

Investor Behaviour as a Driver of Financial Market Bubbles: A Review of the Behavioural Finance Literature

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ABSTRACT

Purpose – This review examines the role of investor behaviour in the formation and bursting of financial-market bubbles from a behavioural-finance perspective. It synthesises evidence concerning behavioural foundations, cognitive biases, investor sentiment and herding, speculative trading and leverage, and the influence of digital information environments and retail-investor participation.

Design/methodology/approach – A thematic literature review was adopted to integrate findings from behavioural finance research. The analysis considers how individual psychological biases interact with social, informational, technological, and market-structural factors to generate and sustain speculative price dynamics.

Findings – The review indicates that overconfidence, representativeness, anchoring, confirmation bias, availability bias, and loss aversion shape risk perceptions, expectations, and trading decisions, thereby encouraging speculative behaviour. However, bubbles rarely arise from a single cognitive bias. Rather, biases interact with investor sentiment, social influence, herding, informational cascades, and positive-feedback trading, converting individual tendencies into collective market dynamics. Speculation, leverage, and limits to arbitrage further amplify price deviations. Digital platforms, social media, online investment communities, and financial influencers increasingly accelerate information diffusion, attention, herding, and fear of missing out, particularly among retail investors in India. Bubble bursting involves shifts in expectations, fear, panic, loss aversion, forced selling, deleveraging, and liquidity contraction.

Originality/value – The review proposes a multilevel behavioural framework linking individual psychology, collective behaviour, digital information, speculative trading, market structure, and institutional conditions. It highlights the need for financial literacy, investor protection, effective regulation, and behavioural market surveillance to strengthen financial-market stability.

Keywords: Behavioural Biases and Decision Making, Behavioural Investment management, Behavioural Economics, Behavioural Risk Management, Information and Market Efficiency

INTRODUCTION

Financial-market bubbles are among the most important and controversial phenomena in modern finance. They are generally associated with rapid and sustained increases in asset prices followed by substantial corrections. Historical episodes such as the Japanese asset-price bubble, the dot-com boom, the U.S. housing bubble, and several speculative episodes in emerging markets demonstrate that prices can, under certain circumstances, move considerably beyond levels justified by conventional valuation measures.

The Efficient Market Hypothesis (EMH) provides an influential explanation of financial-market pricing by

assuming that available information is rapidly incorporated into asset prices. However, behavioural-finance research has demonstrated that investors do not always process information objectively or consistently. Cognitive limitations, emotions, heuristics, heterogeneous beliefs, social influence, and psychological biases can affect financial decisions and generate persistent deviations from fundamental valuation (**Shiller, 2003**).

A bubble should not, however, be defined merely by high prices or high valuation ratios. Prices may rise legitimately because of improvements in expected earnings, productivity, technological innovation, economic growth, monetary conditions, or changes in risk. A bubble is more appropriately understood as a dynamic process in which asset prices become increasingly difficult to reconcile with plausible fundamentals and are sustained by expectations of continued appreciation, speculative demand, or self-reinforcing feedback mechanisms (**Jarrow, 2015; Scherbina & Schlusche, 2014**).

Behavioural finance is particularly relevant because it connects individual decision-making with aggregate market outcomes. An investor's overconfidence may lead to excessive trading; investor sentiment may increase speculative demand; social influence may encourage imitation; and digital platforms may accelerate the diffusion of investment narratives. When these processes become synchronised across large numbers of investors, individual psychological tendencies can produce market-wide effects.

The central argument of this review is that bubble formation and bubble bursting represent two interconnected phases of a dynamic behavioural process. During the expansionary phase, optimism, overconfidence, herding, extrapolation, FOMO, and leverage may generate positive feedback. During the contractionary phase, expectation reversal, fear, loss aversion, panic, herding, forced selling, deleveraging, and liquidity deterioration may generate negative feedback.

Objectives of Review

The review addresses the following objectives:

O₁: Behavioural Foundations of Market Bubbles - To examine the theoretical and empirical foundations through which bounded rationality, cognitive biases, emotions, investor expectations, sentiment, and social influences contribute to financial-market bubbles.

O₂: Cognitive Biases and Bubble Formation – To examine how systematic cognitive biases, particularly overconfidence, representativeness, anchoring, confirmation bias, and availability bias, distort investors' perceptions of information and risk and contribute to speculative trading and bubble formation.

O₃: Investor Sentiment, Herding, and Social Influence – To analyse how investor sentiment, social influence, informational cascades, and herding affect investment decisions and collectively amplify asset-price movements.

O₄: Speculative Trading, Feedback, Leverage, and Limits to Arbitrage – To examine how speculative trading, positive-feedback mechanisms, leverage, and constraints on arbitrage contribute to the persistence and amplification of asset-price bubbles and intensify their subsequent bursting.

