FINANCIAL PERFORMANCE ANALYSIS OF SELECT INDIAN IT COMPANIES: A COMPARATIVE STUDY

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ABSTRACT
Since IT sector contribute tremendously to the GDP of the country, it is inevitable to scrutinize, how these enterprises resuscitate, thrive, and boost their operations during COVID. The progression of TCS, Infosys, and Wipro was investigated for the period 2017-2022 in view of fact that they exhibit significant market capitalization. Spotting the top IT giant in this industry is aided by inspecting their key performance indicators. In order to assess business undertaking as a whole, ratio analysis is used together with statistical tools like one-way ANOVA and CAGR. It was discovered that IT companies were not adversely affected by COVID, and it appears that these businesses have been flourishing over the past few years. Overall, Wipro's performance with respect to generating operating profit, net profit, and payout ratio over the long run is brilliant. In terms of proprietary ratio, Infosys is the pioneer. With reference to earnings per share, return on invested capital and debt-to-equity ratio, TCS is the standout player. Although all businesses continue to operate at the identical level in terms of short-term solvency ratios, Infosys takes the lead due to its steady performance over the years. Despite the fact that TCS and Infosys have high market cap, Wipro earns the top spot by performing exceptionally well over the past 6 years showing rising trend in multiple analysis.

KEY WORDS: ANOVA, CAGR, Comparison, Financial Performance, IT companies, Liquidity, Profitability, Solvency.

INTRODUCTION

The IT and BPM sector has developed into one of the most significant growth generators for the Indian economy, significantly boosting the GDP and the country's overall well-being, according to the report published by India Brand Equity Foundation (IBEF). IT sector shared 7.4% of India's GDP during the year 21-22. With 76 crore people now having access to the internet, India is seen by the rest of the globe as having one of the largest Internet user bases and the most affordable Internet pricing. Due to the rising need for expertise and skill, the top three Indian IT businesses, TCS, Wipro, and Infosys, anticipate creating 1.05 lakh job openings in FY22. Between April 2000 and June 2022, India's computer software and hardware industry received cumulative foreign direct investment (FDI) inflows totaling US$ 88.94 billion. (IBEF, 2022).

With the help of data gathered from annual reports, we may examine a company's current situation or forecast its future behavior through financial analysis. In this study, ratio analysis is used together with statistical tools like one-way ANOVA and CAGR to compare company’s performance. One-way ANOVA (Analysis of Variance) is used to compare means of 3 different companies to check whether it provides statistical evidence that the calculated means of different companies within and among themselves depict significant change or not (Paolella, 2018). Compound Annual growth rate (CAGR) tells us whether the company shows positive or negative trend over the selected years (Saurabh Mukherjea, 2018).This information assures creditors will receive their money and aids potential investors in making effective ventures. Additionally, it aids management in making good judgments or maintaining control over their operations as well as shareholders in deciding whether to continue holding their position in the company. Financial analysis includes examining the liquidity, solvency, and profitability positions of the same company or different companies over time. Here, we attempt to construct a relationship between two variables, compare and contrast how well they perform. Therefore, drawing inferences from these readings will be simple.

LITERATURE REVIEW

Infosys, TCS, HCL and Wipro exhibit direct relationship in terms of liquidity, leverage, productivity and profitability. Ratio analysis, One way ANOVA, CAGR ,Secondary data like annual reports, magazines, journal articles were utilized in order to compare their performance from 2008-2020. The profits of these companies showed notable difference whereas there was a slight correlation between liquidity and solvency ratio of these companies. It was found that Infosys and Wipro perform exceptionally well compared to others. TCS and HCL performance was not good enough. (Jasmine Mehta, 2021)

An effort was made to understand the correlation between capital structure and profitability of chosen IT companies. Top 5 listed IT companies were selected in order to evaluate their performance for the period 2015-2020 with the help of secondary data collected. As a result of correlation coefficient, it was discovered that companies with great amount of debt tend to have lower profitability. These companies did not utilize the assistance of leverage since they have poor debt-equity proportion. It was suggested to have significant debt fund in order to maximize their operations. (Sarin, 2021)

TCS and Infosys standout to be the great IT giants, contributing enormously to the Indian economy. It remained unavoidable to review their performance in order to forecast their future economy participation. An effort was made to understand their proceedings for the period 2017-2021 with the help of dependent sources collected. It was discovered that TCS outplays Infosys in terms of net profit, return on capital employed, EPS. However both companies showed identical performance in terms of liquidity ratios. (Dhanraj Devraj Gadhavi, 2021)

