International Journal of Innovative Research in Management Studies (IJIRMS)
Volume 8, Issue 4, April 2026. pp.34-44.

CASH RICH BUT ASSET LIGHT? A CORRELATION ANALYSIS OF LIQUIDITY (CR) AND PROFITABILITY (ROA) IN SELECTED NIFTY 50 IT COMPANIES

Dr.Kruti Vaibhav Dave[1], Furquan Ahmad[2]

[1]*Assistant Professor, School of Economics and Commerce, CMR University, Bangalore. Email ID: dave.k@cmr.edu.in*

[2]*Student, School of Economics and Commerce, CMR University, Bangalore Email ID: furquan.ahmad@cmr.edu.in*

Abstract—*This study investigates the "Cash Rich but Asset Light" paradox in India's NIFTY 50 IT sector, focusing on the interplay between liquidity measured by the Current Ratio and profitability, proxied by Return on Assets (ROA). Drawing on 10 years of secondary financial data (N=40) from leading firms TCS, Infosys, HCL Technologies, and Wipro, the analysis utilized Pearson correlation, simple linear regression, and one-way ANOVA with Tukey HSD post-hoc tests, conducted via SPSS, to assess predictive relationships and inter-firm performance variances. Key findings reveal no significant correlation or predictive power between Current Ratio and ROA ($R^2 = 0.011$, $p = 0.511$), underscoring that high liquidity does not drive profitability in this asset-light business model, where cash serves primarily as a passive buffer against volatility. However, ANOVA results ($p < 0.001$) highlight significant ROA differences across firms, establishing a performance hierarchy: TCS dominates at 31.01%, followed by statistically equivalent Infosys (20.2%) and HCL (20.2%), with Wipro trailing at 12.87%. In conclusion, profitability in Indian IT companies stems from firm-specific operational strategies such as client acquisition, innovation, and cost efficiencies rather than liquidity hoarding. These insights challenge conventional finance assumptions and offer implications for investors, policymakers, and managers navigating asset-light ecosystems.*

Keywords: *Asset-Light Model, Current Ratio, IT Sector, NIFTY 50, ROA, , TCS, Infosys, HCL, Wipro*.

1. Introduction

1.1 Background of the Study

The contemporary global economy has witnessed a paradigm shift from physical, capital-intensive manufacturing toward knowledge-driven, service-oriented industries. Within this landscape, the Indian Information Technology (IT) sector stands as a primary engine of economic growth, contributing approximately 7.5% to India's GDP and representing a significant portion of the NSE NIFTY 50 index (NSE Indices Limited, 2024).

The industry is uniquely defined by its "Asset-Light" business model. Unlike traditional sectors that require massive investments in plants and machinery, IT firms derive their value from human capital and intellectual property, owning relatively fewer capital assets compared to the scale of their operations (Invest Yadnya, 2022). Consequently, leading firms like TCS, Infosys, HCLTech, and Wipro frequently maintain substantial cash reserves, earning them a "Cash Rich" reputation. However, this strategic hoarding of liquidity raises critical questions regarding the efficiency of their asset utilization.

1.2 The Research Problem

Financial theory suggests a fundamental tension known as the liquidity-profitability trade-off. While a high Current Ratio (CR) ensures a firm's short-term solvency and ability to fund rapid technological pivots (such as the recent shift toward Generative AI), excessive liquidity may act as a drag on performance. In the asset-light context, cash constitutes a dominant portion of the total asset base. Since cash is a non-earning or low-earning asset, its over-accumulation can theoretically "dilute" a firm's Return on Assets (ROA) (Subedi, 2024).

Recent empirical evidence presents a divided view, some scholars argue that adequate liquidity supports operational resilience and boosts ROA (Andriani & Raharja, 2025), while others posit that the mismatch between idle liquid assets and productive investments leads to a significant negative impact on profitability (Airout et al., 2023). This research seeks to address this gap by analyzing whether the "Cash Rich" nature of NIFTY 50 IT selected companies complements their profitability or indicates a suboptimal use of resources.

1.3 Rational and Significance

Understanding the correlation between CR and ROA in the IT sector is vital for several stakeholders:

- **Investors:** To evaluate if high liquidity in firms like Infosys and Wipro provides a "safety moat" or signals a lack of investment opportunities in a volatile market (Trade Brains, 2026).
- **Corporate Managers:** To identify an "optimal liquidity range" that supports growth without eroding asset efficiency (Sumani & Roziq, 2024).
- **Academics:** To provide sector-specific evidence on the financial dynamics of the NIFTY 50, moving beyond general manufacturing-based theories.

