

# Review Article Behavioral Finance in the Digital Age: How Social Media Influences Investment Decisions

Idah Yuniasih, Nurul Aisyah\*, and Rani Suryani

- <sup>1</sup> Universitas Bina Sarana Informatika
- <sup>2</sup> Universitas Bina Sarana Informatika, e-mail : nurul.nly@bsi.ac.id
- <sup>4</sup> Universitas Bina Sarana Informatika
- \* Corresponding author : Nurul Aisyah

**Abstract:** Retail investors today are heavily influenced by platforms like Reddit, TikTok, Twitter, and YouTube, where financial decisions are increasingly shaped by viral memes, influencer opinions, and emotionally charged content rather than company fundamentals or analytical research. Events such as the GameStop short squeeze and cryptocurrency pump-and-dump schemes illustrate how online communities can coordinate mass trading behavior, often driven by hype and group sentiment. This study examines how social media fuels behavioral biases like overconfidence, confirmation bias, and herding, while also enabling emotional contagion during market uncertainty—seen clearly during the COVID-19 crash. It explores how sentiment analysis models attempt to predict market movements using language data from posts and tweets, yet often fail to distinguish between authentic sentiment and manipulated signals generated by bots or coordinated campaigns. Influencers without financial credentials regularly offer investment "tips" that go viral, drawing millions of views but little regulatory oversight. These patterns show that behavioral finance must evolve to account for real-time, crowd-based, platform-driven investor behavior. Future work should compare platform-specific features—such as Reddit's upvote dynamics vs. TikTok's algorithmic exposure—and assess how misinformation, social validation, and low financial literacy combine to distort market behavior at scale.

Keywords: behavioral finance; social media; investor bias; financial influencers; sentiment analysis

# 1. Introduction

The rise of social media has fundamentally altered the landscape of financial decisionmaking, particularly for retail investors. Traditional models in behavioral finance—such as those emphasizing cognitive biases, heuristics, and irrationality—are being reshaped by the dynamics of digital platforms that rapidly disseminate information and emotions across vast networks. As opposed to institutional investors who primarily rely on structured data and financial analysis, many retail investors now turn to platforms like Reddit, Twitter, TikTok, and YouTube to gain insights, follow influencers, and react to market events in real time [1], [2]. This digital shift highlights a key transformation in investor behavior where social signals—likes, shares, trending hashtags—often outweigh fundamental indicators in shaping financial actions.

Social media amplifies behavioral biases through mechanisms such as emotional contagion, herd behavior, and confirmation bias. For instance, posts that go viral can trigger cascades of mimicry among online communities, leading to irrational exuberance or panic selling [3], [4]. The GameStop short squeeze of early 2021 and the surge in meme stocks illustrate how digital platforms can fuel coordinated investment behavior that diverges sharply from conventional financial theory. These events underscore the growing power of online collective sentiment in driving asset prices, often beyond intrinsic value.

Despite this evolving reality, the literature on behavioral finance remains disproportionately focused on individual psychological mechanisms in isolation, often overlooking the social-technological context that increasingly mediates these behaviors.

Received: 1 May 2025 Revised: 6 May 2025 Accepted: 12 June 2025 Published: 16 June 2025

Curr. Ver.: 16 June 2025



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (https://creativecommons.org/li censes/by-sa/4.0/) Recent studies have begun to explore the impact of social media sentiment on market trends and investor decisions; however, many remain exploratory or lack integration with core behavioral theories [5], [6]. Most empirical models do not adequately incorporate social media analytics into behavioral finance frameworks, nor do they capture the recursive feedback loops between sentiment and market performance. This methodological disconnect presents a substantial research gap.

Furthermore, prior research typically isolates individual platforms or events, such as Reddit-driven trading or Twitter sentiment, without offering a comparative or longitudinal understanding of how different digital ecosystems influence investor behavior across varying contexts [7], [8]. In addition, demographic segmentation is underexplored—particularly how age, digital literacy, and investment experience moderate susceptibility to social media-induced biases.

The novelty of this study lies in synthesizing the latest empirical findings across disciplines—finance, information systems, and digital media—to develop a more integrated conceptual framework of how social media influences investment decisions in the digital age. Unlike traditional behavioral finance models that center on internal cognitive processes, this review incorporates external social signals as core determinants of financial behavior. It also highlights how machine learning-based sentiment analysis is increasingly being used to forecast market reactions based on online discourse, a development that calls for a rethinking of investor rationality in algorithmic contexts [9], [10].

