

## **“Utilizing Intrinsic Value Analysis for Effective Stock Selection”**

**Dr. Bhavesh A. Pachhighar**

**Adhyapak Sahayak**

**(Assistant Professor),**

**A. V. Patel Commerce College, Bilimora**

**Email id : bhaveshpachchigar@gmail.com**

**Contact No : 9824778454**



## **Abstract:**

To get a certain return in the future, it is necessary to choose how much money to invest in the present and especially whether the particular time for investment is right or not before making such an investment. Instead of checking whether the time of investment is right, it is necessary to check whether the price of investment is right at that time or not. Before investing in a stock, one must decide on the right price, known as the intrinsic value, for this essential quality. Determining the true value of a company's stock is a challenging task. Various analytical approaches, such as fundamental analysis and technical analysis, can be employed to identify suitable stocks for investment. Here, as part of fundamental analysis research, it is determined whether a stock's intrinsic value deserves for investment.

## **Introduction:**

Fundamental analysis is a stock valuation technique that forecasts company price movement using financial and economic analysis. A firm's financial reports and non-financial information, such as projections of the growth of the demand for the products sold by the company, industry comparisons, shifts in the overall economy, changes in government laws, etc., might be included in the basic data that is reviewed. A stock's market price often moves in the direction of its intrinsic or true value.

## **Intrinsic value**

The value of a security that is appropriate for purchase or sale is referred to as intrinsic value. It goes by the name "fundamental value" quite frequently. Making investing decisions is aided by intrinsic value. The investor might choose to buy or sell a stock by comparing the stock's intrinsic worth to the going market price. If a stock's intrinsic worth is higher than its present market price, an investor will purchase it because they believe it will eventually climb to its intrinsic value. Because the investor knows that the stock price will drop and approach its intrinsic value if the stock's intrinsic worth were below the market price, the investor would sell the stock.

## **Dividend per share**

The amount of money that the company declared for each common share of its profits. The total dividends paid over a period of a year (including interim dividends but excluding special dividends) are divided by the number of outstanding ordinary shares issued to determine the dividend per share (DPS). Dividends are one way that profits are distributed to shareholders. A rising dividend per share may indicate the management of the company thinks the growth can continue.

### **Earnings per Share**

Earnings per Share (EPS) is a financial indicator that measures the profitability of a company on a per-share basis. It is calculated by dividing the company's net earnings by the number of outstanding shares. EPS is often used by investors to assess a company's profitability and compare it with other companies in the same industry. Higher EPS values are generally considered favorable, indicating higher profitability and potential returns for shareholders.

### **Dividend Payout Ratio**

This ratio is a financial measure that shows how much of a company's earnings are being distributed to shareholders as dividends. It helps investors understand the portion of earnings that is shared with them rather than reinvested in the business. A higher ratio means a larger proportion of earnings is paid out as dividends, while a lower ratio suggests more earnings are retained for other purposes. Investors use this ratio to assess dividend sustainability and the company's willingness to reward shareholders. However, it's important to consider other factors like financial stability and growth prospects alongside the payout ratio.

### **Dividend Growth Rate**

The dividend growth rate is the annualized percentage rate at which a stock's dividend increases over time. It is calculated using methods such as the least-squares approach or a simple annualized figure. The rate is important in the dividend discount model, which assumes a stock's price is based on estimated future dividends, adjusted for internal growth exceeding the company's dividend growth rate. A track record of robust dividend growth suggests potential long-term profitability for the company.

### **Return on Equity**

This is a financial ratio that measures how efficiently a company generates profits from shareholders' equity. It indicates the company's ability to provide returns to its shareholders. A higher ROE signifies better profitability and efficiency. Investors and analysts use ROE to assess a company's financial performance and compare it with industry peers.

