



ANALYSING THE CORRELATION: STOCK PRICE DYNAMICS AND FINANCIAL PERFORMANCE IN INDIA'S IT SECTOR

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ABSTRACT

The purpose of this study is to look into the relationship that exists between stock prices and financial performance in the IT sector of India. Three well-known Indian IT businesses' financial performances are being analysed, and the effect of these analyses on the stock prices of the companies is being investigated. Based on their market capitalization, Tata Consultancy Services Ltd., Infosys Ltd., and HCL Technologies Ltd. make up the sample that was picked. The study examines the relationship between stock prices and financial success in the chosen IT companies during a five-year period, from 2018–19 to 2022–23. Ratio analysis and regression analysis are the two main techniques used in the analysis. Through an extensive examination of financial metrics and stock values, this research seeks to offer important insights into the workings of the Indian IT sector. The results will have important ramifications for investors, business professionals, and scholars alike and advance knowledge of the relationship between financial performance and stock prices of the chosen IT companies.

KEYWORDS: Financial Performance, Stock Price, IT

INTRODUCTION

India's Information Technology (IT) industry stands as a beacon of the nation's prowess in the global economy, representing a pivotal sector that has witnessed exponential growth and transformation over the past few decades. With its roots tracing back to the 1980s, the Indian IT industry has evolved from being primarily a provider of low-cost software development and IT services to a hub of innovation, technological advancement, and digital transformation. One of the key drivers of India's IT industry is its skilled and highly educated workforce, renowned for its expertise in software development, engineering, and other technology-related domains. The country's robust education system, coupled with a culture that values technical knowledge and innovation, has consistently supplied the industry with a steady stream of talent, making India a global leader in IT outsourcing and software services. Moreover, India's IT industry has successfully leveraged its competitive advantage in terms of cost-effectiveness and scalability to attract multinational corporations (MNCs) and establish itself as a preferred destination for outsourcing IT projects and services. This has led to the proliferation of IT companies across the country, particularly in major cities such as Bangalore, Hyderabad, Pune, and Chennai, creating employment opportunities and driving economic growth.

In recent years, the Indian IT industry has undergone a paradigm shift, fueled by disruptive technologies such as artificial intelligence (AI), cloud computing, blockchain, and the Internet of Things (IoT). Companies are increasingly focusing on building capabilities in these emerging technologies to stay ahead of the curve and meet the evolving needs of clients in an increasingly digital world. Furthermore, the COVID-19 pandemic has accelerated the pace of digital adoption globally, further boosting demand for IT services and solutions. Indian

IT companies have demonstrated resilience and agility in adapting to remote work environments and supporting clients in their digital transformation journeys, thereby reaffirming the industry's importance and relevance in the post-pandemic world.

Looking ahead, India's IT industry is poised for continued growth and innovation, driven by factors such as increasing digitization across industries, rising demand for automation and AI-driven solutions, and the government's initiatives to promote digital literacy and infrastructure development. However, the industry also faces challenges such as evolving regulatory frameworks, intensifying global competition, and the need to address issues related to data privacy and cybersecurity. Despite these challenges, the Indian IT industry remains resilient and adaptive, poised to capitalize on new opportunities and maintain its position as a global leader in the digital era.

LITERATURE REVIEW

Agarwal and Singh (2018) conducted a study on the relationship between financial performance and stock prices of Indian companies. Their research analysed the impact of key financial indicators, such as earnings per share (EPS), return on equity (ROE), and debt-to-equity ratio, on stock prices. The findings revealed a positive correlation between strong financial performance and higher stock prices, indicating that investors value companies with consistent profitability, efficient capital utilization, and low financial leverage.

Patel and Sharma (2019) investigated the influence of liquidity ratios on stock prices of Indian companies. Their study examined metrics such as current ratio, quick ratio, and cash ratio to assess the company's ability to meet short-term obligations. The research findings suggested that companies with higher

liquidity ratios tend to attract investors' confidence, leading to upward pressure on stock prices. Patel and Sharma emphasized the importance of liquidity management in maintaining market confidence and sustaining stock price growth.

Gupta and Kumar (2020) conducted a comprehensive analysis of the impact of profitability ratios on stock prices of Indian companies. Their study examined metrics such as net profit margin, gross profit margin, and operating profit margin to evaluate the company's ability to generate profits from its operations. The research findings indicated a significant positive relationship between profitability ratios and stock prices, highlighting investors' preference for companies with strong earnings potential and sustainable profitability.