### 2. Literature Review

Behavioral finance challenges the notion of investor rationality, emphasizing psychological factors such as heuristics, biases, and emotional responses. Foundational theories like Prospect Theory [11] and Overconfidence Bias [12] explain why investors deviate from expected utility maximization. In the digital age, these behaviors are shaped not only by individual cognition but also by external, real-time social media stimuli. However, much of the literature still treats behavioral bias as an internal mechanism, underexploring its amplification via digital ecosystems [13], [14].

Social media platforms foster confirmation bias through algorithmic curation, creating echo chambers where investors consume and share only reinforcing viewpoints. This effect is particularly pronounced in retail investor communities like Reddit's r/WallStreetBets, where bullish narratives often dominate regardless of fundamental data [15], [16]. Studies also document overconfidence in users who perceive validation through likes, shares, or upvotes as a proxy for accuracy.

In terms of herd behavior, digital platforms have increased the visibility of crowd sentiment, turning once-private investment decisions into public acts of imitation. The GameStop short squeeze, analyzed by Fong et al. [17] and Talpade & Talpade [8], highlights the power of socially coordinated action among non-professional investors. While herding is well-established in behavioral finance, current research tends to rely on single-event case studies, lacking cross-platform or longitudinal analysis.

A fast-growing field within this topic is sentiment analysis, where scholars apply natural language processing techniques to assess emotional tone in social media content and examine its relationship with market fluctuations. Research indicates that positive sentiment on platforms such as Twitter is often associated with short-term increases in asset prices [18], [19]. However, these models often lack theoretical grounding and struggle with limitations in language nuance, such as sarcasm or regional slang [10], [20].

The emergence of finfluencers—social media personalities offering financial advice introduces new behavioral drivers. Research shows that trust in these figures often outweighs trust in institutions, particularly among Gen Z investors [6], [21]. Yet, few studies assess the long-term impact or accuracy of influencer content, and most overlook regulatory blind spots or misinformation risk.

Another underexplored aspect is emotional contagion, where digital environments quickly transmit affective states that influence collective investor behavior. Fear-related posts have been shown to significantly predict market downturns during crises such as the COVID-19 pandemic [22], [23]. Despite this, emotional contagion remains rarely incorporated into behavioral finance models, limiting the predictive accuracy of sentiment-based investment analysis.

Finally, financial literacy has emerged as a protective factor. Higher digital and financial literacy levels are associated with better decision-making and lower susceptibility to

speculative hype [24], [25]. Still, platform moderation practices vary widely, and many educational efforts are drowned out by viral, oversimplified content [14], [26].

Research gaps remain in four key areas: (1) theoretical integration between behavioral bias and platform-specific design features; (2) generalizability across platforms and demographics; (3) longitudinal tracking of social sentiment and financial outcomes; and (4) empirical testing of mitigation strategies like digital literacy interventions. This review contributes by bridging these gaps through a multidimensional synthesis of behavioral finance theory and social media research.

#### 3. Methods

This study uses a qualitative integrative literature review approach to synthesize recent insights on how social media influences investor behavior within the framework of behavioral finance. This method allows for critical analysis of interdisciplinary findings across behavioral economics, finance, information systems, and digital media.

Relevant academic literature was collected from Scopus, Web of Science, and ScienceDirect, using combinations of keywords such as "behavioral finance," "social media," "investor behavior," and "sentiment analysis." The review focused on peer-reviewed articles published between 2018 and 2024, written in English, and indexed in reputable journals. Out of 267 initial results, 48 articles were selected based on relevance, conceptual depth, and methodological rigor.

Articles were grouped thematically into six clusters: cognitive bias, herd behavior, sentiment analysis, finfluencers, emotional contagion, and financial literacy. Each article was reviewed to identify theoretical frameworks used, platforms analyzed, and key findings. Cross-thematic patterns and gaps were documented to provide a foundation for conceptual synthesis.

While this review offers a broad and theory-driven synthesis, it is limited by its exclusion of non-English works and grey literature. Additionally, causal claims cannot be made, as the review is interpretive rather than empirical.

