Journal DOI: 10.36713/epra1013 | SJIF Impact Factor (2025): 8.619 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 12 | Issue: 5 | May 2025 -Peer-Reviewed Journal

DECODING MARKET MOVES: PERFORMANCE ANALYSIS OF SELECT INDIAN IT COMPANIES THROUGH TECHNICAL INDICATORS

Dr. R. Sharmila[1], Ms. Bhavanithi. M.K.[2], Dr. R. Thiyagu[3]
[2]Professor, Sakthi Institute of Information and Management Studies, Pollachi
[2]II MBA, Sakthi Institute of Information and Management Studies, Pollachi
[3]Professor, Sakthi Institute of Information and Management Studies, Pollachi

ABSTRACT
Technical Analysis is the forecasting of future financial price movements based on an examination of past price movements. Like weather forecasting, technical analysis does not result in absolute predictions about the future. Instead, technical analysis can help investors anticipate what is "likely" to happen to prices over time. Technical analysis uses a wide variety of charts that show price over time. This study is based on the analysis of Two Nifty IT Index stocks namely Tcs, and Hcl listed in National Stock Exchange. Technical indicators such as Relative strength index (RSI), Rate of change (ROC) and Moving Average (MA) are used in the study. This paper aims at carrying out Technical Analysis of the securities of the selected IT stocks and to assist investment decisions in this Indian Market.
KEYWORDS: *Technical Analysis, IT Sector, RSI, ROC, Moving Average.*

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. Best options available, is the investment in the shares and securities of the companies. The investment in share market is highly rewarding but highly risky. Technical Analysis is the forecasting of future financial price movements based on an examination of past price movements. Like weather forecasting, technical analysis does not result in absolute predictions about the future. Instead, technical analysis can help investors anticipate what is "likely" to happen to prices over time. Technical analysis uses a wide variety of charts that show price over time. Technical analysis is a method of evaluating securities by analyzing statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a security's intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity.

2. REVIEW OF LITERATURE

Pring (2002) highlighted the foundational role of technical indicators like moving averages, RSI, and MACD in forecasting price trends, noting their widespread adoption in evaluating IT stocks due to their volatility and momentum-driven patterns.

Chong and Ng (2008) conducted an empirical analysis using moving averages and Bollinger Bands and found that technical indicators provided above-average returns in the short-term trading of technology stocks in emerging markets.

Srinivasan and Gopalakrishnan (2012) applied RSI and MACD on Infosys and TCS, revealing that RSI effectively signaled overbought and oversold conditions, assisting investors in timing their entry and exit.

Kumar and Patel (2014) evaluated Nifty IT stocks using moving average convergence-divergence (MACD) and relative strength index (RSI), concluding that these tools were effective in identifying short-term trading opportunities.

Desai and Shah (2015) studied Wipro and HCL stock price behavior using Bollinger Bands and discovered that price volatility was well captured, aiding in decision-making during high market fluctuations.

3. RATIONALE OF THE STUDY

Stock investment requires planning and careful evaluation of the underlying stock before making investment. Some retail investors have not much of idea where and how to invest and also in which sector to select. A statistical data in the recent past indicates many of the investors in the stock markets could make good returns, since they undertake investment without any information and without discipline. Therefore they have to understand,

- Which stock to invest?
- What type of security to buy?

Journal DOI: 10.36713/epra1013 | SJIF Impact Factor (2025): 8.619 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 12 | Issue: 5 | May 2025 -Peer-Reviewed Journal

- When to sell the securities?
- Whether hold, sell or buy the securities?

4. OBJECTIVE OF THE STUDY

- To analyze the performance of Nifty IT Index Stocks in Indian stock market and to predict the future trends in the share prices through Technical Analysis.
- To suggest the investors in making investment decisions (whether to buy/sell) in selected securities.
- To analyze price movements of selected company stocks using Relative Strength Index, Rate of Change and Moving Average.

5. SCOPE OF THE STUDY

This study mainly focuses on investment decisions by predicting futures stock price movements through the use of Technical analysis. This study is based on the analysis of Two Nifty IT Index stocks namely TCS and HCL listed in National Stock Exchange.

