

A Study on Technical Analysis for Predicting Intraday Price Movements of Selected Five NSE Stocks

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Abstract

This study examines the effectiveness of technical analysis in predicting intraday price movements of selected NSE-listed companies, including Zydus Wellness Limited, Tata Consumer Products Limited, Eternal Limited, NTPC Green Energy Limited, and IDFC First Bank Limited. The research emphasizes the importance of technical indicators such as RSI, MACD, EMA, Bollinger Bands, and VWAP in identifying market trends, momentum changes, and potential reversal points. By analyzing historical intraday price data with 15-minute intervals, the study demonstrates how these tools help investors determine suitable entry and exit points while reducing emotional decision-making. The study follows an analytical approach using secondary data from reliable sources like Yahoo Finance and NSE. Overall, the findings highlight that combining multiple technical indicators improves the accuracy of predictions and supports better decision-making in intraday trading.

Keywords: Technical Analysis, Intraday Trading, NSE Stocks, RSI, MACD, VWAP, Bollinger Bands, Trading Strategies

1. INTRODUCTION

In the modern financial market, predicting stock price movements plays a crucial role for investors, traders, and analysts. One of the most widely used approaches for forecasting stock prices is technical analysis. Unlike fundamental analysis, which focuses on a company's financial performance, technical analysis relies on historical price data and trading volume to predict future market trends. Technical analysis is based on the assumption that all relevant information is already reflected in stock prices and that price movements follow identifiable trends. By analyzing these trends using charts and indicators, investors can make informed trading decisions. Various tools such as Relative Strength Index (RSI), Moving Average Convergence Divergence (MACD), Exponential Moving Average (EMA), Bollinger Bands, and Volume Weighted Average Price (VWAP) are used to interpret market behavior and identify potential buying and selling opportunities. This study focuses on analyzing the intraday price movements of selected companies listed on the National Stock Exchange (NSE). The analysis is based on secondary data collected at 15-minute time intervals over a period of 10 trading days from March 9, 2026 to March 20, 2026. The selected stocks represent different sectors, providing a broader understanding of market behavior and the effectiveness of technical indicators. The main objective of this study is to evaluate how technical indicators can be used to predict short-term price movements and assist investors in making better trading decisions. Overall, the study highlights the importance of technical analysis as a practical and reliable method for understanding market trends in a dynamic trading environment.

2. NEED OF THE STUDY

The stock market is highly dynamic and influenced by various economic, political, and psychological factors. Investors seek reliable methods to predict price movements and reduce financial risks. Technical analysis has emerged as an effective tool to study historical price data and forecast future trends using indicators such as RSI, MACD, EMA, Bollinger Bands, and VWAP. This study aims to examine the effectiveness of these indicators in predicting intraday price movements of selected NSE-listed companies. By analyzing short-term data at 15-minute intervals, the study helps identify momentum, volatility, and trend direction. It also assists in recognizing overbought and oversold conditions, identifying trend reversals, and determining suitable entry and exit points. Overall, the study promotes a disciplined trading approach based on technical indicators rather than emotional decision-making.

3. OBJECTIVE OF THE STUDY

- 1) To analyze intraday price patterns using technical tools such as RSI, MACD, EMA, Bollinger Bands, and VWAP based on 15-minute interval data.
- 2) To identify overbought and oversold conditions during intraday trading using price fluctuations.
- 3) To determine suitable intraday entry and exit points by analyzing trend direction, support, and resistance levels.
- 4) To examine trend direction, momentum, and volatility in stock prices using technical indicators.

4. SCOPE OF THE STUDY

This study focuses on analyzing the intraday price movements of selected companies listed on the National Stock Exchange (NSE) using technical analysis. The analysis is limited to a period of 10 trading days from March 9, 2026 to March 20, 2026, with data collected at 15-minute time intervals. The study applies technical indicators such as Relative Strength Index (RSI), Moving Average Convergence Divergence (MACD), Exponential Moving Average (EMA), Bollinger Bands, and Volume Weighted Average Price (VWAP) to evaluate price trends, momentum, and volatility. It aims to identify short-term trading opportunities and assist investors in making informed buy and sell decisions. The scope of the study is restricted to secondary data collected from sources like Yahoo Finance and the official website of NSE. It does not consider fundamental analysis or external factors such as economic conditions, company performance, or market news.