O₅: Digital Information Exposure and Retail Investors – To examine how social media, online investment communities, financial influencers, digital trading platforms, and algorithmically curated financial information influence retail investors' attention, sentiment, herding, speculative trading, and participation in financial markets.

LITERATURE REVIEW METHODOLOGY

The literature review methodology provides a systematic and transparent approach for identifying, selecting, evaluating, and synthesising relevant scholarly evidence on the behavioural mechanisms underlying the formation and bursting of financial-market bubbles.

Review Design

This study adopts an integrative literature-review design combining theoretical, empirical, experimental, and conceptual research in behavioural finance and financial-market bubble studies. The review focuses on peer-reviewed literature addressing investor psychology, speculative behaviour, market sentiment, herding, asset-price bubbles, leverage, market crashes, digital investment behaviour, and retail participation.

The literature was organised around the relationship between individual behavioural characteristics and market-level outcomes. Foundational theoretical studies were considered alongside empirical and experimental research to establish connections between psychological mechanisms, trading behaviour, and asset-price dynamics.

Analytical Strategy

The analytical strategy adopts a systematic and integrative thematic approach to synthesise the existing literature, linking individual psychological mechanisms and collective investor behaviour with speculative trading, financial-market bubble formation, and subsequent bubble-bursting dynamics.

Thematic Organisation of the Literature

The reviewed literature was systematically synthesised and organised around a set of interconnected theoretical and empirical themes relevant to the behavioural dynamics of financial-market bubbles. The first theme concerns the rational-market paradigm and the emergence of behavioural finance, particularly the theoretical transition from the Efficient Market Hypothesis toward approaches that recognise systematic deviations from fully rational decision-making. This foundation provides the basis for examining how psychological and behavioural factors can influence financial-market outcomes.

Cognitive and Emotional Biases

The second theme focuses on cognitive and emotional biases that influence investors' perceptions, judgments, and decisions. Particular attention was given to behavioural tendencies such as overconfidence, anchoring, representativeness, confirmation bias, availability bias, loss aversion, and other systematic departures from rational decision-making. The synthesis examined how these biases may influence risk perception, expectations, trading decisions, and susceptibility to speculative investment opportunities.

Investor Sentiment

The third theme examines investor sentiment as a collective psychological force affecting financial-market dynamics. The literature was reviewed to understand how optimism, pessimism, confidence, fear, and changing expectations influence investment demand and asset-price movements. Particular emphasis was placed on the role of sentiment in creating self-reinforcing price dynamics and in explaining deviations of market prices from their fundamental values.

Herding and Social Influence

The fourth theme concerns herding and social influence, with particular attention to the tendency of investors to imitate the actions, opinions, and investment decisions of others. The synthesis considered how information asymmetry, uncertainty, social conformity, reputational concerns, information cascades, and fear of missing out may encourage investors to abandon independent judgment. The literature was further examined to determine how collective imitation can amplify both upward price movements during bubble formation and downward movements during market distress.

Speculative Trading and Positive Feedback

The fifth theme addresses speculative trading and positive-feedback mechanisms. The reviewed studies were

examined to determine how behavioural biases, sentiment, and herding can stimulate excessive trading and speculative demand. Particular attention was given to feedback processes in which rising asset prices generate greater optimism and investor participation, which in turn produces additional price increases. Such mechanisms are central to understanding how relatively modest initial price movements can develop into persistent and potentially unsustainable market bubbles.

Leverage and Limits to Arbitrage

The sixth theme focuses on leverage and limits to arbitrage. The literature was synthesised to examine why rational investors and arbitrageurs may be unable to correct persistent mispricing generated by behavioural forces. Leverage can magnify speculative gains during rising markets but can also increase vulnerability to margin calls and forced liquidation during market declines. At the same time, limits to arbitrage may allow behavioural mispricing to persist when arbitrageurs face fundamental risk, noise-trader risk, funding constraints, or other market frictions.

Digital Information and Retail Investor Participation

The seventh theme examines the increasingly important relationship between digital information environments and retail investor participation. Particular attention was given to social media, online investment communities, digital brokerage platforms, financial influencers, algorithmically curated information, and mobile trading technologies. The synthesis considered how these developments have reduced information and participation barriers while simultaneously increasing investors' exposure to rapid information diffusion, social signals, speculative narratives, and emotionally salient market content.