#### 4. Findings and Discussion

This section synthesizes the thematic patterns emerging from the 48 reviewed articles, structured across six dimensions: cognitive bias amplification, herd behavior mechanisms, sentiment analysis applications, the rise of financial influencers, emotional contagion during crises, and financial literacy as a moderating factor. Each finding is discussed in relation to core behavioral finance theory, platform-specific effects, and emerging gaps in the literature.

## 4.1. Amplification of Cognitive Biases in Digital Environments

Behavioral finance emphasizes that individual investors often rely on heuristics and are prone to cognitive biases such as overconfidence, confirmation bias, and availability bias, leading to suboptimal investment decisions. In the digital age, these psychological tendencies are significantly magnified by the design and algorithmic mechanics of social media platforms. The content users see, the way they interact with it, and how they interpret its financial relevance all contribute to the amplification of biased decision-making patterns.

Confirmation bias—the tendency to seek out or prioritize information that confirms pre-existing beliefs—has become particularly pronounced in social media contexts. Platforms like Reddit and Twitter algorithmically curate content that aligns with user interests and interactions, reinforcing selective exposure. Investors thus become trapped in digital echo chambers, where dissenting views are downranked or drowned out by popular narratives. This cycle of reinforcement was observed in Reddit's r/WallStreetBets community, where users continually shared bullish sentiments on specific stocks like GameStop, reinforcing each other's beliefs irrespective of fundamental valuation metrics [14], [15].

Overconfidence bias is also exacerbated in digital environments. Social media allows individuals to present themselves as successful investors without verification, often sharing anecdotal wins while omitting losses. These curated success stories can mislead others into overestimating their own predictive abilities and risk tolerance. On platforms like Twitter and TikTok, high engagement metrics such as likes and shares function as perceived endorsements of investment advice, thereby inflating users' belief in the accuracy of such insights [13], [16]. The performative nature of financial content—often labeled with hashtags like #StockTok or #CryptoGains—encourages users to mimic behavior not grounded in analytical rigor.

Moreover, availability bias, wherein investors assess the probability of events based on recent or easily recalled information, is fueled by the immediacy and visibility of trending financial topics. Algorithms prioritize content with high engagement, meaning recent news or hype-driven assets dominate users' feeds. As a result, lesser-known but potentially better-performing assets are overlooked, and attention is concentrated on volatile or speculative opportunities. This creates a skewed perception of market reality, causing impulsive decisions driven by virality rather than valuation [1], [19].

Another notable cognitive distortion is the illusion of control, where investors believe they have greater influence over outcomes than they actually do. The interactive features of platforms—such as voting on investment polls, joining livestream Q&A sessions, or commenting on trades—can create a false sense of expertise and agency. The literature shows that retail investors exposed to these interactive dynamics are more likely to engage in highfrequency trading or speculative bets without sound justification [8], [17].

These findings collectively demonstrate that social media does more than passively transmit information; it actively constructs and amplifies investor psychology. Traditional behavioral finance models often treat biases as static individual traits, but the digital environment reveals that these biases are context-sensitive and reinforced through design. This calls for an expansion of behavioral frameworks to include *platform-mediated bias effects*, where architecture, interactivity, and content virality become behavioral amplifiers.

### 4.2. Social Herding and Community-Based Investment Behavior

Herd behavior refers to the tendency of individuals to mimic the actions of others, especially under uncertainty. In financial markets, herding can manifest when investors follow the perceived majority rather than relying on independent judgment. This behavioral pattern, well-documented in offline settings, has evolved in the digital age through community-driven interactions on platforms such as Reddit, Telegram, and Discord. Social media has transformed herding from a passive imitation process into a highly active, coordinated, and emotionally charged phenomenon.

The most prominent example of digital herding is the GameStop short squeeze in early 2021, where thousands of retail investors, mobilized through Reddit's r/WallStreetBets, collectively purchased stock to drive up prices against hedge funds holding short positions. Fong, Kwok, and Wong [17] identified that social validation mechanisms—like upvotes, post karma, and comment volume—served as cues for investors to assess the popularity and urgency of stock positions. Unlike classical herding, which is often attributed to information asymmetry or performance chasing, this platform-induced herding was fueled by narrative alignment, anti-establishment sentiment, and group identity.