5. REVIEW OF LITERATURE

1) **Kumar and Singh (2025)** The study examined the role of technical indicators in understanding stock market recovery after financial disruptions. It explained that indicators such as RSI, MACD, and moving averages help identify trend reversals and possible recovery signals in stock prices. By analysing historical price data, investors can better understand market behaviour during uncertain periods. The research also highlighted the usefulness of technical analysis in short-term trading strategies. Overall, the findings suggested that these indicators help investors recognize early signs of market recovery.

2) **Chokkamreddy, P., & Akshara, G. (2024)** provides a detailed comparative analysis of the stock performance of major Indian IT companies—Infosys, Wipro, Tech Mahindra, HCL, and TCS—using technical analysis tools: the Relative Strength Index (RSI) and Rate of Change (ROC) oscillators. The authors aim to assess the efficacy of these indicators in predicting stock price movements and aiding investment decisions. The research employs a quantitative approach, analyzing historical stock price data over a specified period. By applying RSI and ROC oscillators, the study identifies overbought and oversold conditions, momentum shifts, and potential reversal points in the stock prices of the selected companies. The findings suggest that both RSI and ROC are effective in signaling entry and exit points, with RSI being particularly useful in identifying overbought conditions, while ROC excels in detecting momentum changes.

3) **K. N. Sahana and Dr. K. R. Shyam Sundar (2024)** investigated the stock movements of automobile companies listed on the NIFTY50 index, focusing on five major firms: TVS Motor, MRF, Ashok Leyland, Maruti Suzuki, and Tata Motors. Using quarterly and annual data from January 2021 to December 2021, the analysis identifies key trends and

patterns in stock performance. The study employs various technical analysis tools to assess the price movements and trading volumes of these companies. The findings suggest that technical analysis can provide valuable insights into the stock performance of automobile companies, aiding investors in making informed decisions. However, the study also emphasizes the importance of considering fundamental factors and market conditions alongside technical indicators to achieve a comprehensive understanding of stock behavior.

4) **Patel, R., & Desai, S. (2024)** analyzed selected banking stocks listed on the NSE, such as ICICI Bank, SBI, Axis Bank, and Bank of Baroda. The study applied key technical indicators like the Relative Strength Index (RSI), Rate of Change (ROC), and Moving Averages (MA) to identify stock trends, momentum shifts, and possible entry/exit points. Historical price data was used to understand how these tools reflect short-term and long-term movements. The analysis showed that RSI and ROC are especially effective in capturing momentum and short-term reversals, while Moving Averages are better suited to track overall trend direction. The findings suggest that although technical indicators offer valuable insights, their reliability can diminish during volatile market conditions or when influenced by macroeconomic factors. Patel and Desai recommend that investors adopt a hybrid approach by combining technical tools with fundamental analysis, such as evaluating financial statements and market news.

5) **Gupta, A., & Singh, R. (2023)** investigated the profitability of momentum-based trading strategies in the Indian equity market. The authors analyze the effectiveness of momentum indicators such as the Moving Average Convergence Divergence (MACD) and Rate of Change (ROC) in identifying profitable trading opportunities. Their findings suggest that momentum strategies yield significant positive returns, particularly in bullish market conditions. However, the research also warns that these strategies can lead to losses in sideways or highly volatile markets, highlighting the need for robust risk management techniques.

6. RESEARCH METHODOLOGY

Research is a systematic and scientific investigation undertaken to discover new insights, establish facts, and reach valid conclusions. It involves the collection, analysis, and interpretation of data to solve a specific problem or to understand a particular phenomenon.

