Impact Of Liquidity Ratios on Profitability an Empirical Study of Selected Indian Firms

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Abstract— **Liquidity and profitability ratios are considered essential indicators of a firm's overall performance, both from a short-term and long-term perspective. While sustained profitability supports future growth and expansion, adequate liquidity ensures smooth day-to-day operations in the short run. This study focuses on selected Indian automobile companies to evaluate their liquidity and profitability performance and to examine the relationship between the two. For this purpose, three firms Maruti Suzuki India Ltd., Tata Motors Ltd., and Mahindra & Mahindra Ltd. were selected, and secondary data was obtained from their published annual reports. The study covers a ten-year period from 2014–15 to 2023–24. Analytical tools such as the arithmetic mean and regression analysis were applied. The findings reveal that, in terms of liquidity ratios, Mahindra & Mahindra Ltd. outperformed both Maruti Suzuki and Tata Motors, whereas in profitability ratios, Maruti Suzuki recorded superior performance compared to the other two companies. The overall conclusion of the study indicates that there is no statistically significant relationship between liquidity ratios and profitability ratios for the firms under review.**

Index Terms— **Liquidity, Profitability, Automobile, Performance, Indian Firm.**

I. INTRODUCTION

The performance of a company has a direct influence on various stakeholders, including shareholders, directors, employees, and customers. Several factors determine this performance, such as the size of the organization, its area of operations, customer base, and other external and internal elements. Among the different tools available, financial ratios serve as effective indicators to evaluate both the financial position and overall performance of a business. In particular, liquidity and profitability ratios are widely applied.

Liquidity reflects a firm's capacity to meet its short-term obligations, generally those maturing within a year. This ability can be ensured through multiple resources such as cash in hand, bank balances, current assets, cash credit facilities, and overdraft arrangements. Profitability, on the other hand, measures the firm's ability to generate earnings. Since profit generation is the fundamental objective of any business, its absence would threaten the long-term survival of the enterprise. Consequently, evaluating past and present profitability, along with forecasting future trends, becomes crucial.

The automobile sector holds a pivotal role in driving India's economic growth and is recognized as one of the largest revenue-generating industries in the country. Against this backdrop, the present study seeks to examine the impact of liquidity ratios on the profitability of selected listed automobile companies in India. It also aims to determine whether the relationship between liquidity and profitability is significant, and if so, whether the impact is positive or negative

II. REVIEW OF LITERATURE

The significant literature on liquidity and profitability is summarized below:

Bharti & Singh (2014). Their study presented the performance evaluation of different categories of banks viz. public, private and foreign bank groups in India. For evaluating the performance. From the study, it has been Found that during the study period the liquidity and profitability position of public sector bank group declined while it has Improved in the other two groups. Further the results indicated that in most of the financial Indicators foreign banks recorded the highest mean values. But as far as stability and

consistency is concerned, it was negligible in foreign banks and highest in public sector banks.

Ehiedu (2014). The study aimed to analysis the Impact of Liquidity (Current ratio, Acid test ratio) on Profitability (Return on Assets) of Some Selected Companies. From the analysis, it has been observed that, there is a significant positive correlation between current ratio and profitability as measured by Return on assets (ROA), There is no definite significant correlation between Acid test ratio and Profitability and There is no significant positive correlation between return on capital employed and Return on Assets

Khan et al. (2016) Have measured the liquidity and profitability of the selected Telecom Companies. They found that the profitability ratios showed return on assets is higher in Vodafone than that of Bharti Airtel which means former has higher rate of profits. And in terms of return on equity also Vodafone has performed far better than Bharti Airtel. They concluded that there is a vast difference in the performance of selected Telecom companies in terms of liquidity and profitability performance.

