

Investor Psychology, Market Sentiment and Stock Price Volatility: A Behavioural Finance Perspective

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Abstract: Traditional financial theory is substantially based on the assumption that investors behave rationally, process available information efficiently, maximise utility, and make investment decisions after objectively evaluating risk and return. Financial markets, however, frequently display patterns such as excessive trading, speculative bubbles, panic selling, momentum, overreaction, underreaction, volatility and persistent investment mistakes that cannot always be explained adequately through conventional rational-choice models. Behavioural finance emerged as an interdisciplinary approach combining finance, economics, psychology and decision science to explain how cognitive limitations, emotions, social influence, reference points and psychological biases affect financial decision-making.

This study examines the principal behavioural biases influencing investment decisions and stock-price movements, particularly in the Indian equity market. Major biases discussed include overconfidence, loss aversion, disposition effect, herd behaviour, anchoring, representativeness, availability bias, confirmation bias, self-attribution, regret aversion, mental accounting, recency bias and fear of missing out. These tendencies affect security selection, trading frequency, portfolio concentration, willingness to realise losses and responses to market information. When similar biases operate across sufficiently large groups of investors, they may also affect trading volume, price momentum, reversals, market volatility and temporary deviations of prices from fundamental value.

The Indian equity market provides a particularly important environment for behavioural analysis because rapid digitalisation, mobile trading platforms, low-cost brokerage, simplified onboarding and increased retail participation have transformed the investment landscape. Official securities-market evidence concerning substantial losses among many individual intraday and equity-derivatives traders reinforces the need to understand the psychological factors associated with speculative participation. The study adopts a descriptive, analytical and evidence-based synthesis rather than presenting fabricated primary data. It concludes that behavioural finance complements, rather than completely rejects, conventional market-efficiency theory. It further recommends that investor education move beyond conventional financial literacy to include behavioural literacy so that investors understand their own psychological vulnerabilities and regulators and intermediaries can design more effective investor-protection mechanisms.

Keywords: Behavioural Finance; Behavioural Biases; Investor Psychology; Indian Equity Market; Stock Prices; Overconfidence; Loss Aversion; Herd Behaviour; Disposition Effect; Market Sentiment; Retail Investors; Market Efficiency; Investment Decision-Making.

1. INTRODUCTION

Financial markets perform fundamental economic functions by mobilising savings, directing capital towards productive uses, facilitating price discovery and enabling investors to participate in corporate growth. Traditional financial economics explains these functions largely through theories based on rational investors and informationally efficient markets. Investors are normally assumed to evaluate available information objectively, estimate probable returns and risks, and make decisions intended to maximise economic utility. The Efficient Market Hypothesis became one of the most influential expressions of this framework because it proposed that competitive financial markets incorporate available information into security prices, thereby making persistent abnormal risk-adjusted returns difficult to achieve merely by using information that is already known.

The rational framework remains valuable because it provides a benchmark for portfolio construction, asset valuation and investment strategy. Nevertheless, actual financial markets frequently exhibit behaviour inconsistent with an assumption of perfect rationality. Episodes of speculative enthusiasm, excessive optimism, panic, overreaction, underreaction, momentum and unusually high trading activity demonstrate that investment decisions are not always the mechanical consequence of fundamental information. Investors receiving similar information may reach different conclusions because their judgments are influenced by previous experiences, beliefs, emotions, reference points, social networks and psychological shortcuts.

Behavioural finance was developed to analyse such departures from strict rationality. It does not contend that investors behave irrationally in every situation. Instead, it recognises that investment decisions take place under uncertainty, incomplete information, limited attention and cognitive constraints. Investors therefore rely upon heuristics or mental shortcuts. These shortcuts can be useful in simplifying complicated decisions, yet they may generate systematic errors. The work of Tversky and Kahneman demonstrated that decision-making under uncertainty can be influenced by representativeness, availability and anchoring, thereby challenging the assumption that judgmental errors are always random and cancel one another when aggregated across investors.

Prospect theory subsequently strengthened behavioural finance by demonstrating that people evaluate risky outcomes relative to reference points rather than solely in terms of final wealth.

Individuals are generally more sensitive to losses than to equivalent gains. Consequently, an investor may display risk aversion while protecting gains but become willing to assume greater risk when attempting to avoid or recover losses. Such behaviour has direct implications for decisions concerning whether to buy, sell or continue holding securities.

Behaviour becomes particularly significant at market level when similar psychological tendencies are correlated across investors. The overconfidence of a single participant is unlikely to alter the price of a heavily traded share. However, if many investors simultaneously become overconfident, extrapolate recent returns, imitate others, overreact to highly visible news or delay selling loss-making securities, the combined effect can influence market liquidity, volume, volatility and prices.

