



International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 8.206

Volume 9, Issue 4, April 2026



International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Technical vs. Fundamental Analysis: Investor Perspectives in the Indian Stock Market

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ABSTRACT: Investment decisions in today's financial markets require more than intuition—they rely on structured analytical approaches. This study explores how retail investors in Bangalore use technical and fundamental analysis while making stock market decisions. Data was collected from 150 respondents using a structured questionnaire with a five-point Likert scale, and analyzed using statistical tools such as regression, correlation, t-tests, and ANOVA. The results show that both technical and fundamental analysis significantly influence investment decisions. However, fundamental analysis has a stronger impact, as supported by regression results and higher mean scores. Investors showed a clear preference for fundamental analysis over technical analysis. Additionally, factors like financial literacy, investment experience, and risk tolerance were found to have a strong relationship with decision-making, highlighting the importance of knowledge.

Interestingly, no major differences were found across demographic factors such as age, gender, or income, suggesting that investment behaviour is driven more by understanding and skills rather than personal background. Overall, the findings support behavioural finance concepts and suggest that investors do not rely solely on market efficiency. The study offers useful insights for investors, financial advisors, and policymakers in India's growing retail investment space.

KEYWORDS: Technical Analysis, Fundamental Analysis, Investor Behaviour, Investment Decision-Making, Behavioural Finance, Indian Stock Market

I. INTRODUCTION

Investment in financial markets has emerged as a central avenue for wealth creation in modern economies, and nowhere is this transformation more visible than in India. Over the past two decades, the convergence of digital infrastructure, rising disposable incomes, increasing financial literacy, and the proliferation of user-friendly online trading platforms has led to an unprecedented surge in retail investor participation in Indian capital markets. This democratization of investing has simultaneously enriched opportunity and complicated decision-making, compelling investors to adopt structured analytical approaches rather than relying solely on instinct or peer recommendation.

Stock market investment is inherently embedded in uncertainty. Security prices are shaped by an intricate interplay of macroeconomic conditions, firm-level performance, geopolitical events, and the aggregate psychology of market participants. Navigating this complexity demands that investors employ rigorous, evidence-based analytical frameworks. Two such frameworks—technical analysis and fundamental analysis—have historically dominated the landscape of individual investor practice and academic discourse alike.

Technical analysis proceeds from the premise that all relevant market information is already incorporated into security prices, and that historical price patterns, trading volumes, and market trends tend to repeat over time as a consequence of consistent investor behavior. Practitioners employ an array of charting tools and statistical indicators—including moving averages, the Relative Strength Index (RSI), Bollinger Bands, and MACD—to identify recurring price formations and anticipate short-term directional movements. This approach is particularly favored by active traders and short-horizon market participants who seek to capitalize on price momentum and temporal inefficiencies.

Fundamental analysis, is based on the idea that a stock's true value is reflected in its price over the long term, even if short-term fluctuations occur. Investors using this approach evaluate companies through financial statements,



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profitability, ratios like P/E and ROE, and overall economic conditions. It is mainly preferred by long-term investors who focus on steady wealth creation and are comfortable handling short-term market volatility. With the rise of real-time data, social media, and modern trading platforms, investors today are exposed to multiple ways of analyzing the market. Some prefer technical analysis for its simplicity and quick decision-making, while others rely on fundamental analysis for its depth and long-term focus. Many investors also use a mix of both, though often without a clear strategy. This creates important questions about how investors choose their approach and what factors influence their decisions.

In India, these questions are especially relevant due to the diverse nature of retail investors. New and younger investors often lean towards technical analysis because it is easy to understand, while more experienced investors tend to prefer fundamental analysis for long-term goals. However, there is limited research on how and why investors make these choices, particularly in the Indian context.

This study aims to fill that gap by examining investor awareness, preferences, and the factors influencing their analytical choices in Bangalore. By combining statistical analysis with behavioural finance concepts, the study provides insights that can help investors, financial advisors, brokerage firms, and policymakers make more informed decisions and improve financial participation.

