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PROFITABILITY RATIO ANALYSIS OF LEADING IT COMPANIES IN INDIA

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ABSTRACT

This research delves into a thorough analysis of the financial performance of major IT companies in India from 2019 to 2023. Focused on Wipro, Infosys, Larsen & Toubro (L&T), Tata Consultancy Services (TCS), and HCL Technologies, the study employs essential financial ratio – Gross Profit (GP) ratio, Net Profit (NP) ratio, Return on Equity (ROE), Return on Assets (ROA), and Return on Capital Employed (ROCE). Differentiating itself from trading financial analysis, this study introduces statistical rigor through the utilization of the F-test and one-way Analysis of Variance (ANOVA). By employing these statistical tools, the research aims to identify significant variations in financial performance among the selected companies and pinpoint key determinants influencing their profitability dynamics. The incorporation of the F-test and ANOVA not only enriches the analysis quantitatively but also facilitates a comparative assessment of the financial strategies adopted by these IT giants. Anticipated Findings will provide stakeholders, investors and industry analysts with nuanced insight into the factors steering profitability and the relative performance of Wipro, Infosys, L&T, TCS and HCL Technologies in the dynamic Indian IT landscape. This research contributes to a holistic framework or evaluating and comparing profitability trajectories in the Indian IT sector, representing a significant step toward understanding the intricate relationship between financial metrics and statistical analyses.

Keywords: *Profitability, GP Ratio, NP Ratio, ROA, ROE, ROCE, Performance, IT Companies.*

Introduction

In the transformative era of India's Information Technology (IT) sector, where digital strides echo the vision of a 'New Bharat', understanding the financial resilience of key industry players is paramount. This research embarks on expedition to unveil the financial narratives of five eminent IT companies – Wipro, Infosys, L &T, TCS and HCL tech – spanning the pivotal period from 2019 to 2023.

These companies, in recent times, have emerged as the torchbearers of India's technological aspirations. Wipro, with its strategic acquisitions; Infosys, a pioneer driving digital innovation; L&T, seamlessly blending engineering excellence with technology; TCS, a global IT titan; and HCL Technologies, trailblazing in cutting-edge solution – all have played instrumental roles in steering India's digital destiny.

At the heart of this research lie dual objectives. Firstly, our aim is to provide a panoramic view of the current financial landscape occupation by these companies. By dissecting fundamental financial ratios such as Gross Profit ratio, Net Profit ratio, ROE, ROA and ROCE, our goal is to offer a comprehensive snapshot of their financial robustness based on the most recent data available.

In the spirit of 'Sabka Saath, Sabka Vikas,' this research not only serves as a financial compass in navigating the current standing of these IT companies but also lays the groundwork for predictive

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insights that can guide strategic decision-making in the dynamic landscape of India's IT powerhouses, decoding the notes that define their presents and hold the promise of sculpting a resilient and digital empowered 'New India'.

Review of Literature

In a pivotal exploration of Sri Lanka's corporate landscape, Velnampy (2006) delved into the financial fortitude of 25 publicly quoted companies. Employing the Altman Original Bankruptcy Forecasting Model, the study unearthed a compelling revelation: a mere 4 out of 25 companies faced a looming threat of bankruptcy. Notably, the research identified key ratio – earning/total asset ratio, market value of total debt ratio, and sales/total assets – as paramount in determining the financial health of these quoted companies. Velnampy's finding not only shed light on the nuanced interplay between financial position and profitability but also serve as a strategic compass for stakeholders navigating the dynamic landscape of Sri Lanka's corporate sector.

Profitability ratio serve as crucial metrics, gauging a company's ability to generate acceptable profits. Approached through sales and investment lenses, ROA and ROE are widely adopted measures in assessing profitability. These ratios, acting as proxies or investment attractiveness, influence investor decisions, especially for those with long-term portfolios who focus on metrics like price to book value (PBV). This study, inspired by financial scholars Gitman and Zutter (2015) and Brighamand Houston (2016), emphasizes the significance of ROA in evaluating a company's profitability by considering net income in relation to total assets.

Research Problem

The fundament goal of any business is to generate profits, which are crucial for its sustenance. Profit not only facilitates business expansion but also satisfies the expectation of investors, workers and creditors. Investors seek a fair return on their investment, while workers and creditors rely on the business's profitability for their well-being and security. In essence, a business fulfills its societal obligations effectively by earning profits, ensuring a symbiotic relationship with all stakeholders.

Objective

- To study find profitability of selected IT companies in India.
- To evaluate and analysis the growth of IT sector and find the major problem of financial health position.
- To know the financial strength and weakness of selected IT companies in India during the research period.
- To know the changes in Ratios during the research time period of latest five years.

Research Methodology

Source of Data

This study is financial performance so it based on secondary data. The required data source from www.moneycontrol.com, www.nseindia.com, www.bseindia.com and the personal sites of the IT companies.

Period of the Study

The present research covers the period of five years from 2019 to 2023.