In this study, research is conducted to analyze and predict the intraday price movements of selected stocks listed on the National Stock Exchange (NSE) using technical analysis. The purpose of this research is to understand stock price behavior, identify market trends, and determine potential buying and selling opportunities for investors. The research methodology outlines the systematic approach used to conduct this study. This study employs technical analysis to examine stock price trends and patterns of selected NSE-listed companies. Various technical indicators such as EMA, RSI, MACD, Bollinger Bands, and VWAP are applied to historical stock price data. The research follows a quantitative approach, as it is based on numerical data such as stock prices and trading volumes. This methodology helps in understanding short-term price fluctuations and supports effective decision-making for intraday trading.

7. DATA ANALYSIS AND INTERPRETATION

7.1 TABLE SHOWING MACD FOR ZYDUS WELLNESS LIMITED

DATE	TIM E	CLOSE	EMA 12	EMA 26	MAC D	SIGNA L	HISTOGRAM
09-Mar-26	9:30	370.2	371.1	372.2	-1.1	-0.9	-0.2
09-Mar-26	14:30	372.85	371.5	372.1	-0.6	-0.75	0.15
10-Mar-26	10:00	378.95	373.8	372.9	0.9	-0.3	1.2

10-Mar-26	15:00	378.7	375.2	373.8	1.4	0.2	1.2
11-Mar-26	10:00	386.8	378.9	375.1	3.8	1.2	2.6
11-Mar-26	15:00	384.65	380.5	376.4	4.1	2.1	2
12-Mar-26	11:30	388	382.6	378.1	4.5	3	1.5
12-Mar-26	15:00	389.5	384.2	379.8	4.4	3.6	0.8
13-Mar-26	13:00	449.5	395	385	10	5.5	4.5
13-Mar-26	15:00	401.3	398	390.5	7.5	6.2	1.3
16-Mar-26	10:15	412.5	400.2	393	7.2	6.8	0.4
16-Mar-26	15:00	421.6	403.5	396.2	7.3	7	0.3
17-Mar-26	11:00	419	405	398.5	6.5	6.8	-0.3
17-Mar-26	15:00	420.9	406.5	400.2	6.3	6.6	-0.3
18-Mar-26	10:00	427.4	408.9	402.1	6.8	6.7	0.1
18-Mar-26	15:00	424.6	410	403.8	6.2	6.5	-0.3
19-Mar-26	10:00	419.4	409.8	405.2	4.6	6	-1.4
19-Mar-26	15:00	414.5	408.5	406	2.5	5.2	-2.7
20-Mar-26	11:30	419.5	409.2	406.5	2.7	4.5	-1.8
20-Mar-26	15:00	424.65	411	407.8	3.2	4	-0.8