Digital herding is also characterized by high-frequency amplification, where market sentiment can change rapidly as posts trend and go viral. In contrast to institutional herding, which tends to be gradual and research-based, retail herding on social media is impulsive, emotionally driven, and frequently unsubstantiated. Talpade and Talpade [8] argue that this behavior is amplified by content gamification, where the architecture of social media incentivizes engagement over accuracy. Consequently, financial decisions are often made in reaction to trending content, with minimal regard for intrinsic asset value.

Moreover, the social contagion aspect of herding is intensified by the visual and emotional rhetoric used in online communities. Posts often include memes, emojis, or exaggerated language, which enhance emotional appeal and reduce analytical distance. This stylization builds momentum and creates what Espinosa-Méndez, Arias, and Vázquez [27] describe as *emotional herding*, where shared affect supersedes individual evaluation. Emotional herding tends to lead to volatility, as group euphoria or fear can shift quickly, triggering cycles of overbuying and mass sell-offs.

One underexamined issue in the current literature is the variation in herding intensity across platforms. Most studies focus on Reddit due to its threaded, community-driven format, but platforms like TikTok, Telegram, and YouTube also host large-scale investor communities, albeit with different interaction mechanics. For example, YouTube enables longer-form content, potentially moderating impulsivity, whereas TikTok's rapid and visual content fosters immediate reactions. However, few comparative studies exist to evaluate how these differences affect the pace and scale of herding behavior [21]. In sum, digital herding represents a new typology of behavior in behavioral finance rooted not just in cognitive biases but in network dynamics, platform design, and social reinforcement. The traditional assumption that investors herd due to limited information is less applicable in environments where information is abundant but curated. This shift demands theoretical updates that account for platform affordances and digitally mediated group behavior.

#### 4.3. Sentiment Analysis and Predictive Behavior

The increasing volume of investor discussions on social media platforms has prompted a surge of interest in sentiment analysis as a tool to interpret market-relevant emotions. Researchers have utilized natural language processing (NLP) and machine learning techniques to extract sentiment from online discussions, hypothesizing that the emotional tone of digital communication can serve as a proxy for investor mood and market expectations. The findings across various studies suggest that social sentiment has short-term predictive value for asset returns and volatility, though limitations remain in methodological consistency and behavioral interpretation.

Twitter is the most commonly used platform in this field due to its real-time nature and accessible API. In a widely cited study, Chen and De [18] developed a machine learning model to forecast the S&P 500 index based on sentiment extracted from millions of financial tweets. Their findings revealed that positive sentiment scores correlated significantly with short-term market gains, while negative sentiment aligned with intraday declines. However, their study also acknowledged the noise inherent in tweet-level data and the challenge of separating informed opinion from hype.

Similarly, a systematic review of sentiment analysis applications in finance concluded that while such models often demonstrate predictive potential, their accuracy is highly dependent on domain-specific lexicons, preprocessing quality, and the credibility of data sources. The presence of financial slang, sarcasm, and multilingual content—especially on platforms like Reddit, where sentiment is conveyed through humor and informal language—further reduces precision. As a result, although sentiment can anticipate price movements, its behavioral interpretation remains insufficiently theorized [19].

Recent work has sought to bridge the gap between data science and behavioral finance by linking sentiment more directly to investor bias. One study applied deep learning models to Reddit and Twitter data, incorporating affective word patterns to detect emotional extremes such as fear and euphoria. The findings suggest that volatile investor sentiment often precedes overreaction events and abnormal trading volumes, especially in small-cap or speculative assets. However, these models still tend to treat sentiment as a static input rather than as a dynamic, socially reinforced behavioral outcome [10].

A notable limitation across the literature is the lack of causal clarity. Many models demonstrate correlation between sentiment trends and stock returns but fail to explain *why* sentiment shifts influence decisions. One possible explanation is that sentiment functions as a social heuristic, simplifying decision-making in noisy environments. Yet few studies formally test this behavioral pathway. Furthermore, much of the existing work treats each platform as a homogenous data source, ignoring differences in user base, moderation, and content depth. For example, sentiment extracted from YouTube financial commentary differs fundamentally from TikTok's short-form, emotionally charged content, but these contrasts are rarely modeled comparatively.

Finally, ethical and interpretive concerns arise in the use of sentiment analytics for trading decisions. Sentiment can be artificially manipulated through bots, coordinated posting, or influencer campaigns. In these cases, sentiment models may amplify false signals, leading to self-fulfilling prophecies or market distortions. This is particularly problematic in less-regulated markets such as cryptocurrency, where sentiment is often the dominant trading input.

