Security Analysis of Selected Stocks in Information Technology Sector

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Abstract:

Investment decision includes decision regarding where to invest, how much to invest and for how long duration to invest. For making such decisions, security analysis techniques such as fundamental analyses and technical analysis can be used. Fundamental analysis is based on EIC approach i.e., analysis of Economy, Industry and company analysis which is time consuming analysis generally preferred by beginner investors. And a technical analysis assumes that share price of security represents all the information regarding security. It helps in taking buy, sell and hold decision of investors. Present research has performed technical analysis on selected securities. Beta, Payout ratio, Profitability margin, 52 week high low prices, returns of security are used to analyse the data which is collected for the duration of 5 years from 2017 to 2022. Relative strength index technique is used for knowing whether securities are overbought or oversold. The study aims to examine the risk and return of selected security and suggest the investors in taking buy, sell and hold decision.

Keywords: Security analysis, Technical analysis, Investment decision

Introduction:

Analysing the security is important step in investment decision process where many techniques and tools can be used. Fundamental and technical analyses are two important concepts in security analysis. Fundamental analysis considers historical data of company and analyse the stock based on that, whereas technical analysis uses prices of shares to prepare chart and averages. Fundamental is more data centric using lot of historical companies data where as technical is more method oriented and gives quick judgement on stock. The beginner in the field of investment generally prefers fundamental while making investment

decision, however once the investor becomes experienced they want quick decision which leads them towards technical analysis. Both the techniques are supplement to each other. Present study has used technical analyses for analysing the securities and suggests the investors in investment decision process.

Literature review:

(Sudheer, 2015) studied trading through technical analysis: an empirical study from Indian stock market. The study examined selected companies using Moving Average Convergence Divergence (MACD). The study found that Maruti & Hindustan Unilever scripts have more upward momentum and ICICI Bank, Tata Steel & Cipla scripts had been coming down consistently. The study concluded that technical analysis helps to make the profits in all market conditions and it helps in analyzing the scrip based on technical oscillators.

(Mrs. Vimala. S, 2014) performed analysis of Equity Share Price Behaviour of the Selected Industries. The study applied simple moving average model and relative strength index to identify sell or buy signals of stocks. Out of the selected stocks, the study found that Infosys, Wipro and Dr. Reddy's laboratory have possibility to grow in future so investor can buy or hold these stocks. The study shows that Sun Pharma had positive RSI trend line. The study concluded that volatile markets are characterized by price fluctuations and heavy trading.

(Shafiqul Alam, 2016) analysed the Factors that Affect Stock Prices: A Study on Listed Cement Companies at Dhaka Stock Exchange. The study has considered EPS, NAV, P/E, GDP, Consumer price index and interest rate spread as major determinants affecting the prices of cement industry. Among these variables, the study found that EPS, NAV, P/E and CPI have significant impact on cement industry prices and other variables were not found noticeably.

(B. Uma Dev, 2011) performed Stock Market Analysis for Stock Selection. Data mining techniques and time series interpretation is applied to show ups and downs of particular index. Correlation and beta were used to identify risk in the stock. The study found a constant growth after 2009 which was considered as a positive sign for investors. The study concluded that investing in banking index is a good option for profit maximization.

(KUMAR, 2015) Performed fundamental and technical analysis. The study selected companies based on market capitalization. Bollinger bands and MACD has been used for analysis. ITC, Gillette and SJVN have been suggested. According to moving average

technique, the study suggested buying signal in Gillette. The study also used beta for examining the risk in security which found that Essar oil has lowest risk among the securities selected for analysis.

Research Methodology:

Research Design:

Present research is descriptive in nature which is a fact finding investigation with adequate interpretation. The study examines the past data and describes in detail regarding future actions to be taken by investors.

Objectives of Study:

- To examine the selected securities on risk and return parameter.
- To examine the strength of the security and suggest investors in taking buy, sell and hold decision.

Data collection:

Data for present research has been collected by secondary method. Top 10 companies of IT Services & Consulting are selected for calculation based on trailing twelve months EPS. TTM EPS means EPS for the last 12 months of the company. The selected companies are: OFSS, L& T InfoTech, TCS ltd, Mindtree ltd, Persistent systems, Sasken Technologies, Mphasis, Coforge, Tech Mahindra and Infosys. Data is collected for five year duration starting from 2017 to 2022.

