (LR), the working capital turnover ratio (WCTR), the inventory turnover ratio (ITR), the receivables turnover ratio (RTR), and the cash turnover ratio (CTR) (CTR). Whereas, PBT to total asset ratio (dependent ratio).

Studying the effect of working capital ratios on profitability is the focus of the conceptual model depicted in Figure 1.1. The research will focus on one dependent variable and six independent factors. Pearson's coefficient of correlation is the most frequent metric of correlation or predictability. Larger the r-value, the stronger is the relationship between two variables.

On the basis of statement of problems, this study is keen interested to investigate the Impact of Working Capital Ratios on Profitability in selected four-wheeler automobile companies.

- To comprehend how companies can best manage their working capital during a crisis phase, resulting in the most profitability.
- To determine the relationship between selected four-wheeler automobile companies' WCM and their profits to figure out which is the "best" way.
- To assess the impact of working capital ratios on profitability.

II. Review of Literature

The goal of working capital management (WCM) is to meet the day-to-day needs of a company with a combination of cash on hand, stock on hand, and debt owed, all financed at the lowest possible cost through current liabilities. In a 2009 study (Brigham and

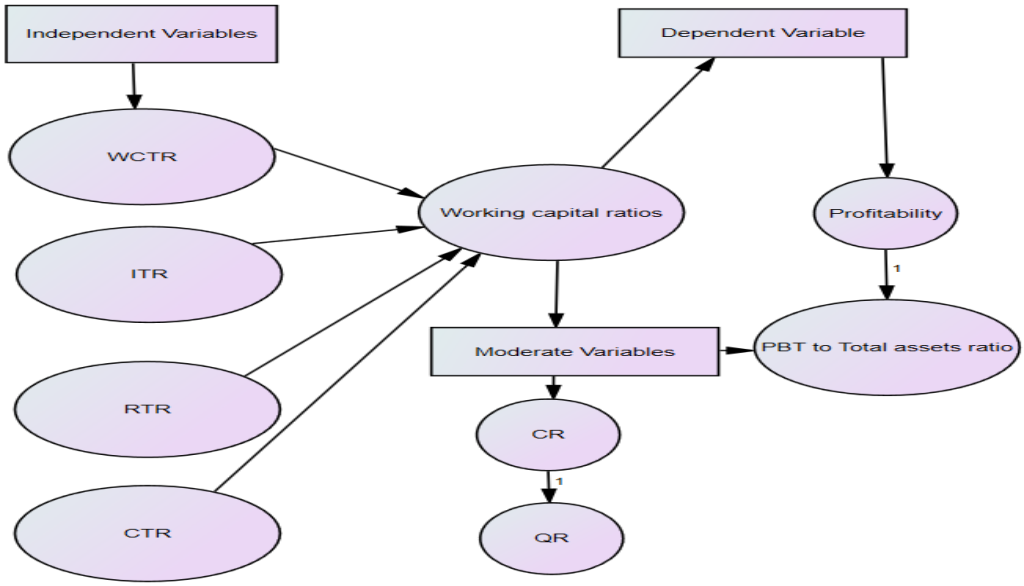
Houston), The success of a business depends on its capacity to effectively manage its current assets and liabilities, and this requires an understanding of the differences between the two. (Ehrhardt & Brigham, 2011). Several studies have examined the link between working capital management and business profitability in various markets, particularly developed economies. The findings are diverse, but the bulk of research suggests that working capital management has a negative link with corporate success. The papers analyzed examined the association using various variables and methodologies such as linear regression and panel data regression. We have given a timeline of significant works linked to our topic in this part in order to analyse and identify the research gap. Zariyawati, Annuar, and Rahim (2009) explored the association between Malaysian business profitability and working capital management, using the cash conversion cycle as a measure of working capital management. The researchers examined panel data from 1628 firms from 1996 to 2006 from six distinct economic sectors listed on the Malaysian stock exchange, Bursa. Their findings found that the regression coefficient results demonstrated a substantial negative significant link between the cash conversion cycle and business profitability. As a result, a company's management can boost profits by shortening the cash convention cycle. Ruel and Solano (2007) investigated the empirical data on the effects of working capital management on profitability in 8872 Spanish small to medium-sized firms (SMEs) from 1996 to 2005. According to the findings, shortening the cash flow cycle boosts profitability. Additionally, reducing SMEs' stocks and the number of days their accounts are outstanding would enhance profitability. Using a sample of 88 American firms listed on the New York Stock Exchange between 2005 and 2007, Gill, Biger, and Mathur (2010) extended the findings of Lazaridis and Tryfonidis about the connection between working capital management and the profitability of American enterprises. They calculated working capital using the cash convention cycle and profitability using gross operating profit. It was found that there is a strong correlation between the cash conversion cycle and financial success. Researchers discovered that if managers handle the cash conversion cycle and accounts receivable optimally, their companies can see a benefit. On the ground in India, Sharma and Kumar find conflicting evidence (2011). They found supporting evidence for a favorable correlation, suggesting that loosening up on all three aspects of working capital management boosts profits. They attribute this to the fact that India is a growing market in which firms' creditworthiness is still in the process of being established, leading many to relax their controls over working capital. Another reason given is that only prosperous businesses can afford to loosen working capital management, therefore it is the success of these businesses that allows them to do so. Several authors, including Kumar (2011), Lazaridis (2006), Baos-Caballero (2010), and Karaduman et al. (2011), have shown a negative correlation between accounts payable and profitability (2011). One possible counterargument is that companies with higher profits tend to make payments sooner than those with lower profits, and that this has a negative impact on profits. An alternative justification is provided by Deloof (2003), who argues that if a business delays paying its bills for too long, it will be required to do so without any discount. A corporation might potentially gain this discount by speeding these payments, so boosting its earnings.