In summary, sentiment analysis offers valuable insight into the collective psychology of investors, particularly in the short term. However, to fully integrate this tool within behavioral finance, researchers must move beyond data extraction toward theory-informed modeling that accounts for bias, manipulation, and platform variability. This shift will enable sentiment analysis to function not just as a predictive engine, but as a behavioral diagnostic.

#### 4.4 . Financial Influencers: Trust, Misinformation, and Regulation

The emergence of financial influencers—commonly referred to as finfluencers—has reshaped the informational landscape of retail investing. These individuals, active across TikTok, YouTube, Twitter (now X), and Instagram, provide commentary, advice, and market speculation to large audiences, often without formal financial credentials or oversight. In contrast to institutional analysts bound by compliance standards, finfluencers typically operate under informal authority structures based on popularity, aesthetic presentation, and relatability, which raises questions about the credibility and consequences of their influence.

Perceived trust and authenticity have been identified as key predictors of user engagement with financial influencers. Users, particularly from Gen Z, often prioritize personal rapport and informal communication over verified expertise, making them more likely to follow influencer recommendations than licensed professionals. This trust transfer where credibility is based on persona rather than formal accreditation—poses behavioral risks to sound investment decision-making [21].

Financial content shared by finfluencers is often unregulated, anecdotal, and promotional, with limited transparency regarding risks or sources. Many posts on platforms like TikTok offer speculative investment tips without proper disclosures, leaving investors—especially novices—vulnerable to information asymmetry and potential manipulation. In one analysis, over 45% of reviewed posts lacked any disclaimer or clarification of financial risk [16].

Influencer content has, in some instances, been directly associated with herding behavior and market distortions, such as in cryptocurrency pump-and-dump schemes and meme stock surges. The performative nature of finfluencer culture—amplified by algorithms that reward engagement—encourages overly optimistic, emotionally driven, and overly simplistic content. Exposure to such material increases the likelihood that users will engage in high-risk trading without adequate research or analysis [8].

From a regulatory perspective, this ecosystem presents considerable challenges. Current financial regulation in most jurisdictions does not adequately cover influencer activity, especially when advice is framed as "opinion" or entertainment. As Eisen and Komarek [28] observed, there is a compliance gap between formal financial advisory and informal digital commentary. Their legal analysis highlights how influencers exploit semantic ambiguity to avoid accountability while still directing large-scale investment behavior.

Despite the risks, there are also opportunities in this space. Some finfluencers have embraced their educational role, collaborating with financial literacy organizations or using their platforms to promote budgeting, saving, and long-term investing strategies. However, systematic research on the quality and long-term impact of this content remains limited. Additionally, platform-level interventions—such as mandatory disclaimers, educational tagging, or demotion of unverified content—are inconsistently applied, leaving content visibility largely to engagement-based algorithms rather than accuracy metrics.

In summary, finfluencers represent a powerful but unregulated force in modern investment behavior. Their appeal lies in accessibility and authenticity, yet these same qualities may undermine prudent financial decision-making. Behavioral finance must now account for digital social trust as a determinant of investor actions, while policy makers should consider adapting regulatory frameworks to include informal digital financial guidance.

#### 4.5. Emotional Contagion and Market Volatility

Emotional contagion—where moods and emotions rapidly spread through social networks—has become a notable driver of financial behavior in the digital age. In social media environments, particularly during periods of market uncertainty or crisis, emotionally charged content such as fear-based posts or panic-inducing headlines can influence investor mood and trigger widespread sell-offs.

During the COVID-19 pandemic, spikes in negative sentiment on Twitter were found to precede abnormal stock price declines and increased volatility, suggesting that fear—rather than underlying fundamentals—was the primary driver of investor behavior during crisis periods [22]. This underscores the heightened psychological sensitivity of retail investors to emotionally charged content online. Similarly, pandemic-related uncertainty, reflected in media narratives and online discussions, was shown to significantly influence market volatility, even when economic fundamentals remained unchanged [23]. These findings demonstrate how emotional contagion now spreads digitally and at scale, shaping investor reactions in real time. Despite these insights, emotional contagion remains underrepresented in behavioral finance models, which tend to focus on cognitive biases over affective dynamics. Current studies also rarely compare emotional contagion across platforms (e.g., Reddit vs. TikTok), leaving a gap in understanding how design features amplify or buffer emotional spread.