Data analysis:

Parameters such as beta, payout ratio, 52 week high-low prices, and profit margin of securities have been analysed. The relative strength index has been calculate to comment on valuation of security and to suggest buy, sell or hold decision.

Relative Strength index (RSI):

RSI, developed by J.Welles Wilder measures the movements in security prices and it is a momentum oscillator which lies between zero and 100. A security is considered overbought when it has RSI above 70 and it is considered overbought is RSI is below 30.

Overbought means a security with a price that's higher than its intrinsic value and it is a good option to sell the overbought security and earn higher prices. On the opposite, oversold security has a price that's lower than its intrinsic value. So there is a chance that in future the prices may go upwards making the security good option to buy at present.

The first calculations for average gain and average loss are simple 14-period averages:

- First Average Gain = Sum of Gains over the past 14 periods / 14.
- First Average Loss = Sum of Losses over the past 14 periods / 14
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The second calculations are based on the prior averages and the current gain loss:

- Average Gain = [(previous Average Gain) x 13 + current Gain] / 14.
- Average Loss = [(previous Average Loss) x 13 + current Loss] / 14.

And RSI can be calculated using following formula:

RSI= 100-(100/ (1+RS))

Where RS = Average gain/ Average loss.

Limitation of the Study:

The study has selected only ten companies for analysis and data is collected for five years which can be considered as limitation.

Analysis:

Beta:

Beta is a measure of volatility or fluctuation of security or portfolio compared to market as a whole. Higher beta represents higher risk in the stock.
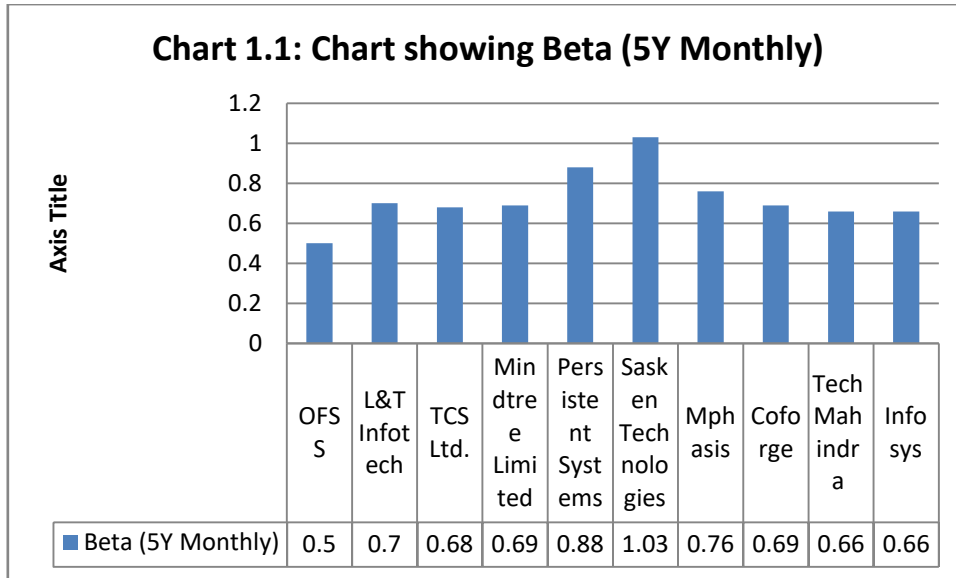
Chart 1.1: Chart showing Beta (5Y Monthly)

	OFSS	L&T Infotech	TCS Ltd.	Mindtree Limited	Persistent Systems	Sasken Technologies	Mphasis	Coforge	Tech Mahindra	Infosys
Beta (5Y Monthly)	0.5	0.7	0.68	0.69	0.88	1.03	0.76	0.69	0.66	0.66

Chart 1.1. represents the beta of selected companies. Beta is found by taking average of monthly beta for the duration of five years. It can be seen from the chart that beta for Sasken Technologies is highest among all which makes it a riskier stock. OFSS has lowest beta making it safe stock.