In order to run fluently, every company should have adequate fixed and working capital. An attempt was made to acknowledge the working capital control of chosen IT companies, which on the other hand affected their profitability. Tools like working capital and profitability ratios, ANOVA, correlation analysis were employed on the top 5 IT companies for the period 2012-2018 with the help of secondary data collected. Working capital influence on different companies was dissimilar even though these companies have alike practices. (Mr. Nilay N. Prajapati, 2020)

IT major giants like TCS, Infosys, Wipro and Tech Mahindra were picked in order to interpret their performance for the period 2010-2014. The secondary data was used to articulate in computing five significant ratios and the method of DuPont analysis was also employed. Infosys outperformed well in terms of current ratio, return on shareholder's equity, EPS and debt-equity, making it successful and stable among other competitors. TCS showed favorable sign in terms of working capital turnover, total asset turnover and DuPont analysis making it a stand out player. (Bansal, 2015)

IT sector emerged to be the prosperous sector after the enactment of LPG. With the help of DuPont analysis, Descriptive Statistics and Multiple Regression Model, the operations of two great IT companies: TCS and Infosys were assessed. These companies exhibited similar trend in terms of profitability ratios, on the other hand TCS managed its assets comparatively better than Infosys. TCS outplayed Infosys over multiple ratios and establish its strong foundation in IT sector for the upcoming years. (Samrat Banerjee, 2021)

Investment in IT sector was considered beneficial and a less risky commitment since the sector perform exceptionally well in the preceding years. Secondary sources like annual reports, magazines and journals were utilized to study performance of Wipro and Infosys for the period 2012-2016. The hypothesis testing was also employed to draw inferences and conclusions regarding the significant change in the performance of both companies. Though Infosys performed comparatively better, it must pay attention in terms of utilizing its proprietary funds and debt-capital to its maximum. (Bhargava, 2017)

It was considered significant to examine the liquidity position of the companies in order to understand their financial stability. Companies must maintain ideal liquidity position since excess or limited funds drastically affect a company's profitability or solvency position. Top five IT companies were selected in order to study their liquidity position from 2017-2021. Among all, Infosys performance was considered satisfactory. Other companies must pay attention to their cash ratio which stood below the ideal level. (Patel, 2022)

IT companies like TCS, Wipro and Infosys were chosen to find the most profitable one among 3 during 2014-2018 since IT sector assist economy in terms of GDP, creating employment opportunities and attracts FDI. Wipro should improve its performance in terms of Earnings Before Interest and Tax and Earnings Before Tax. On whole, TCS performance was outstanding compared to Wipro and Infosys. Also it was found that shareholders of TCS are more gratified. (Ajay Singh, 2015)

Fundamental analysis was done in terms of economic analysis (GDP, Inflation), Sector analysis and Company analysis (Ratio analysis, Trend analysis). Companies were selected based on market cap, revenue and sales for the period 2012-2016. Also secondary data was utilized for comparison and discussions. It was recommended to buy shares of TCS, Infosys and Wipro since it may exhibit great value in future. It was proposed to sell shares of Mindtree and HCL as they are overestimated and may lose its value in future. (SILPA K S, 2017)

OBJECTIVES OF THE STUDY

1) To differentiate profitability and earning potential of chosen IT companies throughout chosen years.
2) To evaluate how well the best IT companies perform both during and after the COVID-19 outbreak.
3) To scrutinize liquidity, profitability and solvency status of chosen companies.
4) To illustrate upward and downward shift in financial analysis over 6 years using CAGR.
5) To determine whether there is a substantial variation between companies' financial ratios or if the trend of the three companies is unchanged.

RESEARCH METHODOLOGY

RESEARCH DESIGN: The current study is both qualitative and quantitative in nature. An attempt is made using financial ratios to analyze the financial performance of the I.T. sector players having high-market capitalization over the years 2017 to 2022 which are TCS, Infosys and Wipro.

RESEARCH GAP: Only a short-term examination of the financial results of the top 3 IT companies from 2016–17 to 2021–22 is included.

DATA COLLECTION: For this study, secondary sources such as annual reports of firms from the BSE website, earlier research papers, periodicals, journals, and cyberspace were used to gather the data. For the benefit of the research, data from NASSCOM and IBEF are also utilized.