Madushanka & Jathurika (2018). Their study is aimed to investigate the relationship between liquidity and profitability. The analysis is based on 15 manufacturing companies listed on the Colombo Stock Exchange over a period of five years from 2012 to 2016. Descriptive statistics, Correlation and regression analysis were applied for the analysis and findings suggested that Liquidity ratios (Quick ratio) have positive and significantly related to the firm profitability among the selected companies. They recommended that Manufacturing Companies in SriLanka that, pay more attention on the liquidity ratios as they have the Significant impact on the profitability of the firms.

Sreegeetha & Revathi (2022) Have analysed the Liquidity position of select Electrical Machinery companies in India. They concluded that, the profitability analysis of the selected Electrical Machinery companies revealed inefficiently utilizing their resources to improve profitability for increase the sales revenue and reduce the cost. Management function quality in products, customer service, manpower, goodwill, and market share it is valuable to increase productivity and wage costs in order to increase profitability, not only in terms of investment, but also in terms of investor return. They recommended improving the current ratio to increase current assets by raising shareholder funds and to improve net profit decrease in operating cost.

Tripathi (2020). Has examined the effects of M&As in FMCG sector in India. The study found that M&As positively affect productivity of acquiring Firms of FMCG organizations in India. There was additionally beneficial outcome of M&A action on Return on Capital Employed and Return on Net Worth and yet it found that M&A action has no constructive outcome on Operating overall revenue Ratio and Net Profit Margin Ratio of chose FMCG organizations. The study also found that the measures utilized for examination that shows in general improvement in the presentation of chose FMCG Organizations in India after M&As. The study Concluded that there have overall positive effects on performance of FMCG companies in long run with Reference to the Indian context

III. RESEARCH GAP

A majority of existing studies on the relationship between liquidity and profitability have been conducted in developed economies such as the USA, Greece, Indonesia, Poland, and other European nations. However, within the Indian context, particularly in the automobile sector, there is a scarcity of comprehensive research examining liquidity and profitability performance as well as their interrelationship. This limited evidence highlights the need for further empirical investigation in the Indian automobile industry

IV. OBJECTIVES OF THE STUDY

1. To evaluate the liquidity and profitability performance of the selected firms using key financial ratios such as Current Ratio, Quick Ratio, Return on Assets (ROA), and Return on Equity (ROE).
2. To examine the relationship between liquidity and profitability ratios among the selected firms through correlation analysis.
3. To analyse the impact of liquidity ratios (Current and Quick Ratios) on profitability measures (ROA and ROE) using multiple regression analysis.

V. SCOPE OF THE STUDY

The present study is limited to analysing the liquidity and profitability performance of selected automobile companies in India and exploring the relationship between these two variables. The analysis is based on a ten-year period, spanning from 2014–15 to 2023–24.

VI. LIMITATION OF THE STUDY

Limitation of the study are as follow.

1. This study is carried out for a period of 10 years only from 2014-15 to 2023-24 so finding cannot be applicable for a very long period of time.
2. The study is carried out for selected 3 companies only. Hence, the limitations of sample size also apply to this research.
3. Ratio analysis & statistical techniques have their own limitations which might affect the conclusion.

VII.METHODOLOGY

Company's financial statement provides various values for measuring company's performance. Accounting ratios are very widely and commonly used by different stakeholders for the measurement of the company's performance.

VIII. HYPOTHESIS

Ho: There is no statistically significant impact of liquidity ratios on profitability.
H1: There is statistically significant impact of liquidity ratios on profitability.

IX. DATA SET

The data used in the present research study was collected from the annual reports of selected automobile companies. Which are: Maruti Suzuki India Ltd., Tata Motors Ltd. And Mahindra and Mahindra Ltd. Companies are selected on the basis of highest revenue. The study is purely based on secondary sources.

X. VARIABLES

In this research paper to understand the performance of the selected automobile companies Liquidity ratios (Current ratio and quick ratio) and profitability ratios (Return on Assets and Return on Equity) are used. The brief explanations of these variables are as under.

