

A study on Fundamental and Technical analysis on IT sector Companies

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Abstract

The investment in share market is highly rewarding but highly risky. The concept of analysis comes into picture when decision has to be made on choosing a particular company's shares for investment. Analysis includes fundamental and technical analysis. Fundamental analysis is a method of forecasting the future price movements of a financial instrument based on economic, political, environmental and other relevant factors and statistics that will affect the basic supply and demand of whatever underlies the financial instrument. Technical analysis is a security analysis technique that claims the ability to forecast the future direction of prices through the study of past market data primarily price and volume. This paper aims at carrying out Fundamental and Technical Analysis of the selected companies from the Information Technology sector, since IT sector is one of the most upcoming sectors in the Indian Market. Secondary Data of last 5 year (2016-2020) for fundamental analysis and for technical analysis the daily share prices of the last financial years (from 1-3-2019 to 28-2-2020) is collected for five leading IT companies listed on nifty 50: TCS, INFY, HCLTECH, WIPRO and TECHM, for the study through fundamental analysis is carried out by tools like Economic analysis, Industrial analysis and Company Analysis and their technical analysis is carried out using various tools which are used in this study are: Moving Average (MA), Stock (Candlestick) chart, Moving average convergence divergence (MACD), Relative strength index (RSI). After analyzing and applying the various tool researcher have found that fundamental analysis reduce the risk and maximize the return on investment and Technical analysis gives investor a better understanding of the stocks and also gives them right direction to go on further to buy or sell the stocks.

Keywords: Fundamental analysis, Economic, Industrial, Company analysis, Technical Analysis, MA, MACD, RSI, Candlestick chart, trader, investor.

1. Introduction

Investing is one of the most crucial decisions that every earning individual has to make at one point of the time or the other. Analysis includes fundamental and technical analysis. A proper analysis helps in reducing the risk on investment in the share markets and in choosing a less risky and highly rewarding investment avenue. Fundamental analysis is a detailed analysis of the fundamental factors affecting the performance of companies. Each share is assumed to have an economic worth based on its present and

future earning capacity. The purpose of fundamental analysis is to evaluate the present and future earning capacity of a share based on the economy, industry and company fundamentals and thereby assess the intrinsic value of the share. Fundamental analysis thus involves three steps: Economy Analysis, Industry Analysis, and Company Analysis. Technical Analysis there are Moving Average, Moving average Convergence divergence (MACD), Relative Strength Index (RSI), Candlestick chart pattern. Technical analysis “ignores” the actual nature of the company, market, currency or commodity and is based solely on “the charts”, that is to say price and volume information, whereas fundamental analysis does look at the actual facts of the company, market, currency or commodity. This paper attempt to study the fundamental analysis and technical analysis on five IT companies listed in nifty 50.

2. Literature Review

Suat Kasap, Murat Caner Testik, Nihat Kasap has conducted on A Sector Analysis for RFID Technologies with reference to Development and Implementation of RFID Technology. The aim of the study was to summarize their financial performance describe their RF products, services, and applications, and perform fundamental and technical analysis through secondary data. From this study it was founded that many different industries, from retail industry to logistics, or from healthcare to service business industry and were still growing. **Ms. Apoorva A. Chauhan** has studied about Fundamental Analysis of Indian Automobile Industry in 2014 with reference to International journal of scientific research through Primary data. The aim of study was to know the fundamental analysis of Indian automobile industry with reference to the selected companies. . From this studies analyst has concluded that although the GDP of India has been declining still the automobile sector has been shining as there was continuous increase in the production of total number of vehicles in the Industry. **Dr.S.M.Tariq Zafar, Dr.AdeelMaqbool, Dr D.S. Chobey** studied about the Fundamental Analysis of Indian Infrastructure Industry in 2005 with reference to International Journal for Research in Applied Science & Engineering Technology (IJRASET) by gathering secondary data. The aim of the study was to analyze the past performance and the expected future performance of companies and to analyze the profitability position of the companies and to analyze the various ratios of the past five years of sample companies. By the analysis of all the parameters the study was concluded that there was no particular company in that sample of companies excluding Unitech Ltd. and DS Kulkarni Developers Ltd., which have shown consistent growth in the construction industry. **Etikala Shruthi** studied about the fundamental analysis of Indian IT sector in 2019 with reference to International Journal for Research in Applied Science & Engineering Technology (IJRASET) .The aim of the study was to study the growth and performance of selected Indian IT companies by gathering secondary data which were collected through selected company’s balance sheets, annual reports, press release etc. It was found that the Information Technology sector companies were one most promising platform of investment in capital market and in turns give considerable return for the risk taken by investors. **Silpa K S Arya mol J Dr.A S ambily** studied on fundamental analysis of selected IT companies listed on NSE in 2017 with reference to Journal of Advance Research in Dynamical and Control Systems. The aim of the study was to analysis the growth and performance of IT sector and fundamental analysis for five companies which could be recommended