Bubble Bursting and Crash Dynamics

The eighth theme focuses on bubble bursting and market-crash dynamics. The literature was analysed to understand the behavioural transition from optimism to uncertainty, fear, and panic. Particular emphasis was placed on expectation reversal, loss aversion, negative sentiment, herding, forced selling, margin calls, and deleveraging as potential mechanisms through which an initially gradual decline can develop into a rapid and self-reinforcing market contraction.

Regulatory and Financial-Education Implications

The final theme addresses the regulatory and financial-education implications of behavioural finance. The synthesis considered how investor education, financial literacy, disclosure requirements, market surveillance, leverage regulation, investor-protection mechanisms, and other regulatory interventions may reduce excessive speculation and improve market resilience. Attention was also given to the possibility that behavioural interventions should address not only individual decision-making but also the broader institutional and digital environments within which investment decisions are made.

Integrative Analytical Perspective

The purpose of the analytical strategy was not merely to catalogue or summarise previous studies, but to integrate their theoretical arguments and empirical findings into a coherent explanatory framework. The synthesis therefore connects micro-level psychological processes, including cognitive biases, emotions, and individual risk perceptions, with meso-level social and behavioural processes, such as herding, social influence, information cascades, and digital contagion, and ultimately with macro-level market outcomes, including speculative price escalation, bubble formation, expectation reversal, bubble bursting, and market crashes.

This multilevel analytical approach enables the review to move beyond isolated explanations of investor irrationality and examine how individual behavioural tendencies become collectively amplified through social interaction and market mechanisms. In doing so, the literature is interpreted as a dynamic behavioural process in which individual psychology influences trading behaviour, trading behaviour shapes collective

market dynamics, and collective dynamics can subsequently reinforce or reverse individual expectations. Such an integrative perspective provides the analytical foundation for the proposed conceptual framework linking behavioural determinants, speculative trading, bubble formation, and bubble bursting.

THEORETICAL FOUNDATION

The theoretical foundations of this review integrate the principal perspectives of traditional financial economics and behavioural finance to explain how psychological biases, investor sentiment, social influence, and market mechanisms interact to shape speculative trading, financial-market bubbles, and their eventual bursting.

Efficient Markets and Behavioural Finance

The EMH remains a fundamental framework for financial economics, but behavioural finance challenges the assumption that investors consistently behave rationally. **Shiller (2003)** argued that psychological forces, speculative narratives, and feedback mechanisms are essential for understanding market fluctuations that cannot be adequately explained by fundamentals alone.

Behavioural finance does not imply that markets are always inefficient. Rather, it examines the conditions under which psychological biases and social interactions can become sufficiently widespread to generate persistent mispricing.

Prospect Theory

Prospect theory provides a central psychological foundation. **Kahneman and Tversky (1979)** demonstrated that individuals evaluate outcomes relative to reference points and generally experience losses more strongly than equivalent gains. This principle of loss aversion is important for understanding both speculative optimism and subsequent panic.

During a bubble, investors may accept increasing risk because expected gains appear attractive. Once prices decline, however, the psychological impact of losses may trigger rapid changes in behaviour.

Limits to Arbitrage

The presence of rational investors does not guarantee immediate correction of mispricing. **De Long et al. (1990)** demonstrated that noise-trader risk can make betting against irrational traders costly. **Shleifer and Vishny (1997)** further showed that funding constraints and institutional considerations can limit arbitrage.

Abreu and Brunnermeier (2003) emphasised coordination problems: investors may recognise overvaluation but delay selling because they cannot predict when other investors will exit. Thus, recognising a bubble and timing its collapse are fundamentally different problems.

Objective Wise Results and Synthesis

The Objective-Wise Results and Synthesis section systematically consolidates and critically interprets the findings of the reviewed literature in relation to each research objective, highlighting the theoretical, empirical, and contextual evidence concerning investor behaviour, speculative trading, market-bubble formation, bubble bursting, and the broader implications for financial-market stability.

Objective O₁: Behavioural Foundations of Market Bubbles

Objective O₁ seeks to critically examine how bounded rationality, cognitive biases, emotions, investor expectations, sentiment, and social influences shape investment behaviour and collectively contribute to the emergence, persistence, amplification, and eventual bursting of financial-market bubbles.

From Rational Markets to Behavioural Finance

The first objective examined the theoretical foundations explaining why investor behaviour may contribute to financial-market bubbles. Traditional financial theory, particularly the Efficient Market Hypothesis, assumes that asset prices incorporate available information and that systematic deviations from fundamental values are difficult to sustain (**Fama, 1970, 1991**). However, behavioural-finance research demonstrates that investors operate under conditions of bounded rationality, incomplete information, uncertainty, and cognitive limitations. **Simon (1955)** established the importance of bounded rationality, while **Kahneman and Tversky (1979)** demonstrated that actual decision-making systematically departs from the assumptions of conventional expected-utility theory.