XI. LIQUIDITY RATIOS

Liquidity ratio provides the understanding between the relationship of current assets and short-term liabilities. Which indicates that how quickly a company can turn its assets in to cash. Higher ratio means company can pay its debts easily which can help to avoid defaulting in payment. Mainly there are two basic financial liquidity ratios. Current Ratio = Current Assets/Current Liabilities Current ratio is most commonly used ratio. It gives general idea of company's liquidity. The ratio shows the ability of the company to pay it's all current liabilities using its current assets. Quick Ratio = Current Assets - Inventory/Current Liabilities Inventory is the least liquid assets. For the better measurement of how fast company can pay its current liabilities, inventory is deducted from the other current assets. Quick ratio provides the understanding that against current liabilities, how much liquid current assets company have.

XII. PROFITABILITY MEASUREMENT

Assets profitability ratios indicate the relationship between the net income and total assets of the company. This ratio helpful to determine company's earning compare to other competitors. Return of assets is basic profitability measurement, which provide the understanding that with proportion to the total assets how much company is earing. Return on Assets = Net Income/Total Assets × 100 Return of equity ratio indicates the relationship between the Net Income and Equity of the company. Ratio between the net income and equity indicate compare to equity how much company is generating the profit. Higher ROE shows the better performance of company. Return of Equity = Net Income/Equity × 100.

XIII. DATA ANALYSIS

After collecting ten years data of three companies, statistical analysis is done by using Arithmetic mean method.
Liquidity ratios

Current Ratio = Current Assets/Current Liabilities

YEAR	MARUTI SUZUKI INDIA LTD.	MAHINDRA AND MAHINDRA LTD	TATA MOTORS LTD.
MARCH - 2015	0.93	1.13	0.19
MARCH – 2016	0.71	1.18	0.36
MARCH – 2017	0.66	1.31	0.33
MARCH – 2018	0.51	1.24	0.38
MARCH – 2019	0.87	1.26	0.37
MARCH – 2020	0.75	1.38	0.38
MARCH – 2021	1.15	1.34	0.6
MARCH – 2022	0.99	1.38	0.58
MARCH – 2023	0.58	1.33	0.45
MARCH – 2024	0.77	1.35	0.56

(Sources: Annual reports of Maruti Suzuki India Ltd., Tata Motors Ltd. and Mahindra and Mahindra Ltd)

The above table of current ratio shows that except the March – 2015 in all ten years Mahindra and Mahindra Ltd. have the highest current ratio, which indicate its better abilities to fulfil its current liabilities. In most of the years Maruti Suzuki India Ltd. has higher current ratio than Tata Motors Ltd. which indicates that compare to Tata motors Ltd., Maruti Suzuki India Ltd. has better liquidity condition. Also, mean of all three companies indicates that Mahindra and Mahindra Ltd. have better liquidity condition as an average compare to other two companies and compare to Tata Motors Ltd., Maruti Suzuki India Ltd. has better condition. From the above table it can also be seen that Covid – 19 has almost no effect on the current ratio of all three companies.

Quick Ratio = Current Assets - Inventory/Current Liabilities

YEAR	MARUTI SUZUKI INDIA LTD.	MAHINDRA AND MAHINDRA LTD	TATA MOTORS LTD.
MARCH - 2015	0.63	0.86	0.42
MARCH – 2016	0.43	0.91	0.63
MARCH – 2017	0.42	1.02	0.59
MARCH – 2018	0.31	1.03	0.62
MARCH – 2019	0.64	0.99	0.58
MARCH – 2020	0.46	1.07	0.53
MARCH – 2021	0.96	1.08	0.43
MARCH – 2022	0.78	1.06	0.44
MARCH – 2023	0.36	0.99	0.33
MARCH – 2024	0.6	0.99	0.43

(Sources: Annual reports of Maruti Suzuki India Ltd., Tata Motors Ltd. and Mahindra and Mahindra Ltd)

Except in March - 2021 Mahindra and Mahindra Ltd. has the highest quick ratio in all ten years. While compare to Tata Motors Ltd., Maruti Suzuki India Ltd. has higher quick ratio in all years except March – 2021. Which indicates that Mahindra and Mahindra have better ability to convert its assets to fulfil its liabilities by liquid assets. Mean also indicates that in average Mahindra and Mahindra Ltd. has higher quick ratio and second is Maruti Suzuki India Ltd. Above table also shows that Covid – 19 has almost no effect on the quick ratio of all three companies.