as a choice for investment. From this study it was concluded that Information Technology sector companies are one most promising platform of investment in capital market and in turns give considerable return for the risk taken by investors. **T.deva Prasad, C.chaitanya, A.thulasi Kumar** studied on stock volatility in banking sector using technical analysis in 2018 with reference to International Research Journal of Engineering and Technology (IRJET) by gathering secondary data. The aim of the study was to know tools technical analysis for observing the movement of stock price and understand the trends and pattern in stock price movement. The study reveals that technical indicators has played useful role in the timing stock market entry and exit. By applying technical tools brokers or investors enjoy substantial profit. **Dr. Pravin Choudhary Prof. Apoorva Bhatnagar** studied on Technical analysis of selected PSU and their market movement with relation to BSE in 2018 with reference to Elk Asia pacific journal of finance and risk management the aim of this study was to test the movement of Selected PSUs securities in relation to Market Indices with the help of secondary data. At last conclusion arrives that selected stock Have positive financial horizon. **Dr.Sreemoyeeguha Roy** studied about the Equity Research with fundamental and technical analysis in 2013 with reference to International Journal of Science and Research (IJSR). The aim of the study was to analysis the fundamental and technical tools which may be applied and the result of ratios and chart prepared using respective tools to arrive at investment decision with the help of primary data. This was fairly evident from high quarterly and annual EPS growth, Infosys is also fundamentally strong with stable dividend payout and TCS is also fundamentally strong Hence, the stock is rated Neutral. **J.V.V. Meghanath, K.S. Sekhara Rao, C.H. Sahyaja and I. Bhavani** studied on fundamental analysis of selected steel companies in India in 2018 with reference to International Journal of Pure and Applied Mathematics. The aim of study was to evaluate the element of its financial position and performance and find whether to invest in the particular share of that company or not. The study concludes that the Tata steel, and JINDAL Steel companies are strongly suggested to buy for the medium term. The JSW Steel and SAIL Steel companies are suggested to buy for the short term. And the VISA Steel company is not suggested to buy. **Dr.Virupaksha Goud, Dr.Vinod S Puranik, Mr. N. Sanjeev Kumar** studied about Fundamental analysis of Indian petroleum PSU's and influencing factors on petroleum prices – forecasting the near future of petroleum PSU stocks in 2019 under the reference of International Journal of Management, IT & Engineering. The study aim to analyze the performance selected companies in stock market and factoring influencing on the price of crude oil in international market, and forecast the future of selected companies in stocks and advice customer on their investment decisions on petroleum PSU. In coming years India may have higher role in deciding the crude oil prices in International market due to its big size market.

3. Objective of the research

- To study the fundamental aspects of selected IT companies listed on Nifty 50.
- To study the technical aspects of selected IT companies listed on Nifty 50.

4. Research methodology

The study is explanatory research because researcher want to prepare and analyse the existing facts, figures, charts given in the company websites and price movement of selected IT Companies. The research is fully based upon secondary data and the data was collected from internet because the data has already been collected through primary sources and made readily available for researchers to use for their own research i.e. IT Companies which are listed in Nifty 50. In fundamental analysis the data are collected for past 5 year and technical analysis the movement of shares are recorded on a Daily basis.

✓ **Time period of the study:** To cover only 12 months from 1st March 2020 to 28th Feb, 2021 in Technical analysis and in Fundamental analysis records of last five years (2016 to 2020).