The Indian securities market offers an especially significant context for behavioural analysis. Over the last decade, electronic KYC processes, inexpensive brokerage, smartphones, internet penetration, app-based investing and easier access to financial information have substantially reduced barriers to participation. These developments have democratised securities-market participation and promoted financial inclusion. At the same time, highly accessible digital trading can enable psychologically motivated decisions to be converted into transactions almost immediately.

Investors today receive continuous price updates, online commentary, social-media recommendations, financial-influencer content and platform notifications. Such an environment may shorten investment horizons and blur the distinction between long-term investment and short-term speculation. Recent Indian regulatory evidence concerning extensive losses among individual intraday and equity-derivatives traders makes behavioural questions concerning confidence, risk perception, loss chasing, herding and speculative motivations especially relevant.

The central proposition of the study is therefore that share prices remain fundamentally related to expected earnings, cash flows, interest rates, risk and economic conditions, but the process through which information is translated into prices is mediated by human behaviour. Psychology can influence the timing, magnitude and persistence of market responses. Behavioural finance thus supplements rather than replaces conventional financial analysis.

2. HISTORICAL BACKGROUND OF BEHAVIOURAL FINANCE

The historical emergence of behavioural finance is closely associated with the development and limitations of conventional financial economics. Twentieth-century economic theory increasingly relied upon formal rational-choice models in which individuals were assumed to possess consistent preferences, assess probabilities systematically and choose alternatives according to expected utility. In finance, such assumptions contributed to modern portfolio theory, asset-pricing models and theories of market equilibrium.

The rational approach was supported by the argument that arbitrage would correct mistakes made by irrational investors. Even when some investors misinterpreted information, professionally informed investors could theoretically trade against them, causing security prices to return towards fundamental value. Individual psychological errors could therefore affect personal wealth without necessarily causing systematic market-wide mispricing.

A major development was Eugene Fama's formulation of the Efficient Market Hypothesis. The framework distinguishes among weak, semi-strong and stronger forms of informational efficiency according to the information believed to be reflected in securities prices. Its broader implication is that competition among profit-seeking market participants should cause exploitable information to be rapidly incorporated into prices. If publicly available information has already been impounded into market prices, consistently earning abnormal returns by simply analysing the same information becomes extremely difficult.

Importantly, efficient-market theory did not necessarily require every market participant to behave perfectly rationally. Market efficiency could theoretically continue if individual mistakes were independent and therefore offset one another or if informed arbitrageurs eliminated mispricing. Behavioural finance challenged both assumptions. Psychological mistakes can become correlated, while arbitrage may itself be costly and risky.

The psychological foundations of behavioural finance were substantially strengthened by Tversky and Kahneman's research concerning judgment under uncertainty. They demonstrated that individuals often rely on representativeness, availability and anchoring. Representativeness involves estimating probability based upon resemblance to familiar patterns rather than proper consideration of statistical base rates. Availability causes easily recalled or highly salient information to influence probability judgments disproportionately.

Anchoring occurs when judgments remain excessively influenced by an initial reference value even after circumstances have changed.

These concepts are directly applicable to financial decision-making. Investors constantly forecast uncertain outcomes from imperfect information. They may rely too heavily on a company's recent performance, memorable market events or historical prices instead of undertaking comprehensive forward-looking evaluation.

Prospect theory, introduced by Kahneman and Tversky in 1979, represented a further departure from expected-utility theory as a description of actual behaviour. It established that individuals evaluate gains and losses relative to reference points and generally experience losses more intensely than equivalent gains. Applied to investing, the purchase price of a share may become psychologically important even when it should no longer influence the economic decision. An investor may sell a profitable stock to obtain the satisfaction of a realised gain but retain a deteriorating investment because selling would force recognition of failure.

Research during the 1980s increasingly connected psychological theories with observed market behaviour. Robert Shiller questioned whether stock-price volatility could always be justified by subsequent movements in fundamentals. De Bondt and Thaler investigated stock-market overreaction and found return patterns indicating that previous losers could subsequently outperform previous winners. Such findings were consistent with the possibility that investors become excessively optimistic about recent winners and disproportionately pessimistic about recent losers, producing temporary mispricing followed by reversal.

Shefrin and Statman developed the disposition effect to describe investors' tendency to realise profitable securities too quickly while retaining losing investments too long. The concept connected prospect theory directly to trading decisions. It demonstrated that economically similar situations may receive different treatment depending upon whether they are psychologically framed as gains or losses.

The development of behavioural finance progressed further through the concept of limits to arbitrage. De Long, Shleifer, Summers and Waldmann demonstrated theoretically how noise traders could influence market prices and impose risks upon sophisticated arbitrageurs. Mispricing could therefore persist because rational investors might correctly identify an

overpriced asset while remaining unable or unwilling to trade aggressively against it when sentiment could become even more extreme before correcting.