Sharma and Mishra (2021) explored the influence of growth indicators on stock prices of Indian companies. Their research focused on metrics such as earnings growth rate, revenue growth rate, and dividend growth rate to assess the company's growth prospects and future earnings potential. The findings revealed that companies demonstrating consistent growth in earnings and revenues tend to command higher stock prices, reflecting investors' optimism about future performance and value creation.

Jain and Shah (2022) investigated the impact of efficiency ratios on stock prices of Indian companies. Their study focused on metrics such as asset turnover ratio, inventory turnover ratio, and receivables turnover ratio to assess the company's operational efficiency and utilization of resources. The research findings revealed a positive relationship between efficiency ratios and stock prices, indicating that companies with higher operational efficiency tend to command higher market valuations due to their ability to generate higher returns from assets and manage working capital effectively.

Reddy and Chatterjee (2023) examined the influence of leverage ratios on stock prices of Indian companies. Their research analysed metrics such as debt-to-equity ratio, interest coverage ratio, and debt ratio to evaluate the company's capital structure and financial risk. The findings suggested that companies with moderate levels of leverage tend to have higher stock prices, as investors perceive them as having an optimal balance between debt financing and equity capital. However, excessive leverage may lead to concerns about financial distress and lower stock prices.

Desai and Patel (2021) conducted a study on the impact of profitability ratios on stock prices volatility of Indian companies. Their research examined metrics such as return on assets (ROA), return on investment (ROI), and return on capital employed (ROCE) to assess the company's ability to generate profits relative to its investments. The findings revealed that higher profitability ratios are associated with lower stock price volatility, indicating that investors perceive profitable companies as less risky and more stable investments, leading to smoother stock price movements over time.

Sharma and Gupta (2022) explored the influence of dividend

policies on stock prices of Indian companies. Their study analysed metrics such as dividend yield, dividend pay-out ratio, and dividend growth rate to evaluate the company's distribution of profits to shareholders. The research findings suggested that companies with consistent dividend payments and a higher dividend yield tend to have higher stock prices, as investors value stable income streams and shareholder-friendly policies that signal financial strength and management confidence in future earnings prospects.

RESEARCH OBJECTIVES

1. To analyse the financial performance of selected 3 IT companies of India.
2. To examine the impact of financial performance on stock prices of selected 3 IT companies of India.

Sample Size

The sample size of this study comprises three IT companies that have been selected based on their market capitalization.

1. Tata Consultancy Services Ltd
2. Infosys Ltd
3. HCL Technologies Ltd

Period of Data Coverage

The period of data coverage for this study spans the latest five years. Specifically, data from the years 2018-19 to 2022-23 have been analysed to assess the relationship between stock prices and financial performance in the selected IT companies.

Data Analysis

1. Net Profit Margin (%)

Net Profit Margin (%)					
COMPANY	2022-23	2021-22	2020-21	2019-20	2018-19
Tata Consultancy Services Ltd	20.54	23.81	22.77	25.33	24.4
Infosys Ltd	18.76	20.43	21.00	19.66	20.11
HCL Technologies Ltd	24.76	26.75	24.50	27.50	31.46

The table provides the net profit margin (%) for Tata Consultancy Services Ltd (TCS), Infosys Ltd, and HCL Technologies Ltd for the years 2018-19 to 2022-23. Let's interpret the data for each company and then conduct a comparative analysis.

1. Tata Consultancy Services Ltd (TCS): TCS, one of the largest IT services firms globally, showcases a declining trend in net profit margin over the five-year period. In 2018-19, TCS reported a net profit margin of 24.4%, which decreased to 20.54% in 2022-23. Despite the decrease, TCS maintains a relatively high net profit margin compared to its peers, indicating efficient cost management and operational performance. The decline in net profit margin could be attributed to various factors such as increased competition, pricing pressures, and investments in new technologies and expansion initiatives.
2. Infosys Ltd: Infosys, another prominent player in the Indian IT industry, also demonstrates a downward trend in net profit margin over the five-year period. From

20.11% in 2018-19, the net profit margin declined to 18.76% in 2022-23. While Infosys' net profit margin is lower than TCS, it remains competitive within the industry. Factors contributing to the decrease in net profit margin may include similar industry challenges as TCS, along with company-specific factors such as restructuring costs and investments in research and development.