TOOLS AND TECHNIQUES: The selected IT businesses' profitability, liquidity, and solvency position are determined using ratio analysis. CAGR was employed to critically evaluate rising and falling trend over 6 years. One-way ANOVA (Khan and Singhal, 2015) demonstrate the variation in the operations of I.T. enterprises. Graphical representation was also used for better understanding.

HYPOTHESIS OF THE STUDY:

H0: The financial ratios of the chosen companies do not differ substantially from one another.

H1: Selected companies' financial ratios differ substantially from one another.

DATA ANALYSIS:

A. **Profitability Ratios:** This shows the extent to which the business can turn a profit from its operating revenues. Moreover, how effectively the business reduces production costs in order to outperform rivals in terms of profit. How much profit the stockholders receive is another consideration. This is found with the help of (i)Operating ratio (ii)Net profit ratio (iii)Return on capital employed (iv)Earnings per share (v)Payout ratio (Reddy, 2023).
B. **Liquidity ratios:** This shows how well the company converts its assets to meet its immediate or ongoing obligations or liabilities. This data is used by creditors to determine whether or not to offer short-term loans. We use (i) Current ratio (ii) Quick ratio in order to find the liquidity or short-term solvency of the companies (Reddy, 2023).
C. **Solvency ratios:** Here, we determine if the corporation has the funds to pay off its long-term debts when they become due. We find this with the help of (i) Debt-equity ratio (ii) Proprietary ratio (Reddy, 2023).

LIMITATIONS OF THE STUDY:

- This analysis is limited to the years 2016–17 until 2021–22, any conclusions drawn from the performance over the previous six years will not be definitive.
- As the study heavily relies on secondary data such as annual reports, magazines, journals, etc., the significance of the same depends on the validity of the data collected.
- The study considers only the top 3 IT companies based on their high market capitalization.
- This study is confined and is limited to the use of ratios, one-way ANOVA, CAGR, and graphic representations for comparison. And the inferences made out of these tools cannot be generalized and may not predict the accuracy or correlation with other tools.

PROFITABILITY RATIOS ANALYSIS

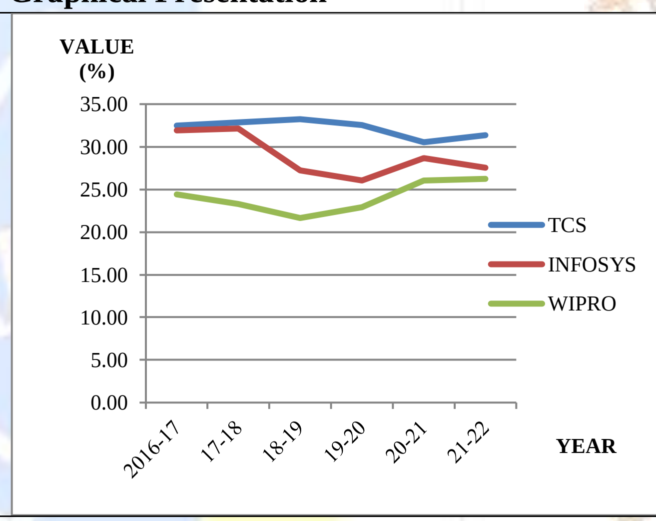
OPERATING PROFIT RATIO

Testing of hypothesis

H0 = Designated Indian IT Companies' Operating Profit Ratios do not differ substantially from one another.
OPERATING PROFIT RATIO =
OPERATING PROFIT/ REVENUE FROM OPERATIONS*100

TABLE 7.1: OPERATING PROFIT RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	32.51	31.94	24.44	
2017-18	32.89	32.14	23.30	
2018-19	33.24	27.26	21.64	
2019-20	32.57	26.05	22.91	
2020-21	30.53	28.64	26.02	
2021-22	31.38	27.54	26.24	
CAGR %	-0.59	-2.44	1.19	



***Source: Computed**

TABLE 7.2: ANALYSIS OF VARIANCE OF OPERATING PROFIT RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	198.97	2	99.49	27.54	3.68
Within Companies	54.19	15	3.61		
Total	253.17	17			

Discussion:

The estimated F value of 27.54, which is bigger than the table value or crucial value of 3.68 at 5% level of significance with degrees of freedom (v1=2 and v2=15), is depicted in the table. As a result, the null hypothesis stands rejected and it may be claimed that the operating profit ratios of picked I.T. companies fluctuate. CAGR for the operating profit of TCS is -0.59%, Infosys is -2.44% and Wipro is 1.19%. It is obvious that over the preceding six years, TCS and Infosys have shown a negative trend, whilst Wipro has shown a favorable trend. Thus, we interpret that Wipro outperforms Infosys and TCS in terms of creating operating profit, managing operating costs, and meeting its fixed cost and interest commitments.