Payout ratio:

Another important factor which affects the investment decision is the dividend paid by company. The following chart represents dividend payout ratio of selected companies.
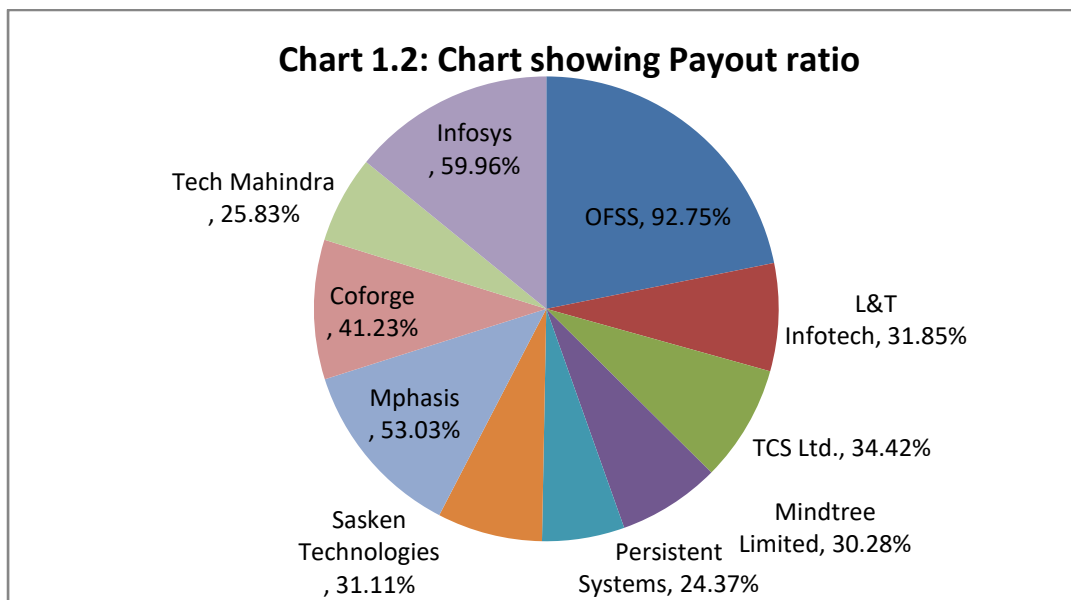
Chart 1.2: Chart showing Payout ratio

- Infosys, 59.96%
- Tech Mahindra, 25.83%
- Coforge, 41.23%
- Mphasis, 53.03%
- Sasken Technologies, 31.11%
- Persistent Systems, 24.37%
- Mindtree Limited, 30.28%
- TCS Ltd., 34.42%
- L&T Infotech, 31.85%
- OFSS, 92.75%

Chart 1.2 shows highest payout ratio is given by OFSS i.e., 92.75%. Infosys is also giving good payout of 59.96%. Mphasis is paying out 53.03%.

52 week high and 52 week low prices:

Amount of investment depends upon price of share. Few investors prefer to buy low priced share to sell at higher price and enjoy returns. Few investors look at the strength of the share and long term value given by it irrespective of the price. By considering this point, following chart has been made which represents 52 week high and 52 week low price of all selected shares.