II. LITERATURE REVIEW

The scholarly discourse on technical and fundamental analysis spans theoretical foundations and behavioral dimensions. Park and Irwin (2018) conducted a meta-analytic review of over 90 studies and found that technical trading rules yield predictive power in specific markets—particularly emerging ones though results remain inconsistent across developed markets, supporting neither universal utility nor blanket dismissal of the method. Fama (2018), grounding his analysis in the Efficient Market Hypothesis (EMH), argued that consistent abnormal returns are difficult to achieve using either method in informationally efficient markets. Conversely, Lo et al. (2019) demonstrated through non-parametric statistical techniques that select technical patterns do exhibit statistically significant predictive value under defined conditions, lending scientific credibility to chart-based analysis.

From a behavioral perspective, Barberis and Thaler (2018) established that investor irrationality—manifested as overconfidence and herd behavior systematically influences market outcomes and challenges the rational agent assumptions underlying EMH. Kahneman and Tversky (2022) extended this understanding through Prospect Theory, positing that investors evaluate gains and losses asymmetrically, exhibiting risk aversion in gain domains and risk-seeking in loss domains. Pompian (2020) and Nofsinger (2021) further catalogued how biases such as loss aversion, anchoring, and availability heuristic distort investment decisions, while Baker and Wurgler (2021) demonstrated that investor sentiment materially affects stock valuations and returns. In the Indian context, Sahoo and Dash (2021) found that retail investors exhibiting elevated overconfidence and herding tendencies were more likely to rely on technical indicators—a finding linking behavioral biases directly to analytical preference. Singh and Yadav (2022) observed that technological accessibility and real-time charting tools significantly accelerated the adoption of technical analysis among younger investors, highlighting the role of platform design in shaping analytical behavior. Mehta and Jain (2022) identified a substantial gap between investors' usage of financial ratios and their conceptual understanding of intrinsic valuation, indicating that the deployment of fundamental tools does not always correspond to analytical comprehension.

Iyer and Kulkarni (2023) documented that investors tend to shift toward technical analysis during periods of market volatility, reflecting a preference for its shorter time horizons when uncertainty is elevated. Khandelwal and Sharma (2023) found that investor confidence in fundamental analysis strengthens during stable market conditions, suggesting a contextual dimension to analytical preference. Shinde and Kulkarni (2024) reported that hybrid strategy users—those combining both analytical methods—exhibited higher decision confidence and lower post-decision regret, supporting the practical value of integrated approaches. Verma and Singh (2024) and Malhotra and Bhatia (2020) both documented knowledge deficits regarding the technical tools investors routinely employ, reinforcing the centrality of financial literacy to analytical effectiveness. Globally, Devita et al. (2024) synthesized empirical evidence to conclude that fundamental analysis is more appropriately suited to long-term investment decisions while technical analysis offers advantages in short-term trading contexts, and that combined approaches yield superior decision accuracy. Chen (2025) demonstrated through quantitative modeling that integrating technical indicators, fundamental signals, and investor sentiment within machine learning frameworks significantly improved trading profitability and stability. Jegadeesh and



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Titman (2020) validated the momentum hypothesis—that past performance predicts near-term future returns lending indirect support to trend-following technical strategies. Shiller (2022) and Kumar and Reddy (2020) further reinforced the behavioral finance perspective by showing that retail investors are prone to speculative behavior and emotional decision-making, underscoring the need for structured analytical frameworks. Collectively, this body of literature establishes a clear foundation: both analytical methods hold empirical and practical relevance; investor preferences are shaped by psychological, experiential, and contextual factors; and the Indian retail investor context remains an important but underexplored domain. This study addresses these gaps with a focus on empirical measurement of investor perspectives and the determinants of analytical choice.

III. METHODOLOGY

Research Design and Scope

The study adopts a **descriptive and analytical research design** underpinned by a **quantitative approach**. Primary data were collected through a structured questionnaire distributed via Google Forms to retail investors residing in Bangalore a city selected for its high concentration of actively trading retail investors and broad access to digital investment platforms. The scope is explicitly limited to individual retail investors and to the two primary analytical frameworks under investigation; advanced algorithmic or machine-learning-based strategies are excluded.

Sampling

A **convenience sampling** technique was employed. The target population comprised salaried employees, self-employed professionals, students, and business owners with active stock market participation. The final sample consisted of **150 respondents**, a size considered adequate for the statistical techniques employed.