✓ **Selection of the sample:** Samples were selected from the five IT companies which are listed in Nifty 50 .The companies selected are:-

(1)Tata Consultancy services ltd.

(2)Infosys ltd.

(3) Tech Mahindra Ltd.

(4)HCL technologies ltd.

(5)Wipro ltd.

5. Limitation of the study

(I). Secondary data is limitation of this study it is not authentic sometime because the data which was found by publisher might be used for some another purpose.

(II). Future is uncertain so make decision based on secondary data is one kind of risk.

6. Findings

a. Economic Analysis: -India is the topmost off shoring destination for IT companies across the world. Having proven its capabilities in delivering both on-shore and off-shore services to global clients, emerging technologies now offer an entire new gamut of opportunities for top IT firms in India. COVID-19 Pandemic has affect the Indian economy a lot. The impact of the pandemic and lockdown was disproportionately felt across industries.

- India's GDP growth is expected to grow in the range of 6.0 percent in 2020-21.Prior the GDP growth was moderated to 4.18 percent in 2019-20.before that in 2018-19 the GDP growth rate was about 6.12% and in 2017-18 the GDP growth rate increased to 7.04 and then to 8.26% in 2016-17. COVID-19 Pandemic ,its intensity ,spread and duration will now majorly determine whether India is able to realize its estimated and projected GDP growth or not.

- While Wholesaler Price inflation among the major economies mostly increased during the course of last five years, from 130.9 in 2016 to 156.6 in 2020. The WPI measures the price of a representative basket of wholesale goods. While consumer price inflation among the major economies mostly decreased during the course of last five years, from 121.8 in 2016 to 117.5 per cent in 2020.

- In India, industrial production measures the output of businesses integrated in industrial sector of the economy. As in the 2016 the index was 175.8 which decreases to 125.6 in the year 2017 but as 2018 arrives the index steadily increases to 130.2 in 2018 than 139.1 in 2019 but as 2020 comes the index again declines to 129 which was hard time for the Indian economy due to COVID-19 Lockdown.
- As the figure describes the Population of India which is increasing at decreasing rate. As noticed that due to COVID-19 Pandemic per capita income decreases in 2020 but population is steadily increasing.