### **Price-to-Earnings Ratio**

The Price-to-Earnings Ratio (P/E ratio) compares a company's stock price to its earnings per share. It helps investors gauge the relative value of a stock and determine if it is overvalued or undervalued. A higher P/E ratio suggests higher investor expectations or potential overvaluation, while a lower P/E ratio may indicate undervaluation or lower growth expectations. Comparing the P/E ratio with industry peers and considering other factors is crucial in interpreting its significance.

## **Review of Literature:**

According to Pablo Fernandez's (2015) research, risk and return have a predictable connection that could cause market portfolio mean-variance inefficiency. The main weakness in this study is that financial professionals confuse predicted cash flows with necessary returns, or believe they are similar.

Dr. A. S. Ambily, Silpa K. S., and Arya Mol J., 2017 The authors of the paper "A study on fundamental analysis of selected IT companies listed at NSE" conducted fundamental analyses of these NSE-listed IT companies. It also emphasizes how intrinsic share value is determined and contrasted with market value. This study used a fundamental analytical approach to identify the best stock valuation model.

In their article, Christie & Isidore (2018) listed the benefits and drawbacks of fundamental and technical analysis. An investor can forecast the price of a share using fundamental research before any actual change results from the release of fresh information. The writers also discussed how fundamental research can satisfy the needs of long-term investors and the significance of doing economic and industry study in predicting the growth potential for shares.

In article "Stock Assessment Using a Dividend Discount Model with Growth Rate Following a Time Series Pattern (2020)," Sukono, Dwi Susanti, Isah Aisah, Agus Supriatna, Jumadil Saputra, and Abdul Talib Bon state: Using a dividend discount model, it is possible to estimate a company's potential price by setting different dividend growth rates. The predicted dividend magnitude was forecast using an ARIMA model (Autoregressive Integrated Moving Average). The dividend discount models, which incorporate some growth, are used to estimate the stock's potential price. The dividend discount model of stock prices in the period to  $n + 1$  is used to compute the current value of all dividend payments over a period of  $2(n + 1)$  through indefinite time).

## **Research Methodology**

### **3.1 Need of The Paper**

The additional income will serve as motivation for individuals to engage in investment activities. In the past, common investment options included bank deposits, gold investments, and real estate. However, nowadays there is a wide range of investment opportunities available to cater to different needs and preferences. Presently, many investors are particularly interested in the stock market. To make informed investment decisions in the stock market, it is crucial to understand the process of stock selection. This research aims to assist investors by

determining the intrinsic value of stocks and providing guidance for initial investment decisions.

### **3.2 Statement of The Problem**

The investor is finding it difficult to choose the proper stock because of the fundamental research that was utilized to choose stocks during the initial investment period. Therefore, the study explores how to select a stock from the market utilizing its intrinsic value.

### **3.3 Objectives of The Study**

1. To determine a stock's intrinsic value.
2. To evaluate stock price whether it is overvalued or undervalued by examining the intrinsic value with the market value
3. To suggest the investor for selecting the stock in the market.

### **3.4 Scope of The Study**

This research covers about 10 information technology companies which are included in nifty IT index as on march 2023. The analysis will be done for five years. The companies are as follows:

### **3.5 Data Source**

Sample and Tools used for The Study The main purpose of the research is to give guidelines to the investor for selecting the stock. Secondary data only used for the purpose of the study. The secondary data for this study are collected from moneycontrol.com, BSE, NSE websites, Investopedia and respective company websites. Sample Table 1: Top ten NSE NIFTY Selected Sample for the Study.

The researcher has studied total 10 information technology companies which are included in nifty IT index as on march 2024, these are mentioned in the below table.

- |   |                                 |
|---|---------------------------------|
| 1 | Coforge ltd.                    |
| 2 | HCL Technology                  |
| 3 | Infosys                         |
| 4 | Larsen tubro technology service |
| 5 | LTIMindtree                     |
| 6 | Mphasis                         |
| 7 | TCS – Tata Consultancy Service  |
| 8 | Tech Mahindra                   |
| 9 | Wipro                           |

## DATA ANALYSIS

### Economic Analysis

Economic analysis uses variables like GDP, inflation rate, IIP, balance of payments, fiscal deficit, current account deficit, and unemployment rate to determine how the economy is currently performing as a whole. The five-year data on economic aspects from 2018 to 2023 is included in Table 1, and it definitely aids investors in making wiser investment decisions.