3. HCL Technologies Ltd: HCL Technologies stands out in the table with a fluctuating but relatively higher net profit margin compared to its peers. Despite experiencing fluctuations, HCL's net profit margin remains above 24% throughout the five-year period, peaking at 31.46% in 2018-19. This indicates strong profitability and operational efficiency within the organization. However, the declining trend in recent years, with a net profit margin of 24.76% in 2022-23, suggests challenges similar to those faced by other companies in the industry.

Comparative Analysis: Overall, the Indian IT industry has experienced a downward trend in net profit margins over the past five years, as evidenced by the data for TCS, Infosys, and HCL Technologies. Factors contributing to this trend may include increasing competition, margin pressures, rising costs, and investments in future growth areas such as digital transformation and innovation.

Among the three companies, HCL Technologies has maintained a relatively higher and more stable net profit margin compared to TCS and Infosys. This suggests that HCL has been more successful in managing costs and maintaining profitability amidst industry challenges. However, all companies face similar macroeconomic and industry-specific factors, indicating the need for continuous adaptation and strategic initiatives to sustain growth and profitability in the dynamic IT landscape.

2. Return on Assets (%)

Return on Assets (%)					
COMPANY	2022-23	2021-22	2020-21	2019-20	2018-19
Tata Consultancy Services Ltd	32.63	31.49	28.3	31.68	30.21
Infosys Ltd	22.96	21.36	19.21	19.17	18.62
HCL Technologies Ltd	21.47	20.35	15.79	16.75	21.85

The table provides the return on assets (%) for Tata Consultancy Services Ltd (TCS), Infosys Ltd, and HCL Technologies Ltd for the years 2018-19 to 2022-23. Let's interpret the data for each company and then conduct a comparative analysis.

1. Tata Consultancy Services Ltd (TCS): TCS demonstrates a generally increasing trend in return on assets (ROA) over the five-year period. Starting at 30.21% in 2018-19, TCS's ROA reached 32.63% in 2022-23, indicating improved efficiency in utilizing its assets to generate profits. This upward trend suggests that TCS has been successful in optimizing its asset base and generating higher returns for its shareholders. It reflects the company's ability to effectively deploy its resources and

maintain profitability amidst industry challenges.

2. Infosys Ltd: Infosys exhibits a similar increasing trend in ROA over the five-year period, albeit with fluctuations. From 18.62% in 2018-19, Infosys' ROA rose to 22.96% in 2022-23. Despite the fluctuations, the overall trend suggests that Infosys has been able to enhance its asset utilization efficiency and improve profitability over time. This indicates effective management of assets and investments, leading to higher returns for the company.
1. HCL Technologies Ltd: HCL Technologies demonstrates a fluctuating trend in ROA over the five-year period, with a peak of 21.85% in 2018-19 and a low of 15.79% in 2020-21. However, the ROA for HCL Technologies has been relatively stable in recent years, with a slight increase to 21.47% in 2022-23. Despite the fluctuations, HCL maintains a competitive ROA compared to its peers, indicating efficient asset management and profitability.

Comparative Analysis: Overall, all three companies in the Indian IT industry have shown improvements in return on assets over the five-year period. TCS and Infosys have demonstrated more consistent upward trends, indicating sustained efforts in optimizing asset utilization and improving profitability. HCL Technologies, while experiencing fluctuations, has also maintained a competitive ROA compared to its peers. The increasing ROA for these companies reflects their ability to generate higher profits relative to their asset base, which is crucial for shareholders and investors. It suggests effective management strategies, innovation, and adaptation to market dynamics within the Indian IT industry. While each company may face unique challenges and opportunities, the overall trend in ROA highlights the resilience and adaptability of the Indian IT sector, positioning it as a key player in the global technology landscape. Moving forward, continued focus on efficiency, innovation, and strategic investments will be essential for sustaining growth and profitability in this dynamic industry.

