

## Security Analysis of selected Stocks with Reference to IT Sector

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### ABSTRACT

**Purpose:** The aim of carrying out this analytical study is that the Indian stock market is affected by various issues such as scams and pandemic Covid-19. Hence every investor wants to analyze the performance of various sectors while investing in various financial assets i.e. stocks, bonds, debentures, gold are profitable as well as risky. The investor has the need to aware about the fundamental as well as technical analysis, knowledge to handle about the risk of financial assets. While investing in securities, the investor has to finalize his decision on the basis of rational and emotional perspective. Technical analysis helps to investor in investment decision making by forecasting the stock price which would be helpful in formulating buy-sell-hold decision and risk of those securities. **Methodology:** This article aims at security valuation of selected software companies listed under BSE (Bombay Stock Exchange) for a period of five years i.e. from 2015-2019march. The tools used for analysis of securities are standard deviation and variance analysis. **Findings:** This paper identifies that the Market Capitalization of Infosys achieved high (847.40%) during the study period when compared with Wipro. It was concluded that there was high fluctuations in price movement of AGR of WIPRO when compared to INFOSYS because it was very sensitive stock. **Implications:** This study applicable to all sectors wherever applicable and it is desirable that carried-out by any investor while investing in securities. **Originality:** As of now, no researcher has reported such of analytical study and the available literature is limited to few studies in stock market analysis in specific sectors in general way.

**Keywords:** Financial assets, technical analysis, fundamental analysis, risk, investment decision, security valuation.

### INTRODUCTION:

Investors buy, hold and sell securities with an intension to earn return. Securities provide regular stream of income during the holding period in the form of interest, dividends etc. Income also results in the form of appreciation in the value of the securities. The difference between the value at which the security is acquired and the value of which the security is sold is the appreciation. The rate of return expected from a security ( $\underline{r}$ ) is compared with the required rate of return ( $r$ ) and investment decision is taken.

- If ( $\underline{r}$ ) > ( $r$ ) - buy the stock
- If ( $\underline{r}$ ) = ( $r$ ) - Hold- indifferent
- If ( $\underline{r}$ ) < ( $r$ ) - sell, not to buy

**Portfolio analysis:**

The process of investment consist of two main issues, i.e. security analysis and portfolio management. Security analysis consists of measuring the risk –return features of individual securities. Portfolio management consists of examining the risk-return characteristics in the portfolio context. It helps to investors in the selection of the best possible from a set of feasible portfolios.

The investor has the identity the security in which he would like to invest. Investor estimates the risk-return characteristics of these securities. He constructs number of portfolio from the given set of securities. For each portfolio alternatives he found the expected return and risk. The process of determining the portfolio return and risk is known as portfolio analysis.

**Portfolio Return ( $rp$ ):**

Expected return of a portfolio ( $rp$ ) is the weighted average of the expected returns of the individual securities held in portfolio. The weights are the proportions of money invested in each security out of the total investment. It is computed as follows.

$$(rp) = WA(\underline{r})A + WB(\underline{r})B + \dots + Wn(\underline{r})n$$

**Portfolio risk ( $\sigma p$ ):**

It is measured by the standard deviation of the portfolio return ( $\sigma p$ ). The standard deviation of an individual security measures the riskiness of individual securities ( $\sigma A, \sigma B, \sigma C, \dots \dots \sigma n$ )

**Covariance (COVAB):**

Two important concepts in portfolio analysis are co-variance and correlation coefficients. Covariance is a measure which reflects both the variance of securities returns and the tendency of those returns to move up or down.

$$COVAB = \sum_{i=1}^n (rA1 - \underline{r}A)(rB1 - \underline{r}B) > P1$$

Where,

$rA1$  = Return on securities of A

$\underline{r}A$  = Expected rate of return on security A

$rB1$  = Return on securities B

$\underline{r}B$  = Expected rate of return on securities B

$\underline{r}B1$  = Expected rate of return on securities B

$P1$  = probability of the possible out come

**REVIEW OF THE LITERATURE:**

[Jelena Stankovic, Ivana Markovic, Milos Stooanovic \(2015\)](#). This papers examines the efficiency of technical analysis and predictive modeling in defining the optimal strategy for investing in stock markets. This paper covers emerging market economies and use technical indicators such as moving average etc. This paper concluded that machine learning techniques capture non-linear models adequately and this model outperforms buy and hold strategy in maximization of profitability on investment.

[Banker and solak \(2014\)](#) the success of portfolio in the public sector as the maximization of the expected social benefit.

[Anderson \(2008\)](#) mentioned the objectives of the portfolio management as define the goals and objectives, make trade-offs, manage risks, monitor portfolio performance and achieve the organization's objectives, complementary to achieve its objectives, the portfolio management has three major steps . These are strategic considerations, individual project evaluation and portfolio selection.

[Singh and Chander \(2003\)](#) examined that previous record and growth prospects influenced the choice of stocks. Investors in equity stocks expected repurchase facility, prompt service and adequate information. Return portfolio selection and NAV were important criteria's for evaluation of equity stocks. The statistical tool results indicated that occupational status, age are the important influencing factors on the choice of scheme.

[Menkhaff \(1997\)](#) Investment The Behavior of Foreign exchange professionals, dealers and fund mangers in Germany in 1992. The results showed around 87% of the Foreign Exchange dealers and 35% professionals use technical analysis in their decision making. Around 54% of times it was used for intraday decision making and 40% for decision ranging from 2 to 6 months. Another interesting finding is that there was no relationship between institutional size and the preferred use of technical analysis and chartists and fundamentals both indicated no significant difference in their educational level.