Using the co-efficient of correlation and multi-regression analysis, this research looks at the relationship between working capital and profit across six different ratios: current ratio (CR),

liquidity ratio (LR), working capital turnover ratio (WCTR), inventory turnover ratio (ITR), accounts receivable turnover ratio (RTR), and cash turnover ratio (CTR). PBT to total asset ratio for All (dependent ratio). The conceptual framework depicted in Figure 1.1 may be used to examine the variables that have a bearing on the efficiency with which a company uses its working capital. Figure 1.1 presents the conceptual model of the Impact of working capital ratios on profitability in chosen four-wheeler automobile companies based on a comprehensive evaluation of the relevant literature.

Figure 1.1

Theoretical Framework



Source: *compiled by the researcher, Amos Graphics*

Table 1.1

Dependent Variable

Sr. No	Variable name	Formula	Definition
1	***PBT to Total assets ratio***	$\frac{\text{Profit before Tax}}{\text{Total Assets}}$	A ratio compares a company's PBT to its net assets.

Table 1.2

Independent Variable

Sr. No	Variable name	Formula	Definition
1	*Current ratio* ***(CR)***	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Indicative of whether or not short-term debts can be met with available liquid assets.
2	*Quick ratio* ***(QR)***	$\frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$	A ratio can quantify a company's short-term promises and cash flow requirements.
3	*Working capital turnover ratio* ***(WCTR)***	$\frac{\text{Net Sales}}{\text{Average Working capital}}$	Working capital turnover indicates how well a firm uses its working capital to promote sales and growth.
4	*Inventory turnover ratio* ***(ITR)***	$\frac{\text{Net Sales}}{\text{Average Inventory}}$	It talks about how well goods are turned into net sales.
5	*Receivable turnover ratio* ***(RTR)***	$\frac{\text{Net Sales}}{\text{Average Debtors}}$	Indicative of how smoothly the receivables were turned into cash.
6	*Cash turnover ratio* ***(CTR)***	$\frac{\text{Net Sales}}{\text{Average cash balance}}$	The cash turnover ratio determines the proportion of cash required to generate sales.

Research Hypothesis

H_1: Working capital ratios have a significant impact on profitability ratios.