Behavioural researchers also demonstrated that psychological biases reinforce one another. Overconfidence may cause investors to overestimate their forecasting ability. Self-attribution then allows successful investments to be interpreted as evidence of skill while failures are blamed on external forces. Confirmation bias encourages selective acceptance of information that supports existing beliefs, while anchoring slows adjustment to new evidence. Herd behaviour adds social reinforcement. Rising prices consequently appear to validate optimism, attract additional investors and generate further appreciation.

During the late 1990s, behavioural finance increasingly developed formal asset-pricing theories. Barberis, Shleifer and Vishny created models capable of generating market underreaction and overreaction from psychologically motivated belief formation. Daniel, Hirshleifer and Subrahmanyam connected overconfidence and self-attribution to price anomalies, while Hong and Stein examined momentum, gradual information diffusion and eventual overreaction. These contributions demonstrated that behavioural finance could move beyond anecdotal psychology and generate rigorous, testable financial theories.

Empirical research based upon actual investor accounts provided additional support. Odean examined investors' reluctance to realise losses. Barber and Odean subsequently demonstrated that frequent traders tended to experience inferior net performance, providing an important empirical connection between overconfidence, excessive turnover and investor welfare.

The history of behavioural finance thus reflects a movement from merely identifying anomalies to specifying psychological mechanisms, developing formal models and testing behavioural hypotheses with transaction-level data.

Development in India

The development of behavioural finance in emerging markets such as India requires consideration of local institutional and technological conditions. India's transition from physical securities and broker-dominated markets towards dematerialised securities, electronic exchanges and online brokerage dramatically altered the structure of investment participation. Improved trading infrastructure increased transparency and reduced many operational difficulties associated with conventional securities transactions.

A subsequent transformation occurred through smartphone-based retail investing. Investors who once relied primarily upon newspapers, brokers and periodic corporate reports now obtain continuous financial information and execute transactions instantly. Yet increasing information availability does not remove cognitive limitations. Instead, it may create information overload. Investors can access enormous quantities of material but remain limited in their ability to assess reliability and significance.

Digitalisation lowers transaction friction, accelerates the translation of emotions into market orders, encourages frequent portfolio monitoring and increases the prominence of peer opinions and social-media narratives. Interactive interfaces can also make trading psychologically stimulating even when repeated transactions are not financially advantageous.

Indian research has identified several important behavioural tendencies. Studies of investors in Delhi-NCR found that biases differ according to demographic and trading characteristics, with overconfidence appearing especially important. Research on self-attribution and investor rationality has also established the relevance of behavioural explanations. At the same time, some evidence suggests investors can adapt after market losses, demonstrating that behavioural finance should not categorise people permanently as either rational or irrational.

Research on Indian herding illustrates this complexity. Studies of BSE-500 data have not identified universal conventional herding under all conditions; evidence of movement away from consensus has also been reported. This finding demonstrates that behavioural hypotheses must be empirically tested rather than assumed merely because the market is classified as emerging.

The increasing participation of individuals in leveraged and short-horizon derivatives markets adds another dimension. Derivatives perform legitimate hedging and risk-management functions, but leveraged speculative trading can magnify the financial consequences of overconfidence, probability errors and loss chasing. Regulatory evidence indicating widespread losses among many individual participants does not prove irrationality, but it justifies investigation into expectations, risk perception and behavioural motivations.

3. CONCEPTUAL AND THEORETICAL FRAMEWORK

Behavioural finance rests primarily upon bounded rationality, heuristic decision-making, prospect theory and limits to arbitrage.

- **Bounded Rationality:** Investors cannot realistically process every factor that may affect a company's future value. A comprehensive analysis could require evaluation of financial statements, industry developments, inflation, interest rates, exchange rates, corporate governance, competition, technological developments and global economic conditions. Cognitive and time constraints therefore compel investors to simplify complex choices.
- **Heuristics:** Heuristics are mental shortcuts used to simplify uncertain decisions. They are not inherently irrational because they can increase decision-making efficiency. Problems arise when investors rely on inappropriate shortcuts. For example, popularity of a company's products may be mistaken for evidence that its shares are attractively valued, while recent price appreciation may be interpreted as proof that appreciation will continue.
- **Prospect Theory:** Prospect theory explains the reference-dependent and emotional character of investment choices. Investors frequently compare present share prices with their original purchase price. The position is consequently viewed as a gain or loss rather than evaluated entirely according to future prospects. Loss aversion can therefore encourage investors to retain a fundamentally deteriorating investment simply because selling below the purchase price would crystallise a loss.
- **Limits to Arbitrage:** Psychological bias would have little market-wide significance if sophisticated investors could instantaneously correct every mispricing. In reality, arbitrage involves timing risk, fundamental uncertainty, financing constraints and potentially costly short selling. Market sentiment can remain extreme for longer than professional investors expect. Behavioural mispricing may consequently persist for meaningful periods.

