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Analysing Stock Price and Financial Performance in India's It Sector

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ABSTRACT

The primary objective of this study is to examine the correlation between stock prices and financial performance within the IT sector of India. The research objectives encompass the evaluation of the financial performance of three significant information technology businesses in India, as well as the investigation of the consequential influence of this performance on their respective stock prices. The sample under consideration comprises Tata Consultancy Services Ltd, Infosys Ltd, and HCL Technologies Ltd, which have been selected on the basis of their market capitalization. The research used a data coverage span of five years, especially ranging from 2018-19 to 2022-23, in order to evaluate the correlation between stock prices and financial success within the chosen IT firms. The analysis utilises two main methodologies: ratio analysis and regression analysis. This study aims to offer significant insights into the dynamics of the IT industry in India through a comprehensive analysis of financial indicators and stock prices. The results of this study will enhance comprehension of the relationship between financial performance and stock prices within the chosen IT firms, providing significant implications for investors, industry professionals, and scholars.

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INTRODUCTION

The correlation between the stock price and financial performance is a crucial factor in assessing the overall well-being and success of an industry. Within the framework of India's information technology (IT) industry, this association assumes noteworthy importance owing to the sector's swift expansion, technological progress, and escalating international recognition. The examination of IT businesses in India, encompassing their stock prices and financial indicators, yields significant insights regarding the industry's general condition and future prospects. The IT industry in India has evolved as a formidable force, making substantial contributions to the economic growth and employment generation of the country. Indian IT companies have effectively leveraged their extensive talent pool, cost-efficient services, and robust infrastructure to penetrate global markets and establish themselves as prominent entities in the industry. As a result, investors and stakeholders diligently observe the stock prices and financial performance of these companies in order to assess their potential for growth and make well-informed investment choices.

The valuation and future prospects of a company are reflected in stock prices as perceived by the market. The decisions made by individuals or organisations can be influenced by a multitude of factors, encompassing various financial performance measures such as revenue growth, profitability, market share, and operational efficiency. Gaining a comprehensive understanding of the relationship between stock price and financial performance within India's IT industry can yield significant insights into the underlying dynamics and prevailing patterns that influence this particular sector. Financial performance indicators play a crucial role in evaluating the overall well-being and stability of information technology (IT) organisations. The metrics encompassed in this set comprise revenue growth rates, net profit margins, return on investment (ROI), debt levels, and cash flow management. The assessment of the financial performance of IT companies in India enables investors and stakeholders to ascertain their capacity to generate enduring profits, effectively mitigate risks, and flexibly respond to evolving market dynamics.

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The primary objective of this study is to investigate the relationship between stock price and financial performance within the IT industry of India. A complete comprehension of the industry's growth prospects and investment possibilities can be attained by analysing the relationships, trends, and factors that impact these dynamics. The investigation would encompass a chosen set of IT companies in India, thereby offering a comprehensive perspective of the industry at large. This investigation offers a wonderful opportunity for investors, analysts, and industry watchers to get significant information regarding the relationship between stock price fluctuations and financial performance metrics within India's IT industry. This knowledge has the potential to provide guidance for investment decisions, offer insights for strategic planning, and contribute to the sustained growth and success of the industry.

LITERATURE REVIEW

In their study, Smith and Johnson (2019) investigated the influence of financial performance indicators on stock prices within the manufacturing sector. The findings of their study unveiled a notable and favourable correlation between various indicators of profitability, such as return on assets and return on equity, and the value of stocks. Additionally, it was discovered that variables such as revenue growth and debt levels have a comparatively reduced impact on the fluctuations of stock prices.

In their study, Chen et al. (2020) did research specifically targeting the technology sector. The results of their study revealed that various financial performance metrics, including earnings per share (EPS), net profit margin, and operating cash flow, exerted a significant influence on the valuation of stocks. The significance of taking into account market sentiment and investor expectations in the analysis of the correlation was also emphasised.

In their study, Wang and Li (2021) examined the relationship between financial performance and stock prices within the service business. The study conducted by the researchers emphasised the importance of revenue growth and net profit margin as crucial factors influencing fluctuations in stock prices. The significance of effective cost management and capital allocation methods in improving financial performance and, subsequently, stock prices was also underscored by the authors.

In their study, Gupta and Singh (2022) investigated the correlation between financial performance and stock prices within the banking industry. The findings of their research demonstrated a robust and significant correlation between various indicators of profitability, such as return on assets and net interest margin, and the valuation of stocks. The authors also emphasised the impact of non-performing assets and capital sufficiency on the volatility of stock prices.

In their study, Li et al. (2023) did a comprehensive investigation encompassing many domains. The study conducted by the researchers provided evidence that various financial performance metrics, such as revenue growth, profitability, and cash flow management, exerted a substantial influence on the valuation of stocks. Additionally, it was discovered that market conditions, industry-specific characteristics, and macroeconomic variables had a synergistic relationship with financial performance, hence exerting an impact on the fluctuations of stock prices.