Sub-Hypothesis

H_1: Quick ratio has a significant impact on the profitability ratio.

H_2: The working capital turnover ratio has a significant impact on the profitability ratio.

H_3: The inventory turnover ratio has a significant impact on the profitability ratio.

H_4: Receivable turnover ratio has a significant impact on the profitability ratio.

H_5: The cash turnover ratio has a significant impact on the profitability ratio.

III. Research Methodology

The data used for the study are secondary in nature, ten companies taken from the Centre for Monitoring Indian Economy (CMIE) prowess for the purpose of the study, to choose a sample from the universe for research purposes., the purposive (judgmental) selection method is preferred for secondary data. The required data were collected from the Annual

report and CMIE prowess. And other relevant data are collected from journals, magazines, article and website. A sample of ten companies has been selected on the basis of availability of data for ten years and its capitalization. Source: Statista., selected companies are: The study employs Linear and multi-regression analysis to investigate secondary data. Multiple Regression Models are used to achieve the objective and test the hypothesis of knowing the impact of the working capital ratio on profitability with secondary data. Multiple regression models are equations that represent the relationship between a dependent variable ***y*** and a set of independent variables ***(X1, X2, ... Xn***, and an error term). In this study, it employed the following multiple regression model. To estimate the parameters b0, b1, b2, b3, b4, and b5, plug them into the formula ***PBT / TA = b0 + b1 LR + b2 WTR + b3 ITR + b4 RTR + b5 CTR.***

Table 1.3

List of sample Four-wheeler passenger car manufacturing companies included in the present study

Sr. No	Name of Company	CMIE Prowess Company code	Incorporation Year	Market share across India in the financial year 2021	Sales Volume (In 1,000s)
1	Maruti Suzuki India Ltd.	140829	1981	47.8 %	1393.84
2	Hyundai Motor India Ltd.	96229	1996	17.42%	471.54
3	Tata Motors Ltd.	248093	1945	8.2%	222.01
4	Mahindra & Mahindra Ltd.	136444	1945	5.75%	155.54
5	Toyota Kirloskar Motor Pvt. Ltd.	252519	1997	3.44%	93.12
6	Renault India Pvt. Ltd.	409540	2005	3.41%	92.27
7	Honda Cars India Ltd.	94960	1995	3.03%	82.07
8	Ford India Pvt. Ltd.	74412	2000	1.77%	48.04
9	Nissan Motor India Pvt. Ltd.	377305	2005	0.7%	18.88
10	Fiat India Automobiles Pvt. Ltd.	72882	1997	0.24%	6.55

Source: *CMIE prowess database & Statista 2021*

IV. Results and Analysis

Correlation Coefficient Pearson's coefficient of correlation is the most frequent metric of correlation or prediction. The value of Pearson's r, as it is more frequently known, can vary

anywhere from-1 to 1. If you know one variable and its relationship to the other, you can more reliably forecast the other variable. When the correlation between two variables is 1 (or-1), it means that the values of one variable can be predicted with complete accuracy from the values of the other. For there to be no connection between the two variables, the r-coefficient must be zero. This signifies that it is impossible to predict the value of one variable based on the value of the other. The direction of the relationship can be inferred from the correlation's sign. In other words, if one variable has a high score and another has a low value, then the high score suggests a positive correlation and the low score shows a negative correlation. Conversely, a negative correlation indicates a negative relationship between the two variables. The company's working capital and profitability ratios are shown in Table 1.4 along with their correlation coefficient. Table 1.4 shows that the profitability ratio is negatively correlated with the current ratio (r=-0.31). Higher levels of negative impact connection are displayed. Correlation between profitability and liquidity ratios is also quite low, at-0.41. These results point to a negative impact association between the two variables, however only mild in strength. This association is statistically significant at the 5% level. Profitability and working capital turnover ratios are negatively correlated (r=-4.40). As such, it suggests a negative impact correlation between the two variables, though only mild in strength. This association is statistically significant at the 5% level. Similar to how the profitability and inventory turnover ratios are both correlated at 0.41, here too we see a high degree of statistical significance. A moderate positive impact connection is shown here between these two factors. This association is statistically significant at the 5% level. Furthermore, a 0.64 coefficient of connection exists between the profitability ratio and the receivable turnover ratio. It shows that the degree of positive impact correlation between these two factors is relatively strong. The significance level for this relationship is 5%. A correlation coefficient of 0.71 can be found between cash turnover and profitability. This suggests a stronger positive impact association between the two factors. At the 1% significance level, this association is highly significant.