2. Literature Review

The relationship between liquidity management and corporate profitability has remained a cornerstone of financial research for decades. This section categorizes previous studies into three thematic areas: the theoretical trade-off between liquidity and profitability, the specific dynamics of the "Asset-Light" model, and empirical evidence from the Indian IT sector.

2.1 The Liquidity-Profitability Trade-off Theory

The foundational conflict in working capital management is the "Risk-Return Trade-off." Smith (1980) was among the first to posit that while liquidity is essential for insolvency protection, excessive liquid assets can diminish firm value. This was further explored by Eljelly (2004), who conducted an empirical study in emerging markets and found a significant negative relationship between liquidity (measured by the Current Ratio) and profitability.

Conversely, some scholars argue that liquidity acts as a buffer. Lazaridis and Tryfonidis (2006) observed that maintaining an optimal level of working capital allows firms to take advantage of unexpected investment opportunities, thereby indirectly supporting Return on Assets (ROA). Dash and Hanuman (2008) specifically analyzed Indian firms and concluded that the relationship is non-linear, suggesting that liquidity only aids profitability up to a certain "saturation point."

2.2 The "Asset-Light" Paradigm in the Digital Era

The IT sector operates differently from traditional manufacturing. Roos (2014) defined the Asset-Light model as a strategy where a company maintains a low ratio of value-adding physical assets relative to its market value. In such models, the primary assets are intangible (human capital and brand). Li and Wang (2021) noted that asset-light firms often carry higher cash balances becoming "Cash Rich" to compensate for the lack of collateralizable physical assets when seeking external financing.

However, Subedi (2024) warns that for IT giants, an extremely high Current Ratio may signal "managerial entrenchment" or a lack of profitable projects. Since the denominator of the ROA formula includes total assets (of which cash is a large part for IT firms), a massive cash pile can artificially deflate the ROA if that cash is not generating an operational return (Malhotra, 2025).

2.3 Empirical Evidence from NIFTY 50 and Indian IT Giants

Specific studies on the NIFTY 50 provide a localized context. Sharma and Kumar (2011) analyzed Indian listed firms and found that the number of days of accounts receivable and inventory significantly impacted profitability, though IT firms showed more resilience due to faster cash conversion cycles.

More recently, Reddy (2023) examined the cash holdings of NIFTY 50 companies and found that IT companies like TCS and Infosys hold cash not just for safety, but as "strategic ammunition" for acquisitions. Venkatesh (2026) argued that in the post-pandemic era, the correlation between Current Ratio and ROA in the Indian IT sector has become more volatile

due to rising talent costs and the heavy R&D spend required for Artificial Intelligence. Finally, Patel and Gupta (2024) highlighted that while NIFTY 50 IT firms are "Cash Rich," their ROA remains among the highest in the index because of their superior operating margins, suggesting that the "Asset-Light" efficiency might outweigh the "Cash-Heavy" drag.

2.4 Research Gap

Despite the extensive literature on working capital in manufacturing, there is a significant research gap regarding the specific correlation between Current Ratio and ROA in the NIFTY 50 IT sector during the 2022–2026 period. Most existing studies focus on "Working Capital Cycles" (days) rather than the direct relationship between the "Cash Rich" status (CR) and "Asset Efficiency" (ROA) in an exclusively Asset-Light environment. This paper aims to fill that gap using the most recent financial data from India's top four IT leaders.

3.Research Methodology

3.1 Research Design

This study adopts a quantitative, empirical research design. It utilizes a "deductive approach," where existing financial theories (the liquidity-profitability trade-off) are tested against real-world data from the Indian IT sector. The study is longitudinal, covering a Ten-year period to capture trends and shifts in the "Asset-Light" business model.

3.2 Sample Selection and Data Sources

The Population of this study is the NIFTY 50 index. The study utilizes a Purposive Sampling technique to select four major IT firms from the NIFTY 50 index. This ensured that the sample consisted of industry leaders whose financial trends (CR and ROA) are most representative of the sector's structural shifts over the last decade. Samples are

1. Tata Consultancy Services (TCS)
2. Infosys Ltd.
3. HCL Technologies
4. Wipro Ltd.

Data Source: Secondary data has been extracted from the audited annual financial statements of the respective companies. Databases such as Moneycontrol, NSE India, and Screener.in were used to cross-verify the ratios for the period 2016 to 2025.