Source : Data collected and compiled from Yahoo finance

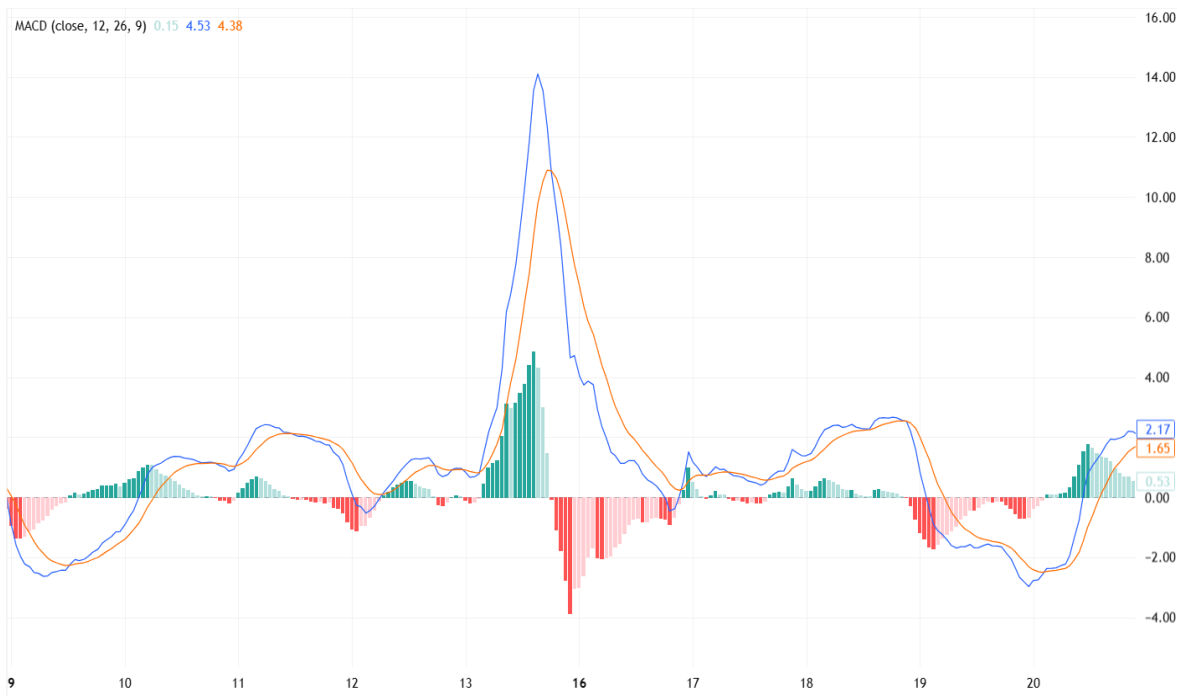
INTERPRETATION

From the above table, it is found that the MACD of the selected stock shows fluctuations in trend and momentum during the selected period. On March 9, 2026, the MACD was negative (-1.1), indicating a bearish trend. However, by March 10, the MACD turned positive, signaling a bullish crossover and the beginning of an upward movement. Strong bullish momentum was observed from March 11 to March 13, where the MACD reached a peak value of 10, indicating high buying pressure. After this, the MACD started declining, showing weakening momentum, although it remained positive for some time.

From March 17 onwards, the MACD gradually moved closer to the signal line, and the histogram turned negative, indicating a bearish crossover and increasing selling pressure. On March 19 and March 20, the MACD further declined, reflecting weak momentum.

It is concluded that the MACD indicates a shift from bearish to strong bullish trend and later to a weakening and bearish phase due to market fluctuations and changing investor sentiment.

7.1 CHART SHOWING MACD FOR ZYDUS WELLNESS LIMITED



TradingView

7.2 TABLE SHOWING VWAP FOR ETERNAL LIMITED

DATE	TIME	CLOSE	VOLUME	PRICE×VOLUME	CUM PV	CUM VOL	VWAP
09-Mar-26	9:30	224.20	5348970	1199239074	1199239074	5348970	224.20
09-Mar-26	14:30	228.86	2404076	550196833.4	1749435907	7753046	225.64
10-Mar-26	10:00	229.28	2154175	493909244	2243345151	9907221	226.44
10-Mar-26	15:00	227.09	3605640	818804787.6	3062149939	13512861	226.61
11-Mar-26	10:00	226.82	1593581	361456042.4	3423605981	15106442	226.63
11-Mar-26	15:00	223.84	2708091	606179089.4	4029785071	17814533	226.21
12-Mar-26	11:30	222.28	1066534	237069177.5	4266854248	18881067	225.99
12-Mar-26	15:00	221.31	3938401	871607525.3	5138461774	22819468	225.18
13-Mar-26	13:00	215.21	3665225	788793072.3	5927254846	26484693	223.80
13-Mar-26	15:00	215.64	2840725	612573939	6539828785	29325418	223.01
16-Mar-26	10:15	214.84	2222201	477417662.8	7017246448	31547619	222.43
16-Mar-26	15:00	221.99	4223399	937552344	7954798792	35771018	222.38
17-Mar-26	11:00	230.85	1981092	457335088.2	8412133880	37752110	222.83
17-Mar-26	15:00	234.61	5152519	1208832483	9620966363	42904629	224.24
18-Mar-26	10:00	239.30	4309222	1031196825	10652163187	47213851	225.62
18-Mar-26	15:00	242.90	3297585	800983396.5	11453146584	50511436	226.74
19-Mar-26	10:00	231.86	3543177	821521019.2	12274667603	54054613	227.08
19-Mar-26	15:00	228.44	3755093	857813444.9	13132481048	57809706	227.17
20-Mar-26	11:30	232.84	1218497	283714841.5	13416195889	59028203	227.28
20-Mar-26	15:00	231.89	6300920	1461120339	14877316228	65329123	227.73

Source : Data collected and compiled from Yahoo finance

INTERPRETATION

From the above table, it is observed that the VWAP of the selected stock shows fluctuations in price relative to trading volume during the selected 10 trading days. On March 9, 2026, the price remained close to the VWAP, indicating normal trading conditions.