Psychological and Social Mechanisms

The literature indicates that investors' decisions are influenced by heuristics, emotions, expectations, and social interactions. **Tversky and Kahneman (1974)** identified representativeness, availability, and anchoring as important judgmental heuristics, while Prospect Theory demonstrated the importance of reference dependence and loss aversion (**Kahneman & Tversky, 1979**). At the collective level, herding and informational cascades can cause investors to imitate others and disregard their own information (**Banerjee, 1992; Bikhchandani et al., 1992**).

Implication for Bubble Formation

The principal conclusion of Objective O₁ is that bubbles cannot be adequately explained exclusively through changes in fundamental values. Individual psychological tendencies can become collectively amplified through social interaction, positive feedback, and speculative trading. Thus, bubbles should be understood as multilevel behavioural phenomena, linking micro-level psychology, meso-level social processes, and macro-level market outcomes.

Objective O₂: Cognitive Biases and Bubble Formation

Objective O₂ seeks to examine how systematic cognitive biases—particularly overconfidence, representativeness, anchoring, confirmation bias, and availability bias—distort investors' perceptions of information and risk, encourage speculative trading, and collectively contribute to the formation and amplification of financial-market bubbles.

Major Cognitive Biases

The second objective focused specifically on the role of cognitive and emotional biases in the formation and amplification of market bubbles. The literature identifies overconfidence, representativeness, anchoring, confirmation bias, availability bias, and loss aversion as particularly relevant behavioural mechanisms (**Barberis & Thaler, 2003; Tversky & Kahneman, 1974**).

Overconfidence may cause investors to overestimate their ability to predict market movements, thereby encouraging excessive trading and risk-taking (**Barber & Odean, 2000, 2001**). Representativeness may encourage investors to extrapolate recent price trends, while anchoring may cause excessive dependence on previously observed prices or expectations. Confirmation bias can encourage investors to seek information supporting their existing beliefs while ignoring contradictory evidence.

Interaction among Biases

An important finding is that cognitive biases generally do not operate independently. Several biases may interact to produce increasingly optimistic expectations. For example, rising prices may be interpreted through representativeness as evidence of a continuing trend; overconfidence may increase investors' belief in their ability to exploit that trend; anchoring may establish increasingly elevated price expectations; and confirmation bias may filter out negative information.

This creates a behavioural sequence:

Cognitive bias → distorted expectations → speculative trading → price appreciation → social confirmation → stronger confidence.

Bubble Amplification

The literature suggests that cognitive biases become especially consequential when they interact with positive-feedback mechanisms. Rising prices may reinforce investors' beliefs, encouraging additional demand and further price appreciation (**Shiller, 2000, 2003**). Consequently, cognitive biases can contribute not merely to individual errors but to aggregate market dynamics capable of sustaining speculative bubbles.

Objective O₃: Investor Sentiment, Herding, and Social Influence

Objective O₃ seeks to examine how collective investor sentiment, social influence, informational cascades, and herding behaviour shape investment decisions and speculative trading, thereby amplifying price movements and contributing to the formation, persistence, and eventual reversal of financial-market bubbles.

Investor Sentiment

The third objective examined investor sentiment and collective psychological processes. Investor sentiment represents investors' beliefs concerning future returns and risks that may not be fully justified by fundamental information (**Baker & Wurgler, 2006, 2007**). Sentiment becomes particularly important for securities that are difficult to value or arbitrage. During periods of optimism, positive expectations can increase investment demand and encourage investors to interpret rising prices as evidence supporting their beliefs.

Herding and Information Cascades

Social influence constitutes another important mechanism. Investors may imitate others because they believe that other market participants possess superior information or because they are influenced by social conformity and reputational concerns (**Banerjee, 1992; Devenow & Welch, 1996**). **Bikhchandani et al. (1992)** demonstrated how informational cascades can emerge when individuals follow preceding decisions rather than relying exclusively on their private information.

Herding can therefore generate substantial market-wide effects. During rising markets, collective buying increases demand and reinforces price appreciation. During declining markets, the same mechanism may produce collective selling and accelerate price deterioration.

Positive Feedback and Collective Dynamics

Shiller (2003) argues that positive feedback can transform initial price appreciation into a self-reinforcing process. Rising prices encourage optimism, optimism increases demand, and increased demand produces further price appreciation. Therefore, the combination of sentiment and herding provides an important explanation of how individual beliefs can become collective market movements.

The literature consequently suggests that market bubbles should not be conceptualised simply as the aggregate result of individually irrational investors. Rather, they can emerge from interactions among investors whose behaviour becomes mutually reinforcing.