Chart 1.3: Chart showing 52 week high and 52 week low prices
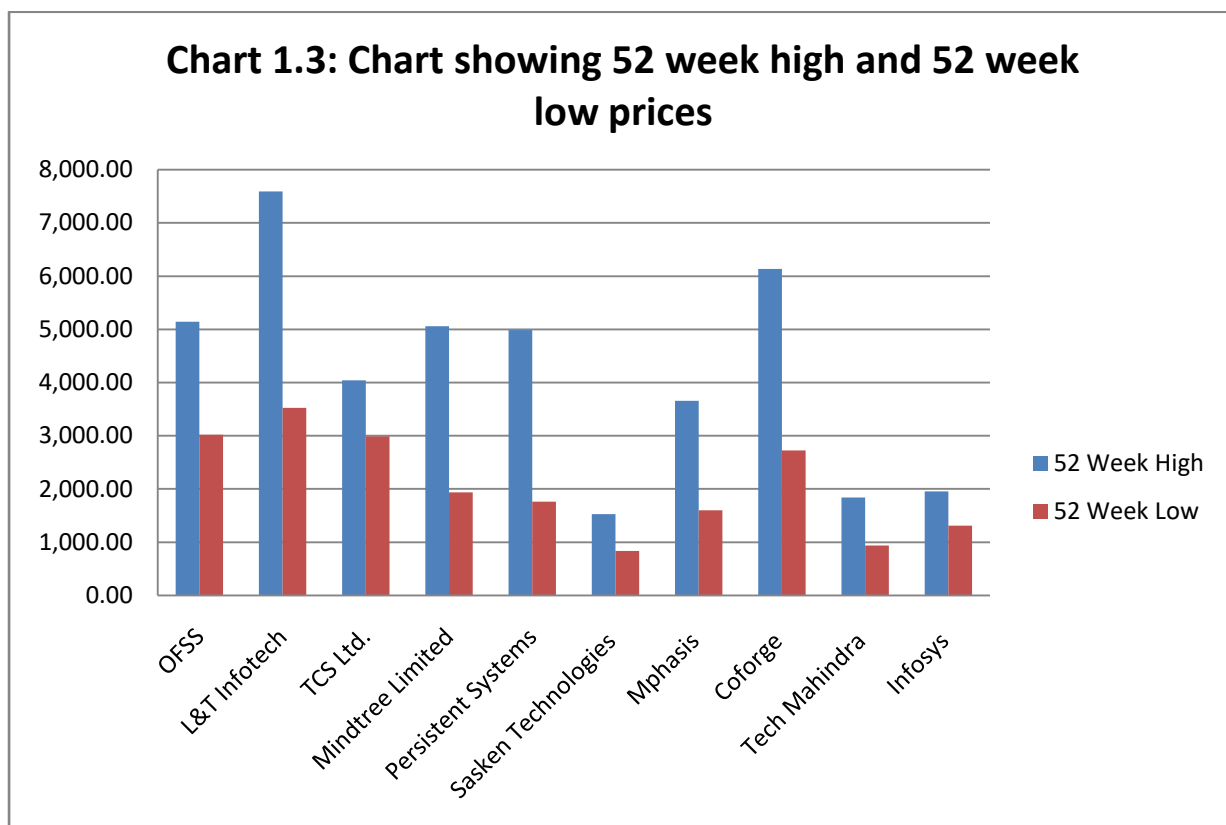
It can be seen in chart 1.3 that 52 week high price is maximum for L&T InfoTech (near to 7500 rs) and minimum for Sasken Technologies (near to 1500 rs). The 52 week lowest price is also maximum for L&T InfoTech and minimum for Sasken Technologies. Stocks namely OFSS, Mindtree and persistent has also reached near to 5000 rs in 52 week high prices. TCS stock 52 week high was 4000 Rs.

Profit Margin:

No investor would like to invest in a loss making company. So, it is important to identify the current profit margin of companies selected which is shown in chart 14.