Chart- 1 : GDP growth

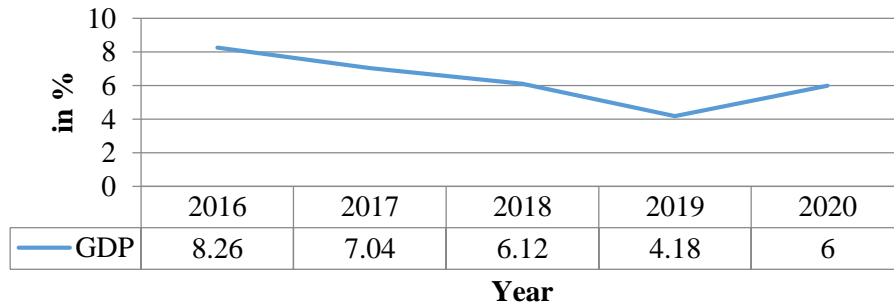


Chart - 2 : Inflation Growth

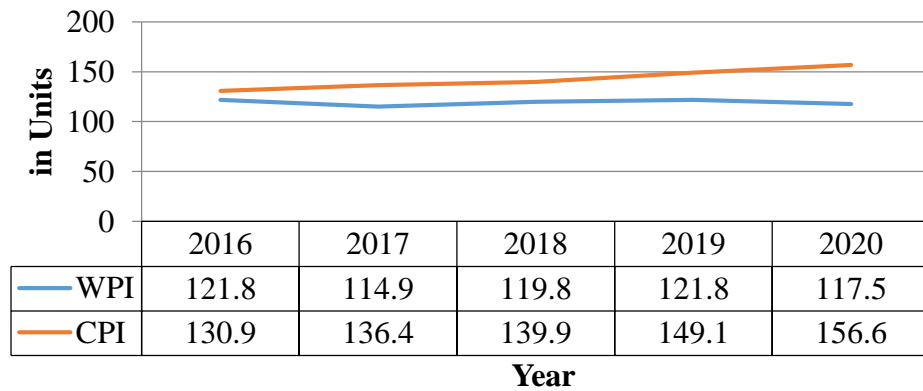
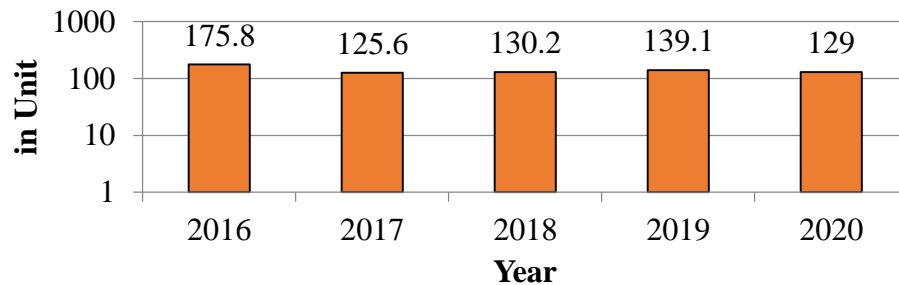
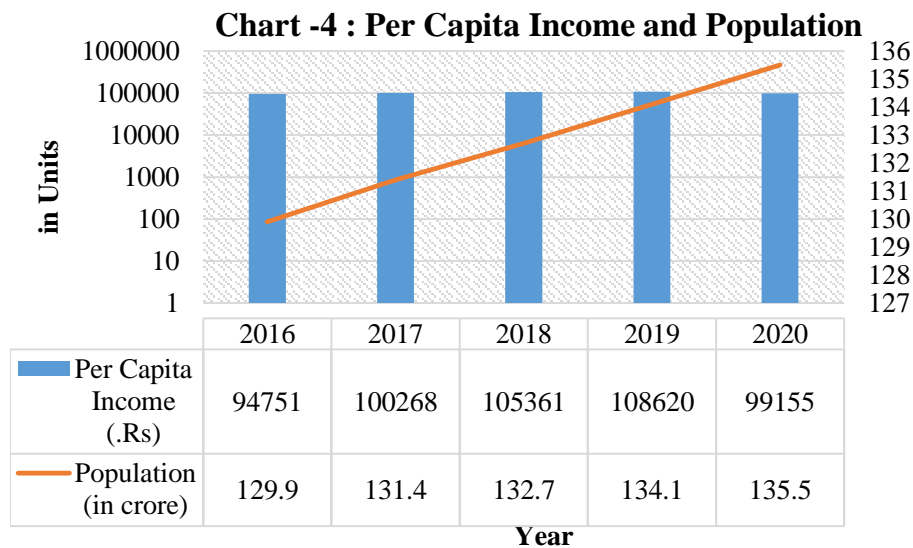


Chart - 3: IIP-Index of Industrial Production





b. Industry Analysis: -India's IT industry contributed around 7.7% to country's GDP (Gross Domestic Product) and is expected to contribute 10% to India's GDP by 2025. As of FY20, the IT industry employed 4.3 million people. In FY20, the sector added 205,000 jobs, up from 185,000 jobs added in FY19. Total number of employees grew to 1.02 million cumulatively for four Indian IT majors (including TCS, Infosys, Wipro, and HCL Tech) as on December 31, 2019. Indian IT industry employed 205,000 new hires and had 884,000 digitally skilled talent in 2019. So, in this industry there will be more scope of innovation and employment.

- IT industry's revenue was estimated at around Rs.19100crore in 2020, growing at 7.7% y-o-y. It is estimated to reach Rs.35000 crore by 2025. Moreover, revenue from the digital segment is expected to form 38% of the total industry revenue by 2025. Digital economy is estimated to reach Rs.69, 89,000 crore by 2025. The domestic revenue of the IT industry was estimated at Rs.4400crore and export revenue was estimated at Rs.14700crore in FY20.

