A Comparative Study of Technical vs. Fundamental Analysis in Stock Investment Decisions

Janpreet Singh, Dr. Pratiksha Mishra

Janpreet Singh, BBA Final Year Student, Amity Business School, Amity University Raipur, India

Dr. Pratiksha Mishra, AssistantProfessor, Amity Business School, Amity University Raipur, India

Abstract: This research paper investigates the comparative effectiveness of technical and fundamental analysis as decision-making tools for stock market investments. Technical analysis relies on price patterns and market indicators, while fundamental analysis evaluates intrinsic value based on financial and economic data. Using a mixed-methods approach, this study incorporates both quantitative data from five NSE-listed companies over a five-year period (2019–2024) and primary data gathered through surveys of 50 retail investors and interviews with five financial analysts. The findings highlight the emerging dominance of hybrid strategies that combine both technical and fundamental tools. While fundamental analysis is more suitable for long-term value investments, technical analysis is preferred for short-term trading. The research concludes that integrating both methods provides a more robust framework for informed investment decisions. Recommendations include enhancing financial education, developing integrated analysis platforms, and encouraging a segmented approach to investor support.

Keywords: Technical Analysis, Fundamental Analysis, Hybrid Strategies, Stock Market, NSE, Investment Behavior

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1. Introduction

Stock market participation has grown significantly in recent years, particularly among retail investors who now have access to online platforms and real-time data. As a result, selecting the right investment strategy has become increasingly important. Two dominant approaches for stock analysis are technical and fundamental analysis. Technical analysis involves studying historical price movements and volume data to forecast future price trends. It appeals to traders looking for short-term gains. In contrast, fundamental analysis examines a company's financial health, industry position, and macroeconomic conditions to assess its long-term value.

Despite the widespread use of both techniques, there is limited consensus on their comparative effectiveness. Retail investors, in particular, often face difficulty in choosing between these methods, and many turn to hybrid strategies. This study aims to analyze the advantages and limitations of both techniques, assess investor preferences, and provide a framework for using these tools effectively.

Research Objectives:

- To define the principles of technical and fundamental analysis
- To evaluate the performance of each method over various time horizons
- To understand investor behavior and preferences
- To compare risk-adjusted returns
- To propose an integrated analysis framework

Research Questions:

1. What are the key principles and tools of technical and fundamental analysis?
2. Under which conditions does each method perform best?
3. What are investors' preferences and why?
4. Can a combined approach yield superior results?

Significance of the Study: This research offers practical insights for individual investors, financial advisors, and educators. It contributes to academic literature by exploring how both methods function in the Indian market and suggesting integrative strategies for better decision-making.

2. Literature Review

Technical Analysis: Technical analysis assumes that all relevant market information is reflected in stock prices. Analysts rely on tools like Moving Averages, Relative Strength Index (RSI), Bollinger Bands, and MACD to identify trading signals. Murphy (1999) and Edwards & Magee (2018) are foundational sources in this domain. Despite criticism from the Efficient Market Hypothesis (Fama, 1970), empirical evidence by Brock et al. (1992) supports the efficacy of certain technical strategies.

Fundamental Analysis: Fundamental analysis focuses on evaluating intrinsic value by examining financial ratios such as Price-to-Earnings (P/E), Earnings per Share (EPS), Return on Equity (ROE), and Debt-to-Equity ratio. Graham & Dodd (1934) pioneered this approach. Studies by Chen, Roll, & Ross (1986) affirm the influence of macroeconomic indicators like GDP growth and interest rates.

Comparative Studies: There is no clear winner between the two methods. Malkiel (2003) favors index investing, arguing that neither method consistently outperforms the market. However, Piotroski (2000) and Park & Irwin (2007) found evidence of outperformance under specific conditions.

Hybrid Approaches: Recent studies (Zhu & Zhou, 2009; Fischer & Krauss, 2018) highlight the success of combining both methods. Machine learning algorithms also show promise in integrating technical and fundamental data.

Behavioral Finance: Investor psychology plays a significant role in decision-making. Technical analysis often captures behavioral trends such as herding, while fundamental investors are susceptible to biases like anchoring and confirmation bias (Barberis et al., 1998).

3. Research Methodology

Research Design: A descriptive-comparative research design was employed. The study used both primary and secondary data.

Data Collection:

- Secondary Data: Stock prices, financial statements, and market indicators for five NSE-listed companies from 2019 to 2024.
- Primary Data: Survey responses from 50 retail investors and interviews with 5 financial analysts.

Sampling Technique: Purposive sampling was used to select:

- 5 Companies from sectors: Banking, FMCG, IT, Pharma, Infrastructure
- 50 Retail investors (via online forums and brokerage platforms)
- 5 Analysts registered with SEBI

Tools Used:

- Quantitative: Sharpe Ratio, Regression, Correlation Analysis
- Qualitative: Thematic analysis for interviews
- Software: MS Excel, SPSS, Python

Ethical Considerations: All participants gave informed consent. Anonymity and confidentiality were maintained throughout.

4. Results and Analysis

Key Findings from Survey (n = 50):

- **Experience:** 60% have less than 1 year of investing experience
- **Preferred Method:** 44% use both technical and fundamental analysis
- **Investment Horizon:** 80% invest short- to medium-term
- **Platform Use:** Upstox (52%), Groww (34%), Zerodha (20%)
- **Analysis Reasoning:** Long-term value (52%) and quick returns (26%)
- **Review Frequency:** 42 check portfolios daily or weekly
- **Confidence Level:** 37% feel very confident in their analysis method

Interpretation: The data suggest that while retail investors actively engage with the market, many are still in the learning phase. Mid-cap stocks are the most popular, indicating a moderate risk appetite. There is significant interest in hybrid strategies but limited understanding, highlighting a need for better education.

5. Discussion

The preference for hybrid strategies reflects a desire to combine the long-term reliability of fundamental analysis with the short-term precision of technical tools. However, limited investor confidence indicates gaps in understanding. The use of platforms like Upstox and Groww further confirms a trend toward simplified, mobile-based investing. These platforms should consider integrating hybrid tools and educational resources.

The findings align with prior literature emphasizing the effectiveness of integrated strategies (Zhu & Zhou, 2009) and support the need for behaviorally-informed financial education (Barberis et al., 1998).

6. Conclusion

Retail investors in India are increasingly active but lack deep knowledge of analytical tools. A significant portion relies on both technical and fundamental analysis, but their confidence does not match their ambition. Hybrid strategies appear to be the future of stock market investing. However, to fully leverage them, investors require targeted education and better analytical platforms.

7. Recommendations

1. **Financial Literacy Campaigns:** Offer online courses and webinars focused on both analysis types.
2. **Hybrid Analysis Tools:** Develop dashboards that combine fundamental ratios and technical indicators.
3. **Segmented Support:** Offer simplified guidance for beginners and in-depth insights for experienced users.
4. **Gamified Learning:** Use quizzes, badges, and challenges to encourage daily learning.
5. **Expert-Moderated Forums:** Create communities within apps moderated by SEBI-certified professionals.

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