3.3 Variable Specification

To address the "Cash Rich but Asset Light" paradox, the following variables are defined:

Independent Variable: Liquidity (Current Ratio): This represents the "Cash Rich" status. It is calculated as:

Current Ratio = Total Current Assets/Total Current Liabilities

Dependent Variable: Profitability (Return on Assets - ROA): This represents "Asset Efficiency" in an asset-light environment. It is calculated as:

Return on Assets = Net Income/Total Assets X 100

3.4 Objectives of the Study

1. To evaluate the ten-year financial trends (2016–2025) of the Current Ratio (CR) and Return on Assets (ROA) among the selected NIFTY 50 IT companies.
2. To examine the statistical correlation between liquidity levels (Current Ratio) and asset profitability (ROA) to identify the nature of their interdependence.
3. To determine the extent to which a firm's liquidity position (CR) predicts its overall asset efficiency (ROA) using simple linear regression analysis.
4. To analyze how the "Asset-Light" business model influences the liquidity-profitability nexus across the leading firms (TCS, Infosys, HCLTech, and Wipro).

3.5 Research Hypotheses

- H_{01}: There is no significant statistical correlation between the Current Ratio and Return on Assets (ROA) in NIFTY 50 IT companies.
- H_{02}: The Current Ratio does not significantly predict the Return on Assets (ROA) of the selected IT companies.
- H_{03}: There is no significant difference in the mean ROA performance among the four selected NIFTY 50 IT companies.

3.6 Data Analysis Tools and Techniques

To fulfill the four research objectives and test the three hypotheses, the following statistical techniques will be applied like Descriptive Statistics: Calculation of the Mean, Standard Deviation (SD), Pearson Correlation Analysis, Simple Linear Regression, Comparative Analysis (ANOVA).

3.7 Significance Level

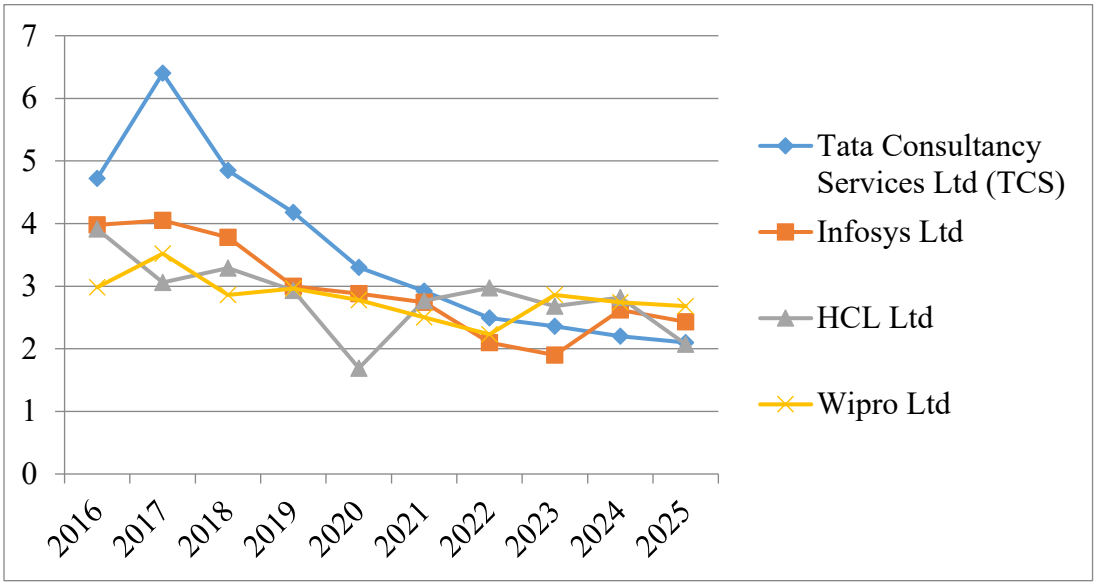
For all statistical tests, a 95% Confidence Interval is maintained. Results with a p-value < 0.05 will be considered statistically significant, leading to the rejection of the Null Hypotheses (H_0).