NET PROFIT RATIO

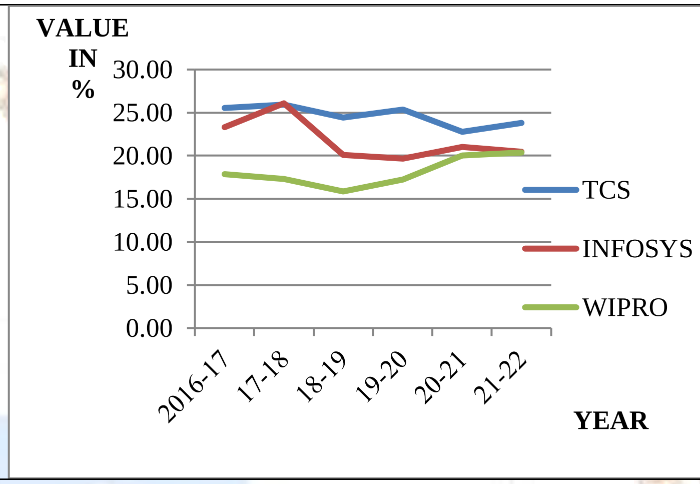
Testing of hypothesis

H0 = Designated Indian IT Companies' Net Profit Ratios do not differ substantially from one another.

NET PROFIT RATIO =

NET PROFIT/REVENUE FROM OPERATIONS *100

TABLE 7.3: NET PROFIT RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	25.52	23.31	17.88	
2017-18	25.93	26.08	17.27	
2018-19	24.41	20.11	15.85	
2019-20	25.33	19.66	17.23	
2020-21	22.77	21.01	20.00	
2021-22	23.82	20.43	20.37	
CAGR %	-1.14	-2.17	2.20	

***Source: Computed**

TABLE 7.4: ANALYSIS OF VARIANCE OF NET PROFIT RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	128.45	2	64.23	18.19	3.68
Within Companies	52.96	15	3.53		
Total	181.41	17			

Discussion:

The estimated F value is identified in the table as 18.19, which is greater than the table value or crucial value of 3.68 at the 5% level of significance with degrees of freedom (v1=2 and v2=15). Considering our analysis does not support the null hypothesis, we reject it. As a result, it may be argued that the chosen IT companies' net profit ratios change over time.

The poll indicates that CAGR for net profit of TCS is -1.14%, Infosys is -2.17% and Wipro is 2.20%. It is clear that over the previous six years, Wipro has exhibited a beneficial trend whereas TCS and Infosys have revealed a negative trend. As a matter of fact, we infer that Wipro plays better than Infosys and TCS in terms of generating net profit, paying taxes, and achieving its objective from the owner's perspective.

RETURN ON CAPITAL EMPLOYED

Testing of hypothesis

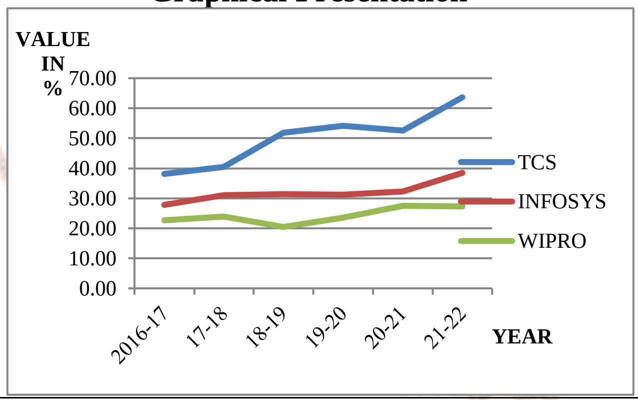
3. H0 = Designated Indian IT Companies' Return on Capital Employed do not differ substantially from one another.