Objective O₄: Speculative Trading, Feedback, Leverage, and Limits to Arbitrage

Objective O₄ seeks to examine how speculative trading, positive-feedback mechanisms, leverage, and constraints on arbitrage interact to amplify deviations from fundamental values, sustain asset-price bubbles, and intensify the subsequent process of market correction and bubble bursting.

Speculative Trading as a Transmission Mechanism

The fourth objective examined how speculative trading converts psychological and social influences into market-price dynamics. Behavioural biases and investor sentiment influence trading decisions, while speculative trading translates these individual decisions into aggregate demand and price movements. **De Long et al. (1990)** demonstrated that noise traders can influence asset prices and generate risks for rational investors attempting to correct mispricing.

Positive Feedback and Momentum

Positive-feedback trading is particularly relevant to bubble dynamics. Investors may purchase assets because prices have already increased, assuming that the upward trend will continue. This produces the sequence:

Price appreciation → optimism → increased speculative demand → further price appreciation.

Empirical evidence of momentum, such as that reported by **Jegadeesh and Titman (1993)**, provides additional support for the importance of persistent price trends in financial markets. Although momentum alone does not establish the existence of a bubble, it is consistent with mechanisms through which investor behaviour can reinforce existing price movements.

Leverage and Deleveraging

Leverage can magnify both bubble formation and bubble bursting. During expansionary periods, rising asset prices and collateral values may facilitate increased borrowing and speculative investment. During downturns, however, declining asset prices can generate margin calls, forced liquidation, and deleveraging (**Adrian & Shin, 2010; Brunnermeier & Pedersen, 2009; Kiyotaki & Moore, 1997**).

Thus, leverage can create a powerful asymmetric amplification mechanism:

Rising prices → greater borrowing → greater demand → further price increases

and subsequently:

Falling prices → margin pressure → forced selling → further price declines.

Limits to Arbitrage

The literature on limits to arbitrage explains why rational investors may not immediately correct behavioural mispricing. Arbitrageurs face noise-trader risk, funding constraints, timing uncertainty, short-sale restrictions, and uncertainty about fundamental value (**De Long et al., 1990; Shleifer & Vishny, 1997**). Therefore, rational investors may recognise that prices are excessive but remain unable or unwilling to take sufficiently large positions against the bubble.

The overall implication is that bubble persistence results from the interaction of speculative demand, positive feedback, leverage, heterogeneous expectations, and limits to arbitrage.

Objective O₅: Digital Information Exposure and Retail Investors

Objective O₅ aims to examine how social media, online investment communities, financial influencers, digital trading platforms, and algorithmically curated financial information shape retail investors' attention, sentiment, herding tendencies, and speculative trading behaviour, thereby potentially contributing to the formation and amplification of financial-market bubbles.

Digital Transformation of Investment Behaviour

The fifth objective extends the behavioural-finance literature into the contemporary digital environment.

Social-media platforms, mobile trading applications, online brokerage services, financial influencers, investment communities, and algorithmically curated content have transformed the way retail investors obtain and process financial information.

The digital environment has reduced barriers to information and market participation but has simultaneously increased the speed and intensity of information diffusion. Investors can now encounter market information continuously rather than periodically, potentially increasing attention, emotional reactions, and trading frequency.

Investor Attention and Retail Trading

Barber and Odean (2008) demonstrated that individual investors are more likely to purchase stocks that attract attention through news, unusual returns, or high trading volume. More recent research on digital brokerage users indicates that attention-driven retail trading can have important implications for subsequent stock performance (**Barber et al., 2022**).

This suggests that digital information exposure may influence investment behaviour not merely by improving access to information but by directing investor attention toward particular securities and narratives.

Social Media, FOMO, and Digital Herding

Digital platforms can also strengthen social influence and herding because investors can observe the behaviour and apparent success of other market participants almost instantaneously. Visible gains may generate social comparison and fear of missing out (FOMO), encouraging investors to enter markets at increasingly elevated prices.

The potential mechanism is:

Visible gains → social comparison → FOMO → speculative participation → increased demand → further price appreciation → greater digital visibility.

Digital information exposure can therefore accelerate the transmission of investor sentiment and social influence, potentially increasing the speed of bubble formation and amplification.

Integrated Synthesis Across the Five Objectives

The integrated synthesis brings together the major theoretical and empirical insights of the reviewed literature to explain how individual psychological processes, collective investor behaviour, speculative trading, digital information environments, and market mechanisms interact dynamically to influence the formation, amplification, and eventual bursting of financial-market bubbles.