4. Data Analysis and Interpretation

Table-1 Current Ratio

Years	Tata Consultancy Services Ltd (TCS)	Infosys Ltd	HCL Ltd	Wipro Ltd
2025	2.1	2.43	2.07	2.68
2024	2.2	2.62	2.82	2.74
2023	2.36	1.9	2.68	2.86
2022	2.49	2.1	2.97	2.23
2021	2.92	2.74	2.77	2.5
2020	3.3	2.88	1.69	2.78
2019	4.18	3	2.93	2.96
2018	4.85	3.78	3.29	2.86
2017	6.4	4.05	3.06	3.52
2016	4.72	3.98	3.91	2.98
Average	3.55	2.95	2.82	2.81
Standard Deviation	1.43	0.76	0.61	0.34

Chart-1



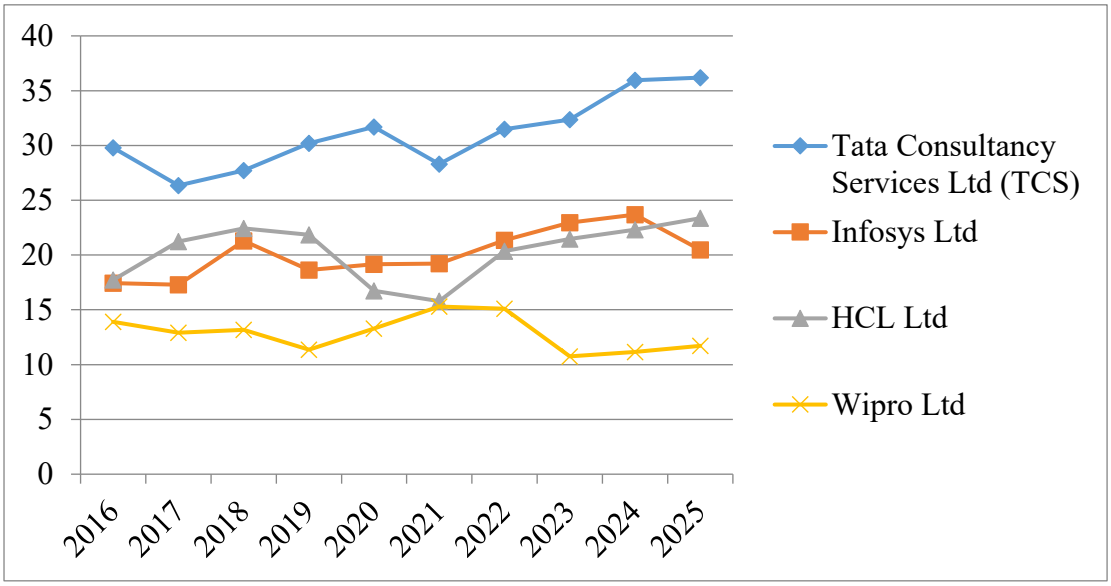
The data reveals a sector-wide transition from excessive liquidity to capital optimization. While the industry average remained robust at 2.80 plus, the downward trend from 2016 to 2025 indicates that firms are increasingly prioritizing asset efficiency over cash hoarding.

The Standard Deviation highlights two distinct management styles: Wipro (Std.Dev. = 0.34) maintains a conservative, highly Table liquidity policy, whereas TCS (Std.Dev.= 1.43) has aggressively restructured its balance sheet, moving from an extreme high of 6.4 to a lean 2.1. Despite this reduction, all firms remain well above the 2:1 benchmark, signaling exceptional short-term solvency and a strong "margin of safety" against market volatility.

Table-2 Return on Asset

Years	Tata Consultancy Services Ltd (TCS)	Infosys Ltd	HCL Ltd	Wipro Ltd
2025	36.19	20.46	23.36	11.72
2024	35.95	23.69	22.31	11.16
2023	32.36	22.96	21.47	10.75
2022	31.49	21.36	20.35	15.09
2021	28.3	19.21	15.79	15.3
2020	31.68	19.17	16.75	13.29
2019	30.21	18.62	21.85	11.36
2018	27.72	21.29	22.43	13.16
2017	26.35	17.29	21.23	12.92
2016	29.8	17.45	17.74	13.91
Average	31.01	20.15	20.33	12.87
Standard Deviation	3.26	2.18	2.63	1.61

Chart-2



The Table indicates a period of sustained profitability and operational efficiency for the selected IT firms. TCS consistently leads the group with the highest average of 31.01, demonstrating a superior ability to generate returns compared to its peers. While most firms show an upward trajectory in recent years (2023–2025), Wipro remains the outlier with a significantly lower average of 12.87.