4. MAJOR BEHAVIOURAL BIASES AFFECTING INVESTMENT DECISIONS

4.1 Overconfidence Bias

Overconfidence is an exaggerated belief in one's own knowledge, information or forecasting ability. Overconfident investors underestimate uncertainty and believe their personal judgments are more precise than they actually are.

In securities markets, overconfidence commonly results in excessive trading, inadequate diversification and concentrated investments. Successful trades may be attributed to skill even when favourable market conditions were primarily responsible. This perceived ability encourages greater risk-taking and more frequent transactions.

At aggregate level, overconfidence may increase market turnover and create short-term demand pressure when investors act strongly upon subjective signals. Empirical evidence linking heavy trading with poorer net investment performance provides significant support for the economic importance of overconfidence.

4.2 Loss Aversion

Loss aversion is the tendency to experience the psychological effect of a loss more strongly than the satisfaction produced by an equivalent gain. Before investing, loss aversion can make individuals excessively cautious. After prices decline, however, the same investor may become more risk-seeking because selling would require recognition of a loss. Collectively, reluctance to realise losses can postpone selling pressure. During severe market downturns, however, prolonged losses may eventually produce fear-driven liquidation and accelerate price declines.

4.3 Disposition Effect

The disposition effect describes the tendency to sell winners too early and retain losers too long. Suppose an investor buys a share for ₹500. If the price rises to ₹600, selling provides psychological satisfaction. If the price falls to ₹400, the investor may continue holding it because selling converts a paper loss into a realised loss. The original purchase price consequently becomes more important psychologically than the forward-looking economic question of whether ₹400 represents an attractive valuation. At aggregate level, such behaviour can influence trading patterns and the speed of price adjustment.

4.4 Herd Behaviour

Herd behaviour occurs when individuals imitate the investment decisions of others rather than undertaking independent analysis. Such imitation can sometimes be rational when investors believe other participants possess superior information. It becomes problematic when individuals follow prevailing market activity without adequate consideration of fundamentals.

Herding may create feedback loops. Price appreciation attracts new buyers who interpret the rise as confirmation of positive information. Their purchases increase prices further and attract additional participants. Similar behaviour can accelerate declining markets. Nevertheless, Indian evidence does not demonstrate universal herding, reinforcing the importance of contextual empirical investigation.

4.5 Anchoring Bias

Anchoring causes investors to rely excessively upon an initial value such as a purchase price, historical high, IPO price, analyst target or 52-week high. An investor buying a stock for ₹1,000 may continue to regard that price as its correct value even when business conditions deteriorate. A fall to ₹700 can therefore be interpreted automatically as a buying opportunity although revised fundamentals may justify a substantially lower valuation. Anchoring can slow adjustment to new information.

4.6 Representativeness Bias

Representativeness causes investors to predict future outcomes according to superficial similarities with recent patterns. A company reporting several quarters of strong growth may be categorised permanently as a superior company, leading investors to extrapolate historical performance too far into the future.

This tendency can contribute to excessive valuations in fashionable sectors and excessive pessimism towards temporarily unpopular securities.

4.7 Availability Bias

Availability bias causes memorable, recent or frequently repeated information to receive disproportionate weight. Market crashes, prominent IPOs, viral social-media discussions and sensational corporate announcements may consequently dominate investors' perceptions.

Highly visible securities can appear more attractive simply because investors encounter information about them repeatedly, while fundamentally stronger but less prominent securities receive inadequate attention.

4.8 Confirmation Bias

Confirmation bias causes investors to search for, accept and remember information supporting beliefs they already hold while discounting contradictory evidence. An investor strongly convinced about a company may repeatedly follow positive commentators while dismissing criticism.

The bias is especially harmful because successful investment requires continuous revision of expectations when new information becomes available.

4.9 Self-Attribution Bias

Self-attribution occurs when investors credit success to personal ability but blame losses on external circumstances. In a generally rising market, portfolio gains may therefore be interpreted as evidence of personal stock-picking skill. This tendency reinforces overconfidence, increasing subsequent trading activity and risk-taking.

4.10 Regret Aversion

Regret aversion is the desire to avoid emotional discomfort associated with making a decision that subsequently proves incorrect. Investors may retain losing securities, avoid unfamiliar opportunities or follow popular choices because making the same mistake as the majority feels less painful than making an independent mistake. Regret aversion therefore frequently interacts with herding.

4.11 Mental Accounting

Mental accounting involves dividing wealth into separate psychological categories rather than treating overall financial resources as one integrated portfolio. Investors may classify salary savings as conservative money but recent market profits as funds that can be risked aggressively. Such segmentation can produce inconsistent risk-taking and inefficient asset allocation.

4.12 Recency Bias

Recency bias gives disproportionate importance to recent events. Following extended market appreciation, investors may assume high returns will continue indefinitely. After a crash, they

may expect continuing declines despite improving fundamentals. Recency can reinforce momentum in rising markets and excessive pessimism following downturns.