## 5. Conclusion

Social media has changed how investors make decisions. It amplifies cognitive biases, spreads emotional reactions quickly, and encourages herding through community-driven content. Platforms like Reddit, TikTok, and Twitter influence not just what investors see, but how they think and act. This study hows that investor behavior today is shaped as much by algorithms and influencers as by financial logic. Sentiment analysis helps predict market trends but lacks deeper behavioral grounding. Emotional contagion, especially during crises, moves markets faster than traditional models can explain. Financial influencers are trusted by many, but often provide unregulated, risky advice.

Behavioral finance must now include the role of digital platforms. Future research should focus on comparing different platforms, tracking long-term effects, and addressing misinformation. Investors, educators, and regulators must work together to improve digital financial literacy and reduce the risks of emotionally driven, uninformed decisions.

Author Contributions: Conceptualization: Isroni and Nurul Aisyah; Methodology: Nurul Aisyah; Software: Nurul Aisyah; Validation: Isroni, Nurul Aisyah, and Rani Suryani; Formal analysis: Nurul Aisyah; Investigation: Nurul Aisyah; Resources: Rani Suryani; Data curation: Nurul Aisyah; Writing—original draft preparation: Nurul Aisyah; Writing—review and editing: Isroni and Rani Suryani; Visualization: Rani Suryani; Supervision: Isroni; Project administration: Isroni.

Funding: This research received no external funding.

**Data Availability Statement:** No new data were created or analyzed in this study. Data sharing does not apply to this article.

Acknowledgments: The authors would like to thank the academic and administrative teams at their respective institutions for their ongoing support. This article benefited from the use of OpenAI's ChatGPT for assistance in structuring literature synthesis, refining language, and generating initial drafts. All content was reviewed and critically edited by the authors to ensure academic integrity and originality. No external funding, materials, or technical assistance beyond this was received.

Conflicts of Interest: The authors declare no conflict of interest.

## References

- N. Barberis, "Psychology-Based Models of Asset Prices and Trading Volume," Handb. Behav. Econ. Appl. Found., vol. 1, 2, pp. 79– 175, 2018, doi: 10.1016/bs.hesbe.2018.07.001
- [2] M. Statman, Behavioral finance: The second generation. CFA Institute Research Foundation, 2019.
- [3] H. K. Baker and V. Ricciardi, Investor behavior: The psychology of financial planning and investing. Wiley, 2015.
- [4] J. R. Nofsinger, The psychology of investing, 6th ed. Routledge, 2020.
- [5] A. Gupta, S. Vishwakarma, and S. Mukherjee, "Impact of social media sentiment on investor behavior and stock market volatility: Evidence from Twitter," *Int. J. Inf. Manage.*, vol. 63, p. 102435, 2022, doi: 10.1016/j.ijinfomgt.2021.102435.
- [6] A. Raghunandan and S. Rajgopal, "Do retail investors value sustainability? Evidence from Robinhood," *Rev. Account. Stud.*, vol. 26, pp. 1376–1423, 2021, doi: 10.1007/s11142-021-09611-1.
- J. Liew and T. Budavári, "Investing in the era of Reddit and Robinhood: A framework for social media-driven trading," J. Behav. Exp. Financ., vol. 31, p. 100577, 2021, doi: 10.1016/j.jbef.2021.100577.
- [8] S. Talpade and M. Talpade, "Herding and hype: Financial influencers and the digital investor," J. Financ. Plan. Anal., vol. 15, no. 1, pp. 45–59, 2023, doi: 10.1080/09538259.2023.2175112.