RETURN ON CAPITAL EMPLOYED = OPERATING PROFIT/CAPITAL EMPLOYED*100

TABLE 7.5: RETURN ON CAPITAL EMPLOYED

Year	TCS %	Infosys %	Wipro %
2016-17	38.12	27.81	22.62
2017-18	40.50	31.00	23.88
2018-19	51.78	31.38	20.44
2019-20	54.09	31.28	23.62
2020-21	52.51	32.24	27.49
2021-22	63.64	38.47	27.32
CAGR %	8.92	5.56	3.20

Graphical Presentation



Source: Computed

TABLE 7.6: ANALYSIS OF VARIANCE OF RETURN ON CAPITAL EMPLOYED

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	2114.46	2	1057.23	29.23	3.68
Within Companies	542.49	15	36.17		
Total	2656.94	17			

With degrees of freedom (v1=2 and v2=15), the estimated F value is shown in the table as 29.23, which is higher than the table value or crucial value of 3.68 at the 5% level of significance. We oppose the null hypothesis since our investigation does not provide evidence in its favor. It may be claimed that this causes the return on capital employed of the selected IT companies to vary substantially. According to the survey, CAGR for Return on Capital Employed of TCS is 8.92%, Infosys is 5.56% and Wipro is 3.20%. It is evident that all three companies have experienced a positive trend during the preceding six years. As a matter of fact, we ascertain that TCS performs better than Infosys and Wipro in terms of employing its long-term owners' and creditors' funds to produce returns and draw in investors and stock analysts.

EARNINGS PER SHARE

Testing of hypothesis

4. H0 = Designated Indian IT Companies' Earnings per share do not differ substantially from one another.

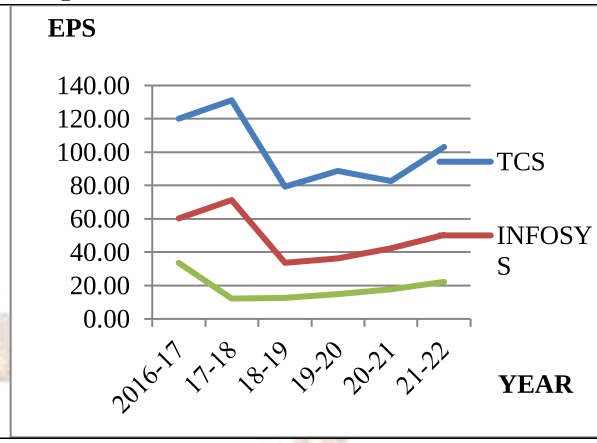
EARNINGS PER SHARE =

NET PROFIT AFTER TAX AND PREFERENCE DIVIDEND/NO. OF EQUITY SHARES

TABLE 7.8: ANALYSIS OF VARIANCE OF EARNINGS PER SHARE

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	20628.96	2	10314.48	42.72	3.68
Within Companies	3621.27	15	241.42		
Total	24250.24	17			

TABLE 7.7: EARNINGS PER SHARE

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	120.04	60.16	33.61	
2017-18	131.15	71.28	12.19	
2018-19	79.33	33.66	12.67	
2019-20	88.64	36.34	14.88	
2020-21	82.78	42.37	17.81	
2021-22	103.24	50.27	22.20	
CAGR %	-2.97	-3.53	-7.96	

Source: Computed

Discussion:

The predicted F value at 5% level of significance with degrees of freedom (v1=2 and v2=15) is 42.72, which is higher than the table value or critical value of 3.68. Considering our analysis does not support the null hypothesis, we reject it. As a result, it is possible to argue that the chosen IT businesses' earnings per share change over time. CAGR for EPS of TCS is-2.97%, Infosys' is -3.53%, and Wipro's is -7.56%, according to the poll. It is clear that all businesses have experienced a downward trend during the last six years. Thus, we conclude that TCS is preferable to Infosys and Wipro on a comparative basis. This is why TCS shares have a higher market value than the other two. Additionally, it demonstrates the company's capability to distribute dividends to equity investors.

PAYOUT RATIO

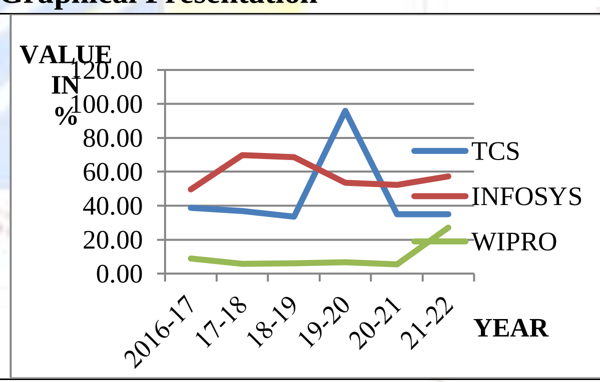
Testing of hypothesis

5. H0 = Designated Indian IT Companies' Payout ratio do not differ substantially from one another.

PAYOUT RATIO=

EQUITY DIVIDEND/NET PROFIT AFTER TAX AND PREFERENCE DIVIDEND*100

TABLE 7.9: PAYOUT RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	38.74	49.60	8.93	
2017-18	36.78	69.80	5.86	
2018-19	33.54	68.60	5.94	
2019-20	95.90	53.50	6.58	
2020-21	35.05	52.20	5.44	
2021-22	34.87	57.20	27.10	
CAGR %	-1.74	2.40	20.32	