Variables

- **Independent Variables:** Technical Analysis factors (chart usage, indicator reliance, trend-based decision-making) and Fundamental Analysis factors (financial statement assessment, intrinsic value evaluation, ratio analysis).
- **Dependent Variable:** Investment Decision-Making behavior (stock selection, investment timing, decision confidence, overall strategy).
- **Moderating Variables:** Financial literacy, investment experience, risk tolerance, and investment horizon.

Measurement

All construct items were measured using a **five-point Likert scale** (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire comprised 25 items distributed across four constructs.

Research Hypotheses

- **H1:** Technical analysis has a significant influence on investor decision-making.
- **H2:** Fundamental analysis has a significant influence on investor decision-making.
- **H3:** There is a significant difference in investor preference between technical analysis and fundamental analysis.

Data Analysis Techniques

Data were analyzed using Python-based statistical tools. The analytical sequence encompassed: (1) descriptive statistics and demographic profiling; (2) Cronbach's Alpha reliability analysis; (3) Pearson correlation analysis; (4) multiple regression analysis; (5) independent sample t-tests; (6) one-way ANOVA; and (7) paired mean comparison testing.

IV. DATA ANALYSIS AND IMPLICATIONS

1. Demographic Profile

Table 1: Age Distribution of Respondents

Age Group	Frequency	Percentage (%)
Below 25	25	16.7%
25–35	28	18.7%



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36–45	27	18.0%
46–55	40	26.7%
Above 55	30	20.0%
Total	150	100%

The sample skews toward mature investors, with 46.7% of respondents aged 46 and above—a distribution that enhances the reliability of responses concerning investment behavior and analytical preference.

Table 2: Gender and Income Distribution

Category	Group	Frequency	Percentage (%)
Gender	Male	52	34.7%
	Female	47	31.3%
	Prefer not to say	51	34.0%
Monthly Income	Below ₹25K	45	30.0%
	₹25K–₹50K	34	22.7%
	₹50K–₹1L	37	24.7%
	Above ₹1L	34	22.7%

Gender representation is near-equal across all three categories, minimizing demographic bias. Income distribution is reasonably uniform, ensuring coverage of diverse financial capacities.

2. Reliability Analysis

Table 3: Cronbach's Alpha Reliability Results

Construct	No. of Items	Cronbach's Alpha	Interpretation
Technical Analysis	7	0.925	Excellent Reliability
Fundamental Analysis	7	0.912	Excellent Reliability
Investment Decision	6	0.800	Good Reliability
Influencing Factors	5	0.784	Acceptable Reliability
Overall Scale	25	0.931	Excellent Reliability

All constructs exceed the acceptable threshold of 0.70. The overall scale Cronbach's Alpha of 0.931 confirms excellent internal consistency, validating the questionnaire as a reliable measurement instrument and supporting the use of all items in subsequent analysis.

3. Correlation Analysis

Table 4: Pearson Correlation Matrix

Variable	Technical Analysis	Fundamental Analysis	Investment Decision	Influencing Factors
Technical Analysis	1.000	0.017	0.529	0.627
Fundamental Analysis	0.017	1.000	0.745	0.615



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Investment Decision	0.529	0.745	1.000	0.867
Influencing Factors	0.627	0.615	0.867	1.000

Technical analysis demonstrates a **moderate positive correlation** ($r = 0.529$) with investment decisions, while fundamental analysis exhibits a **strong positive correlation** ($r = 0.745$), indicating greater alignment with decision-making behavior. The near-zero correlation between the two analytical methods ($r = 0.017$) confirms that they operate as independent constructs. The very strong correlation of influencing factors with investment decisions ($r = 0.867$) underscores the dominant role of financial literacy, experience, and risk tolerance in shaping investor behavior. Both H_{01} and H_{02} are rejected; H_{11} and H_{12} are accepted.

