

Financial Modelling and Forecasting of Selected Information Technology Companies Listed in India

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Abstract- Financial modelling and forecasting translate a company's historical accounting record into a forward-looking view of its earning power and value, which matters greatly for a sector such as Indian information technology (IT) whose revenues are shaped by currency movements, global demand cycles and rapid technological change. This study examines the financial performance, five-year forecasts and intrinsic value of ten NSE/BSE-listed Indian IT companies spanning large-, mid- and small-cap segments, using audited financial statements for FY2020-21 to FY2024-25. Profitability, leverage and efficiency were assessed through ratio, trend, horizontal and vertical analysis; a five-year forecast (FY2025-26 to FY2029-30) and Discounted Cash Flow (DCF) valuation were then built for each company, with three hypotheses tested using one-way ANOVA and a paired t-test. Results show statistically significant differences in profitability (Return on Equity, Net Profit Margin) and leverage (Debt-Equity ratio) across the sample, and a forecasted revenue growth rate significantly lower than historical growth, reflecting a deliberate moderation of unsustainable recent trends rather than naive extrapolation. DCF valuation suggests that nine of the ten companies are trading above their conservatively modelled intrinsic value, with TCS the sole exception. The findings support a company-specific, rather than sector-wide, approach to valuation and investment judgement in Indian IT equities.

Keywords- Financial Modelling, Forecasting, Discounted Cash Flow, Ratio Analysis, ANOVA, Indian IT Sector

I. INTRODUCTION

The Indian information technology (IT) industry is one of the country's largest contributors to exports, employment and GDP growth. Industry estimates place total sector revenue, including hardware, at approximately USD 283 billion in FY25, up from about USD 167 billion in FY18, with the industry projected to cross USD 300 billion in FY26 and software exports alone expected to exceed USD 224 billion. Employment in the sector stood at an estimated 5.8 million in FY25, with more than 126,000 net new jobs added that year. Recent growth has been driven by AI and generative-AI adoption, the expansion of Global Capability Centres (GCCs), and sustained BFSI-linked demand.

Because IT-sector revenue is exposed to currency fluctuations, offshore client budgets and fast-moving technology cycles, forecasting is central to how investors, lenders and managers assess these firms. Financial modelling links a company's historical financial statements, through ratio, trend, horizontal and vertical analysis, to a forward-looking projection of revenue, cost, profit, assets, liabilities and cash flow, and ultimately to an estimate of intrinsic value through methods such as Discounted Cash Flow (DCF). This study applies that full chain, historical ratio analysis, five-year forecasting and DCF valuation, to ten listed Indian IT companies spanning large-, mid- and small-capitalisation segments, to compare their financial performance and examine whether current market prices are consistent with their modelled intrinsic worth.

II. LITERATURE REVIEW

Prior research on Indian IT-sector financial performance has largely relied on ratio and trend analysis applied to a small number of large-cap firms. Manchala, Podile and Durga (2025) compared TCS, Infosys, Wipro, HCL Technologies and Tech Mahindra using ANOVA and regression and found no significant inter-firm difference in Return on Equity, though net profit margin predicted ROE more strongly than ROA; the study remained retrospective and excluded mid-cap firms. Sreegeetha (2023) examined liquidity among the top five listed IT companies and found a gradual decline that nonetheless stayed above conventional benchmarks, without linking liquidity to profitability or forecasting. Single- and two-firm case studies, such as Divyaa and Panneerselvam (2023) on TCS and Gadhavi and Mehta (2021) comparing TCS and Infosys, reported consistent profitability and efficient asset use but offered limited comparability and no valuation component. Mehta and Rathore (2021) and Kaur (2019) extended ratio-based comparison across a broader set of companies and found performance varying with firm size and export mix, again without a predictive or statistical-modelling element. Bansal (2015) and Bhargava (2017) established ratio analysis as a workable, low-cost comparative tool in earlier years, predating recent digital and currency shifts.