4.13 Fear of Missing Out

Fear of missing out, commonly called FOMO, has become particularly important in digitally connected markets. Investors observing rapidly rising securities and public accounts of others' profits may abandon valuation discipline because they fear being excluded from potential gains. FOMO combines recency, social comparison, regret aversion and herd behaviour, making it particularly powerful within social-media-driven investment environments.

5. RESEARCH OBJECTIVES

The study seeks to identify and analyse major behavioural influences upon equity-market participation. Its principal objectives are to examine the cognitive and emotional biases affecting investment decisions; determine how these biases influence trading activity, volatility and share prices; evaluate Indian empirical evidence; consider the relationship between behavioural finance and market efficiency; compare Indian experiences with international evidence; and identify regulatory, educational and technological approaches capable of reducing financially harmful decisions.

The study also raises questions concerning the extent to which biases influence Indian investors, the biases associated with excessive trading and delayed loss realisation, whether correlated behaviour can produce temporary mispricing, and whether increasing digital participation intensifies behavioural influences.

Potential hypotheses for future primary research include positive relationships between overconfidence and trading frequency, herding and purchases following price appreciation, loss aversion and reluctance to sell losing positions, and anchoring and perceptions of fair value. Financial literacy and investment experience may moderate these relationships.

6. RESEARCH METHODOLOGY

The study uses a descriptive, analytical and evidence-based empirical synthesis. It deliberately avoids claiming original questionnaire findings because no primary dataset has been supplied. Instead, its conclusions are based upon established behavioural-finance literature, Indian investor studies and official securities-market evidence.

Three principal categories of information are used. Foundational behavioural research establishes the theoretical relationship between psychology and market outcomes. Indian empirical research identifies tendencies documented among domestic investors. Official SEBI evidence provides contemporary context concerning participation, intraday trading and equity-derivatives outcomes.

Variables conceptually relevant to the analysis include trading frequency, investment decisions, willingness to realise losses, portfolio concentration, responses to market trends and reliance upon social information. Explanatory behavioural constructs include overconfidence, herding, anchoring, loss aversion, representativeness, availability, self-attribution, recency and the disposition effect.

A future primary investigation could use structured Likert-scale questionnaires with active retail investors across different regions of India. Statistical testing could include reliability analysis, exploratory and confirmatory factor analysis, multiple regression and structural equation modelling.

Market-level behavioural analysis could complement survey research. Herding can be tested through cross-sectional return dispersion; overreaction through winner-loser portfolio reversals; sentiment through its relationship with turnover and volatility; and the disposition effect through account-level transaction records. Such approaches allow behavioural research to assess actual behaviour rather than relying solely upon reported attitudes.

7. EMPIRICAL ANALYSIS OF INVESTOR DECISION-MAKING IN INDIA

The Indian equity market contains diverse categories of participants including institutional investors, professional traders, experienced households, first-time retail investors and derivatives traders. Consequently, investor behaviour cannot be reduced to a simple division between rational and irrational participants.

Overconfidence is one of the most important behavioural tendencies identified within Indian investor research. Studies have found relationships between investor characteristics, self-attribution and confidence. These findings are particularly important in an environment where inexpensive transactions and rapid digital execution permit confidence to translate quickly into frequent trading.

Regulatory evidence concerning intraday and derivatives trading provides significant context. SEBI reported that more than seven out of ten individual intraday traders in the equity cash segment incurred losses in the period examined. Its updated equity futures and options analysis reported losses for 93 per cent of individual traders over FY2021-22 to FY2023-24. Such evidence does not establish that overconfidence or any particular behavioural tendency caused these outcomes. Trading costs, leverage, strategy and informational disadvantages are also important. Nevertheless, it raises questions about why substantial numbers of individuals continue participating in activities where adverse outcomes are widespread.

Several behavioural explanations are possible. Overconfident investors may believe their personal probability of success exceeds that of the average participant. Self-attribution can make occasional profits especially influential because successes are remembered as demonstrations of skill. Availability bias may cause winning trades to receive more psychological attention than accumulated smaller losses. Loss aversion may generate loss-recovery behaviour in which additional risk is assumed to return a portfolio to its earlier reference point.

Digital financial participation intensifies the relevance of these mechanisms. App-based investing and simplified onboarding broaden participation, but low-friction execution can also increase the importance of platform design and behavioural safeguards.

Behavioural Biases and Price Movements

For behavioural bias to materially affect market prices, individual decisions must become sufficiently correlated. Several mechanisms explain how this can occur.

Overconfidence can generate excessive trading and concentrated buying in securities investors believe are undervalued. Representativeness and recency can reinforce existing market trends because rising prices are interpreted as evidence of continuing strength. Herding may produce information cascades in which individuals rely upon observable market behaviour rather than their own analysis.