6. RESEARCH METHODOLOGY

Secondary Data of the daily share prices of the last three months of the financial year (from 1st Jan 2025 to 17th April 2025) is collected for five IT Sectors included in the IT Nifty is considered for the study and their technical analysis is carried out using various tools and techniques of technical analysis. The main data sources are NSE website, various business magazines, company websites and other websites containing information about technical indicators. There are about 10 IT which are listed in the Nifty IT Index in National Stock Exchange in India. Out of which the following Two IT Sectors are considered for the study. The selected IT Sectors are:

- TCS
- HCL

The major Tools and Techniques used in this study are technical indicators such as

- Relative strength index (RSI)
- Moving Average (MA)
- Rate of change (ROC)

Technical indicators are mathematical formulas that, when applied to security prices clearly flash either buy or sell signals.

6.1 RELATIVE STRENGTH INDEX (RSI)

J. Welles Wilder developed the relative strength index (RSI) and introduced it in the June 1978 article for commodities magazine. The basic formula is:

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

Where, RS average of upward price change over a select number of days/average of downward price change over the same number of days.

RSI SIGNALS

The stock is considered to be over bought if RSI goes above 70. Since the stock is overvalued, it is the right time to sell the stock and makes profit. Conversely, a stock is considered to be over sold if RSI falls below 30. Since the stock is undervalued, it is right time to buy the stock. A RSI reading above 50 is bullish as the average gains are more than the average losses. On the other hand a reading below 50 is considered to be bearish. A Bearish divergence occurs when stock makes a higher high and the RSI makes a lower high. A Bullish divergence occurs when stock makes a lower low and the RSI makes a higher low.

6.2 RATE OF CHANGE INDICATOR (ROC)

The rate of change (ROC) indicator, which is also referred to as simply momentum, is a pure momentum oscillator that measures the percent change in price from one period to the next. The value of ROC oscillates around a central zero point level. To calculate ROC a set period is used to compare with today's price. The most popular periods used are 10, 12 and 25 days. The formula for calculation of ROC is

ROC = [(close-close n periods ago)/(close n periods ago)]*100.

When n= 10, 12 or 25 days.

ROC INDICATORS

ROC indicator which is at a high peak and starting to move down is an indication of a sell signal, whereas an ROC at a low peak, but staring to move upward, is a buy signal. A movement toward the zero line indicates that the existing trend is losing momentum. ROC moving from above zero to below zero level is an indication of sell while ROC moving from below zero to above zero level is an indication of buy.

Journal DOI: 10.36713/epra1013 | SJIF Impact Factor (2025): 8.619 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 12 | Issue: 5 | May 2025 -Peer-Reviewed Journal

6.3 MOVING AVERAGE (MA)

A simple moving average is formed by computing the average (mean) price of a security over a specified number of periods.

BUYING SIGNALS

Whenever price line is above moving upward continuously, supported by similar movements of the average line, it is a buy signal. The moment price line penetrates the moving average line towards upside and thereafter both the lines keep on moving upward it is a buying signal.

SELLING SIGNAL

When price line is moving below the moving average line, after an upside movement price line fails to penetrate the moving average line instead starts moving downside, it is a sell signal. When price line is below the moving average line and both the lines keep on moving towards downside, it is also a sell signal.

7. DATA ANALYSIS AND INTERPRETATION

7.1 RSI, MA and ROC of TCS

RSI shows the overbought and oversold stock prices of the TCS for the period of three months from 1st Jan 2025 to 17th April 2025. For the period of three months there were overbought conditions and oversold conditions in the TCS. When the RSI line cross the 30 mark from below to above is indicator to buy the stock and when the RSI line cross the 70 mark from above to below is indicator to sell the stock.



Chart: 1 RSI chart of TCS

The RSI data from 1st January to 17th April 2025 shows a predominantly bearish trend with several dips into oversold territory. After a neutral start in January, the RSI steadily declined, falling below 30 by late February, indicating strong selling pressure. Although there were brief recoveries in early March and late March, they were not sustained, and the RSI again dropped below 30 in early April. The index showed a slight recovery by mid-April but remained under 35, reflecting continued weakness. Overall, the RSI indicates prolonged bearish sentiment with limited buying strength during the period.