4. Multiple Regression Analysis

Table 5: Regression Coefficients

Predictor Variable	Coefficient (β)	p-value	Decision
Technical Analysis	0.3774	< 0.001	Significant
Fundamental Analysis	0.5836	< 0.001	Significant

Table 6: Model Summary

R	R ²	Adjusted R ²	F-value	Significance
0.906	0.8208	0.8184	336.74	< 0.001

The regression model explains **82.08% of the variance** in investment decision-making ($R^2 = 0.8208$)—an exceptionally strong fit for social science research. Both predictors are statistically significant ($p < 0.001$). Fundamental analysis ($\beta = 0.5836$) exerts a stronger influence than technical analysis ($\beta = 0.3774$), confirming H_1 and H_2 . The highly significant F-value ($p < 0.001$) validates the overall model.

5. Gender Differences (Independent Sample T-Test)

Table 7: T-Test Results

Variable	p-value	Decision
Investment Decision	0.5232	Not Significant
Technical Analysis	0.3785	Not Significant
Fundamental Analysis	0.1745	Not Significant

No statistically significant gender differences were found across any construct (all $p > 0.05$). The null hypothesis is accepted, indicating that analytical preference and investment behavior are independent of gender.

6. Demographic Differences (One-Way ANOVA)

Table 8: ANOVA Results

Comparison	p-value	Decision
Age → Investment Decision	0.2311	Not Significant
Experience → Technical Analysis	0.4301	Not Significant
Income → Investment Decision	0.0999	Not Significant
Age → Fundamental Analysis	0.4702	Not Significant



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No statistically significant differences were observed across age, income, or experience groups (all $p > 0.05$). This finding suggests that investment behavior is knowledge-driven rather than demographically determined, a result that challenges conventional segmentation assumptions.

7. Investor Preference: Mean Comparison (H3 Testing)

Table 9: Mean Comparison – Technical vs. Fundamental Analysis

Variable	Mean	t-value	p-value	Decision
Technical Analysis	4.061	-3.3199	0.001	Significant
Fundamental Analysis	4.260	—	—	—

The mean score for fundamental analysis (4.260) is significantly higher than that for technical analysis (4.061). The paired t-test yields $p = 0.001$, confirming a statistically significant preference for fundamental analysis. H3 is accepted: investors meaningfully and significantly prefer fundamental analysis over technical analysis as an investment decision tool.

V. CONCLUSION

This study provides robust empirical evidence that both technical and fundamental analysis are significant determinants of investment decision-making among Indian retail investors, with fundamental analysis emerging as the stronger and more preferred framework. The findings support all three research hypotheses and contribute to behavioral finance literature by demonstrating that analytical competence, rather than demographic identity, is the primary driver of investment behavior. The results challenge narrow interpretations of the Efficient Market Hypothesis while affirming the relevance of behavioral finance, prospect theory, and the Adaptive Market Hypothesis in understanding retail investor conduct. For practitioners, the study advocates for integrated analytical approaches supported by ongoing financial education as the foundation of rational, value-oriented investment practice.

VI. FUTURE SCOPE FOR RESEARCH

Several avenues for advancing this line of inquiry merit attention. Expanding the sample geographically—across metropolitan and non-metropolitan regions of India, and ultimately across emerging markets more broadly—would substantially improve the generalizability of findings and illuminate regional variation in analytical preference. Increasing sample sizes beyond 150 would support more granular sub-group analysis and longitudinal designs capable of tracking how investor preferences evolve in response to shifting market conditions.

Future work should systematically incorporate behavioral bias constructs—including overconfidence, anchoring, representativeness heuristic, and loss aversion—as measured variables, allowing direct testing of their mediating or moderating roles in analytical preference formation. This would bridge the gap between behavioral finance theory and empirical investment analysis research.

The emergence of artificial intelligence, machine learning, and algorithmic trading frameworks represents another critical frontier. Comparative studies examining how investors perceive and adopt AI-augmented analytical tools relative to traditional technical and fundamental methods would yield timely insights into evolving investor behavior. The IJFMR (2026) study's use of Support Vector Regression to integrate both analytical approaches points toward a productive direction for quantitative researchers.

Longitudinal panel studies would enable examination of how investor analytical preferences shift across market cycles—bull markets, bear markets, and periods of high volatility—providing dynamic insight unavailable from cross-sectional data. Finally, intervention-based experimental designs testing the effectiveness of targeted financial education programs on analytical preference and investment outcomes would have direct policy relevance, providing evidence for the design of investor awareness initiatives at scale.



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