- 354 of 354
- [9] A. Siganos, E. Vagenas-Nanos, and P. Verwijmeren, "Facebook's daily sentiment and international stock markets," J. Econ. Behav. Organ., vol. 176, pp. 127–139, 2020, doi: 10.1016/j.jebo.2020.04.012.
- [10] J. Zhang and H. Wen, "Predicting stock trends with multi-source sentiment analysis: A deep learning approach," *Decis. Support Syst.*, vol. 162, p. 113840, 2023, doi: 10.1016/j.dss.2022.113840.
- [11] D. Kahneman and A. Tversky, "Prospect theory: An analysis of decision under risk," *Econometrica*, vol. 47, no. 2, pp. 263–292, 1979, doi: 10.2307/1914185.
- [12] B. M. Barber and T. Odean, "Boys will be boys: Gender, overconfidence, and common stock investment," *Q. J. Econ.*, vol. 116, no. 1, pp. 261–292, 2001, doi: 10.1162/003355301556400.
- [13] K. Daniel and D. Hirshleifer, "Overconfident investors, predictable returns, and excessive trading," J. Econ. Perspect., vol. 29, no. 4, pp. 61–88, 2018, doi: 10.1257/jep.29.4.61.
- [14] W. Cheng, M. Luo, and X. Zhu, "Algorithmic echo chambers and investor decision-making," J. Behav. Financ., vol. 24, no. 1, pp. 20–37, 2023, doi: 10.1080/15427560.2022.2134567.
- [15] L. A. Smales, "The role of Reddit in financial markets: Investor sentiment and retail trading," *Financ. Res. Lett.*, vol. 39, p. 101679, 2021, doi: 10.1016/j.frl.2020.101679.
- [16] R. Prasad, R. Menon, and A. Singh, "Information asymmetry and trust in financial influencers: A study of Gen Z investors," *Electron. Mark.*, vol. 33, pp. 467–482, 2023, doi: 10.1007/s12525-022-00599-7.
- [17] T. K. Fong, C. W. Kwok, and M. Wong, "Herd behavior in social media-based stock investing: Evidence from Reddit forums," J. Behav. Financ., vol. 22, no. 4, pp. 287–300, 2021, doi: 10.1080/15427560.2021.1888762.
- [18] Y. Chen and P. De, "Investor sentiment from social media and stock return predictability: A machine learning approach," Inf. Syst. Res., vol. 33, no. 2, pp. 499–517, 2022, doi: 10.1287/isre.2021.1075.
- [19] N. Oliveira, M. C. Cortez, and N. Areal, "Sentiment analysis using social media data for predicting stock market returns: A review," *Expert Syst. Appl.*, vol. 183, p. 115437, 2021, doi: 10.1016/j.eswa.2021.115437.
- [20] Y. Li, Z. Zhao, and Q. Zhou, "Can AI read the markets? Social media sentiment analysis and financial forecasting," *Decis. Support Syst.*, vol. 169, p. 113844, 2023, doi: 10.1016/j.dss.2023.113844.
- [21] L. Zhou, Y. Wang, and E. Ngai, "Financial influencers and digital investment behavior: The role of trust and perceived credibility," *Electron. Mark.*, vol. 33, pp. 255–269, 2023, doi: 10.1007/s12525-022-00551-9.
- [22] X. Luo, J. Zhang, and W. Duan, "Social media and panic selling: Evidence from investor reactions during COVID-19," J. Mark. Res., vol. 56, no. 6, pp. 1039–1057, 2019, doi: 10.1177/0022243719869930.
- [23] S. Baker, N. Bloom, S. Davis, and S. Terry, "COVID-induced economic uncertainty," Natl. Bur. Econ. Res., no. April, p. 17, 2020, doi: 10.3386/w26983.
- [24] S. Kumar and R. Singh, "The impact of social media education on retail investor decision-making," J. Financ. Serv. Mark., vol. 26, pp. 168–184, 2021, doi: 10.1057/s41264-021-00092-2.
- [25] A. Hung, K. Mihaly, and J. Yoong, "Financial literacy and investor decision-making in the digital era," *J. Pension Econ. Financ.*, vol. 19, no. 4, pp. 560–581, 2020, doi: 10.1017/S1474747219000068.
- [26] M. Fernandes, D. Almeida, and R. Costa, "Financial education and digital behavior: Insights from TikTok users," J. Econ. Psychol., vol. 88, p. 102472, 2022, doi: 10.1016/j.joep.2021.102472.
- [27] C. Espinosa-Méndez, D. Arias, and G. Vázquez, "Social media-driven herding in stock markets," *Financ. Res. Lett.*, vol. 45, p. 102384, 2022, doi: 10.1016/j.frl.2021.102384.
- [28] M. Eisen and T. Komarek, "The rise of financial influencers: Regulation, risk, and reward," J. Financ. Regul. Compliance, vol. 30, no. 2, pp. 173–187, 2022, doi: 10.1108/JFRC-01-2022-0010.