Tools and Techniques

In the Accounting tools Financial analysis calculated by Ratios such as Return on Equity, Return on Assets, Return on Capital Employed, Gross profit ratio and Net profit ratio.

For the statistical data analysis F-test one way ANOVA. Using statistical software like excel for data analysis and visualization.

Research Hypothesis

Following hypothesis are helps to data analysis on Profitability ratio of the selected IT companies in India during the research period.

H_0: here is no significant difference in the profitability ratios of the selected IT companies in India during the research period.

H_1: There is significant difference in the profitability ratios of the selected IT companies in India during the research period.

Data Analysis and Interpretation

Profitability Ratios (%):

Table 1: Gross Profit Ratio (%)

	Gross Profit Ratio (%)				
Company			**YEAR**		
	2019	2020	2021	2022	2023
Wipro	24.11	24.64	27.7	23.63	21.12
Infosys	27.88	27.61	29.94	27.77	25.77
L & T	12.69	12.84	14.01	13.08	12.91
TCS	24.11	24.64	27.7	23.63	21.12
HCL Tech	24.6	25.33	27.82	25.21	23.64

Source: www.moneycontrol.com/www.nseindia.com/www.bseindia.com

Statistical Tools: F-test one way ANOVA

Hypothesis

H_0: There is no significant difference in the GP ratio of selected IT companies in India under the study period.

H_1: There is significant difference in the GP ratio of selected IT companies in India under the study period.

Level of significance: 5%

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	52.41412	4	13.10353	0.398218	0.807545	2.866081
Within Groups	658.10908	20	32.90545			
Total	710.5232	24				

Source: Researcher's Calculation

Gross profit ratio of different IT companies has been in fluctuating trend during the research period. Over the research period, Infosys consistently led with a commendable GP ratio, starting at 27.88% in 2019 and experiencing slight fluctuations but maintaining a strong position at 25.12% in 2023. Which is highest in year 2023 as compared to Wipro, L&T, TCS, and HCL Tech. In contrast, L&T exhibited a comparatively lower trend in GP ratio, indicating potential variations in operational efficiency and profitability compared to other IT companies.

From the ANOVA table 4 and 20 degree of freedom. Fcal is 0.3982 and Ftab value is 2.8660. Thus Fc < Ft and p-value is 0.807545 greater than significance level of 0.05 or 5%. So Null Hypothesis H0 is accepted and it is conclude that there is no significant difference in GP ratio between selected IT companies in India.

Table 2: Net Profit Ratio (%)

	Net Profit ratio				
Company			**Year**		
	2019	2020	2021	2022	2023
Wipro	15.28	15.97	17.52	15.42	12.56
Infosys	18.63	18.32	19.33	18.2	16.42
L&T	7.57	7.44	9.49	6.57	6.88
TCS	15.28	15.97	17.52	15.42	12.56
HCL Tech	16.74	15.64	14.81	15.78	14.63

Source :www.moneycontrol.com/www.nseindia.com/www.bseindia.com

Statistical Tools : F test one way ANOVA

Hypothesis

H_0: There is no significant difference in the Net profit ratio of selected IT companies in India under the study period.

H_1: There is significant difference in the Net profit ratio of selected IT companies in India under the study period.

Level of significance: 5%

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	25.80172	4	6.45043	0.389426	0.8136783	2.866081
Within Groups	331.27868	20	16.56393			
Total	357.0804	24				

Source : Researcher's Calculation

From the table 2 net profit ratio of IT companies has been changed up and down trend during the research period. In the financial narrative, Infosys soared to a pinnacle in 2021, boasting a Net Profit ratio of 19.33%, while L&T exhibited the lowest ratio 6.57% in 2022 among Wipro, TCS and HCL Tech, suggesting variation in profitability levels across the selected IT companies during the specified years.

From the ANOVA table 4 and 20 is degree of freedom. Fcal is 0.3894 and Ftab value is 2.8660. Thus Fc < Ft and p-value is 0.8136 greater then significance level 0.05 or 5%. So Null hypothesis is accepted and it is conclude that there is no significant different in NP ratio between selected IT companies in India.

Table 3: Return On Assets (%)

Return on Assets (%)					
Company	**Years**				
	2019	2020	2021	2022	2023
Wipro	10.85	11.96	13.04	11.37	9.68
Infosys	18.17	17.88	17.85	18.75	19.15
L & T	3.19	3.09	3.72	2.7	3.16
TCS	10.85	11.96	13.04	11.37	9.68
HCL Tech	17.27	13.33	12.93	15.16	15.89

Source: www.moneycontrol.com/www.nseinida.com/www.bseindia.com

Statistical Tools: F-test one way ANOVA

Hypothesis

H_0: There is no significant difference in the ROA of selected IT companies in India during the research period.

H_1: There is significant difference in the ROA of selected IT companies in India during the research period.

Level of significance: 5%

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	1.370696	4	0.342674	0.010327	0.999769	2.866081
Within Groups	663.64544	20	33.18227			
Total	665.016136	24				

Source: Researcher's calculation

From the table 3 ROA ratio of IT companies lead to up and down trend during the research period. Infosys exhibited robust financial performance with the highest ROA at 19.15% in 2023, signaling sustained profitability. Wipro and TCS showcased a parallel and sound ROA trend, while L&T lagged behind with the lowest ROA at 2.70% in 2022, portraying comparatively weaker financial performance among the selected companies.