Source: Computed

TABLE 7.10: ANALYSIS OF VARIANCE OF PAYOUT RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	7595.13	2	3797.57	15.14	3.68
Within Companies	3761.43	15	250.76		
Total	11356.57	17			

The calculated F value of 15.14, which exceeds the table value or the crucial value of 3.68 at 5% level of significance with degrees of freedom (v1=2 and v2=15), is shown in the table. As a result, we reject the null hypothesis because our analysis does not support it. Therefore, it may be claimed that the payout ratios of particular I.T. businesses differ. The study observed that the CAGR for payout ratio of TCS is -1.74%, Infosys is 2.40% and Wipro is 20.32%. It is evident that Wipro perform exceptionally well compared to TCS and Infosys. Even though TCS paid 96% of its profit to shareholders in the year 2019-20, it shows negative trend for the past 6 years. Wipro is good at maintaining payout ratio in the long-run.

LIQUIDITY RATIOS

CURRENT RATIO

Testing of hypothesis

8. H0 = Designated Indian IT Companies' Current ratio do not differ substantially from one another.

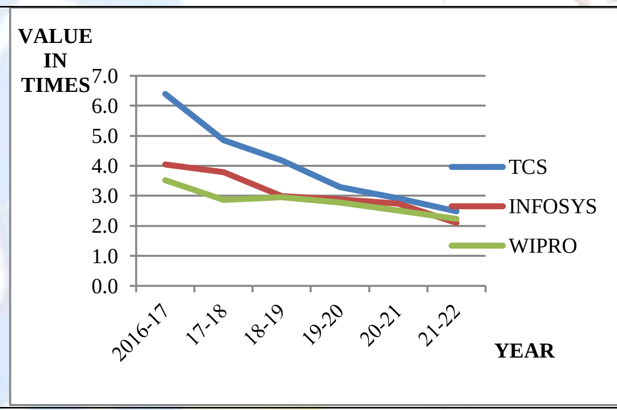
CURRENT RATIO = TOTAL CURRENT ASSETS/ TOTAL CURRENT LIABILITIES

TABLE 8.2: ANALYSIS OF VARIANCE OF CURRENT RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	4.83	2	2.42	2.60	3.68
Within Companies	13.97	15	0.93		
Total	18.80	17			

TABLE 8.1: CURRENT RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	6.4	4.0	3.5	
2017-18	4.9	3.8	2.9	
2018-19	4.2	3.0	3.0	
2019-20	3.3	2.9	2.8	
2020-21	2.9	2.7	2.5	
2021-22	2.5	2.1	2.23	



***Source: Computed**

The crucial value at the 5% level of significance is 3.68, but the predicted F value for degrees of freedom (v1=2 and v2=15) is shown in the table as 2.60, which is less than the value reflected in the table. We accept the null hypothesis after assessing the evidence from our investigation that supports it. Therefore, it may be claimed that the present percentages of the chosen IT companies have not changed over past 6 years. All three companies have developed a negative trend over time. This is due to the fact that businesses enhance the usage of their current assets by keeping their ratios within the recommended range of 2:1. Among these Infosys is good at maintaining current ratio consistently over long-run between 4 and 2(Ideal). It is also clear that TCS maintains a high percentage, which prevents funds from being used effectively. Wipro, on the other hand, shows a rising and falling tendency over these years.

LIQUID RATIO

Testing of hypothesis

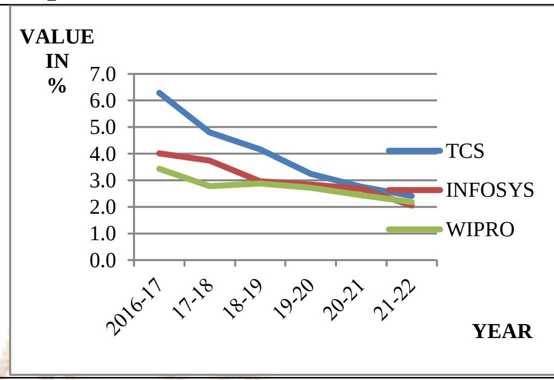
9. H0 = Designated Indian IT Companies' Liquid Ratio do not differ substantially from one another.