Chart 1.4: Chart showing Profit Margin of company

OFSS, 35.76%

L&T Infotech, 15.06%

TCS Ltd., 20.36%

Mindtree Limited, 15.38%

Persistent Systems, 12.09%

Sasken Technologies, 29.97%

Mphasis, 12.10%

Coforge, 9.86%
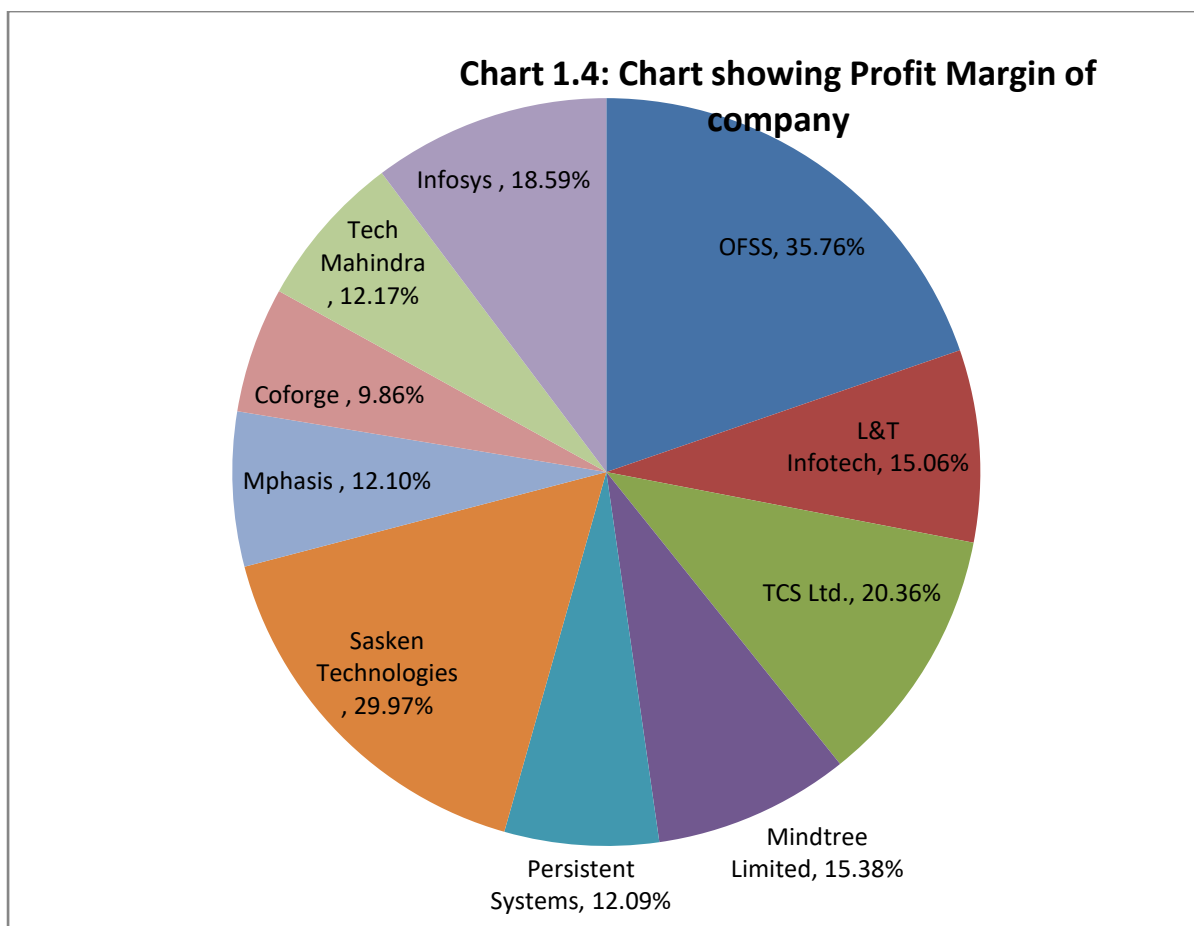
Tech Mahindra, 12.17%

Infosys, 18.59%

Chart 1.4 shows that OFSS has grabbed highest profit margin in current year i.e., 35.76% , Sasken Technologies on second position have earned 29.97 % profit margin and TCS being on third position have earned 20.36% profit margin.

Relative Strength Index (RSI):

RSI is developed by J. Welles Wilder measures the speed and change of price movements. RSI fluctuate between zero and 100. According to Wilder, stock is considered overbought when RSI is above 70 and oversold when RSI is below 30. An overbought stock is good for selling as it will fetch good price in the market. And an oversold share is considered to be trading at lower price which has potential for a price bounce and makes it a good option for buy.

Chart 1.5: Chart showing RSI of OFSS and L&T Infotech
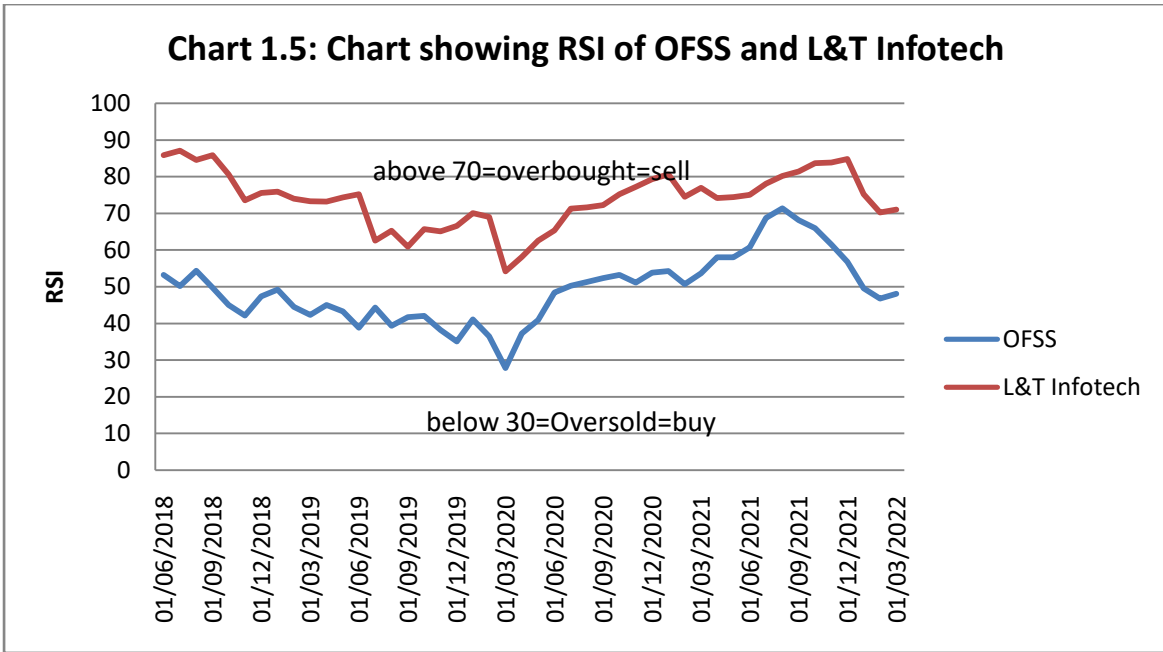
It can be seen from chart 1.5 that OFSS was showing bearish sign in 2018 and 19. Where in March 2020, RSI for OFSS was below 30 which made it oversold share and a good option for buying. After that OFSS has been showing bullish sign till July 2021, and again downward trend in 2022. The RSI of the share didn't go up by 70 which mean it is not an overbought share. So looking at its past trends, one may think of buying the OFSS as prices may bounce back in future. RSI for L&T InfoTech depicted bearish trend till 2020 and then it is showing the bullish trend. It can be seen than in these years mostly the RSI was above 70 making L&T InfoTech an overbought share and good option for sell to fetch good prices from market.