A second strand of work addresses valuation and forecasting methodology more broadly. Lopez-Rodriguez, Velasquez-Lizcano, Fajardo-Sierra and Sierra-Otalora (2024) reviewed the valuation literature and identified DCF, real options, multiples and EVA as the dominant methodologies, while Trinh and Thao (2017) proposed a conceptual DCF-CAPM framework for strategic decisions without sector-specific testing. Lukic (2017) argued that modeller judgement, more than model complexity, determines the reliability of a financial model. On the statistical side, Janarthanan (2023) combined ratio analysis, ANOVA and CAGR computation across TCS, Infosys and Wipro and found the majors resilient through the pandemic period, though the analysis stopped short of forward projection, and Sehgal, Mishra, Deisting and Vashisht (2021) used logistic regression and discriminant analysis to identify leverage, liquidity and profitability as significant predictors of financial distress in Indian firms generally, without an IT-sector focus.

Taken together, this body of work shows that historical ratio and trend analysis of Indian IT firms is well established, and that DCF and related valuation methods are well documented in the broader finance literature, but the two strands are rarely combined for the same sample. Most Indian IT-sector studies stop at historical ratios or trend analysis without extending to forward-looking modelling, and cover a small number of large-cap firms rather than a size-diverse sample spanning large-, mid- and small-cap segments. Few, if any, integrate ratio-based historical analysis, five-year financial forecasting and DCF-based intrinsic valuation for the same companies, or use formal hypothesis testing to confirm whether differences across firms are statistically significant rather than merely descriptive. This study addresses that gap by combining all three elements for ten Indian IT companies drawn from large-, mid- and small-cap segments over FY2020-21 to FY2024-25, with forecasts and valuation extending to FY2029-30.

No.	Null Hypothesis (H0)	Statistical Tool
H01	There is no significant difference in profitability ratios (ROE, NPM) among the selected companies.	One-way ANOVA
H02	There is no significant difference in the Debt-Equity ratio among the selected companies.	One-way ANOVA
H03	There is no significant difference between historical and model-forecasted revenue growth rate.	Paired t-test

III. RESEARCH METHODOLOGY

Objectives

- To analyse and compare the financial performance of selected listed Indian IT companies using ratio analysis.
- To examine trends in the companies' financial performance using trend, horizontal and vertical analysis.
- To build a five-year financial forecast (revenue, cost, profit, assets, liabilities and cash flow) for each company.
- To estimate each company's intrinsic value using the Discounted Cash Flow (DCF) method, incorporating scenario considerations.
- To compare the historical performance, forecasts and estimated intrinsic value of large-, mid- and small-cap Indian IT companies.

Scope and Sample

The study draws on secondary data and audited annual financial statements over five years, applying ratio, trend, horizontal and vertical analysis together with DCF-based valuation. It is restricted to ten NSE/BSE-listed Indian IT companies, selected through purposive sampling to represent large-, mid- and small-capitalisation segments: TCS and Infosys (the two largest by market capitalisation and revenue), HCLTech, Wipro, Tech Mahindra and LTIMindtree (further large or diversified IT majors), and Mphasis, Persistent Systems, Coforge and Oracle Financial Services Software - OFSS (mid- and small-cap, more specialised players). Historical analysis covers FY2020-21 to FY2024-25; forecasts and DCF valuation project forward to FY2029-30. Unlisted and foreign-listed firms, and primary data collection, fall outside the scope of this study.

Data Sources and Tools

Data were drawn from companies' audited annual reports and investor-relations disclosures, cross-verified against secondary financial databases (Capital Line, Screener.in) and exchange data from NSE and BSE, and contextualised using NASSCOM and IBEF industry reports. Ratio computation, trend analysis and financial-model construction were carried out in Microsoft Excel; statistical testing (ANOVA, paired t-test) was performed using Excel's Data Analysis ToolPak and cross-verified using Python's SciPy library.

Hypotheses

Each hypothesis was tested at the 5% level of significance.