INVESTMENT DECISIONS

(i) **Holding investor:** Hold or consider buying more, as RSI is recovering from an oversold level.
(ii) **New investor:** Consider a buy, as RSI indicates potential upward momentum after a low.

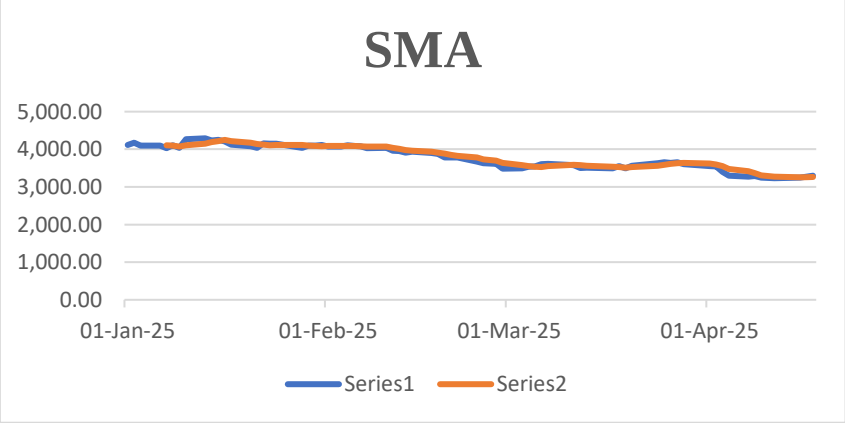


Chart: 2 MA chart of TCS

Journal DOI: 10.36713/epra1013 | SJIF Impact Factor (2025): 8.619 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 12 | Issue: 5 | May 2025 -Peer-Reviewed Journal

The Simple Moving Average (SMA) analysis from January to April 2025 shows a clear downtrend in stock prices. Initially, both the closing prices and 5-day SMA values were relatively high and stable, with prices hovering around 4,100. However, as the period progressed, particularly from mid-February onward, a consistent decline in both the closing prices and SMA is observed, indicating a bearish market sentiment. The SMA line (Series2) generally stayed above the closing price (Series1), reinforcing the bearish trend. This suggests that the market has been under selling pressure, with no strong upward corrections, and the average price over time is gradually decreasing.

INVESTMENT DECISION

(i) **Holding investor:** Sell or reduce holdings, as the price is consistently below the SMA, indicating a downtrend.
(ii) **New investor:** Avoid buying now, as the trend is bearish with no reversal signal.

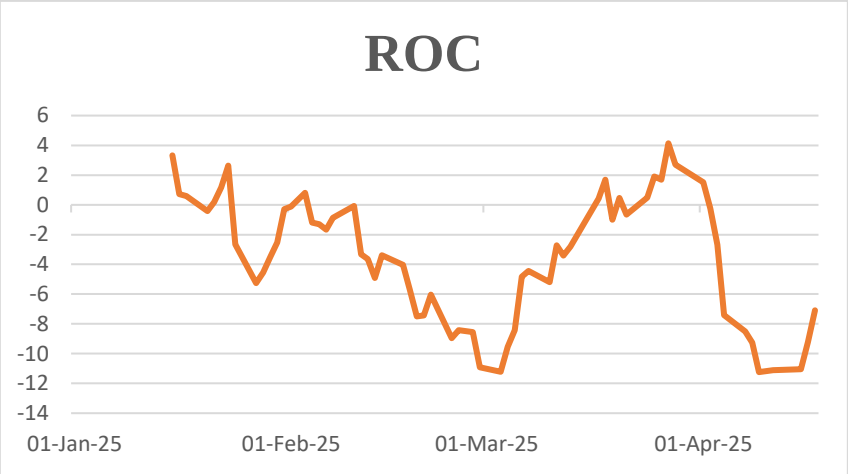


Chart: 3 ROC chart of TCS

The ROC data from January to April 2025 indicates a predominantly bearish market with high volatility. After a brief positive start in January, the ROC quickly turned negative, showing strong selling pressure that intensified through February and early March, reaching lows near -11%. A short recovery occurred in late March, with ROC turning positive, but it was short-lived as the indicator fell again in April, reflecting renewed bearish momentum. By mid-April, ROC showed slight improvement, hinting at a potential slowdown in selling. Overall, the trend reflects persistent downward momentum with brief, un sustained rebounds.