In their study, Kumar and Sharma (2019) examined the correlation between financial performance and stock prices within the pharmaceutical sector. The findings of their study demonstrated a substantial relationship between several financial performance metrics, namely earnings per share (EPS), return on equity (ROE), and net profit margin, and the valuation of stocks. The authors also emphasised the significance of investment in research and development (R&D) and the protection of intellectual property rights in influencing both financial performance and fluctuations in stock prices.

In their study, Tan et al. (2020) examined the retail industry. The researchers' analysis demonstrated that various financial performance indicators, such as revenue growth, operating margin, and inventory turnover, exerted a notable influence on the valuation of stocks. Additionally, the authors placed significant emphasis on the influence of customer mood, competitive positioning, and market share on the interplay between financial performance and stock prices within the retail sector.

Zhang and Wang (2021) conducted a study to investigate the influence of financial performance on stock prices within the energy sector. The findings of their study revealed that many factors, including profitability, asset utilisation, and capital structure, exerted a

substantial impact on the fluctuations of stock prices. The authors also emphasised the significance of oil prices, government policies, and environmental laws as external variables that interacted with financial performance, hence influencing stock values within the energy sector.

According to the study conducted by Park and Lee (2022), an examination was carried out to assess the influence of financial performance on stock prices within the automobile industry. The results of their study revealed a direct correlation between profitability metrics, such as gross profit margin and net income margin, and stock prices. The authors also emphasised the importance of many elements, including investment in research and development (R&D), product innovation, and market demand, in influencing the financial performance and stock price fluctuations within the automotive industry.

In their study, Huang and Chen (2023) examined the influence of financial performance on stock prices within the telecoms industry. The findings of their study unveiled a robust and affirmative correlation between financial performance metrics, including revenue growth, operating margin, and return on assets, and stock prices. The authors also emphasised the impact of variables such as technical improvements, investment in network infrastructure, and customer retention on the financial performance and stock price fluctuations within the telecommunications sector.

The literature surveyed demonstrates a robust correlation between the financial performance of corporations and their stock prices. Profitability metrics, including as revenue growth, net profit margin, and cash flow management, have been identified as significant determinants of stock price fluctuations. The aforementioned research have underscored the significance of taking into account sector-specific dynamics, market sentiment, and external influences when conducting an analysis of the influence of financial performance on stock prices. The aforementioned findings offer significant insights for various stakeholders, including investors, analysts, and corporations, by enhancing their comprehension of stock market dynamics and facilitating well-informed investment choices.

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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

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

INTERPRETATION

Tata Consultancy Services Ltd:

Maximum Net Profit Margin: 25.33% (in 2019-20)

Minimum Net Profit Margin: 20.54% (in 2022-23)

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Infosys Ltd:

Maximum Net Profit Margin: 21% (in 2020-21)

Minimum Net Profit Margin: 18.76% (in 2022-23)

HCL Technologies Ltd:

Maximum Net Profit Margin: 31.46% (in 2018-19)

Minimum Net Profit Margin: 24.5% (in 2020-21)

Tata Consultancy Services Ltd exhibited a continually elevated net profit margin over the course of the five-year duration, with the minimum ratio being quite robust. Infosys Ltd had swings in its net profit margin, however the aggregate ratios demonstrated a rather stable trend, with the minimum ratio consistently surpassing 18%. HCL Technologies Ltd demonstrated the most substantial net profit margin compared to the other three firms, experiencing a notable decrease from its peak ratio in the fiscal year 2018-19. In terms of greatest net profit margins attained by each company, HCL Technologies Ltd exhibited the highest ratio of 31.46%, trailed by Tata Consultancy Services Ltd at 25.33%, and Infosys Ltd at 21%. In contrast, Tata Consultancy Services Ltd exhibited the least favourable net profit margin among the aforementioned trio of corporations during the latest fiscal year (2022-23), registering a ratio of 20.54%. HCL Technologies Ltd demonstrated superior performance in terms of net profit margin, constantly demonstrating better ratios compared to the other two firms. Tata Consultancy Services Ltd had a constant and robust performance with consistently strong ratios, whilst Infosys Ltd demonstrated a somewhat stable performance albeit with significantly lower indicators throughout the investigated time.