This means that in the selected four-wheeler passenger automobile manufacturing companies, CR, QR, and WCTR all demonstrated negative correlations with profitability ratios, as predicted by the study of the impact of working capital ratios on profitability. On the other hand, profitability ratios were favorably connected with ITR, RTR, and CTR. From table 1.4, we can further deduce that, with the exception of cash turnover ratios, five of the six ratios measuring working capital components are significant at the 5-percentage-point level. As a result, profitability measures are strongly correlated with working capital ratios. Working capital ratios have both a positive and negative effect on the profitability of the selected four-wheeler passenger automobile manufacturers, as shown in Table 1.4. No significant correlations or correlation inverses have been discovered between dependent and independent variables. Having a negative credit policy is seen in the negative relationship between working capital ratios and profitability. Profitability is dependent on working capital, as shown by the analysis of the association between these two factors.

Table 1.4

Simple correlation analysis

(Four-wheeler passenger car manufacturing companies)

	Working capital ratios						
Year	**CR**	**QR**	**WCTR**	**ITR**	**RTR**	**CTR**	**PBT to total assets ratio**
2011-12	0.99	0.73	83.64	23.88	25.17	30.68	-0.138
2012-13	0.99	0.70	-23.77	38.62	24.75	67.50	-0.048
2013-14	0.78	0.53	-13.77	27.84	30.51	82.22	-0.035
2014-15	0.81	0.55	3.65	28.99	27.43	76.58	0.024
2015-16	0.99	0.72	5.73	48.49	31.86	98.20	0.047
2016-17	0.84	0.56	7.24	60.20	29.19	50.55	0.049
2017-18	0.87	0.56	-0.46	89.36	28.09	92.66	0.018
2018-19	1.01	0.67	30.62	31.39	32.04	80.09	0.061
2019-20	1.13	0.74	13.41	30.44	25.22	80.55	0.029
2020-21	1.32	0.83	11.58	27.88	25.00	33.08	-0.083
Co-efficient of correlation (r)	-0.31	-0.41	-0.40	0.41	0.64	0.71	
	(-0.92) **	(-1.27) **	(-1.25) **	(1.28) **	(2.38) **	(4.38) *	

Source: *Secondary Data, Annual reports & CMIE Prowess, Excel 16 & SPSS .26*

*Figures in brackets show the '**t**' value*

***** *Significant at 0.01 level;* ****** *Significant at 0.05 level*

Testing Hypothesis: Impact of Working Capital Ratios on Profitability - Multiple Regression Analysis

This part explores how the working capital ratio affects financial outcomes. Working capital ratios (CR, QR are used as a moderate variable, WTR, ITR, RTR, and CTR) are used as independent variables, while the ratio of profit before taxes (PBT) to total assets is used as the dependent variable. Table 1.5 shows the connection between the variables of interest, which can be used to make selections for the model. Table 1.5 displays the results of calculating the correlation coefficient between the independent variables. Table 1.4 shows that corporations often exhibit a very high level of correlation (0.940) between CR and QR. The analysis demonstrates that there is a strong association between the CR and QR, with a correlation of 0.940 between the two. With a value of 0.222, the link between CR and WCTR is weak. The CR coefficient with ITR, RTR, and CTR is extremely negative (-0.327, -0.445, and-0.482). The correlation coefficient of -0.309 between PBT/TA and CR shows that there is a negative link between the company's current ratio and its profitability. The overall correlation analysis shows that profitability is tied to working capital. Academics came up with the following regression model to find out if working capital ratios had any effect on how profitable a company was.