INVESTMENT DECISION

(i) **Holding investor:** Hold, as ROC is rebounding from deeply negative territory, suggesting a potential price recovery.
(ii) **New investor:** Watch closely but wait, as ROC is still below zero and needs confirmation of sustained upward momentum.

7.2 RSI, MA AND ROC OF HCL

RSI shows the overbought and oversold stock prices of the HCL for the period of three months from 1st Jan 2025 to 17th April 2025. For the period of three months there were overbought conditions and oversold conditions in the HCL.



Chart: 1 RSI chart of HCL

The RSI chart from January to April 2025 shows that the Relative Strength Index mostly ranged between 20 and 50, indicating the asset experienced periods of both weakness and mild recovery without reaching extreme levels. In late February and early March, the RSI dipped below 30, signaling oversold conditions and suggesting that the asset was under significant selling pressure. This

Journal DOI: 10.36713/epra1013 | SJIF Impact Factor (2025): 8.619 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 12 | Issue: 5 | May 2025 -Peer-Reviewed Journal

was followed by a sharp upward movement in late March, where the RSI peaked above 50, reflecting a brief period of strong buying momentum. However, this spike was not sustained, as the RSI quickly dropped again in early April, returning to oversold territory. Toward mid-April, the RSI began to recover, moving back above 30 and approaching 40, which indicates a moderate improvement in momentum.

INVESTMENT DECISION

(i) **Holding investor:** Hold, as RSI is rising from oversold territory, indicating a possible upward move.

(ii) **New investor:** Consider a cautious buy, with RSI gaining strength but still below overbought levels.

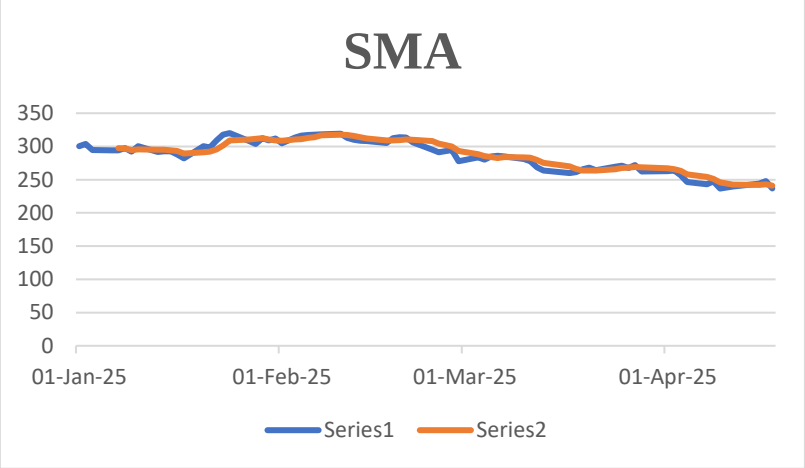


Chart: 2 MA chart of HCL

The SMA chart from January to April 2025 shows a clear downward trend in the asset price. The 5-day SMA started around 1,940 in early January but began to decline sharply by mid-January. The SMA dropped to about 1,800 and continued falling to around 1,710 by late January. February showed some stabilization, with the SMA hovering between 1,710 and 1,725, indicating a brief consolidation. However, in March, the SMA declined further to approximately 1,560. Toward the end of March, there was a slight recovery as the SMA rose to about 1,617. April saw the steepest decline, with the SMA falling to nearly 1,395 by mid-month. Although there were minor rebounds, the overall trend remained bearish. This persistent decline suggests strong selling pressure throughout the period. Traders would likely favor cautious or short-selling strategies during this time.

INVESTMENT DECISION

(i) **Holding investor:** Sell or reduce exposure, as the price is consistently trending below the SMA, indicating sustained weakness.