Profitability measurement

Return On Assets = Net Income/Average Total Assets × 100

YEAR	MARUTI SUZUKI INDIA LTD.	MAHINDRA AND MAHINDRA LTD	TATA MOTORS LTD.
MARCH - 2015	11.06%	10.08%	-9.48%
MARCH – 2016	12.79%	9.02%	-0.10%
MARCH – 2017	14.34%	9.11%	-4.12%
MARCH – 2018	13.00%	9.18%	-1.74%
MARCH – 2019	11.91%	9.10%	3.31%
MARCH – 2020	9.03%	2.63%	-11.64%
MARCH – 2021	6.03%	0.45%	-3.68%
MARCH – 2022	5.13%	7.35%	-2.17%
MARCH – 2023	9.67%	8.64%	4.41%
MARCH – 2024	11.97%	12.78%	11.95%

(Sources: Annual reports of Maruti Suzuki India Ltd., Tata Motors Ltd. and Mahindra and Mahindra Ltd)

The above table of return on assets shows that in most of the years Maruti Suzuki India Ltd. has higher return on assets compare to other two companies. Tata Motors Ltd. has negative return on assets in many years. Mean of companies also indicates that Maruti Suzuki India Ltd. has better average return on assets compare to other two companies, Mahindra and Mahindra Ltd. has also good average return compare to Tata Motors Ltd. While Tata Motors Ltd. has negative mean, which indicate negative average return on assets. Above table also shows that Covid – 19 has affected the return on assets of all three companies, it can be seen in the return of March - 2020 and March - 2021.

Return on Equity = Net Income/Equity × 100

YEAR	MARUTI SUZUKI INDIA LTD.	MAHINDRA AND MAHINDRA LTD	TATA MOTORS LTD.
MARCH - 2015	15.65%	17.25%	-31.93%
MARCH – 2016	17.95%	14.29%	-0.26%
MARCH – 2017	20.17%	13.60%	-11.48%
MARCH – 2018	18.49%	14.37%	-5.13%
MARCH – 2019	16.25%	14.01%	9.11%
MARCH – 2020	11.66%	3.86%	-39.64%
MARCH – 2021	8.23%	0.77%	-12.57%
MARCH – 2022	6.96%	12.66%	-6.97%
MARCH – 2023	13.33%	15.10%	12.14%
MARCH – 2024	15.72%	20.50%	26.21%

Sources: Annual reports of Maruti Suzuki India Ltd., Tata Motors Ltd. and Mahindra and Mahindra Ltd.

In the above table of return on equity both Maruti Suzuki India Ltd. and Mahindra and Mahindra Ltd. has better return compare to Tata Motors Ltd. In both companies Maruti Suzuki India Ltd. has higher mean of return on equity. While Tata Motors Ltd. has negative return on equity mean. Above table also shows that Covid – 19 has affected the return on equity of all three companies, it can be seen in the return of March – 2020 and March – 2021 which shows the reduction in return on equity.

Descriptive Analysis

The descriptive analysis was conducted to summarize the general characteristics of the selected firms concerning liquidity and profitability indicators. The key descriptive statistics mean, standard deviation, minimum, and maximum values were computed to evaluate the central tendency and dispersion of each ratio.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio	30	.19	1.38	.8340	.38812
Quick Ratio	30	.31	1.08	.6863	.26282
ROE	30	-11.64%	20.50%	8.5853%	9.08951%
ROA	30	-39.64%	26.21%	4.0917%	13.50129%
Valid N (listwise)	30				

(Source: SPSS)

The descriptive statistics indicate substantial variation in the liquidity and profitability levels among the selected firms over the study period. The mean Current Ratio (0.83) suggests that, on average, firms hold current assets 0.83 times their current liabilities below the conventional benchmark of 2:1. This reflects a moderate liquidity position, implying that while firms maintain adequate current assets, they may not be highly solvent in the short run.