Table 1.5

Correlation matrix

		CR	QR	WCTR	ITR	RTR	CTR	PBT/TA
CR	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	10						
QR	Pearson Correlation	.940**	1					
	Sig. (2-tailed)	.000						
	N	10	10					
WCTR	Pearson Correlation	.222	.349	1				
	Sig. (2-tailed)	.538	.323					
	N	10	10	10				
ITR	Pearson Correlation	-.327	-.411	-.303	1			
	Sig. (2-tailed)	.356	.238	.394				
	N	10	10	10	10			
RTR	Pearson Correlation	-.456	-.445	-.139	.219	1		
	Sig. (2-tailed)	.186	.197	.703	.543			
	N	10	10	10	10	10		
CTR	Pearson Correlation	-.412	-.482	-.427	.485	.440	1	
	Sig. (2-tailed)	.237	.158	.219	.156	.203		
	N	10	10	10	10	10	10	
PBT/TA	Pearson Correlation	-.309	-.409	-.405	.412	.643*	.841**	1
	Sig. (2-tailed)	.384	.241	.245	.236	.045	.002	
	N	10	10	10	10	10	10	10

Source: *Secondary Data, Annual reports & CMIE Prowess, Excel 16 & SPSS .26*

The model utilized in this section was the correlation between all variables in the regression models: ***PBT / TA = b0 + b1 QR + b2 WTR + b3 ITR + b4 RTR + b5 CTR***. According to

Gujarati (1995), a multi-collinear issue arises in the regression equation when the correlation value is more than 0.8. Based on the data in Table 1.5, it is clear that there is no multi-collinearity issue because the correlation coefficient is more than 0.85 for all variables (excluding CR). Multivariate regression models may be constructed with these independent variables and control variables. For this reason, we will ignore the current ratio. Constant b0, with variable coefficients b1, b2, b3, b4, and b5. The ratio of PBT to TA is the dependent variable. The independent variables in the examined regression model are the current ratio (CR), the quick ratio (QR), the working capital turnover ratio (WCTR), the inventory turnover ratio (ITR), the receivables turnover ratio (RTR), and the cash turnover ratio (CTR). Where the unknown values for b0, b1, b2, b3, b4, and b5 are estimated.

Table 1.6

Estimated regression results of the impact of working capital ratios on profitability

(Four-wheeler passenger car manufacturing companies)

(PBT/TA = b0 + b1 QR + b2 WTR + b3 ITR + b4 RTR + b5 CTR)

Particular	Beta Co-efficient	Standard Error	t stat	p-value	
Intercept	-1.22	5.17	-0.24	0.82	Not Significant
QR	0.30	6.76	0.48	0.67	Not Significant
WCTR	-0.77	0.02	-3.10	0.03**	Significant
ITR	-0.21	0.81	-1.03	0.38	Not Significant
RTR	0.31	3.79	1.34	0.04**	Significant
CTR	-0.72	0.90	-3.27	0.08***	Significant
Multiple R	0.96				
R^2 = 0.84	0.92				
Adj R^2 = 0.84	0.76				

Source: *Secondary Data, Annual reports & CMIE Prowess, Excel 16 & SPSS .26*

Model Summary of Regression Analysis

***** *Significant at 0.01 level; ** Significant at 0.05 level;* ******* *Significant at 0.10 level*

H_1: There is a significant impact of working capital ratios on profitability ratios in

selected Four-wheeler passenger car manufacturing companies.

Table 1.7

ANOVA- Regression Model

Regression Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.405	6	.734	5.657	0.03**
	Residual	.389	3	.130		
	Total	4.794	9			

a. **Dependent Variable**: PBT/TA

b. **Predictors: (Constant),** CR, QR, WCTR, ITR, RTR, CTR

Source: *Secondary Data, Annual reports & CMIE Prowess, Excel 16 & SPSS .26*

***** *Significant at 0.01 level;* ****** *Significant at 0.05 level;* ******* *Significant at 0.10 level*

Sub-Hypotheses:

H_1: Quick ratio has a significant impact on the profitability ratio.