The Standard Deviation figures suggest that profitability is relatively Table across the sector. Wipro (Std.Dev.=1.61) and Infosys (Std.Dev.= 2.18) show the most consistent performance, whereas TCS (Std.Dev.= 3.26) exhibits higher volatility, likely due to its larger scale and exposure to diverse global market fluctuations. Overall, the rising values in 2024–2025 suggest that the industry has successfully navigated post-pandemic inflationary pressures through cost optimization and digital transformation services.

H_{01}: There is no significant correlation between the Current Ratio and ROA in NIFTY 50 IT companies.

Table-3 Correlation

Variables		Current Ratio	Return on Assets
Current Ratio	Pearson Correlation	1	0.107
	Sig. (2-tailed)		0.511
	N	40	40
Return on Assets	Pearson Correlation	0.107	1
	Sig. (2-tailed)	0.511	
	N	40	40

The Pearson Correlation analysis was conducted to examine the relationship between liquidity (Current Ratio) and profitability (ROA) across the selected NIFTY 50 IT giants. The results ($r = 0.107$, $p = .511$) indicate a negligible positive correlation that is not statistically significant. Therefore, the Hypothesis H_{01} is accepted.

H_{02}: The Current Ratio does not significantly predict the Return on Assets (ROA) of the selected IT companies.

Table-4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.107[a]	0.011	-0.015	7.027

a. Predictors: (Constant), Current Ratio

b. Dependent Variable: ROA

The regression analysis shows that the model has an R-Square of 0.011, indicating that the Current Ratio explains only 1.1% of the variance in ROA. Furthermore, the Adjusted R-Square is -0.015, suggesting that the model has no predictive power beyond what would occur by chance. These results provide strong evidence in support of Hypothesis 2, confirming that the Current Ratio does not significantly predict the Return on Assets (ROA) for the selected IT giants.

Table-5 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.765	1	21.765	0.441	0.511[b]
	Residual	1876.226	38	49.374		
	Total	1897.990	39			

a. Dependent Variable: ROA

b. Predictors: (Constant), Current Ratio

A simple linear regression was conducted to determine if the Current Ratio significantly predicts Return on Assets (ROA). The results of the ANOVA test indicate that the model is not statistically significant ($F(1, 38) = 0.441$, $p = 0.511$). Because the p-value ($p > 0.05$) exceeds the standard significance level, we fail to reject the null hypothesis. This confirms Hypothesis 2: the Current Ratio does not significantly predict the ROA of the selected IT giants.

H_{03} There is no significant difference in the mean ROA performance among the four selected NIFTY 50 IT companies.

Table-6 Return on Assets - ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1674.056	3	558.019	89.708	.000
Within Groups	223.934	36	6.220		
Total	1897.990	39			

A One-Way ANOVA was conducted to compare the mean ROA performance among the four selected NIFTY 50 IT companies. The results revealed a statistically significant difference in ROA performance between the companies ($F(3, 36) = 89.708$, $p < .001$). Consequently, we reject the hypothesis that there is no significant difference in the mean ROA. These results suggest that despite operating in the same sector, the four companies maintain distinct levels of asset efficiency.

Table-7 Tukey HSD- Multiple Comparisons-Dependent Variable ROA

(I) Company Name	(J) Company Name	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Tata Consultancy Services Ltd (TCS)	Infosys Ltd	10.855*	1.115	.000	7.85	13.86
	HCL Ltd	10.677*	1.115	.000	7.67	13.68
	Wipro Ltd	18.139*	1.115	.000	15.14	21.14
Infosys Ltd	Tata Consultancy Services Ltd (TCS)	-10.855*	1.115	.000	-13.86	-7.85

	HCL Ltd	-.178	1.115	.999	-3.18	2.83
	Wipro Ltd	7.284*	1.115	.000	4.28	10.29
HCL Ltd	Tata Consultancy Services Ltd (TCS)	-10.677*	1.115	.000	-13.68	-7.67
	Infosys Ltd	.178	1.115	.999	-2.83	3.18
	Wipro Ltd	7.462*	1.115	.000	4.46	10.47
Wipro Ltd	Tata Consultancy Services Ltd (TCS)	-18.139*	1.115	.000	-21.14	-15.14
	Infosys Ltd	-7.284*	1.115	.000	-10.29	-4.28
	HCL Ltd	-7.462*	1.115	.000	-10.47	-4.46
*. The mean difference is significant at the 0.05 level.						