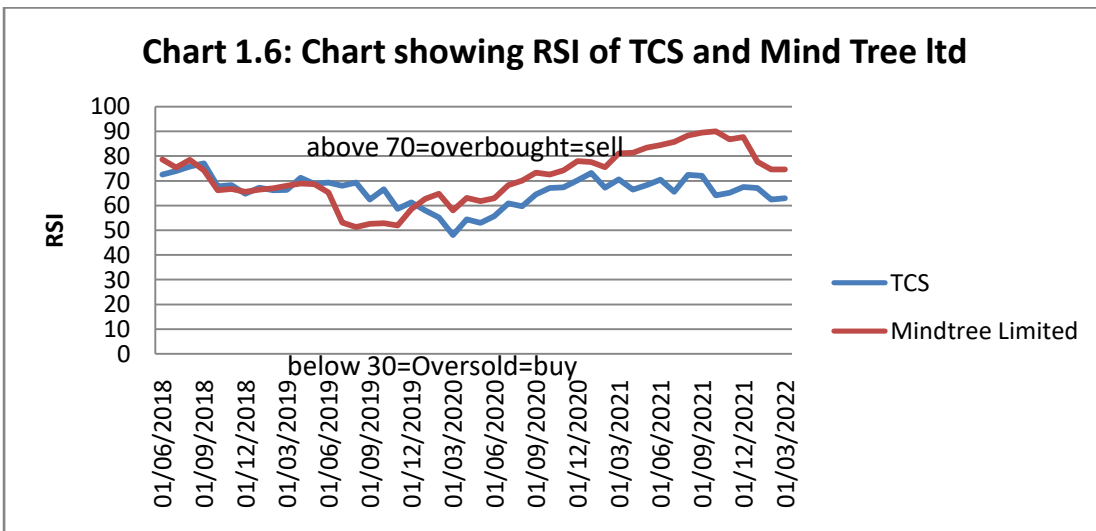Chart 1.6: Chart showing RSI of TCS and Mind Tree ltd

Chart 1.6 shows that RSI for TCS ltd is below 70 and it has shown bearish trend till 2020 after that it is showing bullish trend. If one has invested in the share, then investor may wait

for some time and once RSI is above 70, it can be sold to fetch a good price. Mindtree has RSI above 70 since June 2020 which makes it an overbought share. It is showing bearish trend from dec 2021 to march 2022. The share may be considered for sell as its RSI has never gone down then 50.