H_2: Working capital turnover ratio has a significant impact on the profitability ratio.

H_3: Inventory turnover ratio has a significant impact on the profitability ratio.

H_4: Receivable turnover ratio has a significant impact on the profitability ratio.

H_5: Cash turnover ratio has a significant impact on the profitability ratio.

Table 1.8

Regression statistics of the model result

Working Capital ratios	Ho	H_1	Significant level
Quick ratio (QR)	Not Rejected	Rejected	t= -0.48 and P value =0.67> 0.05
Working capital turnover ratio (WCTR)	Rejected	Not Rejected	t= -3.10 and P value =0.03< 0.05
Inventory Turnover ratio (ITR)	Not Rejected	Rejected	t= -1.03 and P value =0.38> 0.05
Receivable Turnover ratio (RTR)	Rejected	Not Rejected	t= 1.34 and P value =0.04< 0.05
Cash Turnover ratio (CTR)	Rejected	Not Rejected	t= -3.27 and P value =0.08< 0.1

Source: *Secondary Data, Annual reports & CMIE Prowess, Excel 16 & SPSS .26*

***** *Significant at 0.01 level;* ****** *Significant at 0.05 level;* ******* *Significant at 0.1*

Working capital ratios have a significant impact on profitability ratios for the selected four-wheeler passenger carmakers, as shown by the results of an analysis of variance regression model (Table 1.7). The extent to which (constant) CR, QR, WCTR, ITR, RTR, and CT predict PBT/TA. Table 1.7 displays statistically significant results: An f-value of-5.657 and a P-value of 0.03, it is larger than 0.01 and lesser than 0.05, which mean ANOVA- Regression Model indicate that the hypothesis is supported and the model is accepted. In this case it accepts the alternative and rejects the Null. Table 1.7 and Table 1.8 provide the regression results of the model showing that there is an impact of working capital ratios on profitability, which determine that working capital ratios have an impact on a company's bottom line. Regression model seems to be rather accurate, with a multiple correlation coefficient of 0.96 between dependent and independent variables. The coefficient of determination (R-Square) indicates that 92 percentage of the variation in the dependent variable (PBT/TA) can be attributed to the independent variables in the regression model. Gives an indication of the degree to which one dependent variable varies with one independent variable, while the other independent variables are maintained constant. According to the p-value, WCTR, RTR, and CTR all have a noteworthy impact on earnings for a business. The quick ratio (QR) and inventory turnover rate (ITR) are examples of working capital ratios; however, they don't significantly impact profits. It's worth noting that QR's regression coefficient is rather large, however statistically insignificant. Tables 1.7 and 1.8 display the results of the tests conducted on the hypothesis. Table 1.8 provides a summary of the findings from the hypothesis testing and regression analysis. Tables 1.7 and 1.8 support the basic premise that working capital ratios significantly affect the profitability of small businesses. There are many competing null hypotheses in finance, but only the WCTR, RTR, and CTR have gained widespread acceptance and been proved to significantly impact financial results. Specifically, we accept the alternative hypothesis and reject the Null.

V. Discussion

The result suggests that companies should maintain an optimum investment in their current assets to easily improve their liquidity position and ability to pay their current obligations. The ITR and RTR of the companies are found to be high, which suggests that the company is following a strict credit policy, which could be one of the reasons for the delay in production and low sales and hence low profitability. CTR and WCTR are found to be good figures, but when we look at the size of current assets in total assets, the figure of liquidity ratios such as QR cannot be considered good. It suggests that working capital management is linked with profitability, which indicates that aggressive working capital investment and financial policies drive higher profitability. The correlation analysis of the study shows that the WCTR, RTR, and CTR of the independent variables were positively correlated with profitability, and the remaining QR and ITR were neutral. It is suggested that if the financial managers keep an eye on the WCTR, RTR, and CTR, it will lead to profitability. At the same time, it is also recommended that companies always maintain a sound QR and ITR to maintain the liquidity ratio. Finally, it is further suggested that financial managers of companies can create value for their shareholders by reducing the number of