**STATEMENT OF RESEARCH PROBLEM:**

The important reason to fluctuation of stock market in India is various scams in stock market, financial crisis of 2007-08 and the recent affect of pandemic Covid-19. In this context, it is necessary to study the performance evaluation of stocks in Indian stock market. Hence the study has been undertaken with performance level of Security analysis of selected stocks with reference to IT sector.

**NEED OF THE STUDY:**

The investors are willing to take appropriate risk for gaining more return on their portfolio. To gain high return on their portfolio the investors can evaluate their stock either by fundamental analysis or technical analysis or both. Evaluation of portfolio should helps to investors for selection of best investment alternatives and to buy stock, hold and sell the stock. Hence I selected this concept for my study.

**OBJECTIVES OF THE STUDY:**

The following are the objectives of my study.

1. To know the concepts of portfolio return and evaluation of stocks procedure.
2. To examine the stock price movements of selected companies during the study period.
3. To measure the riskiness of stocks of selected companies during the study period.
4. To offer suitable suggestions to the investors for hold or buy of stocks based on technical analysis.

**SCOPE OF THE STUDY:**

The study is analytical in nature and it is based on secondary data. The data collected from recent five years i.e. from 2015 march to 2019 march. And the study is confined to two companies. These are WIPRO and INFOSYS. For analysis of data statistical tools are used like standard deviation, co efficient of variation.

**METHODOLOGY:****Sample:**

I have been selected two IT sector stocks namely WIPRO & INFOSYS stocks because these stocks are performing very well in Indian stock market.

**Research Period:**

The study period is confined to 52 weeks starting January 2020 to December 2020.

**Data Collection:**

The study is an analytical nature based on secondary data collected from moneycontrol.com website.

**Tools and Techniques:**

Standard Deviation & covariance tools are used for analysis.

**LIMITATIONS OF THE STUDY:**

- The study is restricted to two IT sector stock namely Wipro & Infosys, so it may not represent whole of universe.
- The performance evaluation of stocks of IT sector, the secondary data has been used. So the limitations of the secondary data, limits the accuracy and authenticity of the conclusion.

**DATA ANALYSIS AND INTERPRETATION:**

**Table 1: Market Capitalization of Wipro and Infosys**

Company	Last price in rupees	% change	52 weeks highest ( in rupees)	52 weeks lowest ( in rupees)
WIPRO	255.40	0.73	301.55	220.50
INFOSYS	650.60	0.25	847.40	600.65

Source: Collected from Moneycontrol.com

It was found that table no1 reveals that the market capitalization of Wipro and Infosys. It was observed that the % change in price of Wipro (0.73) is high when compared to Infosys (0.25). It was concluded that there was high fluctuations in price of Wipro in last 52 weeks highest price was 301.55/- and it was reduced to 220.50/- in last 52 weeks.

**Table 2: Stock price Movements of Wipro and Infosys**

Year	Price Wipro (in rupees)	AGR (%)	Price Infosys (in rupees)	AGR (%)
March 2015	237.41	-	543.49	-
March 2016	211.60	10.89	602.45	10.85
March 2017	193.49	8.56	512.75	14.89
March 2018	210.86	8.98	565.90	10.36
March 2019	254.75	20.81	733.80	29.67

**Source:** Collected from Moneycontrol.com

From the table no 2 reveals that the Average Growth Rate (AGR) in price of Infosys and Wipro. It was observed that the average growth rate ranges from 10.89% to 20.81% during the study period, where as AGR of Infosys was 10.85% to 29.67%. It was concluded that there was high fluctuations in price movement of AGR of WIPRO when compared to INFOSYS because it was very sensitive stock.

**Table 3: Return on Equity of WIPRO & INFOSYS**

Year	ROI of WIPRO	% OF AGR	ROI of INFOSYS	% of AGR
March 2015	15.41	-	23.44	-
March 2016	18.27	15.65	25.44	7.86
March 2017	17.47	-4.58	20.31	-25.26
March 2018	19.89	12.17	20.78	2.26
March 2019	23.66	15.93	25.30	23.66
$\sum X$	94.70	-	115.27	-
$\bar{X}$	18.94	-	23.054	-
S (variance)	9.5629	-	5.89678	-
$s^2$ (standard deviation)	3.092	-	2.428	-

**Source:** Collected from Moneycontrol.com

Table no 3 reveals that the standard deviation (s) of INFOSYS was 2.428 and standard deviation of WIPRO was 3.092 where as variance (s) was 5.89678 of INFOSYS and 9.5629 of WIPRO. It was concluded that stock of WIPRO was more risk when compared to INFOSYS because the standard deviation was high.

### FINDINGS OF THE STUDY:

- It was identified that there was high fluctuations was recorded during the last 52 weeks in WIPRO. Market capitalization and recorded highest percentage of 0.73%
- It was found that there was high fluctuations was recorded in price movement of Aggregate growth rate of WIPRO when compared to INFOSYS.
- It was observed that the standard deviation of WIPRO, INFOSYS were 3.092 and 2.428 respectively, where as the overall highest variance was recorded in the case of WIPRO i.e. (9.5629) when compared to INFOSYS.

### SUGGESTIONS AND CONCLUSIONS:

Each and every investor aim is to gain return on its stock based on investment analysis. Investors can evaluate the risk of stock by considering the historical data relating to the portfolio. It is important that the market capitalization was achieved high (847.40) in the last 52 weeks when compared to WIPRO. At the same time the

investor must be aware that the Indian market as well as global market as well as global market movements, Economy related issues etc.

Indian stock market is growing market so that the volatility is also much emphasized which is also feature of growing market. The investor can apply either fundamental analysis or technical analysis or both for evaluation of their stocks. Generally technical analysis can be applicable when the stock market has developed where as fundamental analysis should be useful for growing stock market. The investor having a choice what he wants to analyze the portfolio.

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