Micro-Level Behaviour

Across the five objectives, the literature establishes that market behaviour begins partly at the micro level, where investors interpret information through bounded cognitive processes. Overconfidence, representativeness, anchoring, confirmation bias, loss aversion, and other psychological tendencies influence risk assessment, expectations, and investment decisions (**Barberis & Thaler, 2003; Kahneman & Tversky, 1979**).

Meso-Level Social Dynamics

At the meso level, individual decisions become socially interconnected through investor sentiment, herding, informational cascades, social comparison, and digital communication. Investors may respond not only to fundamental information but also to the behaviour and expectations of others. This can transform individual biases into collective trading patterns (**Banerjee, 1992; Bikhchandani et al., 1992**).

Macro-Level Market Outcomes

At the macro level, collective speculative behaviour can generate positive feedback, excessive price appreciation, leverage expansion, and persistent deviations from fundamental values. Limits to arbitrage can allow these deviations to persist. When expectations reverse, fear, loss aversion, herding, forced selling, and deleveraging may produce a negative feedback process culminating in bubble bursting and potentially a broader market crash (De Long et al., 1990; Shleifer & Vishny, 1997).

Overall Synthesis

Taken together, the five objectives support an integrated proposition: financial bubbles emerge when individual behavioural biases and psychological expectations become collectively reinforced through sentiment, social influence, digital information, speculative trading, positive feedback, and financial leverage, while limits to arbitrage permit mispricing to persist. Bubble bursting represents the reverse side of this process, in which expectation reversal, fear, loss aversion, herding, forced selling, and deleveraging transform declining prices into a self-reinforcing downward spiral.

Accordingly, the literature supports the proposed behavioural-finance framework in which cognitive biases, investor sentiment, social influence/herding, and digital information exposure function as key behavioural antecedents; speculative trading operates as a central transmission mechanism; financial literacy, investment experience, risk tolerance, leverage, liquidity, institutional participation, and regulation condition these relationships; and expectation reversal, panic, loss aversion, forced selling, and deleveraging contribute to bubble bursting. This integrated perspective provides a comprehensive theoretical foundation for understanding financial bubbles as dynamic interactions between investor psychology, collective behaviour, digital information environments, and market-level financial mechanisms.

Indian Stock Market and Retail Investors

India provides an important setting for studying behavioural finance because its capital markets combine rapid digitalisation, increasing retail participation, technological innovation, expanding financial inclusion, and substantial heterogeneity in investor knowledge and experience.

The growth of online trading platforms and mobile-based investment services has substantially reduced barriers to market participation. Social-media platforms and online investment communities have simultaneously increased the speed with which investment narratives spread.

These developments create both opportunities and risks. Greater retail participation can improve financial inclusion and broaden ownership of financial assets. However, increased exposure to short-term market information, social-media recommendations, financial influencers, and online peer behaviour may also increase susceptibility to herding, FOMO, overconfidence, and momentum-driven speculation.

Indian research should therefore move beyond simply measuring whether retail investors earn abnormal returns. It should investigate the mechanisms through which digital information, financial literacy, sentiment, social influence, and psychological biases interact to affect trading decisions.

The Indian market also provides an appropriate setting for examining whether behavioural mechanisms differ across age, gender, education, income, investment experience, geographic location, and investor sophistication.

CONCLUSION

The present review, organised around five interrelated objectives, demonstrates that investor behaviour provides an essential behavioural foundation for understanding the formation, persistence, amplification, and bursting of financial-market bubbles. The findings from **Objective O₁** establish that market bubbles cannot be adequately understood exclusively through fundamental valuation, rational expectations, information

efficiency, or arbitrage-based explanations. Although conventional financial theories provide important insights into asset pricing, the behavioural-finance literature demonstrates that bounded rationality, cognitive limitations, emotions, heterogeneous expectations, and social influences can affect the way investors interpret information and respond to market movements. Consequently, deviations of market prices from fundamental values may persist when behavioural forces become sufficiently widespread and mutually reinforcing.

The findings relating to **Objective O₂** indicate that cognitive biases constitute important behavioural mechanisms through which investors may contribute to speculative market dynamics. Overconfidence can encourage excessive trading and risk-taking, while representativeness may lead investors to extrapolate recent price trends into the future. Anchoring can influence the formation of price expectations, whereas confirmation bias may encourage investors to selectively process information that supports their existing beliefs. Availability and related attention-based biases can increase the salience of recent market information, while loss aversion can substantially influence behaviour when prices begin to decline. Importantly, the literature does not support the interpretation that any single cognitive bias independently causes a market bubble. Rather, the findings suggest that **interactions among multiple biases can generate mutually reinforcing expectations and trading decisions**, thereby increasing the potential for speculative price escalation.