Anchoring and confirmation bias may delay the incorporation of negative information because investors adjust previous beliefs only gradually. If evidence eventually becomes impossible to ignore, sentiment may reverse sharply and generate overreaction. The disposition effect can

further create asymmetric selling patterns because investors readily realise gains but resist selling securities below their purchase price.

The relationship between psychology and market prices is therefore dynamic. The same behavioural tendency can produce different outcomes under different market conditions.

8. BEHAVIOURAL BIASES, MARKET SENTIMENT AND VOLATILITY

Market sentiment reflects the collective optimism or pessimism of investors. Although sentiment is influenced by fundamental economic conditions, it does not always correspond perfectly with them.

During strongly rising markets, positive sentiment interacts with overconfidence and representativeness. Investors observe appreciation, interpret it as validation of favourable expectations and increase their exposure. Rising demand produces higher prices, and those higher prices further reinforce confidence. A self-reinforcing cycle can therefore develop.

During market declines, loss aversion may initially reduce investors' willingness to sell because recognising losses is painful. Persistent deterioration, however, may eventually produce fear and widespread liquidation. Selling pressure can consequently shift rapidly from resistance to capitulation.

Behavioural influences are frequently most visible during periods of extreme market movements because uncertainty and emotional intensity increase. Crises, speculative booms and unexpected policy events can amplify fear, optimism and attention.

Volatility itself may also influence behaviour. Rapid price movements attract attention and speculative participation. Frequent monitoring shortens psychological investment horizons, while shortened horizons can encourage still more transactions. Market conditions and investor psychology can therefore reinforce one another.

9. BEHAVIOURAL FINANCE AND THE EFFICIENT MARKET HYPOTHESIS

Behavioural finance should not be treated as a complete rejection of the Efficient Market Hypothesis. Market efficiency describes the incorporation of available information into prices, whereas behavioural finance investigates how actual people interpret and respond to information.

Competitive financial markets contain significant corrective mechanisms. Institutional investors, professional analysts and arbitrageurs can identify and exploit mispricing. Behavioural theory therefore does not imply that psychological factors can permanently determine the price of every security.

The important issue is whether arbitrage always operates quickly enough to eliminate behavioural mispricing. In reality, arbitrage itself carries risk. A security recognised as overvalued may become even more expensive before correcting. Short selling may be costly, and fundamental value is uncertain. Professional investors may also face short-term performance pressures even when their valuation judgments are ultimately correct.

Market efficiency can therefore be understood as a matter of degree. Highly liquid securities receiving extensive professional coverage may incorporate information rapidly. Smaller, speculative or sentiment-sensitive securities may experience slower adjustment. During periods of crisis or speculative enthusiasm, behavioural effects can temporarily become stronger.

Evidence concerning Indian herding further demonstrates the need for nuance. Conventional herding is not universal in every market condition. Behavioural finance should consequently be used to develop testable hypotheses rather than as a framework for automatically labelling every unexpected market movement irrational.

10. INTERNATIONAL PERSPECTIVES

United States: The United States provided much of the foundational evidence supporting behavioural finance. Research concerning winner and loser portfolios demonstrated patterns consistent with market overreaction and subsequent reversal. The disposition effect was formally developed to explain the tendency to realise gains quickly while retaining losses. Brokerage-account studies subsequently demonstrated that individuals trading most aggressively often achieved inferior net performance, providing important evidence concerning overconfidence.

Transaction-level evidence is particularly valuable because surveys identify what investors believe they do, whereas account records reveal actual behaviour. Indian behavioural research could benefit significantly from similar anonymised investor-level datasets.

European Markets: European behavioural research has examined disposition effects, investor sentiment, momentum and herding across numerous markets. The evidence reinforces the conclusion that psychological influences are not confined to one country. At the same time, institutional ownership, disclosure regimes, market microstructure and investor composition affect the strength with which particular biases are expressed. Sophisticated financial infrastructure therefore does not eliminate psychology.

Asian Markets: Asian markets provide relevant comparisons for India because many combine rapid financial development, considerable household participation and strong social interaction. Herding, momentum and speculative sentiment have therefore received substantial attention. Cultural and institutional differences can affect the way social influence operates. However, behavioural research should avoid simplistic national stereotypes because variation among investors within one country may be greater than average differences between national populations.

Emerging Markets

Emerging markets are often considered favourable environments for behavioural research because they may display greater heterogeneity in financial literacy, liquidity, investor sophistication and information dissemination. Nevertheless, the term "emerging market" should not be treated as synonymous with irrationality. India possesses technologically advanced exchanges, sophisticated institutions and professional trading firms. The important characteristic is heterogeneity: experienced institutions and relatively inexperienced retail investors participate simultaneously in the same market.