LIQUID RATIO =

LIQUID ASSETS/CURRENT LIABILITIES*100

TABLE 8.3: LIQUID RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	6.3	4.0	3.4	
2017-18	4.8	3.7	2.8	
2018-19	4.2	3.0	2.9	
2019-20	3.2	2.8	2.7	
2020-21	2.8	2.7	2.4	
2021-22	2.4	2.1	2.2	



***Source: Computed**

TABLE 8.4: ANALYSIS OF VARIANCE OF LIQUID RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	4.71	2	2.36	2.52	3.68
Within Companies	14.00	15	0.93		
Total	18.71	17			

Discussion:

The projected F value for degrees of freedom (v1=2 and v2=15) is displayed in the table as 2.52, which is lower than the value represented in table or critical value of 3.68 at the 5% level of significance. We evaluate the data from our inquiry that supports the null hypothesis and accept it. As a result, it can be said that the liquid ratios of the selected IT companies have remained constant during the previous six years. Over time, a negative tendency has emerged for all three businesses. Infosys maintain it between 4 and 2 (Ideal). It is clear that Infosys outperforms the other two businesses in terms of converting its present assets more quickly and consistently compared to others over a long-run.

SOLVENCY RATIOS

DEBT EQUITY RATIO

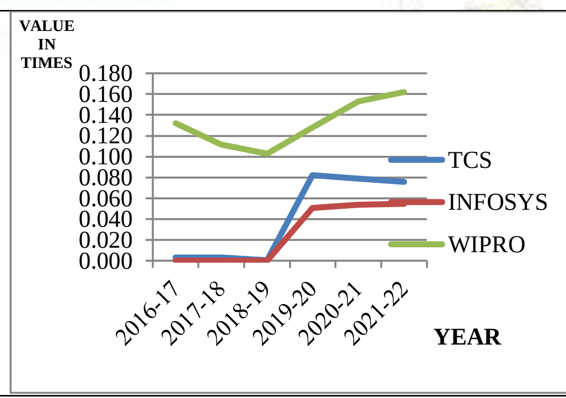
Testing of hypothesis

10. H0 = Designated Indian IT Companies' Debt Equity ratio do not differ substantially from one another.

DEBT EQUITY RATIO =TOTAL DEBT/SHAREHOLDERS FUNDS

TABLE 9.1: DEBT EQUITY RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	0.003	0.000	0.132	
2017-18	0.003	0.000	0.112	
2018-19	0.000	0.000	0.103	
2019-20	0.082	0.051	0.128	
2020-21	0.079	0.054	0.153	
2021-22	0.076	0.055	0.162	



***Source: Computed**

TABLE 9.2: ANALYSIS OF VARIANCE OF DEBT EQUITY RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	0.04	2	0.02	18.56	3.68
Within Companies	0.02	15	0.00		
Total	0.05	17			

The table demonstrates that the computed F value of 18.56 is higher than the table value or crucial value of 3.68 at the 5% level of significance with degrees of freedom (v1=2 and v2=15), and we therefore reject our null hypothesis because our results does not support it. Therefore, it may be claimed that the debt-to-equity ratios of particular I.T. corporations vary.

Debt refers to lease liabilities and borrowings as they are stated in annual reports. Additionally, Infosys has remained a debt-free business from 2016–17 to 2018–19. We end by stating that none of the three companies are expanding through debt funding.

As a consequence, we draw the conclusion that TCS performs better because it has mean of 0.04(as per ANOVA) which is stronger than others and demonstrates their successful utilization of debt financing.

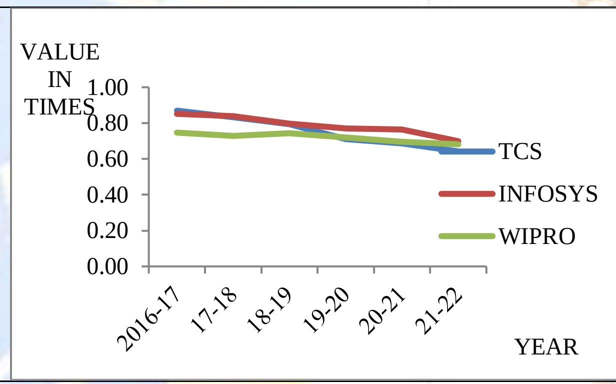
PROPRIETARY RATIO

Testing of hypothesis

11. H0 = Designated Indian IT Companies' Proprietary Ratio do not differ substantially from one another.

PROPRIETARY RATIO =SHAREHOLDERS FUNDS/TOTAL TANGIBLE ASSETS

TABLE 9.3: PROPRIETARY RATIO

Year	TCS %	Infosys %	Wipro %	Graphical Presentation
2016-17	0.87	0.85	0.75	
2017-18	0.83	0.84	0.73	
2018-19	0.79	0.80	0.74	
2019-20	0.71	0.77	0.72	
2020-21	0.69	0.76	0.70	
2021-22	0.64	0.70	0.68	