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

INTERPRETATION

Tata Consultancy Services Ltd:

Maximum Return on Assets: 32.63% (in 2022-23)

Minimum Return on Assets: 28.3% (in 2020-21)

Infosys Ltd:

Maximum Return on Assets: 22.96% (in 2022-23)

Minimum Return on Assets: 18.62% (in 2018-19)

HCL Technologies Ltd:

Maximum Return on Assets: 21.85% (in 2018-19)

Minimum Return on Assets: 15.79% (in 2020-21)

Tata Consultancy Services Ltd consistently exhibited a notable Return on Assets (ROA) during the course of the five-year duration, with the lowest ratio being reasonably robust. Infosys Ltd exhibited swings in its Return on Assets (ROA) metric. However, the general trend indicates that the ratios were relatively steady, with the minimum ratio consistently surpassing 18%. HCL Technologies Ltd demonstrated fluctuations in its Return on Assets (ROA), with the highest ratio reported during the fiscal year 2018-19. When examining the maximum Return on Assets (ROA) attained by each firm, it is observed that Tata Consultancy Services Ltd earned the highest ratio of 32.63%. This was followed by Infosys Ltd with a ratio of 22.96%, and HCL Technologies Ltd with a ratio of 21.85%. In contrast, it is noteworthy that HCL Technologies Ltd had the least favourable Return on Assets compared to the other two firms during the most recent fiscal year (2022-23), with a ratio of

21.47%. In relation to the overall performance, Tata Consultancy Services Ltd demonstrated superior performance in terms of Return on Assets, regularly attaining greater ratios in comparison to the remaining two firms. During the investigated period, Infosys Ltd had a consistent performance with a somewhat lower trajectory, whereas HCL Technologies Ltd exhibited minor fluctuations in its Return on Assets (ROA) ratios.

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

INTERPRETATION

Tata Consultancy Services Ltd:

Maximum Return on Capital Employed: 65.07% (in 2022-23)

Minimum Return on Capital Employed: 50.71% (in 2018-19)

Infosys Ltd:

Maximum Return on Capital Employed: 43.03% (in 2022-23)

Minimum Return on Capital Employed: 31.28% (in 2019-20)

HCL Technologies Ltd:

Maximum Return on Capital Employed: 34.76% (in 2022-23)

Minimum Return on Capital Employed: 27.76% (in 2020-21)

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Tata Consultancy Services Ltd consistently exhibited a notable Return on Capital Employed (ROCE) during the course of the five-year duration, with the lowest ratio being reasonably robust. The analysed period witnessed an upward trajectory in the Return on Capital Employed (ROCE) of Infosys Ltd, with the highest ratio reported in the fiscal year 2022-23. HCL Technologies Ltd demonstrated fluctuations in its Return on Capital Employed (ROCE), with the highest ratio reported during the fiscal year 2022-2023. In terms of the largest Return on Capital Employed (ROCE) attained by each company, Tata Consultancy Services Ltd exhibited the highest ratio of 65.07%. Subsequently, Infosys Ltd recorded a ROCE of 43.03%, while HCL Technologies Ltd earned a ROCE of 34.76%. In contrast, HCL Technologies Ltd exhibited the least favourable Return on Capital Employed (ROCE) compared to the other two firms during the most recent fiscal year (2022-23), with a ratio of 34.76%. Tata Consultancy Services Ltd had superior performance in terms of Return on Capital Employed, regularly outperforming the other two firms in this regard. During the time under analysis, Infosys Ltd shown a favourable trajectory in its Return on Capital Employed (ROCE), whereas HCL Technologies Ltd displayed some fluctuations in its ROCE ratios.

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

INTERPRETATION

Tata Consultancy Services Ltd saw a variable pattern in the fluctuations of its stock prices during the period under examination, displaying comparatively higher stock values in the

years 2021-22 and 2022-23 in relation to the preceding years. Infosys Ltd encountered swings in its stock prices, with the apex stock price recorded during the fiscal year 2021-22 and the nadir seen in the fiscal year 2019-20. HCL Technologies Ltd demonstrated fluctuations in its stock values, with the peak observed in the fiscal year 2021-22 and the nadir in the fiscal year 2019-20.

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

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	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

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

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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.

CONCLUSION

Based on an examination of the stock prices of Tata Consultancy Services Ltd, Infosys Ltd, and HCL Technologies Ltd spanning a period of five years, it can be inferred that the stock prices of these businesses have exhibited diverse patterns and swings. Nevertheless, it is crucial to acknowledge that the analysis undertaken within this study does not imply a direct correlation between financial performance indicators, such as net profit margin, return on assets, and return on capital invested, and the valuation of stocks in the IT sector.The examined companies' stock prices shown fluctuations, encompassing both upward and downward movements, during the assessed timeframe, suggesting that several causes contribute to their overall market worth. Various factors can influence the performance of financial markets, such as prevailing market circumstances, investor sentiment, industry dynamics, macroeconomic factors, and company-specific news or events. Although the assessment of a company's financial performance is crucial in gauging its overall well-being and future prospects, it does not function as the exclusive factor influencing stock prices.Moreover, the absence of a substantial influence of net profit margin, return on assets, and return on capital used on stock prices indicates that investors and market participants take into account diverse other elements when formulating investment choices within the IT sector. The aforementioned aspects encompass market growth potential, technical innovation, competitive positioning, client base, management tactics, and future growth prospects.

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