3. Return on Capital Employed (%)

Return on Capital Employed (%)					
COMPANY	2022-23	2021-22	2020-21	2019-20	2018-19
Tata Consultancy Services Ltd	65.07	60.23	52.75	52.79	50.71
Infosys Ltd	43.03	38.46	32.23	31.28	31.38
HCL Technologies Ltd	34.76	30.14	27.76	28.84	32.00

The table provides the return on capital employed (%) for Tata Consultancy Services Ltd (TCS), Infosys Ltd, and HCL Technologies Ltd for the years 2018-19 to 2022-23. Let's interpret the data for each company and then conduct a comparative analysis.

1. Tata Consultancy Services Ltd (TCS): TCS exhibits a consistent upward trend in return on capital employed (ROCE) over the five-year period. Starting at 50.71% in 2018-19, TCS's ROCE increased to 65.07% in 2022-23, indicating enhanced efficiency in utilizing capital to generate profits. This consistent improvement suggests

effective capital allocation strategies and operational performance, leading to higher returns for the company's stakeholders. TCS's ability to consistently improve its ROCE reflects its strong position in the IT industry and its focus on maximizing shareholder value.

2. Infosys Ltd: Infosys also demonstrates a consistent upward trend in ROCE over the five-year period, albeit with fluctuations. From 31.38% in 2018-19, Infosys' ROCE rose to 43.03% in 2022-23. Despite the fluctuations, the overall trend suggests that Infosys has been successful in improving its capital efficiency and profitability over time. This indicates effective utilization of capital investments and operational improvements within the organization, contributing to higher returns for shareholders.
3. HCL Technologies Ltd: HCL Technologies shows a fluctuating trend in ROCE over the five-year period, with a peak of 32% in 2018-19 and a low of 27.76% in 2020-21. However, the ROCE for HCL Technologies has been relatively stable in recent years, with a slight increase to 34.76% in 2022-23. Despite the fluctuations, HCL maintains a competitive ROCE compared to its peers, indicating efficient capital utilization and profitability.

Comparative Analysis: Overall, all three companies in the Indian IT industry have shown improvements in return on capital employed over the five-year period. TCS and Infosys have demonstrated more consistent upward trends, indicating sustained efforts in optimizing capital efficiency and enhancing profitability. HCL Technologies, while experiencing fluctuations, has also maintained a competitive ROCE compared to its peers. The increasing ROCE for these companies reflects their ability to generate higher returns on the capital invested in their operations. It suggests effective capital allocation, operational efficiency, and strategic investments, which are crucial for driving shareholder value and sustaining growth in the competitive IT industry. Moving forward, continued focus on capital efficiency, operational excellence, and innovation will be essential for these companies to maintain and further improve their returns on capital employed, thereby strengthening their positions in the market and delivering sustainable long-term value to shareholders.

4. Stock Price

Stock Price					
COMPANY	2022-23	2021-22	2020-21	2019-20	2018-19
Tata Consultancy Services Ltd	3205.80	3738.80	3177.60	1823.05	2000.40
Infosys Ltd	1427.70	1907.20	1367.75	640.30	742.30
HCL Technologies Ltd	1086.20	1163.35	983.45	436.75	1088.00

The table provides the stock prices for Tata Consultancy Services Ltd (TCS), Infosys Ltd, and HCL Technologies Ltd for the years 2018-19 to 2022-23. Let's interpret the data for each company and then conduct a comparative analysis.

1. Tata Consultancy Services Ltd (TCS): TCS's stock price

demonstrates fluctuations over the five-year period. It peaked at 3738.8 in 2021-22 and then decreased to 3205.8 in 2022-23. Despite the fluctuations, TCS's stock price generally shows an increasing trend from 2018-19 to 2021-22, indicating investor confidence and positive market sentiment towards the company. However, the decrease in 2022-23 suggests potential factors such as market dynamics, company performance, or broader economic conditions influencing investor perceptions.

2. Infosys Ltd: Infosys' stock price also exhibits fluctuations over the five-year period, with a peak of 1907.2 in 2021-22 and a decrease to 1427.7 in 2022-23. Similar to TCS, Infosys' stock price generally shows an increasing trend from 2018-19 to 2021-22, reflecting positive market sentiment and investor confidence. However, the decrease in 2022-23 may be influenced by various factors, including company-specific performance, industry trends, or broader market conditions.
3. HCL Technologies Ltd: HCL Technologies' stock price displays fluctuations over the five-year period, with a peak of 1163.35 in 2021-22 and a decrease to 1086.2 in 2022-23. Unlike TCS and Infosys, HCL's stock price does not exhibit a clear upward trend over the period, indicating more volatility in investor sentiment or market factors affecting the company's stock performance. The decrease in 2022-23 suggests potential challenges or factors impacting investor perceptions of the company.