days accounts receivable, increasing the number of days accounts payable, and reducing inventories to a reasonable minimum. If the companies' current assets increase yearly, it is suggested that they should be controlled by stock level and receivables and improve control over their credit policy. If current assets are increasing at a very high rate among the companies, it is due to a relaxed credit policy. It is suggested that companies reduce their collection period and maintain stock levels too. If the current asset trend of companies shows both an increase and a decrease, it means fluctuations are not too high, so it can be managed by control over stock and receivables. Suppose current liabilities levels in companies are increasing every year. If it is in favour of working capital management than still a company should take care that the increase in current liabilities may not be excessive because it harms the company's image and non-payment or delay in payment. And also, if companies' current liabilities to working capital are very high, it is very good for them because it is a source of short-term finance. Suppose inventory levels decreased yearly in companies, which is favorable for the company. In that case, the company should maintain the reducing trend because the lower the inventory level, the lower the cost of inventory maintenance. If companies control cash management, but when it is increasing, it is suggested that a company should maintain a perfect cash balance and a fixed and optimum level of cash balance. If receivable management is fluctuating at a very high percentage in companies, it is advised that companies should improve their control over the fluctuation in the balance of receivables.

VI. Conclusion and Implication

The inferred findings show that the analyzed companies are not in a particularly profitable position, and that several of them even posted losses throughout the study period. Also, the data demonstrates that the company has consistently under-invested in its current assets and has never achieved the industry benchmark ratio of 2:1 during the time period under consideration (2011-2012 to 2020-2021). The findings point toward the need for consistent maximization of the investment in the current assets as a means to better the company's liquidity position and its capacity to meet its current obligations. With such high ITR and RTR figures, it's possible that the company's stringent credit policy is to blame for manufacturing delays, weak sales, and consequently, low profits. It is determined that the CTR and WCTR are satisfactory values. In spite of this, when considering the proportion of current assets to total assets, the value of liquidity ratios like QR cannot be regarded favorable, especially when companies take a vigorous approach to managing their working capital. Analysis of the study's independent variables reveals a positive relationship between profitability and WCTR, RTR, and CTR, but QR and ITR had no effect on profitability at all. The overall outcome of the regression model demonstrated the importance of managing working capital to a company's bottom line. This part shows, however, that only three of the six independent factors tested have a statistically significant impact on the firm's profitability. As a result, it is recommended that the firm revamp its credit strategy in order to boost sales and earnings.

The implication in this study, to deepen the concept of working Capital Management in four-wheeler automobile companies in India, the researcher recommends conducting more research and scientific studies dealing with: The study can be widened to compare several four-wheeler passenger car Manufacturing companies on the same or additional variables. Further research can be done segment-wise in the automobile industry to examine firms' financial strength in particular segments of the auto industry. There is a low investment in the R & D area by the government of India and the automobile industry in the automobile sector. Suggested to improve the lack of technologies for Indian companies, vehicle manufacturers have been spending less than 0.4 per cent of sales on research and development. Rigidity In Labour Laws: Strict labour laws in India are hindering the overall development of the auto industry. I propose that the government make labour law more flexible and the Government of India may reduce the tax rates levied to the manufacturing four-wheeler car companies and management should reduce the cost to enable the common man to purchase a vehicle. Working capital is undoubtedly one such topic. The puzzle of optimal working capital Management is as relevant and crucial as working capital policies, which need to consider the nature of the company's business since different businesses have different working capital requirements [Banjerjee, 2005].Overall growth and development of the companies and Industries is important factor considered i.e. available of working capital and To meet the operational needs of the companies and Industry, efficient management of working capital is required. Further In India today, some automobile manufacturing companies as well as industry are facing obsolescence, deterioration, pilferage, mishandling, high insurance and carrying costs, idle funds and accounts receivable due to unnecessary accumulation of inventories and cash.

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