Chart 1.7: Chart showing RSI of Persistent and Sasken
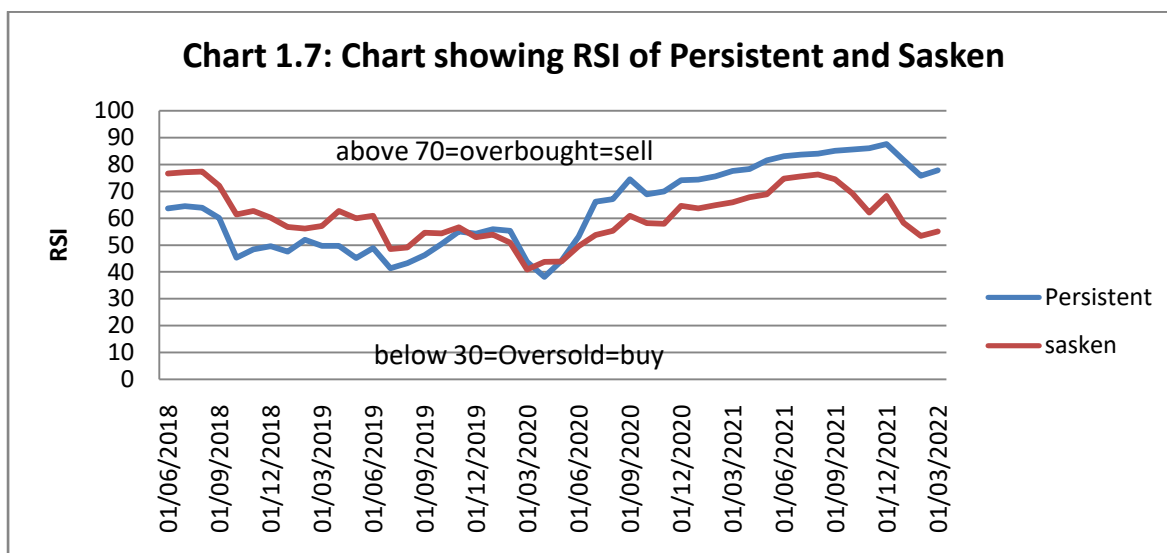
RSI for Sasken had shown bearish trend from 2018 to march 2020 but then after is showing bullish trend till 2021. RSI is below 70 at present and looking at trend it may go up in future. So it is the time to hold the stock at present and in future one can sell it and enjoy good return. Persistent is showing bullish RSI since March 2020and in 2022 RSI is above 70 also. If one has purchased the stock in 2020, then they may be enjoying good returns by selling the stock in 2022 The share is overbought now and once can sell it and enjoy good return.

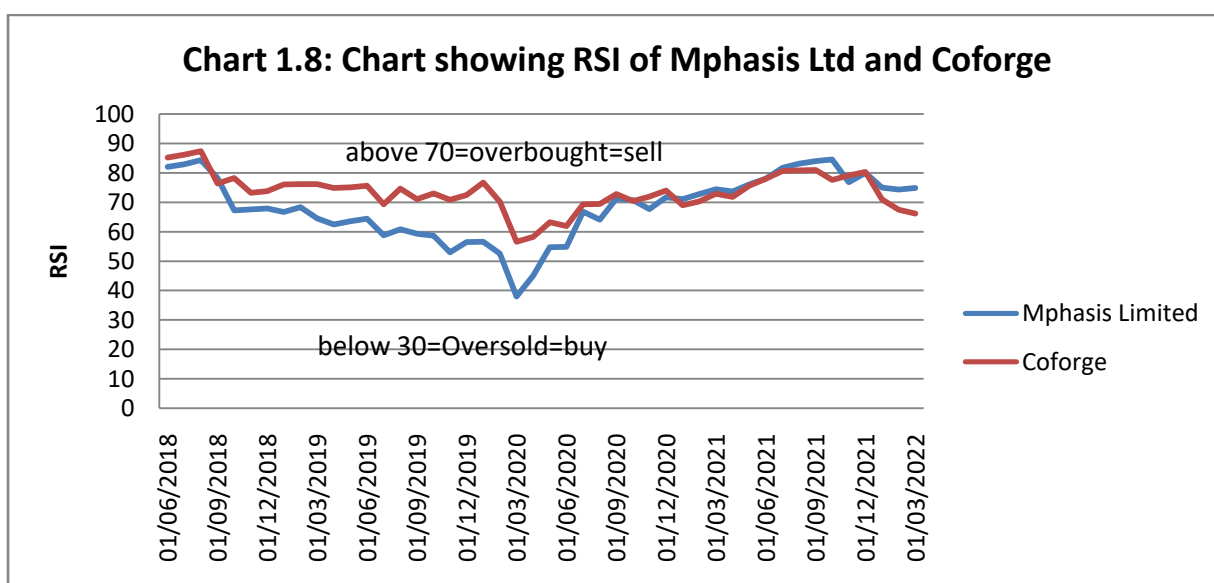**Chart 1.8: Chart showing RSI of Mphasis Ltd and Coforge**