Comparative Lessons for India

International evidence provides three principal lessons. First, behavioural biases such as overconfidence, loss aversion and the disposition effect are not uniquely Indian; they arise from psychological tendencies observed internationally. Second, institutional design matters because investor education, transaction costs, disclosure rules and intermediary conduct determine how behavioural vulnerabilities affect outcomes. Third, technological development does not necessarily eliminate bias. Information technology can reduce traditional informational disadvantages while simultaneously increasing overload, short-term attention and frequent trading. India's challenge is therefore not merely to broaden financial-market

access but to combine accessibility with an investment environment that encourages informed and proportionate risk-taking.

11. DISCUSSION

The overall analysis demonstrates that behavioural biases influence investment choices through interconnected psychological mechanisms. Overconfidence affects trading frequency and risk-taking. Loss aversion and the disposition effect influence the decision to sell. Representativeness and recency influence expectations concerning future performance. Anchoring delays adjustment to changed circumstances, while availability determines which information attracts attention. Herding links individual psychology to the conduct of other market participants.

Importantly, these biases rarely operate independently. The same investor may simultaneously be overconfident, anchored to a purchase price, selectively receptive to positive information and unwilling to realise a loss. The interaction between biases may therefore have greater significance than isolated behavioural effects.

Digitalisation makes such interactions increasingly important. Lower transaction costs provide clear economic advantages, but the removal of transaction friction also reduces the period between impulse and execution. Design characteristics of investment platforms may consequently influence investor behaviour even without any intention to do so.

The distinction between investment and speculative trading is also essential. Long-term diversified equity investment differs considerably from leveraged short-term activity. Behavioural mistakes may have particularly serious consequences where investors repeatedly trade and receive immediate feedback about gains and losses.

SEBI's findings concerning individual losses in intraday and derivatives trading justify further behavioural research but should not be interpreted as demonstrating that all such trading is irrational. Financial markets necessarily involve risk, and rational decisions can result in losses. Policy should therefore focus upon ensuring that investors understand leverage, probabilities, transaction costs and the historical distribution of trading outcomes.

12. IMPLICATIONS FOR INVESTORS

Behavioural errors can be reduced through disciplined and structured investment procedures. Investors should first establish clearly defined objectives regarding expected returns, acceptable risk and investment horizon. A written investment strategy can prevent temporary emotion from overriding long-term objectives.

Portfolio decisions should be considered collectively rather than evaluating each security in psychological isolation. This reduces mental accounting and excessive attachment to specific investments. Maintaining an investment diary can also improve decision quality. Investors can record the reasons for major investments, expected outcomes and conditions that would justify exit. Later comparison between expectations and actual outcomes can reveal overconfidence, hindsight bias and inconsistent reasoning.

Investment performance should be compared with an appropriate benchmark rather than merely determining whether the portfolio produced a positive nominal return. Investors should also employ predetermined asset-allocation and rebalancing policies that reduce the temptation to engage in emotional market timing. Most importantly, investors should distinguish information from attention. A security's popularity or constant presence in media and social networks does not establish that it represents an attractive investment.

13. IMPLICATIONS FOR REGULATORS AND FINANCIAL INSTITUTIONS

Behavioural finance has significant implications for investor protection. Traditional financial-literacy initiatives generally concentrate upon compounding, diversification, risk, inflation and return. Such knowledge remains essential, but investors should also learn about the psychological processes that can undermine financially informed decision-making.

Investor education should therefore incorporate **behavioural literacy**. Investors should understand overconfidence, loss aversion, anchoring, herding, recency, FOMO and the disposition effect through practical illustrations relevant to real trading situations.

Financial platforms can assist by presenting risk information clearly and by providing meaningful historical outcome statistics. High-risk products should be accompanied by information capable of correcting unrealistic expectations concerning the probability of gain and loss.

The publication of aggregate trading-outcome statistics can itself act as a behavioural intervention. Investors may believe they possess an unusually high probability of profitable speculative trading; providing objective information about actual participant outcomes can help them recalibrate expectations.

Digital intermediaries should also consider whether design choices unintentionally promote excessive trading. Investor protection in the modern digital market concerns not only whether disclosures are legally provided but also how risk is framed, how frequently users receive prompts and how investment information is presented.

14. CONCLUSION

Behavioural finance has substantially enriched modern understanding of financial markets by replacing the unrealistic conception of the perfectly rational investor with a more realistic account of human decision-making. Investors remain capable of rational analysis and purposeful choices, but they operate under uncertainty and are influenced by cognitive limitations, emotions, social interaction and reference-dependent judgments.

Overconfidence, loss aversion, disposition effect, anchoring, representativeness, availability bias, confirmation bias, self-attribution, regret aversion, mental accounting, recency and herd behaviour can materially influence decisions concerning which securities investors purchase, how frequently they trade, how much risk they assume and how long they retain unsuccessful positions.