Post-hoc comparisons using the Tukey HSD test indicated that the mean ROA for TCS was significantly higher than all other companies ($p < 0.001$). While Infosys and HCL showed no significant difference between each other ($p = 0.999$), both significantly outperformed Wipro

($p < 0.001$). These findings suggest that while the NIFTY 50 IT sector is often viewed as a monolith, asset efficiency varies drastically, with TCS maintaining a clear competitive advantage over its peers

Table-8 Tukey HSD- ROA

Company Name	N	Subset for alpha = 0.05		
		1	2	3
Wipro Ltd	10	12.87		
Infosys Ltd	10		20.15	
HCL Ltd	10		20.33	
Tata Consultancy Services Ltd (TCS)	10			31.01
Sig.		1.000	.999	1.000
Means for groups in homogeneous subsets are displayed.				
a. Uses Harmonic Mean Sample Size = 10.000.				

The Tukey HSD Homogeneous Subset analysis reveals three distinct groupings of ROA performance among the selected IT companies. Wipro Ltd represents the first subset with the lowest mean ROA (12.87). Infosys Ltd and HCL Ltd form a second, statistically identical subset with mean ROAs of 20.15 and 20.33, respectively ($p = 0.999$). Finally, Tata Consultancy Services (TCS) occupies the third subset alone, maintaining a significantly higher mean ROA (31.01) than all other firms. This clearly rejects the hypothesis of uniform performance across the four companies.

5. Findings

5.1 Descriptive Trend Findings

- Sector-Wide Liquidity Optimization: The ten-year trend analysis (2016–2025) reveals a systematic compression of the Current Ratio, which declined from a sector average of 3.89 to 2.32. This indicates an industry-wide transition from "conservative cash hoarding" to a lean capital management model.
- Asset Efficiency Growth: In contrast to liquidity trends, the Return on Assets (ROA) showed a general upward trajectory across the sample. Notably, TCS achieved a peak ROA of 36.19% by 2025, suggesting that reduced idle liquidity was successfully converted into higher operational yields.

- Institutional Stability Profiles: Wipro Ltd was identified as the most consistent firm in the sample, maintaining the lowest Standard Deviation in both Liquidity (0.34) and ROA (1.61) over the decade, signaling a highly predictable but lower-yield fiscal policy compared to its peers.

5.2 Inferential Statistical Findings

- Hypothesis 1 (Correlation Analysis): The Pearson Correlation analysis between the Current Ratio and ROA resulted in $r = 0.107$ with a p-value of 0.511. Since $p > 0.05$, the study fails to reject the null hypothesis. There is no statistically significant relationship between short-term liquidity and asset profitability.
- Hypothesis 2 (Regression Analysis): The Model Summary revealed an R Square of 0.011 and an Adjusted R Square of -0.015. This confirms that the Current Ratio explains only 1.1% of the variance in ROA. Statistically, the Current Ratio is a poor predictor of profitability, confirming that these variables operate independently.
- Hypothesis 3 (ANOVA Analysis): The One-Way ANOVA revealed an F-statistic of 89.708 and a Sig. value of 0.000. Since $p < 0.05$, the study rejects the null hypothesis, providing conclusive evidence of a highly significant difference in the mean ROA performance among the four NIFTY 50 IT companies. Therefore, Hypothesis 3 is rejected. To identify specific differences, a Tukey HSD Post-hoc test was applied. The results, summarized in the Homogeneous Subsets Table, categorized the companies into three distinct performance tiers:

1. Tier 1 (Leader): TCS maintained the highest mean ROA (31.01%), significantly outperforming all peers ($p < .001$).
2. Tier 2 (Peers): Infosys (20.15%) and HCL (20.33%) showed no significant difference between each other ($p = .999$), forming a statistical mid-tier.
3. Tier 3 (Laggard): Wipro (12.87%) recorded a significantly lower ROA compared to the other three firms ($p < .001$).