Similarly, the average Quick Ratio (0.69) is below the ideal 1:1 standard, indicating that a considerable portion of current assets is tied up in inventories, reducing immediate liquidity. The relatively low standard deviations (0.39 for Current Ratio and 0.26 for Quick Ratio) suggest moderate variability in

liquidity across firms, meaning most companies maintain comparable short-term asset structures.

Turning to profitability, the mean Return on Assets (8.58%) indicates that firms generate modest returns relative to their asset base. Meanwhile, the average Return on Equity (4.09%) shows limited profitability from shareholders' perspective. The high standard deviation of ROE (13.50%) compared to ROA (9.08%) reflects higher volatility in equity-based returns, possibly due to differences in capital structure, operational efficiency, and market cycles.

Overall, descriptive results reveal that liquidity levels are stable yet conservative, whereas profitability is more volatile and unevenly distributed among the sampled firms. This implies that some firms might be over-conservative in liquidity retention, potentially sacrificing profitability opportunities hinting at a liquidity–profitability trade-off.

These findings are consistent with Bharti and Singh (2014) and Ehiedu (2014), who also observed that firms with moderate liquidity tend to achieve stable performance but may compromise higher returns if excessive funds remain idle. Overall, descriptive results reveal that liquidity levels are stable yet conservative, whereas profitability is more volatile and unevenly distributed among the sampled firms. This implies that some firms might be over-conservative in liquidity retention, potentially sacrificing profitability opportunities hinting at a liquidity–profitability trade-off.

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Correlation Analysis

The correlation analysis aims to examine the direction and strength of linear relationships among liquidity and profitability indicators. Pearson's correlation coefficients were calculated to assess whether liquidity ratios (Current Ratio and Quick Ratio) are significantly associated with profitability measures (ROA and ROE).

Correlations					
		Current Ratio	Quick Ratio	ROE	ROA
Current Ratio	Pearson Correlation	1	.881**	.525**	.408*
	Sig. (2-tailed)		.000	.003	.025
	N	30	30	30	30
Quick Ratio	Pearson Correlation	.881**	1	.211	.146
	Sig. (2-tailed)	.000		.264	.443
	N	30	30	30	30
ROE	Pearson Correlation	.525**	.211	1	.854**
	Sig. (2-tailed)	.003	.264		.000
	N	30	30	30	30
ROA	Pearson Correlation	.408*	.146	.854**	1
	Sig. (2-tailed)	.025	.443	.000	
	N	30	30	30	30
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

(Source: SPSS)

The correlation matrix provides valuable insights into inter-variable associations. The Current Ratio and Quick Ratio show a strong positive correlation ($r = 0.881$, $p < 0.01$), indicating that firms maintaining higher overall liquidity also hold higher quick assets. This is logical since both ratios are derived from similar components, differing primarily by inventory inclusion.

A moderate positive correlation exists between Current Ratio and ROE ($r = 0.525$, $p < 0.01$), suggesting that better liquidity aligns with higher shareholder returns. Similarly, Current Ratio and ROA

are positively correlated ($r = 0.408$, $p < 0.05$), indicating that adequate liquidity supports asset utilization and profitability. These results imply that maintaining sufficient liquidity enhances a firm's ability to meet obligations and avoid financial distress, which in turn can stabilize profitability.

However, the Quick Ratio's correlation with both ROA ($r = 0.146$) and ROE ($r = 0.211$) is positive but statistically insignificant, suggesting that extremely liquid asset positions do not necessarily improve returns. This may occur when firms hold excess cash or receivables, reducing productive investment and overall efficiency.

The ROA–ROE relationship ($r = 0.854$, $p < 0.01$) is strong and significant, confirming that both profitability measures are interlinked; firms efficient in asset utilization typically generate better equity returns.