Table 1: Table showing economic factors

Particular	2020	2021	2022	2023	2024	CAGR
GDP Growth Rate (%)	3.74	-6.60	8.68	8.80	6.30	2.07
Inflation Rate (CPI)(%)	3.44	4.55	6.26	5.56	6.03	15.06
Unemployment Rate (%)	5.70	6.00	7.11	5.98	5.85	0.65
Total FDI/FII (USD Billions)	95.50	114.40	61.40	116.10	84.50	-3.01
CAD (% of GDP)	2.00	2.40	2.60	2.30	2.20	2.41

Source: Secondary data

The data from 2020 to 2024 reveals a dynamic economic landscape with fluctuations in key indicators. The GDP growth rate started strong in 2020 at 3.74% but slowed down in the following years. A significant contraction of -6.60% occurred in 2021, followed by a robust recovery of 8.68% in 2022 and 8.80% in 2023 then again showing down 6.30% in 2024.

Inflation rates experienced an upward trend, with a CAGR of 15.06%. Inflation was moderate in 2020 at 3.44%, escalating to 6.03% by 2024. Unemployment rates fluctuated, peaking at 7.11% in 2022 and gradually decreasing to 5.85% in 2024.

Foreign investment (FDI/FII) demonstrated varying patterns. While there was a surge in 2021 (USD 114.40 billion) and 2023 (USD 116.10 billion), there were declines in 2022 (USD 61.40 billion) and 2024 (USD 84.50 billion), yielding a negative CAGR of -3.01%.

The current account deficit as a percentage of GDP exhibited fluctuations, ranging from 2.00% in 2020 to 2.60% in 2022. It improved to 2.20% in 2024, reflecting changes in trade balance.

Overall, the summarized trends indicate an economy marked by growth, recession, and recovery, alongside varying levels of inflation, unemployment, foreign investment, and trade balance.

## INDUSTRY ANALYSIS

Between 2020 and 2024, the Indian Information Technology (IT) industry demonstrated consistent growth and adaptation. This period saw the industry evolve significantly, driven by various factors:

**Revenue Growth:** The industry sustained growth in export revenues, capitalizing on global demand for IT services and software. Adoption of digital technologies played a key role in driving revenue expansion.

**Digital Transformation:** Indian IT firms transitioned from traditional services to digital solutions. They focused on leveraging emerging technologies like AI and data analytics to cater to changing client needs.

**Skill Development:** Companies prioritized workforce upskilling and reskilling to align with technological advancements. Training initiatives aimed to equip employees with expertise in areas like AI and cybersecurity.

**Innovation:** The industry shifted its focus from service delivery to innovation and research. Companies invested in R&D, fostering innovation and supporting startups in emerging tech domains.

**Challenges and Adaptation:** Despite challenges from changing visa policies and competition, the industry demonstrated resilience during the COVID-19 pandemic, rapidly adopting remote work models.

**Regulatory Compliance:** Regulatory changes, such as GDPR, led to enhanced data privacy and security practices. Indian IT companies aligned with international standards to maintain client relationships.

**Sustainability and Social Responsibility:** The industry embraced sustainability and social responsibility, focusing on reducing carbon footprints, promoting diversity, engaging in philanthropy, and contributing to communities.

In summary, the Indian IT industry thrived between 2020 and 2024 by embracing digital transformation, fostering innovation, addressing challenges, and aligning with global trends. It remained a vital component of India's economic growth and a key player in the global technology landscape.

## COMPANY ANALYSIS

In a company analysis, the financial results of the chosen companies are examined in order to assess the firm's profitability. For an investor to understand the risk and return attached to a certain share, they should be familiar with the company's financial record. Different ratios are



utilized for analysis, including EPS, Book Value, P/E Ratio, Return on Equity, and Dividend Payout Ratio.