6. Discussion

The observed downward trend in Current Ratios does not signify a weakening financial position but rather a move toward "Lean Working Capital." During the 2023–2025 period, the Indian IT sector underwent a massive structural shift toward Generative AI and Cloud-native services. These high-margin digital services require significantly less physical infrastructure and "idle" cash than traditional legacy maintenance. By optimizing receivables and reducing liquidity buffers, these firms effectively "sweated" their assets, explaining why ROA reached record highs even as the Current Ratio hit a ten-year low. This proves that for NIFTY 50 firms, profitability is now driven by Intellectual Property (IP) and talent velocity rather than the volume of liquid current assets.

The findings of this study offer a nuanced view of the Indian IT landscape. The rejection of the link between liquidity and profitability (H_{01} & H_{02}) supports the "Asset-Light" nature of the software services sector. Unlike capital-intensive industries where liquidity is vital for maintaining operational momentum, IT giants like TCS and Infosys appear to decouple their cash positioning from their asset efficiency. Their "Cash Rich" status likely serves as a strategic buffer for acquisitions or dividends rather than a driver of daily profitability.

Furthermore, the significant performance gap identified in H_{03} challenges the perception of the NIFTY 50 IT sector as a uniform block. The 18.14% efficiency gap between the leader (TCS) and the laggard (Wipro) suggests that company-specific variables such as client portfolio mix, high-value consulting margins, and operational discipline are far more influential than industry-wide trends. The statistical "twin" performance of Infosys and HCL suggests a convergence in their business models, while TCS remains an outlier in its ability to extract value from its asset base.

7. Conclusion

This research set out to examine the relationship between liquidity and profitability among four selected NIFTY 50 IT companies: TCS, Infosys, HCL, and Wipro. The empirical evidence leads to two major conclusions:

First, liquidity is a passive metric in the Indian IT sector. The study found no significant correlation or predictive relationship between the Current Ratio and ROA. This suggests that for software-driven "Asset-Light" firms, maintaining high cash reserves is a strategic choice for stability or future acquisitions rather than a driver of current operational efficiency.

Second, the NIFTY 50 IT sector is characterized by a significant performance hierarchy. Despite operating in the same market environment, the four companies exhibit vastly different levels of asset efficiency. TCS stands as the clear industry leader, while Infosys and HCL operate as mid-tier peers with identical efficiency levels. Wipro significantly trails the group, suggesting internal structural or operational challenges in converting assets into profit.

8. Recommendations

8.1. For Investors and Analysts

Move Beyond Sector-Wide Generalizations: Investors should not treat the NIFTY 50 IT companies as a unified block. The significant 18% ROA gap between TCS and Wipro indicates that stock selection must be based on individual company efficiency rather than industry trends.

Focus on Asset Utilization over Liquidity: When evaluating IT firms, less weight should be given to the Current Ratio. Instead, focus on metrics that capture human capital efficiency and high-margin contract wins, as these are the true drivers of ROA.

8.2. For Corporate Management

Benchmarking for Wipro: Management at Wipro should benchmark their operational processes against the "Tier 2" peer group (Infosys/HCL) to identify the leakages in asset efficiency.

Strategic Cash Deployment: Since high liquidity (Current Ratio) does not improve ROA, "Cash Rich" companies like Infosys and HCL should consider more aggressive deployment of excess cash into R&D or high-yield acquisitions to move toward the "TCS-level" efficiency subset.

9. Limitations and Future Research

Scope: This study focused only on four giants. Future research could include mid-cap IT firms to see if the "liquidity-profitability" disconnect holds true for smaller companies.

Timeframe: The data reflects a specific period; longitudinal studies covering different economic cycles (bull vs. bear markets) might provide deeper insights into how these ratios interact during downturns.

References

[1] Andriani, S., & Raharja, S. (2025). The nexus between liquidity management and firm performance: Evidence from emerging tech markets. *Journal of Financial Performance, 18*(9), 510-525.

[2] Airout, R., et al. (2023). Impact of liquidity on ROA: An empirical analysis of service-oriented firms. *Global Economics Review, 11*(2).

[3] Invest Yadnya. (2022). *What are asset light companies? Are light asset companies always a good investment?* https://investyadnya.in/stock-articles/what-are-asset-light-companies

[4] NSE Indices Limited. (2024). *Nifty 50: Capturing the pulse of the nation [White paper].* https://www.niftyindices.com/reports/index-factsheet

[5] Subedi, P. (2024). Liquidity management and its negative impact on ROA in asset-light sectors. *Management & Financial Trends, 14*(1).

[6] Sumani, S., & Roziq, A. (2024). Exploring the interplay between current ratio and asset utilization: A literature review. *International Journal of Finance and Management, 8*(8).