In summary, correlation results show a positive association between liquidity and profitability, particularly through the Current Ratio, while the Quick Ratio remains a weaker predictor. This pattern is in line with Madushanka and Jathurika (2018), who found that maintaining optimal not excessive liquidity enhances firm performance.

Thus, the correlation analysis supports the existence of a relationship, but not necessarily a linear or uniform one, between liquidity and profitability.

Regression Analysis

The regression analysis was conducted to determine the causal impact of liquidity ratios on profitability indicators. Two separate models were developed:

Model 1: Dependent variable – ROA (Return on Assets)

Model 2: Dependent variable – ROE (Return on Equity)

Liquidity measures (Current Ratio and Quick Ratio) served as independent variables. This aligns with the study's main hypothesis that liquidity influences profitability performance.

Model 1 – Liquidity and ROA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1951.056	2	975.528	7.897	.002[b]
	Residual	3335.204	27	123.526		
	Total	5286.260	29			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Quick Ratio, Current Ratio						

(Source: SPSS)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.491	5.796		.257	.799
	Current Ratio	43.293	11.220	1.245	3.858	.001
	Quick Ratio	-48.818	16.570	-.950	-2.946	.007
a. Dependent Variable: ROA						

(Source: SPSS)

The regression output for Model 1 shows $R = 0.608$ and $R^2 = 0.369$, meaning that 36.9% of the variation in ROA is explained by liquidity ratios. The F-statistic (7.897, $p = 0.002$) confirms that the model is statistically significant at the 1% level, validating that liquidity ratios jointly influence asset-based profitability.

The Current Ratio ($\beta = 1.245$, $p = 0.001$) has a significant positive effect on ROA, indicating that firms maintaining adequate liquidity can more effectively deploy assets for profit generation. This suggests that firms capable of meeting short-term obligations without strain tend to focus resources on core operations, enhancing return efficiency.

Conversely, the Quick Ratio (β = -0.950, p = 0.007) demonstrates a significant negative effect on ROA. This implies that holding excessive quick assets (cash, receivables) may reduce operational returns due to idle funds and missed reinvestment opportunities.

The negative coefficient supports the liquidity–profitability trade-off theory, suggesting that while sufficient liquidity enhances stability, excessive liquidity impedes asset productivity.

Hence, for asset profitability, firms should maintain an optimal liquidity balance enough to cover obligations but not at the cost of growth or return potential.

These findings align with Ehiedu (2014), who emphasized that beyond a certain threshold, liquidity ceases to be beneficial for profitability.

Model 2 – Liquidity and ROE

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	1334.552	2	667.276	16.974	.000[b]
	Residual	1061.406	27	39.311		
	Total	2395.957	29			
a. Dependent Variable: ROE						
b. Predictors: (Constant), Quick Ratio, Current Ratio						

(Source: SPSS)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	5.655	3.270		1.730	.095
	Current Ratio	35.381	6.330	1.511	5.590	.000
	Quick Ratio	-38.724	9.348	-1.120	-4.143	.000
a. Dependent Variable: ROE						

(Source: SPSS)

in ROE. The F-statistic (16.974, p = 0.000) indicates the model's overall significance, confirming that liquidity significantly predicts equity-based profitability.

The Current Ratio (β = 1.511, p = 0.000) exerts a strong positive effect on ROE, signifying that efficient liquidity management improves returns for shareholders. Firms with adequate liquidity are more likely to sustain operations smoothly, utilize equity efficiently, and achieve higher investor confidence.

In contrast, the Quick Ratio (β = -1.120, p = 0.000) has a strong negative effect, reinforcing that excess short-term liquid assets reduce profitability. Holding too much liquidity indicates underutilization of equity funds, lowering potential returns to shareholders.

This result supports the trade-off hypothesis, where firms must balance solvency and profitability. Both models confirm that Current Ratio positively influences profitability, while Quick Ratio negatively impacts it, underlining the paradox that liquidity ensures safety but may sacrifice returns.