Chart 1.8 shows the RSI of Mphasis ltd is above 70 which make it an overbought share. It is advisable to sell the Mphasis stock. Mphasis is showing bearish trend from dec 2021 to march 2022. Coforge also has RSI above 70 but it is declining which suggest investor should hold the stock as prices may improve in future.
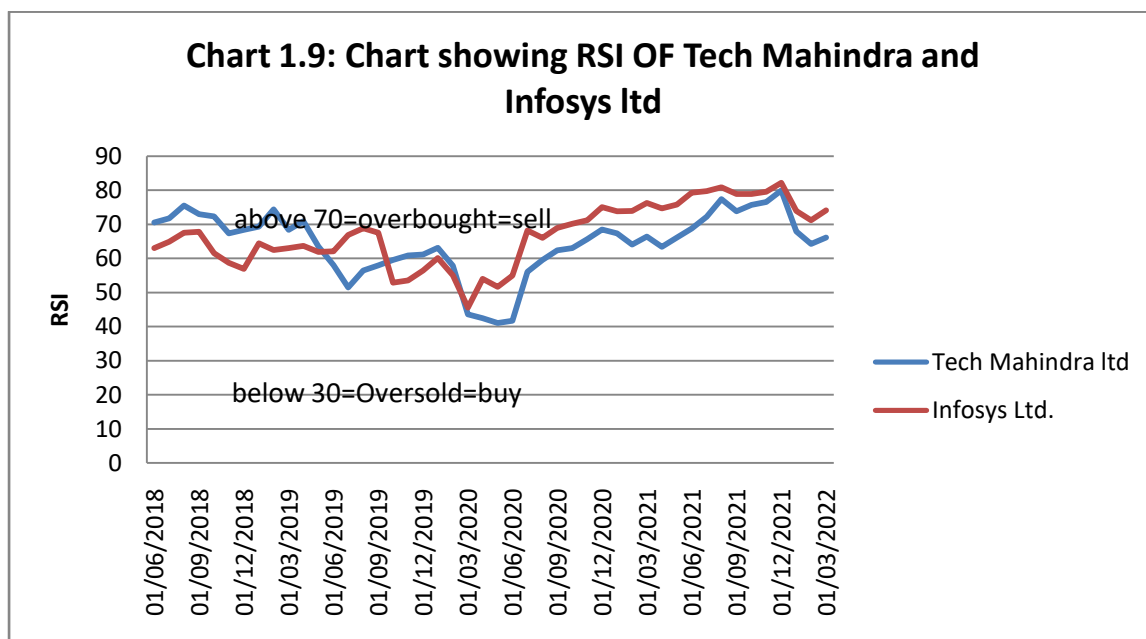

Chart 1.9: Chart showing RSI OF Tech Mahindra and Infosys ltd

Chart 1.9 shows that Tech Mahindra is showing bullish RSI from June 2020 to Nov 2021and then it is showing downward trend till march 2022. RSI is below 70 but trend shows it may go beyond 70 in next few months which makes the stock good option to buy now and sell in future higher price. Infosys has been showing the RSI above 70 since 2020 and trend shows it will remain the same making it an overbought share. It is advised to sell Infosys and earn a good return at present , even in future also chances of bullish trend is there so one may even hold the share for earning better returns.

Conclusion:

The two important functions of security analysis are: Descriptive function and selective function. Descriptive function represents the relevant fact of security in intelligible and comparable manner. And selective function which helps the investor to take buy, sell and hold decision. Present research has performed both the functions in detailed manner. The study has used various data such as return of stock, beta, payout ratio, 52 week high low and relative strength index for the purpose of analysis. The study found that OFSS has been giving highest payout ratio to investors and it has highest profit margin for current year. 52 week high price is maximum for L&T InfoTech and minimum for Sasken technologies.

Based on Relative strength index calculations, the study suggest the investors to buy OFSS and Tech Mahindra as the shares have potential of price improvement in future. It is suggested that investors who have L&T InfoTech, Mindtree, Persistent and Mphasis may sell the securities to get advantages of their increased prices at present. And they should hold TCS, Sasken, Coforge and Infosys which have potentials of upward movement in future. Since the prices of securities keeps on fluctuating in stock market, this time bound study always have scope for further study by considering new securities or different time period.

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