IV. DATA ANALYSIS AND DISCUSSION

4.1 Profitability and Leverage (FY2024-25)

TCS recorded the sample's highest Return on Equity (51.50%) and asset turnover (1.61x), reflecting efficient asset use on a low-leverage base; its ROE rose steadily from 37.67% in FY2020-21. OFSS posted the highest Net Profit Margin (34.76%) and Operating Profit Margin (44.92%), consistent with its product-licensing revenue model, while Tech Mahindra and Coforge reported the lowest FY2024-25 Net Profit Margins (8.03% and 7.77% respectively). All ten companies carried low Debt-Equity ratios (0.01-0.23), pointing to an asset-light, largely equity-financed capital structure typical of the sector, though Wipro's leverage was materially higher and more variable than the rest of the sample, while OFSS's remained close to zero throughout.

4.2 Growth Trends (FY2020-21 to FY2024-25)

Company	Sales CAGR (%)	Net Profit CAGR (%)	Total Assets CAGR (%)
TCS	11.67	10.64	5.11
Infosys	12.86	8.33	8.28
HCLTech	11.63	11.72	4.97
Wipro	9.51	5.02	11.57
Tech Mahindra	8.77	-0.58	2.82
LTIMindtree	13.33	5.22	14.15
Mphasis	9.99	8.75	12.02
Persistent Systems	29.94	32.74	24.20
Coforge	26.79	19.05	37.00
OFSS	8.26	7.81	5.41

Persistent Systems and Coforge, the sample's acquisition-active mid-cap firms, grew substantially faster than the large-cap peer set and more than doubled their asset base over the period. Tech Mahindra was the only company with a negative five-year Net Profit CAGR, driven by a sharp FY2023-24 profit decline. The established large-cap majors (TCS, Infosys, HCLTech, OFSS) grew more moderately, consistent with their scale and market maturity.

4.3 Hypothesis Testing

One-way ANOVA on Return on Equity and Net Profit Margin across the ten companies ($N = 50$, $k = 10$) rejected H_{01} on both measures: $F(9,40) = 33.09$, $p < 0.001$ for ROE, and $F(9,40) = 115.19$, $p < 0.001$ for NPM. Profitability is therefore not homogeneous across the sample; TCS's ROE sits well above the group mean with comparatively low within-company spread, while OFSS is a clear high-side outlier on NPM. A similar ANOVA on Debt-Equity ratio rejected H_{02} : $F(9,40) = 10.34$, $p < 0.001$, with Wipro's leverage materially and consistently higher than the rest of the sample.

Test	df	F / t	p-value	Decision
ROE across companies (ANOVA)	9, 40	$F = 33.09$	< 0.001	Reject H_{01}
NPM across companies (ANOVA)	9, 40	$F = 115.19$	< 0.001	Reject H_{01}
Debt-Equity across companies (ANOVA)	9, 40	$F = 10.34$	< 0.001	Reject H_{02}
Historical vs forecasted CAGR (paired t-test)	9	$t = 5.28$	0.0005	Reject H_{03}

4.4 Forecasting and DCF Valuation

Year-one (FY2025-26) revenue growth assumptions were set as a blend of each company's most recent year-on-year growth and its three-year CAGR, tapering linearly to a 5.00% terminal growth rate by FY2029-30; this smooths one-off acquisition-driven spikes, such as Coforge's 33.77% and Persistent Systems' 21.55% FY2024-25 growth, while still anchoring forecasts in recent trajectory. WACC was estimated via CAPM (risk-free rate 7.00%, equity risk premium 6.00%, Beta

of 0.85 for large-cap firms, 0.95 for mid-cap firms and 0.75 for OFSS, pre-tax cost of debt 8.00% at a 25% tax rate), producing a narrow WACC range of 10.95% (Wipro) to 12.39% (Persistent Systems) given the sample's uniformly low leverage.

Enterprise value was computed as the present value of five-year forecast free cash flow to the firm plus terminal value (Gordon Growth Model), less net debt, to arrive at an intrinsic value per share. Nine of the ten companies appeared overvalued relative to this conservative, fade-to-terminal-growth model; TCS was the sole exception, modestly undervalued at an intrinsic value of Rs. 2,153.63 against a market price of Rs. 1,983. The gap was widest for high-growth mid-cap names such as Persistent Systems (intrinsic Rs. 1,770.02 versus market price Rs. 5,016) and OFSS (Rs. 4,520.52 versus Rs. 11,100), consistent with the market pricing in stronger medium-term growth or qualitative premia than a conservative FCFF model captures by construction.