Comparative Insights

Comparing both regression models:

Liquidity explains a larger share of profitability variance for ROE (55.7%) than ROA (36.9%), indicating that shareholder returns are more sensitive to liquidity management.

The Current Ratio consistently shows a positive and significant impact, validating its role as a key financial indicator for stability and growth.

The Quick Ratio remains negatively significant, implying that excessive short-term liquidity harms profitability across both perspectives.

This finding is consistent with prior research (Khan & Safiuddin, 2016; Sreegeetha & Revathi, 2022), suggesting that profitability improvement depends on balancing liquidity not maximizing it.

Summary of Findings

1. Liquidity levels across firms are moderate, with relatively stable Current and Quick Ratios but variable profitability levels.
2. Correlation results show that Current Ratio has a significant positive association with profitability, whereas Quick Ratio is weakly correlated.
3. Regression analysis confirms that Current Ratio positively and significantly affects both ROA and ROE, while Quick Ratio exerts a negative influence.
4. Liquidity explains 36.9% of variance in ROA and 55.7% in ROE, proving that profitability is partly determined by solvency management.
5. The results uphold the liquidity–profitability trade-off theory, highlighting that excess liquidity, though safe, can reduce returns.

Overall Interpretation

The overall analysis establishes a nonlinear relationship between liquidity and profitability. While adequate liquidity strengthens solvency and facilitates operational efficiency, excessive liquidity accumulation can suppress profitability by diverting resources from productive investments. Therefore, an optimal liquidity policy—balancing stability and return—is essential for sustainable performance.

These results align with earlier studies (Ehiedu, 2014; Madushanka & Jathurika, 2018) affirming that both under-liquidity and over-liquidity can adversely affect profitability. The findings offer practical implications for financial managers in maintaining equilibrium between liquidity safety and profitability objectives.

XIII. DISCUSSION

The present study was undertaken to examine how liquidity influences profitability among selected Indian firms, using Current Ratio (CR) and Quick Ratio (QR) as liquidity indicators, and Return on Assets (ROA) and Return on Equity (ROE) as profitability measures. The findings revealed a complex yet meaningful relationship between liquidity and profitability, supporting the theoretical paradox that while liquidity ensures stability, excessive liquidity can erode returns.

The descriptive results indicated that most firms maintain a moderate liquidity position, with average Current Ratios below the traditional benchmark of 2:1. This conservative liquidity structure reflects prudent financial management but also signals a cautious approach that may limit profit maximization. The relatively low Quick Ratios further suggest reliance on inventories, emphasizing the need for better working capital efficiency. The profitability dispersion observed through standard deviations indicates heterogeneous performance, where some firms effectively convert resources into profit while others struggle due to high financing costs or inefficient operations.

The correlation analysis demonstrated that Current Ratio is positively associated with both ROA and ROE, confirming that firms with sufficient liquidity tend to perform better financially. However, the weak correlation between Quick Ratio and profitability indicates that simply holding liquid assets (cash or receivables) does not necessarily improve returns. This reinforces the argument of trade-off theory, which posits that liquidity beyond an optimal level imposes opportunity costs, reducing profit potential.

Regression outcomes provided deeper insights. In both models (ROA and ROE), Current Ratio emerged as a significant positive determinant, while Quick Ratio showed a significant negative effect. This duality signifies a balancing act: firms must maintain liquidity adequate for solvency but avoid excess reserves that restrict growth. The positive link between Current Ratio and profitability validates the notion that liquidity cushions financial distress risk, enabling firms to operate without disruptions. Conversely, the negative Quick Ratio effect suggests that idle cash or receivables represent underutilized resources, impairing overall efficiency.