From the ANOVA table 4 and 20 is degree of freedom. Fcal is 0.010 and Ftab values is 2.8660. Thus Fc < Ft and p-value is 0.9997 greater than significant level of 0.05 or 5%. So null hypothesis is accepted and it is concluded there is no significant difference in ROA ratio between IT companies in India.

Table 4: Return on Equity (%)

Return on Equity (%)					
Company	**Year**				
	2019	2020	2021	2022	2023
Wipro	15.95	17.57	19.66	18.69	14.61
Infosys	23.71	25.35	25.34	29.34	31.95
L & T	14.31	14.31	15.26	10.52	11.72
TCS	15.95	17.57	19.66	18.69	14.61
HCL Tech	24.46	21.56	18.6	21.8	22.7

Source: www.moneycontrol.com/www.nseindia.com/www.bseindia.com

Statistical Tools: F-test one way ANOVA

Hypothesis

H_0: There is no significant difference in the ROE ratio of the selected IT companies in India during the study period

H_1: There is significant difference in the ROE ration of the selected IT companies in India during the study period.

Level of significance: 5%

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	3.097536	4	0.774384	0.022968	0.998881	2.866081
Within Groups	674.30768	20	33.71538			
Total	677.405216	24				

Source: Researcher's calculation

From the table 4 financial saga, Infosys takes the spotlight with it pinnacle ROE at 31.95% in 2023, showcasing sustained excellence. Conversely, L & T faces a contrasting chapter with the lowest ROE at 11.72% in the same year. Infosys and HCL tech share a parallel ROE trend from 2019 to 2023, underscoring financial prowess and shareholder value creation.

From the ANOVA table 4 and 20 is degree of freedom. Fcal is 0.02296 and Ftab value is 2.866081. Thus Fc < Ft and p-value is 0.9988 greater then significance level of 0.05 or 5%. So, Null hypothesis is accepted and it is conclude that is no significance difference in ROE ratio between selected IT companies in India.

Table 5: Return on Capital Employed (%)

	Return On Capital Employed (%)				
Company	**Year**				
	2019	**2020**	**2021**	**2022**	**2023**
Wipro	19.97	21.76	24.1	20.43	17.46
Infosys	31.83	30.83	31.73	35.96	38.79
L & T	10.54	9.93	9.28	10.91	11.99
TCS	19.97	21.76	24.1	20.43	17.46
HCLTech	27.65	24.47	23.78	24.58	27.56

Source: www.moneycontrol.com/www.nseindia.com/www.bseindia.com

Statistical Tools: F-test one way ANOVA

Hypothesis

H_0: There is no significant difference in the ROCE ratio of the selected IT companies in India under the study period.

H_1: There is significant difference in the ROCE ratio of the Selected It companies in India under the study period.

Level of significance : 5%

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	3.179464	4	0.794866	0.01029	0.999771	2.866081
Within Groups	1544.85772	20	77.24289			
Total	1548.037184	24				

Source: Researcher's calculation

From the table 5 Infosys takes the financial helm with the highest ROCE at 38.79% in 2023, portraying exceptional efficiency. L&T grapples with the lowest ROCE at 9.28% in 2021, indicationg a performance lag among the selected companies. Wipro and TCS maintain a consistent and parallel performance trend form 2019 to 2023. HCL tech secures the second highest ROCE, contributing to the study's landscape with notable financial strength.

From the ANOVA table 4 and 20 is degree of freedom. Fcal is 0.01029 and Ftab value is 2.8660. Thus Fc < Ft and p-value is 0.999771 greater then significance level of 0.05 or 5%. So, Null hypothesis is accepted and it is concluded that there is no significant difference in ROCE ratio between selected IT companies in India.

Suggestion

The analysis provides valuable insights into the financial dynamics of leading IT companies in India, highlighting significant variation in profitability ratio over the study period. The utilization of statistical tools like the F-test and ANOVA enriches the quantitative analysis, offering a robust framework for comparative assessments and strategic decision-making. Stakeholders and investors can leverage these findings for nuanced insights into the health and relative performance of Wipro, Infosys, L&T, TCS and HCL Tech, contributing to informed deciosion-making in the dynamic Indian IT landscape. Additionally, future research could explore the impact of comprehensive understanding.

Conclusion

In conclusion, this research conducted a thorough profitability ratio analysis of prominent IT companies in India from 2019 to 2023. While individual companies exhibited fluctuating financial performance, the statistical analysis did not reveal significant difference in profitability ratio among the selected IT companies. Infosys consistently stood out with commendable stability and performance, while L&T displayed comparatively lower ratios. The study contributes valuable insights for stakeholders, investors and industry analysts, shedding light on the financial dynamic of Wipro, Infosys, L&T, TCS and HCL tech in the ever evolving India IT landscape.

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