***Source: Computed**

TABLE 9.4: ANALYSIS OF VARIANCE OF PROPRIETARY RATIO

SOURCE OF VARIATION	SS	DIFF.	MS	F RATIO	F LIMIT 5%
Between Companies	0.01	2	0.01	1.71	3.68
Within Companies	0.06	15	0.00		
Total	0.07	17			

Discussion:

The critical value at the 5% level of significance is 3.68, while the table's anticipated F value for the degrees of freedom (v1=2 and v2=15) is 1.71, which is lower than the number represented in the table. After evaluating the data from our inquiry that give support to the null hypothesis, we accept it. As a result, it can be said that the selected IT businesses' proprietary ratios have remained stable during the past six years.

The creditors won't be significantly impacted if these companies go out of business because all of them have kept their ratios above 0.5 over these years. When compared to TCS and Wipro, where the means are between 0.5-0.75, Infosys' mean of 0.79, which is higher than all other companies' means, indicates that it is less risky.

RESULTS AND FINDINGS

- Even though they have large market caps and are in the same industry, TCS, Infosys, and Wipro have shown a significant change in the following ratios over the past six years: operating profit ratio, net profit ratio, return on capital employed, earnings per share, payout ratio and debt-equity ratio.
- However, other analysis metrics have remained constant over the years, including the Current ratio, Liquid ratio and Proprietary ratio.
- Wipro surpasses TCS and Infosys in terms of showing a positive trend over these years, which the other two companies fail to do so despite having higher revenues. In terms of profitability, Wipro surpasses other IT giants. Infosys performs a satisfactory job of maintaining its current and liquid assets consistently over the course of six years, which is crucial for maintaining stability.
- Looking at solvency ratios, all companies performed admirably, but Infosys stands out since its mean value is 0.79, which is higher than 0.5 (ideal) in terms of proprietary, while the values for the other two companies are between 0.50 and 0.75. TCS holds 0.04 mean of debt-equity, utilizing its debt financing to its maximum.

CONCLUSION

Any company that wishes to increase efficiency, facilitate business operations, and expand profitably in today competitive world needs IT-based services. In addition to boosting the country's economy, information technology has helped governance by making it more capable and approachable. By 2025, India is projected to develop a $1 trillion digital economy. According to a report by industry group Nasscom and international consulting firm McKinsey, India's technology services sector can generate $300-350 billion in annual revenue by 2025 if it can take advantage of the rapidly emerging business potential in cloud, artificial intelligence (AI), cyber security, and other emerging technologies. (Jayswal, 2021)

By 2025, it is anticipated that India's IT sector will contribute 10% of the country's GDP. The IT sector employed 5 million workers as of FY22. According to a survey conducted by Amazon Web Services in 2021, the number of digitally proficient professionals in India is predicted to increase nine-fold by 2025. This shows that by 2025, it is anticipated that 3.9 billion people would have received digital skill training. India's market for IT and business services is expected to be worth US$19.93 billion by 2025. (IBEF, 2022)

Ratio analysis is helpful in terms of evaluating top 3 companies over these years and to arrive at conclusion with the results and findings. One-way ANOVA helps to find whether companies exhibit any significant change or not in their performance. Graphical representation helps to visualize those events in a better way. From 2016-17 till 2021-22 we have selected top three IT companies in order understand their comparative performance with these ratios. Totally we have used 3 types of selected ratios: Profitability, Liquidity and Solvency. In terms of generating payout ratio, operating and net profit ratio, Wipro outperforms well. Analyzing the Earning per share, Return on capital employed and Debt-equity, we find TCS leads. Concentrating on Proprietary ratio, Liquid and current ratio Infosys holds ideal position. On whole Wipro depicts upward trend over profitability, ideal trend over liquidity and solvency ratio and stands out of competition. Infosys and TCS, though they have comparatively high market cap than Wipro, they did not use their potential to the maximum over these past 6 years in order to earn greater returns and expand their business.

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