- As the composition of IT market in sector wise. Their 4 sector in IT Market in which the majority market is covered by IT services 52% followed by 20% in Software Product and Engineering services then 19% in BPM i.e. Business Processing Management and 9% in Hardware. The IT industry in India stood at Rs. 19100crore in FY20. As shown in the above figure IT services have major takeover the export which is 54% in the particular market then after there are two sector which have same percent of export that is 23% which are Business process management and Software product and engineering service

Chart - 5 :Market Size

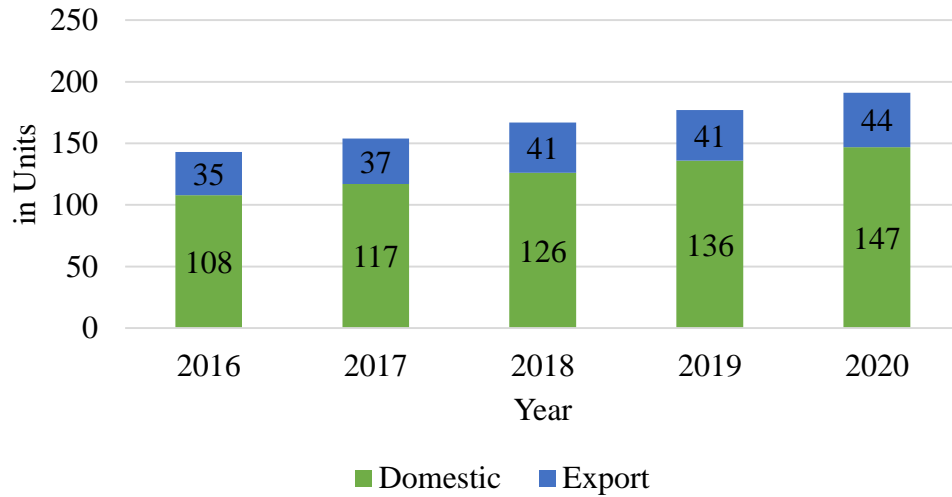


Chart - 6 : Sector wise Composition of IT Market

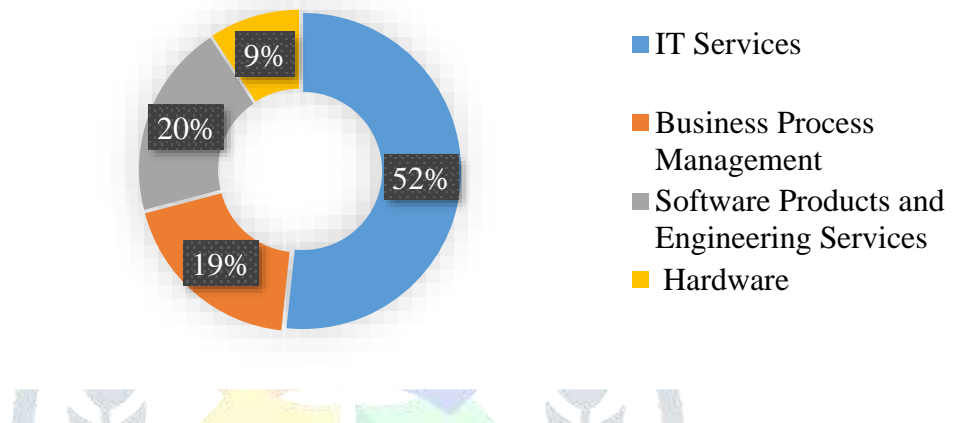
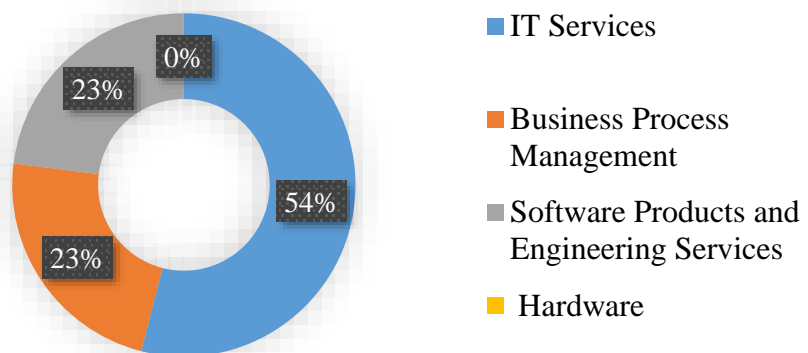