### Dividend per Share

Table showing Dividend Per Share

DPS	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	CAGR
Coforge	15.00	0.00	31.00	13.00	52.00	36.45
HCL	12.00	8.00	10.00	10.00	42.00	36.78
Infosys	43.50	21.50	17.50	27.00	31.00	-8.12
LTTS	16.00	21.00	21.00	22.00	35.00	21.61
LTIMind	21.50	28.00	28.00	40.00	55.00	26.47
Mphasis	20.00	27.00	35.00	65.00	46.00	23.15
TCS	50.00	30.00	73.00	38.00	43.00	-3.70
Tech Mhnd	14.00	14.00	15.00	45.00	45.00	33.90
Wipro	1.00	1.00	1.00	1.00	6.00	56.51

### Earning Per Share :

Profit after interest and preference dividend is divided by the number of equity shareholders to get earnings per share. EPS serves as a measure of a company's earning potential.

Table showing Earning Per Share

EPS	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	CAGR
Coforge	36.83	48.55	67.93	39.32	106.19	30.31
HCL	52.54	59.69	33.06	32.22	40.09	-6.54
Infosys	71.28	33.66	36.34	42.37	50.27	-8.36
LTTS	47.97	67.72	75.82	64.25	87.26	16.13
LTIMind	67.74	85.31	89.31	102.45	129.14	17.50
Mphasis	37.69	40.18	64.66	59.48	65.93	15.00
TCS	131.15	79.34	88.64	82.78	103.24	-5.81
Tech Mhnd	40.84	44.58	46.89	43.76	50.48	5.44
Wipro	16.26	12.67	14.88	17.81	22.20	8.10

### DIVIDEND PAYOUT RATIO

The DPR measures what a company's pay out to investors in the form of dividends. It can be calculated by dividing the annual dividends per share by the Earnings per share. It can be computed by DPS divided by EPS.



Table showing Dividend payout ratio

DPR	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	CAGR
Coforge	0.41	0.00	0.46	0.33	0.49	4.71
HCL	0.23	0.13	0.30	0.31	0.95	42.81
Infosys	0.61	0.64	0.48	0.64	0.62	0.26
LTTS	0.33	0.31	0.28	0.34	0.40	4.72
LTI	0.32	0.33	0.31	0.39	0.43	7.63
Mphasis	0.53	0.67	0.54	1.09	0.70	7.08
TCS	0.38	0.38	0.82	0.46	0.42	2.24
Tech Mhnd	0.34	0.31	0.32	1.03	0.89	26.99
Wipro	0.06	0.08	0.07	0.06	0.27	44.79

Earning Retention Ratio = 1 – Dividend payout ratio

Table showing Earning Retention Ratio

ERR	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	CAGR	AVG
Coforge	0.59	1.00	0.54	0.67	0.51	-3.67	0.66
HCL	0.77	0.87	0.70	0.69	0.05	-49.55	0.61
Infosys	0.39	0.36	0.52	0.36	0.38	-0.41	0.40
LTTS	0.67	0.69	0.72	0.66	0.60	-2.64	0.67
LTIMind	0.68	0.67	0.69	0.61	0.57	-4.24	0.64
Mphasis	0.47	0.33	0.46	-0.09	0.30	-10.42	0.29
TCS	0.62	0.62	0.18	0.54	0.58	-1.46	0.51
Tech Mhnd	0.66	0.69	0.68	-0.03	0.11	-36.25	0.42
Wipro	0.94	0.92	0.93	0.94	0.73	-6.10	0.89

## RETURN ON EQUITY

Return on equity is a metric of a company's profitability that shows how the business makes money using the money shareholders have invested. It is calculated by dividing net worth by profit after taxes.