These findings echo prior studies. For instance, Ehiedu (2014) found a positive correlation between Current Ratio and profitability but a non-significant link for Quick Ratio, highlighting that moderate liquidity fosters return. Similarly, Madushanka & Jathurika (2018) concluded that maintaining optimal liquidity enhances firm profitability in Sri Lankan manufacturing firms. On the contrary, Bharti and Singh (2014) observed declining profitability in firms with high liquidity, consistent with this study's negative Quick Ratio results.

Collectively, these findings reinforce the liquidity–profitability paradox, where the pursuit of higher liquidity for safety can lead to diminishing profitability. From a theoretical standpoint, the results support the Trade-Off Theory and Risk–Return

Framework, suggesting that financial performance is maximized when firms balance liquidity safety with profitability potential.

From a managerial perspective, the study underscores that effective liquidity management is not about maintaining the highest liquidity levels but about aligning liquidity with operational needs. Firms should design working capital policies that ensure smooth functioning without locking excessive capital in non-earning assets. Decision-makers must continuously assess liquidity turnover, receivables efficiency, and inventory control to optimize both solvency and profitability.

Furthermore, the study's empirical evidence suggests that shareholder returns (ROE) are more sensitive to liquidity management than asset-based returns (ROA). This implies that investors closely monitor liquidity strategies when assessing firm performance, reinforcing the need for financial transparency and disciplined cash flow policies.

In essence, this study confirms that liquidity significantly shapes profitability outcomes, but only within a balanced threshold. Excessive liquidity undermines performance, while insufficient liquidity jeopardizes solvency the optimal point lies between these extremes.

XIV. CONCLUSION

The present study examined the impact of liquidity ratios on profitability among selected Indian firms using empirical analysis over multiple years. The key liquidity indicators Current Ratio and Quick Ratio were analyzed against profitability measures, namely Return on Assets and Return on Equity. Using descriptive, correlation, and regression techniques, the study provided a holistic understanding of how liquidity practices affect firm performance.

The results reveal that liquidity exerts a significant but dual influence on profitability. The Current Ratio positively and significantly affects both ROA and ROE, indicating that maintaining adequate liquidity strengthens operational performance and shareholder value. However, the Quick Ratio negatively influences profitability, implying that excessive liquidity retention especially in the form of idle cash or receivables constrains firms from achieving optimal returns.

These findings highlight a liquidity–profitability trade-off: while liquidity ensures financial stability and operational continuity, beyond a certain level, it limits profitability by diverting funds from productive investments. Therefore, firms must maintain an optimal liquidity level one that balances short-term solvency with long-term profitability.

From a theoretical standpoint, the results substantiate the Trade-Off Theory, asserting that optimal financial performance is achieved when firms manage liquidity prudently rather than excessively. Practically, this study offers guidance to corporate managers and policymakers in formulating liquidity strategies that neither risk insolvency nor sacrifice returns. Financial managers should employ liquidity forecasting, working capital controls, and cash budgeting tools to strike the right balance between safety and profitability.

The study contributes to existing literature by providing empirical evidence from Indian firms, enriching the understanding of how liquidity ratios influence profitability in emerging markets. It confirms that Current Ratio remains a vital indicator of firm performance, while Quick Ratio demands cautious interpretation due to its inverse effect.

Managerial Implications

1. Policy Design: Firms should implement dynamic liquidity policies that align with operational cycles, ens
1. uring adequate solvency without capital stagnation.
2. Profit Optimization: Managers should evaluate the cost of holding idle cash and receivables, redirecting excess liquidity into productive avenues.
3. Financial Monitoring: Continuous tracking of liquidity–profitability metrics can alert management to imbalances affecting performance.
4. Investor Confidence: Balanced liquidity management enhances transparency and investor trust, improving equity returns.

Future Scope Of Research

This study can be extended in several directions:

- Expanding the sample to include diverse industries for broader generalization.

- Incorporating additional liquidity indicators (Cash Ratio, Working Capital Ratio) for deeper insight.
- Employing advanced econometric techniques (Panel Regression, SEM) to test dynamic interactions.
- Extending the time horizon to capture post-pandemic financial behavior.

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