Chart - 7 : Sector wise break of Export



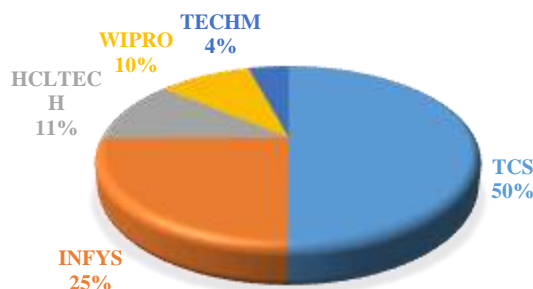
c. Company Analysis:- In the company analysis, the researcher have analyzed 5 ratio which are Price to earnings ratio, Return on equity, Price to book ratio, Dividend payout, and debt to equity ratio same away the companies are analyzed by the market capitalization, Net profit margin, Operating Profit and Volume of the trade.

i.Ratio Analysis

1. Price to earnings ratio					
	2016	2017	2018	2019	2020
TCS	10.23	9.11	10.62	24.1	21.19
INFY	10.32	8.14	7.96	20.99	16.46
HCLTECH	10.23	7.25	7.78	7.39	10.71
WIPRO	5.84	5.53	12.51	17	11.8
TECHM	13.76	14.29	14.85	16.01	12.24
2. Return on Equity ratio					
TCS	34.14	30.49	30.33	35.18	38.44
INFY	21.84	20.8	24.68	23.71	25.35
HCLTECH	20.45	26.11	23.96	24.46	21.56
WIPRO	19.3	16.43	16.69	15.95	17.57
TECHM	20.51	17.11	20.16	21.18	18.48
3. Price to Book ratio					
TCS	3.97	5.56	6.39	8.39	8.13
INFY	4.51	3.39	3.8	4.96	4.15
HCLTECH	4.19	3.78	3.7	3.56	2.31
WIPRO	3.02	2.42	2.66	2.72	2.03
TECHM	2.84	2.45	2.99	3.4	2.26
4. Dividend Payout ratio					
TCS	43.5	47	50	30	73
INFY	24.25	25.75	43.5	21.5	17.5
HCLTECH	16	24	12	8	10
WIPRO	6	2	1	1	1
TECHM	12	9	14	14	15
5. Debt to Equity ratio					
TCS	0	0	0	0	0
INFY	0	0	0	0	0
HCLTECH	0.03	0.01	0.01	0.09	0.09
WIPRO	0.26	0.26	0.26	0.17	0.11
TECHM	0.07	0.07	0.09	0.07	0.11

Conclusion :- As the above table stats that mainly 2 companies have good ratio first is TCS and INFY who has 0 debt to pay, high return on equity, moderate price to book and satisfied dividend payout.

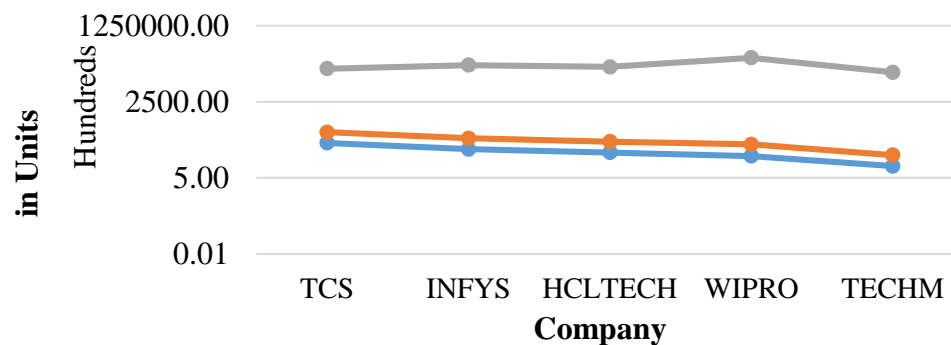
ii.Market Capitalization :-



The market capitalization of TCS which is 50% and Infosys market is about 25%, the market cap of HCLTech is 11%, market cap of Wipro is 10% and Tech Mahindra whose market cap. is 4%. Although all five companies are under large cap. The Companies

whose risk is lower and return is also lower but the important is the liquidity is very high like TCS and INFY have good liquidity compare to other 3 companies

iii. Net Profit Margin, Operating Profit and Volume



⇒ From the above data it clear that TCS has highest Profit margin and lowest is of Tech Mahindra which shows that a company's capability to convert income into profit and is typically considered foremost when analyzing overall profitability.