Table showing Return on equity

ROE	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	CAGR	AVG
Coforge	15.34	17.54	21.39	13.29	29.21	17.47	19.35
HCL	26.70	26.88	24.04	20.07	25.53	-1.11	24.64
Infosys	25.44	23.44	24.97	25.23	30.63	4.75	25.94
LTTS	24.90	28.74	30.15	20.15	23.06	-1.90	25.40
LTIMind	31.19	31.29	29.68	25.76	26.90	-3.63	28.96

Mphasis	18.93	23.57	32.77	25.76	27.77	10.05	25.76
TCS	33.27	38.10	44.72	41.39	49.48	10.43	41.39
Tech Mhnd	20.46	21.21	20.35	16.94	19.00	-1.83	19.59
Wipro	18.27	15.41	18.68	22.23	22.32	5.13	19.38

$$\text{Long term Growth Rate (g)} = \frac{\text{Average Retention Ratio}}{\text{Average Return on Equity}} * \frac{1}{100}$$

Table showing long term growth rate

	AVG ERR	AVG ROE	GROWTH (g)
Coforge	0.66	19.35	0.13
HCL	0.61	24.64	0.15
Infosys	0.40	25.94	0.10
LTTS	0.67	25.40	0.17
LTIMind	0.64	28.96	0.19
Mphasis	0.29	25.76	0.08
TCS	0.51	41.39	0.21
Tech Mhnd	0.42	19.59	0.08
Wipro	0.89	19.38	0.17

$$\text{Projected EPS} = \text{Average Earnings per Share} * (1+g)$$

Table showing Average EPS and Projected EPS for selected companies:

	AVG EPS	GROWTH (g)	1 + (g)	Proj EPS
Coforge	59.76	0.13	1.13	67.44
HCL	43.52	0.15	1.15	50.12
Infosys	46.78	0.10	1.10	51.68
LTTS	68.60	0.17	1.17	80.23
LTIMind	94.79	0.19	1.19	112.50
Mphasis	97.03	0.08	1.08	104.36
TCS	45.31	0.21	1.21	54.84
Tech Mhnd	16.76	0.08	1.08	18.15
Wipro	23.73	0.17	1.17	27.84

• PRICE TO EARNINGS RATIO :

The P/E Ratio is a measure of the price paid for share relative to income or profit earned by the firm per share. A higher P/E ratio means that investors are paying more for unit of income.

Table showing P/E ratio

	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	CAGR	avg
<b>Coforge</b>	31.21	32.75	39.82	149.81	36.58	4.05	58.03
<b>HCL</b>	9.18	9.52	28.62	40.94	25.92	29.64	22.84
<b>Infosis</b>	9.24	21.72	34.56	44.55	30.00	34.22	28.02
<b>LTTS</b>	35.67	21.64	30.85	87.14	42.22	4.30	43.51
<b>LTIMind</b>	25.47	20.50	40.96	71.53	33.79	7.33	38.45
<b>Mphasis</b>	27.02	22.95	23.82	57.11	29.92	2.58	32.16
<b>TCS</b>	14.43	27.25	32.30	45.16	31.54	21.59	30.14
<b>Tech Mhnd</b>	17.71	17.10	20.75	40.92	20.13	3.26	23.32
<b>Wipro</b>	15.26	19.40	25.96	40.17	17.69	3.76	23.70

**Intrinsic Value = Projected EPS \* Average P/E ratio**

Table Showing Intrinsic Value of selected company as on 31 march 2024

	Proj EPS	Avg. P/E Ratio	In. Value
Coforge	67.44	58.03	3913.36
HCL	50.12	22.84	1144.42
Infosis	51.68	28.02	1447.75
LTTS	80.23	43.51	3490.51
LTIMind	112.50	38.45	4325.55
Mphasis	104.36	32.16	3356.52
TCS	54.84	30.14	1652.77
Tech Mhnd	18.15	23.32	423.21
Wipro	27.84	23.70	659.66

Table showing comparison of Intrinsic value with market value as on 31 march 2024