A paired-samples t-test comparing each company's historical five-year Sales CAGR against its model-forecasted CAGR ($n = 10$ pairs) rejected H_0 : mean historical CAGR was 14.28% against a mean forecasted CAGR of 7.88%, $t(9) = 5.28$, $p = 0.0005$. The gap was widest for Coforge (26.79% historical versus 16.46% forecast) and Persistent Systems (29.94% versus 14.64%), confirming that the model deliberately moderates recent acquisition-driven growth rather than extrapolating it forward.

V. FINDINGS

- Profitability (ROE, NPM) and leverage (Debt-Equity ratio) differ significantly across the ten sampled companies (all $p < 0.001$).
- TCS leads the sample on ROE and asset efficiency; OFSS leads on margins; Tech Mahindra and Coforge report the lowest FY2024-25 net margins.
- Persistent Systems and Coforge, the sample's acquisition-active mid-cap firms, recorded the fastest five-year revenue and profit growth; Tech Mahindra was the only company with a negative profit CAGR.
- All ten companies operate with low leverage, indicating an asset-light, internally funded capital structure typical of the sector.
- Forecasted revenue growth is significantly lower than historical growth ($t(9) = 5.28$, $p < 0.001$), reflecting deliberate moderation of unsustainable recent trends rather than naive extrapolation.

- DCF valuation suggests nine of the ten companies trade above their conservatively modelled intrinsic value; TCS is the sole company appearing undervalued.
- WACC estimates cluster narrowly (10.95%-12.39%) given the sector's uniformly low leverage, with cost of equity the dominant driver in every case.

VI. SUGGESTIONS

For Investors

Use DCF-based intrinsic value alongside projected earnings growth and margins rather than current price alone; treat OFSS's margin profile and Persistent Systems' or Coforge's acquisition-driven growth as distinct, not directly comparable, return profiles.

For Company Management

Tech Mahindra should prioritise restoring margin stability following its FY2023-24 profit decline; fast-growing, acquisition-active firms should improve disclosure of integration costs and scalability constraints; large, low-leverage majors such as TCS, Infosys and HCLTech have headroom to consider more active capital allocation.

For Future Researchers

Extend the sample size and market-capitalisation coverage; refine forecasting inputs with more granular company-level data; compare DCF outcomes against alternative forecasting approaches such as ARIMA or analyst consensus estimates; and incorporate non-financial drivers such as AI adoption and management quality.

VII. CONCLUSION

This study compared the financial performance, five-year forecasts and DCF-based intrinsic value of ten large-, mid- and small-cap Indian IT companies over FY2020-21 to FY2024-25. Ratio, trend and hypothesis-testing results show that profitability and leverage vary significantly across the sample, underlining substantial diversity within a sector often treated as homogeneous. Forecasted growth rates, deliberately moderated relative to recent historical trends, combined with DCF valuation, suggest that the market is pricing most sampled companies above their conservatively modelled intrinsic worth, with TCS the exception. Company-specific factors, scale, business model, growth strategy and capital allocation, appear more decisive for valuation outcomes than sector membership alone, supporting a company-level rather than sector-

wide approach to investment and valuation judgement in Indian IT equities.

VIII. LIMITATIONS OF THE STUDY

- The study relies solely on secondary data (audited financial statements and databases); independent verification of reported figures was not possible.
- The sample is restricted to ten listed Indian IT companies and cannot be generalised to the full sector, unlisted firms, or global peers.
- DCF results are sensitive to the assumed WACC, terminal growth rate and forecast inputs; different assumptions could shift valuation conclusions.
- The study does not incorporate qualitative factors such as management quality, competitive positioning, or macroeconomic shocks beyond what is embedded in historical financials.

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