⇒ The Operating profit shows how well a company is able to manage indirect costs. Operating expenses are an area that management has more control over than other areas. Operating profit is also known as EBIT, or earnings before interest and taxes in which again TCS has highest ratio and Tech Mahindra has lowest ratio.

⇒ The volume is one of the indicator of market strength, as rising markets on increasing volume are typically viewed as strong and healthy but in above chart the Wipro has the highest volume and Tech Mahindra has lowest volume in market.

⇒ Technical Analysis

1. Moving Average :-

Moving average (20, 50,100) shows short term and long term trend of stock. Swing trader and intraday trader can gain some point by selling and buying. Investor can add some more quantity in their investment when it gives buy signal and book profit for some quantity when it gives sell signal.

- a. **TCS:-**On 19th March 2020 the buying signal was Generated
- b. **INFY:-**On 23th March 2020 the buying signal was Generated
- c. **HCLT:-**On 3th April 2020 the buying signal was Generated
- d. **WIPRO:-**On 19th March 2020 the buying signal was Generated
- e. **TECHM:-**On 19th March 2020 the buying signal was Generated

2. Moving Average Convergence Divergence:-

Scalp traders and intraday Traders may buy the stock when the MACD crosses above its signal line and sell-or short-the stock when the MACD crosses below the signal line. Investor can use this indicator to book profit or add some more quantity

- a. **TCS:-**On 26th March 2020 the buying signal was Generated
- b. **INFY:-**On 27th March 2020 the buying signal was Generated
- c. **HCLT:-**On 18th April 2020 the buying signal was Generated
- d. **WIPRO:-**On 26th March 2020 the buying signal was Generated
- e. **TECHM:-**On 30th March 2020 the buying signal was Generated

3. Relative Strength Index:-

RSI values of 70 or above indicate that a stock is becoming overbought and may be primed for a trend reversal or corrective pullback in price. An RSI reading of 30 or below indicates an oversold or undervalued condition. When it cross 70 from upside it is sell signal and when it cross 30 from down side it is buy signal. Long term trader can use this indicator to short term gain. Investor can use this indicator to book profit or add more quantity.

- I.**TCS:-** On 26th August 2020 the buying signal was Generated
- II.**INFY:-** On 30th June 2020 the selling signal was Generated
- III.**HCLT:-** On 15th May 2020 the buying signal was Generated
- IV.**WIPRO:-** On 30th June 2020 the buying signal was Generated
- V.**TECHM:-** On 18th May 2020 the selling signal was Generated

4. Candlestick chart: -In candlestick chart, we can see support and resistance area. Price is facing rejection from that level. When it will break that level, it gives fast movement on that side. When support break, it will give downside movement. When resistance break, it will give upside movement.

- i.**TCS:** -We can see 3000 Price level as resistance and 2500 Price level as support area.
- ii.**INFY:** -We can see 1200 Price level as resistance and 1000 Price level as support area.
- iii.**HCLT:** -We can see 1000 Price level as resistance and 800 Price level as support area.
- iv.**WIPRO:** -We can see 425 Price level as resistance and 325 Price level as support area.
- v.**TECHM:** -We can see 1000 Price level as resistance and 800 Price level as support area.

7. Conclusion

The IT Industry in India has grown with an exceptionally high growth rate in the post-reform years and contributed a large share to the national GDP. Despite the uncertain global economic scenario, the IT industry has steadily augmented and accelerated the growth of India. Financial performance through the financial ratios, which indicates that TCS and Infosys are financially in satisfactory position during the study period Through the fundamental analysis, investor can relate the possible factors to ensure investment risk and expect a reasonable return. But the fundamental analysis does not advice to investors for investment by basis on buying and selling of a particular security. So the investors can take only the decision whether the investment is to be worth or not. Technical analysis gives investor a better

understanding of the stocks and also gives them right direction to go on further to buy or sell the stocks. Investors must also take into account various factors like Government of India budget, company performance, political and social events, climatic conditions etc. before any decision is made. The scrip should also be fundamentally good. Therefore, the small investors and traders should not blindly make an investment rather they should analyses using the various tools to check if the scrip is technically strong.

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