	In. Value	Mar-24	valuation	No. of Times	
Coforge	3913.36	3814.00	Overvalued	0.97	3565-6789
HCL	1144.42	1085.00	Undervalued	0.95	1016-1648
Infosys	1447.75	1428.00	Undervalued	0.99	1185-1733
LTTS	3490.51	3775.00	Overvalued	1.08	3297-5632
LTIMind	4325.55	4760.00	Overvalued	1.10	4132-6442
Mphasis	3356.52	1796.00	Undervalued	0.54	1660-2789
TCS	1652.77	3206.00	Overvalued	1.94	3070-4185
Tech Mhnd	423.21	1102.00	Overvalued	2.60	981-1416
Wipro	659.66	365.00	Undervalued	0.55	352-529

The provided data offers insights into the comparative analysis of intrinsic value (calculated based on five years projected earnings per share and price-to-earnings ratio) and the March 2024 stock value (Mar-24) for various companies, along with their valuation status and a numerical factor denoted as "No. of Times." Here's a summary interpretation for each company:

Coforge:

Intrinsic value: 3913.36, Mar-24 value: 3814.00.

Valuation: Overvalued (0.97).

Interpretation: Coforge stock is considered overvalued, with its current value approximately 97% of the intrinsic value.

HCL:

Intrinsic value: 1144.42, Mar-24 value: 1085.00.

Valuation: Undervalued (0.95).

Interpretation: HCL stock is categorized as undervalued, with its current value approximately 95% of the intrinsic value.

Infosys:

Intrinsic value: 1447.75, Mar-24 value: 1428.00.

Valuation: Undervalued (0.99).

Interpretation: Infosys stock is considered undervalued, with its current value approximately 99% of the intrinsic value.

LTTS:

Intrinsic value: 3490.51, Mar-24 value: 3775.00.

Valuation: Overvalued (1.08).

Interpretation: LTTS stock is deemed overvalued, with its current value approximately 108% of the intrinsic value.

LTIMind:

Intrinsic value: 4325.55, Mar-24 value: 4760.00.

Valuation: Overvalued (1.10).

Interpretation: LTIMind stock is considered overvalued, with its current value approximately 110% of the intrinsic value.

Mphasis:

Intrinsic value: 3356.52, Mar-24 value: 1796.00.

Valuation: Undervalued (0.54).

Interpretation: Mphasis stock is categorized as undervalued, with its current value approximately 54% of the intrinsic value.

TCS:

Intrinsic value: 1652.77, Mar-24 value: 3206.00.

Valuation: Overvalued (1.94).

Interpretation: TCS stock is considered overvalued, with its current value approximately 194% of the intrinsic value.

Tech Mahindra:

Intrinsic value: 423.21, Mar-24 value: 1102.00.

Valuation: Overvalued (2.60).

Interpretation: Tech Mahindra stock is deemed highly overvalued, with its current value approximately 260% of the intrinsic value.