The synthesis corresponding to **Objective O₃** further demonstrates that individual psychological processes can acquire market-wide significance through investor sentiment, social influence, herding, and informational cascades. Positive investor sentiment can strengthen expectations of future price appreciation, while herding may encourage investors to follow the actions of other market participants rather than relying exclusively on their own information. Informational cascades and social conformity can therefore transform individually held beliefs into collective trading patterns. The reviewed literature indicates that such processes may operate in both directions. During the expansionary phase of a bubble, collective optimism and imitation can reinforce buying and price appreciation; during the contractionary phase, declining confidence and collective selling can accelerate price deterioration. Thus, **the same social mechanisms that contribute to upward amplification may also contribute to downward contagion when market expectations reverse**.

The findings associated with **Objective O₄** identify speculative trading, positive-feedback mechanisms, leverage, and limits to arbitrage as important transmission and amplification mechanisms. Behavioural biases and investor sentiment influence individual decisions, but speculative trading converts these psychological tendencies into aggregate market demand and price movements. Positive-feedback trading may create a self-reinforcing sequence in which rising prices strengthen optimism, optimism increases speculative demand, and increased demand generates further price appreciation. At the same time, leverage can magnify the upward phase by increasing purchasing capacity and can intensify the downward phase through margin pressure, forced liquidation, and deleveraging. The literature on limits to arbitrage further explains why rational investors may be unable or unwilling to correct behavioural mispricing immediately. Consequently, bubble persistence can be understood as the outcome of an interaction among **behavioural demand, positive feedback, leverage, heterogeneous expectations, and constraints on arbitrage**, rather than as the consequence of irrationality alone.

The findings from **Objective O₅** extend these behavioural mechanisms to the contemporary digital investment environment, particularly with respect to retail investors. Digital trading platforms, social-media networks, online investment communities, financial influencers, mobile applications, and algorithmically curated financial information have significantly altered the speed and manner in which investors receive and respond to market information. The literature suggests that digital environments can increase investor attention, facilitate rapid information diffusion, strengthen social comparison, and potentially intensify sentiment-driven and attention-driven trading. For retail investors, these developments may simultaneously reduce barriers to market participation and increase exposure to speculative narratives, FOMO, herding, and short-term market signals. The significance of these mechanisms is particularly relevant to emerging markets

such as India, where the expansion of digital financial participation has created a rapidly evolving environment for retail investment behaviour.

Taken together, the findings across the five objectives support the conclusion that **financial-market bubbles are multidimensional and multilevel behavioural phenomena**. At the micro level, cognitive biases, emotions, expectations, and individual risk perceptions influence investment decisions. At the meso level, investor sentiment, social influence, herding, informational cascades, and digital communication connect individual decisions and transform them into collective behavioural patterns. At the macro level, speculative trading, positive feedback, leverage, liquidity conditions, and limits to arbitrage can translate these collective behaviours into sustained asset-price movements and deviations from fundamental values. The evidence, therefore, suggests that a satisfactory explanation of market bubbles requires an integrated perspective connecting individual psychology, collective behaviour, digital information environments, and market mechanisms.

The review also demonstrates that **bubble formation and bubble bursting should not be treated as entirely separate phenomena**. They represent interconnected stages of a dynamic behavioural process. During the formation and expansion of a bubble, optimism, overconfidence, extrapolation, sentiment, herding, speculative demand, positive feedback, and leverage can reinforce one another. However, once expectations begin to change, the behavioural dynamics may reverse. A negative fundamental signal, unexpected economic development, regulatory intervention, tightening financial conditions, declining liquidity, or a change in investor expectations may undermine confidence. As optimism gives way to uncertainty and fear, loss aversion and herding may encourage investors to sell. Where leveraged positions are present, declining prices may generate margin calls and forced liquidation, producing further downward pressure. Thus, the transition from **optimism to fear, buying to selling, and positive to negative feedback** provides an important behavioural explanation of how a market correction may develop into a rapid and self-reinforcing crash.

An important implication of the synthesis is that **no single behavioural variable can adequately explain the complete life cycle of a financial bubble**. Cognitive biases may influence expectations, but social interaction can amplify those expectations; sentiment may stimulate demand, but speculative trading converts sentiment into market activity; leverage can magnify price movements, while limits to arbitrage may allow mispricing to persist. Similarly, digital information can accelerate the transmission of narratives and social signals, but its market impact depends on the psychological characteristics of investors and the institutional structure of the market. The formation and bursting of bubbles should therefore be understood as the outcome of **interacting behavioural, technological, financial, and institutional mechanisms**.