During the period from March 10 to March 12, the VWAP showed a slight upward movement, indicating moderate buying interest in the market. However, from March 13 onwards, the VWAP gradually declined to around ₹222 levels, reflecting increasing selling pressure and a bearish trend. A recovery was observed from March 17 onwards, where the VWAP started increasing gradually, indicating renewed buying interest and improvement in market sentiment. During March 18 to March 20, the VWAP continued to rise and stabilized around ₹227 levels, suggesting balanced market conditions with moderate bullish momentum. Overall, the VWAP indicates a shift from initial stability to bearish movement, followed by recovery and stabilization during the study period.

7.2 CHART SHOWING VWAP FOR ETERNAL LIMITED



TradingView

8. SUMMARY OF FINDINGS

The study analyzed the effectiveness of technical indicators in predicting intraday price movements of selected NSE-listed companies. The findings reveal that each stock exhibited distinct price behavior; however, common patterns were observed across all companies using the selected indicators.

- * Zydus Wellness Limited showed a combination of bullish trends, sharp corrections, and consolidation. Indicators like RSI and MACD reflected strong momentum shifts, while Bollinger Bands and VWAP indicated periods of volatility followed by stability.

- * Tata Consumer Products Limited demonstrated alternating bullish and bearish phases. The indicators effectively captured trend reversals, momentum changes, and consolidation, confirming their usefulness in tracking short-term price movements.

- * Eternal Limited experienced high volatility with sharp upward movement followed by correction and stabilization. RSI, MACD, and EMA clearly indicated trend reversals, while Bollinger Bands and VWAP reflected volatility and recovery phases.

- * NTPC Green Energy Limited exhibited strong and consistent bullish momentum throughout the study period. Most indicators confirmed sustained buying pressure with minor corrections, highlighting a stable upward trend.

- * IDFC First Bank Limited showed a predominantly bearish trend with slight recovery towards the end. Indicators consistently reflected selling pressure, weak momentum, and eventual consolidation.

Overall, the study finds that technical indicators such as RSI, MACD, EMA, Bollinger Bands, and VWAP are effective in identifying market trends, momentum changes, volatility, and potential reversal points in intraday trading. The combined use of multiple indicators provides more reliable signals compared to relying on a single indicator, thereby supporting better decision-making and reducing uncertainty in trading.

9. SUGGESTIONS

The study suggests that relying on a single technical indicator is not sufficient for accurately predicting intraday price movements; instead, a combination of indicators such as RSI, MACD, EMA, Bollinger Bands, and VWAP enhances the reliability of trading decisions. The EMA can be effectively used to identify trend direction, where prices below the EMA indicate bearish conditions and those above it signal bullish opportunities. As stock behavior varies based on volatility and sector, investors should align their strategies accordingly, choosing volatile stocks for short-term trading and stable stocks for long-term investment. Additionally, market volatility, as reflected through Bollinger Bands and RSI, requires cautious trading during highly fluctuating periods. Finally, since external factors like economic conditions and global events influence stock prices, technical analysis should be complemented with current market information for better decision-making.

10. CONCLUSION

The study highlights the significance of technical analysis as an effective tool for predicting intraday price movements in the Indian stock market. It demonstrates that indicators such as RSI, MACD, EMA, Bollinger Bands, and VWAP are useful in analyzing selected NSE-listed stocks by identifying overbought and oversold conditions, trend direction, momentum, volatility, and price levels. The analysis provides clear insights into market trends, price behavior, and potential trading opportunities. Overall, technical analysis proves to be a practical approach for short-term trading and decision-making; however, the combined use of multiple indicators along with prevailing market conditions can further enhance accuracy and reduce investment risk.

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