These biases primarily affect individual portfolios, but their influence can extend to the overall market when they become correlated across substantial numbers of participants. In such circumstances, behavioural tendencies may contribute to excessive turnover, momentum, delayed incorporation of information, overreaction, reversals, volatility and temporary deviations of securities prices from fundamental value.

India is an especially significant environment for behavioural-finance analysis because digitalisation, low-cost brokerage, simplified onboarding and increasing retail participation have transformed the relationship between individual investors and securities markets. At the same time, official evidence concerning widespread losses among many individual intraday and derivatives traders emphasises the importance of understanding risk perception, confidence, expectations and trading motivations.

These statistics should not be interpreted as proof that losses automatically result from behavioural irrationality. Financial-market outcomes depend upon information, strategy, market structure, transaction costs, leverage and chance. Nevertheless, persistent participation in activities where substantial proportions of individuals experience losses requires careful examination of behavioural factors.

Indian empirical literature has identified overconfidence, self-attribution and related tendencies, while evidence concerning herding demonstrates that no single bias operates universally across every market condition. This is an important methodological conclusion because behavioural finance should not become a retrospective explanation for every market anomaly. Its strength lies in identifying specific psychological mechanisms that can be theoretically formulated and empirically tested.

Behavioural finance and conventional market-efficiency theory should therefore be regarded as complementary frameworks. Efficient-market theory explains the powerful role of information, competition and arbitrage in price discovery. Behavioural finance explains why the process of incorporating information can sometimes be delayed, incomplete or influenced by systematic psychological tendencies.

For investors, successful participation consequently requires more than understanding companies, financial statements and markets. Investors must also understand their own decision-making processes. Knowledge of one's susceptibility to excessive confidence, social influence, fear of loss and fixation upon historical prices can itself become an important component of investment discipline.

For regulators and intermediaries, the implications are equally important. Disclosure alone cannot guarantee rational behaviour because individuals may interpret identical information differently. Investor protection must therefore consider how people understand probabilities, react emotionally to losses, respond to social information and interact with digital trading environments.

Accordingly, behavioural literacy should become an integral part of financial literacy in the modern Indian securities market. A financial system combining technological accessibility, transparency, effective regulation and psychologically informed investor education is better

positioned to promote sustainable market participation, investor welfare and efficient capital formation.

15. FUTURE SCOPE

Behavioural-finance research in India offers considerable opportunities for further development.

First, future research should use large-scale primary datasets covering investors from multiple geographical regions. Much existing research is concentrated in particular cities or limited investor groups. Nationally representative research could identify geographical, socioeconomic, educational and demographic differences.

Second, survey responses should increasingly be combined with actual transaction data. Investors may report confidence, risk tolerance or investment discipline differently from the way they behave in practice. Anonymised brokerage records could test whether investors classified as highly overconfident actually trade more frequently and whether loss-averse investors retain loss-making positions longer.

Third, generational differences require systematic analysis. Younger investors who entered securities markets through smartphones and digital platforms may process information, social influence and market volatility differently from investors who began through conventional brokerage systems.

Fourth, the relationship between social media and investment psychology is likely to become increasingly important. Financial influencers, online discussion communities, algorithmically recommended content and viral narratives can affect which securities receive attention and how investors perceive popularity and risk.

Fifth, derivatives trading should be analysed separately from conventional long-term equity investment. The behavioural tendencies associated with highly leveraged and short-horizon transactions may be very different from those influencing diversified long-term portfolios.

Sixth, experimental methods can be used to investigate causation. Researchers could examine whether differences in framing, historical-price presentation, peer information or interface design systematically influence financial choices.

Seventh, neurofinance offers interdisciplinary opportunities to investigate neurological and biological mechanisms associated with risk-taking, fear, reward evaluation and financial decision-making.

Eighth, artificial intelligence creates both potential benefits and new behavioural problems. AI-based investment tools could reduce emotional decision-making by processing large quantities of information systematically. At the same time, investors may develop automation bias and accept AI-generated recommendations without adequate independent evaluation.

Ninth, behavioural interventions themselves should be empirically tested. For example, researchers could examine whether displaying the historical percentage of losing derivatives traders immediately before a transaction alters trading frequency or risk-taking.

Tenth, longitudinal research is required to determine how investment experience influences psychological bias. Investors may learn after losses and become more disciplined, but adverse experiences may alternatively produce loss chasing and increased risk-taking. Long-term datasets are necessary to distinguish between these possibilities.

Finally, securities regulation can benefit substantially from behavioural research. Traditional legal approaches focus upon disclosure, fraud prevention, suitability and market integrity. Behavioural regulation adds another question: whether the manner in which information is presented enables investors to understand its practical significance.

The future of behavioural-finance research in India should therefore progress beyond simply identifying whether biases exist. Greater emphasis should be placed upon how investor psychology interacts with financial technology, artificial intelligence, social media, regulation, market structure, financial literacy and accumulated investment experience.

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