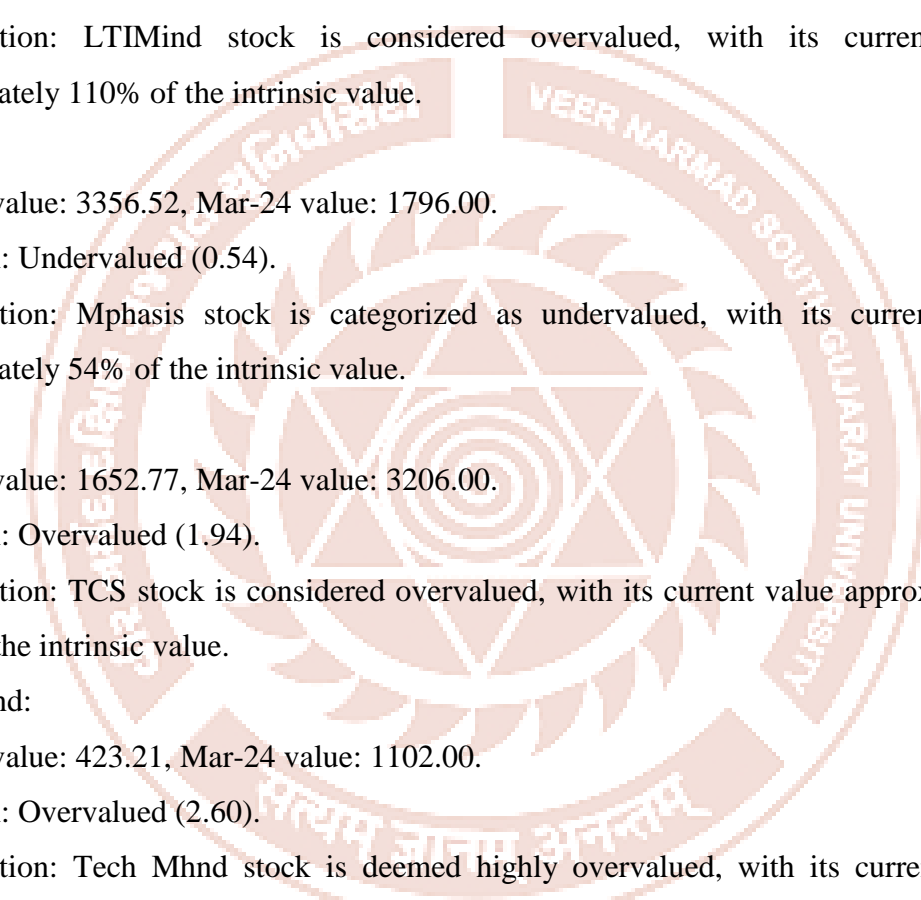
Wipro:

Intrinsic value: 659.66, Mar-24 value: 365.00.

Valuation: Undervalued (0.55).

Interpretation: Wipro stock is categorized as undervalued, with its current value approximately 55% of the intrinsic value.

The "Valuation" column indicates whether the current stock price is considered overvalued or undervalued based on a comparison with the March 2024 values. Overvaluation suggests



that the current price is higher than the valuation in March 2024, while undervaluation suggests the opposite.

### **Overvalued Companies:**

- Coforge
- LTTS
- LTIMind
- TCS
- Tech Mahindra

### **Undervalued Companies:**

- HCL
- Infosys
- Mphasis
- Wipro

### **Conclusion**

The share valuation analysis indicates varying degrees of alignment between market prices and intrinsic values for the selected IT companies. Investors should carefully assess each company's financial health, growth prospects, and market conditions before making investment decisions.

Investors should carefully assess each company's financial health, growth prospects, and market conditions to make informed investment decisions and strike a balance between risks and opportunities.

### **References**

1. Chandra., P. (2009), Investment Analysis and Portfolio Management, 3e, McGrawHill Publishing Company Ltd.
2. Fischer, D.E. and Jordan, R.J. (2000). Security analysis and Portfolio Management. NY. Prentice Hall.
3. Reilly, F.K. and Brown, K.C. (2006). Investment Analysis and Portfolio Management. New Delhi: CENGAGE Learning.
4. Suresh, A. S. (2013). A study on fundamental and technical analysis. International Journal of Marketing, Financial Services & Management Research, 6, 44-59.
5. Chauhan, A. A. (2014). A study on fundamental analysis of Indian automobile industry with reference to the selected companies. International Journal of Scientific Research, 3, 254-255.

6. Silpa, K. S., Mol, A., & Ambily, A. S. (2017). A study on fundamental analysis of selected IT companies listed at NSE. Journal of Advanced Research in Dynamical and Control System

**Websites:**

<https://www.nseindia.com/>

<https://www.rbi.org.in/>

<http://www.hcltech.com/>

<http://www.infosys.com/>

<http://www.ltts.com/>

<https://www.LTItree.com/>

<http://www.mphasis.com/>

<https://www.tcs.com/>

<http://www.techmahindra.com/>

<http://www.wipro.com/>

<https://www.moneycontrol.com/india/>

<https://trendlyne.com/>

<https://www.screener.in/>