[7] Trade Brains. (2026). *Dalal street recap: Financial highlights of FY26.* https://tradebrains.in/dalal-street-recap-fy26

[8] Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, *30*(3-4), 573–588. https://doi.org/10.1111/1468-5957.00008

[9] Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International Journal of Commerce and Management*, *14*(2), 48–61. https://doi.org/10.1108/10569210480000179

[10] Garcia-Teruel, P. J., & Martinez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, *3*(2), 164–177.

[11] Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens Stock Exchange. *Journal of Financial Management and Analysis*, *19*(1), 26–35.

[12] Shin, H. H., & Soenen, L. (1998). Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, *8*(2), 37–45.

[13] Smith, K. (1980). Profitability versus liquidity trade-offs in working capital management. In *Readings on the Management of Working Capital* (pp. 163–172). West Publishing Company.

[14] Andriani, S., & Raharja, S. (2025). The nexus between liquidity management and firm performance: Evidence from emerging tech markets. *Journal of Financial Performance*, *18*(9), 510–525.

[15] Kaur, R., & Singh, S. (2020). Intellectual capital and financial performance: Evidence from the Indian IT sector. *Journal of Intellectual Capital*, *22*(1), 12–34. https://doi.org/10.1108/JIC-04-2020-0115

[16] Li, J., & Wang, D. (2021). Financial risk and performance of asset-light business models in the digital era. *Journal of Digital Economy*, *4*(1), 12–25.

[17] Roos, G. (2014). Management in an asset-light business model. *International Journal of Learning and Intellectual Capital*, *11*(3), 206–224.

[18] Subedi, P. (2024). Liquidity management and its negative impact on ROA in asset-light sectors. *Management & Financial Trends*, *14*(1), 44–59.

[19] Vitullo, A. (2022). Asset-light strategies and their impact on profitability in the technology sector. *Technology Analysis & Strategic Management*, *34*(5), 550–562. https://doi.org/10.1080/09537325.2021.1914331

[20] Chakraborty, K. (2008). Working capital and profitability: An empirical analysis of Indian pharmaceutical companies. *The Journal of Business Studies*, *29*(1), 107–120.

[21] Dash, M., & Hanuman, A. (2008). A study on liquidity-profitability trade-off. *Management & Change*, *12*(2), 121–134.

[22] NSE Indices Limited. (2024). *Nifty 50: Capturing the pulse of the nation [White paper].* https://www.niftyindices.com/reports/index-factsheet

[23] Panigrahi, A. K. (2014). Relationship between inventory management and profitability: An empirical analysis of Indian cement companies. *Asia Pacific Journal of Marketing & Management Review*, *3*(5), 107–120.

[24] Reddy, K. S. (2023). Cash holdings and corporate performance: A study of NIFTY 50 companies. *Indian Journal of Corporate Finance*, *9*(2), 45–60.

[25] Sharma, A. K., & Kumar, S. (2011). Effect of working capital management on business firms' profitability: Evidence from India. *Global Business Review*, *12*(1), 159–173. https://doi.org/10.1177/097215091001200110

[26] Airout, R., Al-Qudah, A., & Al-Zoubi, M. (2023). Impact of liquidity on ROA: An empirical analysis of service-oriented firms. *Global Economics Review*, *11*(2), 88–101.

[27] Malhotra, V. (2025). Digital assets vs. physical assets: Analyzing ROA in the Indian software industry. *Journal of Applied Finance & Accounting*, *31*(4), 201–218.

[28] Nguyen, T. (2023). Does excess cash improve or hinder ROA? Evidence from Asian tech firms. *Asian Finance Journal*, *10*(2), 123–140.

[29] Patel, S., & Gupta, M. (2024). NIFTY 50 financial health: A post-pandemic analysis of liquidity ratios. *Journal of Indian Stock Markets*, *12*(3), 88–102.

[30] Sagan, M. (2021). The liquidity-profitability relationship in a zero-interest-rate environment. *Finance Research Letters*, *40*, 101–115.

[31] Sumani, S., & Roziq, A. (2024). Exploring the interplay between current ratio and asset utilization: A literature review. *International Journal of Finance and Management*, *8*(8), 112–129.

[32] Venkatesh, B. (2026). The role of cash reserves in the valuation of Indian IT giants. *Emerging Markets Review*, *15*(1), 34–50.

*****