The findings also have important implications for understanding the role of **retail investors in contemporary financial markets**. Increased participation of retail investors can contribute positively to financial inclusion and broader participation in capital markets. However, the behavioural literature suggests that investors with limited experience or financial knowledge may be particularly susceptible to attention-driven trading, social influence, overconfidence, speculative narratives, and emotionally driven decisions. This does not imply that retail investors are inherently irrational. Rather, their decisions are shaped by the information environment, technological architecture, social signals, financial literacy, investment experience, and market conditions within which those decisions are made. Consequently, future research and policy interventions should examine retail investor behaviour within its broader institutional and digital context rather than attributing market instability solely to individual investor characteristics.

The review further suggests that **financial literacy and investor education may constitute important protective mechanisms**, although their effectiveness should not be assumed automatically. Financially literate investors may be better positioned to evaluate investment information, recognise speculative narratives, understand risk, and distinguish short-term market movements from fundamental valuation. Nevertheless, education alone may not eliminate emotional responses, social influence, or cognitive biases. Consequently, investor protection may require a combination of financial education, transparent disclosure, appropriate leverage and margin requirements, effective market surveillance, responsible digital-platform

design, and timely regulatory intervention. Such measures should address both individual decision-making and the broader environments through which behavioural influences are transmitted.

The Indian context deserves particular attention in this regard. The increasing participation of retail investors, rapid expansion of digital trading, widespread use of social-media platforms, and growing availability of online financial information create an important empirical setting for examining the behavioural dynamics of market bubbles. The Indian stock market offers opportunities to investigate whether cognitive biases, sentiment, herding, digital information exposure, and speculative trading operate differently across investors according to financial literacy, investment experience, risk tolerance, demographic characteristics, and levels of market participation. It also provides an appropriate setting for examining whether digital information and social influence accelerate the transmission of market optimism and pessimism among retail investors. However, the present review primarily establishes a conceptual and literature-based foundation; **it does not by itself provide causal empirical evidence for the Indian market.** Such causal relationships require systematic empirical investigation using appropriate Indian market and investor-level data.

From a theoretical perspective, the review supports an integrated behavioural-finance framework in which **cognitive biases, investor sentiment, social influence and herding, and digital information exposure function as behavioural antecedents; speculative trading functions as a principal transmission mechanism; and bubble formation emerges through positive feedback and reinforcing expectations.** The subsequent reversal of expectations activates fear, loss aversion, panic, herding, forced selling, and deleveraging, thereby contributing to bubble bursting and potentially broader market-crash dynamics. The influence of these relationships may further depend on financial literacy, investment experience, risk tolerance, leverage, liquidity, institutional participation, and the regulatory environment. This framework consequently moves beyond single-factor explanations and conceptualises bubbles as dynamic processes involving interactions across several levels of analysis.

Several directions for future research emerge from this synthesis. First, future studies should employ **multimethod research designs** combining investor surveys, behavioural experiments, transaction-level trading data, market indicators, and measures of investor sentiment. Second, the increasing availability of social-media and digital-platform data creates opportunities to examine whether changes in online attention, sentiment, and social interaction precede or coincide with speculative price movements. Third, longitudinal and event-based studies could investigate how investor psychology changes across different stages of a bubble, from early optimism through acceleration, peak formation, expectation reversal, and eventual collapse. Fourth, empirical research should examine whether financial literacy, investment experience, and risk tolerance moderate the relationship between behavioural factors and speculative trading. Finally, comparative research across developed and emerging markets could determine whether the behavioural mechanisms identified in the broader literature operate similarly under different institutional, regulatory, technological, and market conditions.

Overall, the findings of this review indicate that understanding financial-market bubbles requires a shift from viewing them exclusively as pricing anomalies toward understanding them as **dynamic behavioural processes.** Investor psychology initiates and shapes expectations; social interaction and digital communication can amplify those expectations; speculative trading and positive feedback can translate them into market-wide price movements; leverage and limits to arbitrage can intensify and prolong the process; and expectation reversal, fear, loss aversion, forced selling, and deleveraging can accelerate the subsequent collapse. The principal contribution of the review is therefore the integration of these interconnected mechanisms into a unified behavioural perspective on both bubble formation and bubble bursting.

Ultimately, the behavioural-finance perspective has implications extending beyond academic theory. A deeper understanding of the psychological and social mechanisms underlying speculative episodes can assist **investors in recognising behavioural risks, financial educators in designing more effective investor-literacy programmes, regulators in developing proportionate investor-protection and market-stability measures, and financial institutions in strengthening risk-management practices.** In an increasingly

digitalised investment environment, particularly one characterised by expanding retail participation, understanding how individual psychology interacts with social influence, technology, leverage, and market structure is essential for strengthening financial-market resilience and reducing the potentially severe economic and social consequences associated with speculative bubbles and market crashes.

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