(ii) **New investor:** Avoid buying for now, as the bearish trend is still in place.

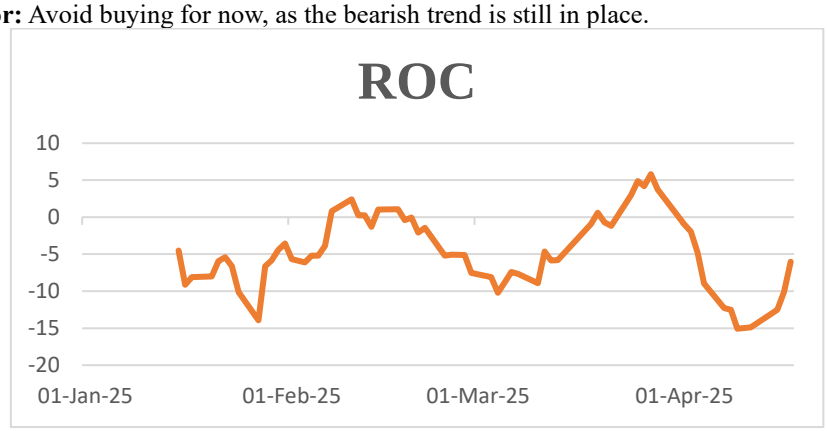


Chart: 3 ROC chart of HCL

The Rate of Change (ROC) from January to April 2025 shows significant volatility in the asset's price momentum. In January, ROC was mostly negative, indicating strong downward pressure, with values dropping below -10 by the end of the month. February saw some stabilization, as ROC hovered closer to zero, reflecting minor recoveries. March experienced a brief positive momentum, with ROC rising above zero and peaking around 5-6, signaling a short rally. However, this upward momentum was short-lived, as ROC sharply declined again in April, reaching lows near -15. This steep drop highlights intense selling pressure during that period. By mid-April, ROC began to improve slightly, suggesting a possible easing of the downtrend. Overall, the ROC indicates a market dominated by bearish momentum with intermittent short-term recoveries. Traders would need to be cautious and adapt quickly to these rapid changes in momentum.

Journal DOI: 10.36713/epra1013 | SJIF Impact Factor (2025): 8.619 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 12 | Issue: 5 | May 2025 -Peer-Reviewed Journal

INVESTMENT DECISIONS

(i) **Holding investor:** Hold, as ROC is sharply recovering from a deep negative, signaling possible bullish momentum.
(ii) **New investor:** Consider a cautious buy, watching for confirmation of sustained upward movement.

9. CONCLUSION

Trading (Buying/selling) of script is not an easy task if the investor wants to make money from doing it. Millions of investors have lost the money in the past by trying/guessing stock price movements. The research study on technical analysis will help the investors' in analyzing the scrip based on technical oscillators to earn fruitful investments. Technical Analysis is all about learning the Art of Making Profits in all market conditions whether rising or falling. Knowledge of the stock markets is key ingredient to the success and emphasis should be on managing trading risk while technical analysis can help the investors to control there is only one side to the stock market and it is not the bull side or bear side but the right technical analysis can be used, when to buy and when to sell the scrip.

REFERENCES

1. ***Pring, M. J. (2002).*** *Technical analysis explained: The successful investor's guide to spotting investment trends and turning points. McGraw-Hill.*
2. ***Chong, T. T. L., & Ng, W. K. (2008).*** *Technical analysis and the London stock exchange: Testing the MACD and RSI rules using the FT30. Applied Economics Letters, 15(14), 1111–1114. https://doi.org/10.1080/13504850600749117*
3. ***Srinivasan, P., & Gopalakrishnan, K. (2012).*** *Technical analysis of select IT stocks in India: An empirical approach. Indian Journal of Finance, 6(3), 35–42.*
4. ***Kumar, S., & Patel, R. (2014****). Application of technical indicators for stock trading in IT sector. Journal of Business Management & Social Sciences Research, 3(5), 1–7.*
5. ***Desai, H., & Shah, A. (2015****). Bollinger bands as a tool of technical analysis: A study of IT sector stocks in India. International Journal of Research in Finance and Marketing, 5(6), 22–30.*