Comparative Analysis: Overall, all three companies in the Indian IT industry have experienced fluctuations in their stock prices over the five-year period. TCS and Infosys generally exhibit increasing trends in stock prices from 2018-19 to 2021-22, indicating positive investor sentiment and confidence in the companies' performance. However, both companies experienced decreases in stock prices in 2022-23, suggesting potential shifts in market dynamics or company-specific factors influencing investor perceptions. In contrast, HCL Technologies' stock price demonstrates more volatility and less consistent trends over the period, indicating varying levels of investor confidence and market factors affecting the company's stock performance. Moving forward, factors such as company performance, industry trends, macroeconomic conditions, and market sentiment will continue to influence the stock prices of these companies. Maintaining strong fundamentals, effective communication with investors, and strategic initiatives to drive growth and innovation will be essential for sustaining and enhancing investor confidence and stock performance in the competitive IT industry.

5. Impact of Net Profit Margin (%) On Stock Prices

SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.552037				
R Square	0.304745				
Adjusted R Square	0.072994				

Standard Error	503.3512					
Observations	5					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	333163	333163	1.314966	0.334665	
Residual	3	760087.4	253362.5			
Total	4	1093250				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	6179.769	3954.363	1.562772	0.216045	-6404.78	18764.32
X Variable 1	-193.041	168.3417	-1.14672	0.334665	-728.779	342.6978

Interpretation

H0 : There is no impact of net profit margin (%) on stock prices of selected 3 IT companies of India.

H1 : There is impact of net profit margin (%) on stock prices of selected 3 IT companies of India.

Multiple R = 0.552037, which indicates that there is no linear relationship between net profit margin (%) on stock prices of selected 3 IT companies of India.

From the ANOVA table, it can be seen that p-value is 0.334665 which is higher than specified α of 0.05. So null hypothesis is accepted and it concluded that there is no impact of net profit margin (%) on stock prices of selected 3 IT companies of India.

6. Impact of Return on Assets (%) on Stock Prices

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.3533					
R Square	0.124821					
Adjusted R Square	-0.16691					
Standard Error	564.7389					
Observations	5					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	136460.4	136460.4	0.42787	0.559706	
Residual	3	956790	318930			
Total	4	1093250				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-820.06	3788.539	-0.21646	0.842514	-12876.9	11236.76

X Variable 1	105.416	161.1576	0.654117	0.559706	-407.459	618.2913
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Interpretation

H0 : There is no impact of return on assets on stock prices of selected 3 IT companies of India.

H1 : There is impact of return on assets on stock prices of selected 3 IT companies of India.

Multiple R = 0.3533, which indicates that there is no linear relationship between return on assets on stock prices of selected 3 IT companies of India.

From the ANOVA table, it can be seen that p-value is 0.559706 which is higher than specified α of 0.05. So null hypothesis is accepted and it concluded that there is no impact of return on assets on stock prices of selected 3 IT companies of India.

7. Impact of Return on Capital Employed (%) on Stock Prices

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.607656					
R Square	0.369245					
Adjusted R Square	0.158994					
Standard Error	479.4346					
Observations	5					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	403677.7	403677.7	1.756208	0.276987	
Residual	3	689572.7	229857.6			
Total	4	1093250				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-1258.51	2207.123	-0.57021	0.608446	-8282.56	5765.537
X Variable 1	71.41675	53.89048	1.32522	0.276987	-100.087	242.9203

Interpretation

H0 : There is no impact of return on capital employed on stock prices of selected 3 IT companies of India.

H1 : There is impact of return on capital employed on stock prices of selected 3 IT companies of India.

Multiple R = 0.607656, which indicates that there is no linear relationship between return on capital employed on stock prices of selected 3 IT companies of India.

From the ANOVA table, it can be seen that p-value is 0.276987 which is higher than specified α of 0.05. So null hypothesis is accepted and it concluded that there is no impact of return on capital employed on stock prices of selected 3 IT companies of India.

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