



INVESTOR BEHAVIOUR IN THE DIGITAL FINANCIAL ECOSYSTEM: A SYSTEMATIC LITERATURE REVIEW

Saba Fatima^{a*} and Dr. Syed Afzal Ahmad^b

^aAssistant Professor, Department of Commerce, Integral University, Lucknow.

^bAssociate Professor, Department of Business Management, Integral University Lucknow.

Structured Abstract:

Purpose: The aim of this study is to undertake the systematic review of academic paper on digital and financial technology to describe the impact of various digital and financial technologies on the behaviour of retail investor under several cognitive and influence their investment decision-making. The study includes internet, social media and social trading platform as a advanced communication channel and social trading application and a financial technology facilitating in execution of trading decision.

Study design/methodology/approach: A systematic literature review has been conducted of 94 academic work which includes published journals, conference proceedings, working papers and published books with the systematic search of academic works from several electronic databases to identify relevant studies even though there was research work released between 2000 and 2023. The publication of notable works began in 2014. The search terms included "technological advancements," "internet," "social media," "social trading applications," "trading applications", "retail investors," "investor behaviour," and "investment decision-making and fintech."

Findings: The paper suggest that the digital and financial technological variable collectively impact investor in not only in providing with financial information but also in decision making and trade execution. The increased accessibility to information and trading avenues has led to challenges, such as information overload and the potential for overconfidence in decision-making which results in impulsive and frequent trading affecting their return. Moreover, digital communication technology such as social media, one of the essential sources of information and opinion, also is to be credited with impacting investor sentiment and behaviour leading to herd behaviour and suboptimal return.

Research limitations/implications: This paper reports that investors' behaviour post digital and financial technology adoption have high potential for further study by various stakeholders in the field of behavioural finance from academia, practitioners to regulators.

Practical implications: The paper summarizes the lessons which is of importance for the retail investor, implies that retail investor should be careful in relying too much on the digital technology in terms of fetching financial information and trade execution especially when they are not financial experts.

Social implications: Under this study, investors can recognize various cognitive biases that can influence their trading behavior and impact their returns.



Originality/value: The paper add value in the understanding of digital and financial technological evolution and its impact, post-adoption, on the retail investors' behaviour

Keywords: Fintech, Digital technology, Behavioural finance, social media,

JEL classification codes: G41, G11, O33

Article Classification: Literature review

Introduction:

Investment decisions are influenced by a wide range of factors, including access to information. (Agarwal et al., 2017) and the necessary infrastructure (Lau, 2002) for executing trades. The use of technology in trading practices has evolved a lot since the advent of the Internet (Fan, 2024). Initially, the internet provided a platform for traders to access market data and execute trades remotely, removing the need to rely on a physical trading floor (Odean, 2001; Balaji & Sriram, 2024). The financial services provided over the Internet facilitate the execution of financial transactions with ease and comfort and go beyond both temporal and spatial limits (Gupta & Dhunganna, 2026).

This implies that the services can be accessed and used from anywhere in the world, even when a person is not physically present, at any time, provided an internet connection is available. It became an indispensable tool for traders and investors, providing vast real-time data and space (Abroud, 2012). (Barber, 2002) who analyzed 1607 investors who switched from phone-based to internet-based investing found that the consequent greater ease of access (Perälä, J. 2025), reduced commissions, and faster trade execution encourage investors to trade more speculatively and frequently, and lag by 3% annually.

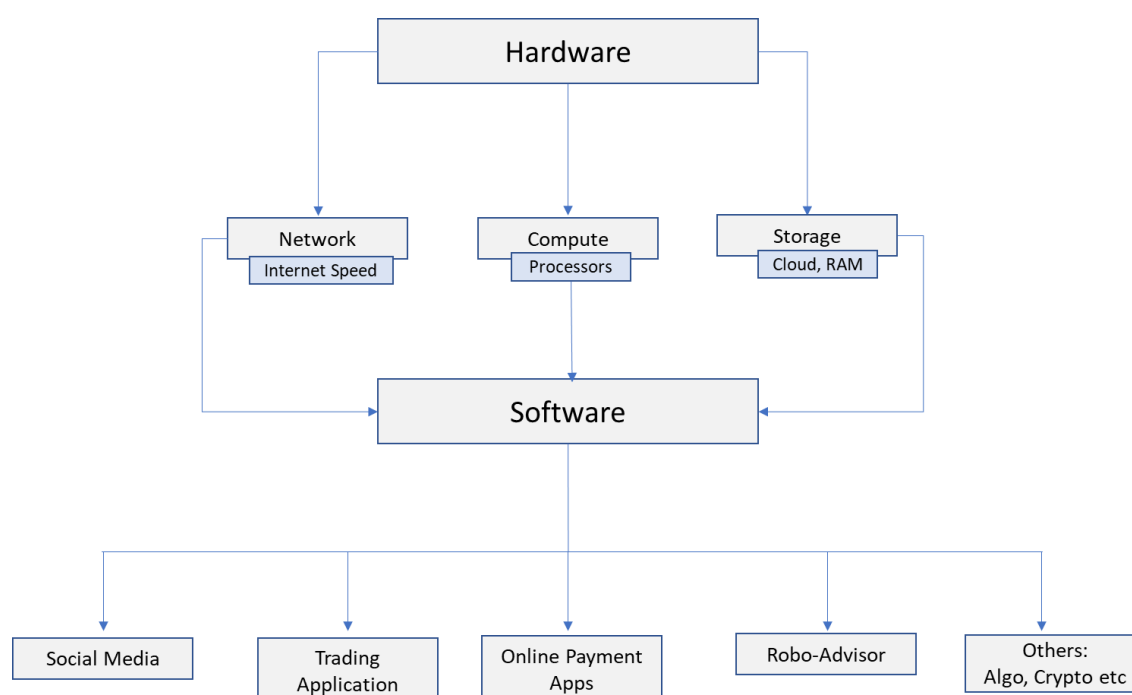
While technology has significantly impacted trading practices. Starting with the internet and mobile technology, providing access to information and trading from anywhere. Social media platforms have become a critical source of information and opinions about financial markets and individual investments (Ahmad et al, 2026). Influencers on social media platforms can impact investor sentiment and decision-making (Piñeiro-Chousa 2017).

Social trading platforms enable investors to share information and strategies with others, helping them make more informed investment decisions (Wohlgemuth, 2016). Given that various technological variables are involved at each stage of the single investment decision-making process (Ram & Arulmurugan, 2026). They have created a dynamic investment environment; it is imperative to review the literature comprehensively to identify the key factors and how they are influencing investment decisions



While previous research has extensively examined the factors affecting investors' adoption of technology for trading, little work has examined investors' trading behavior post-adoption of this technology. Hence, there is a significant gap in the literature concerning the collective impact of evolving fintech platforms, such as social trading and trading applications (Priyadarshi et al., 2024), on the behavior of retail investors and their trading decisions (Peramandla, N., 2025).

Figure 1. Component/layer of information technology interrelating hardware, software, and fintech.



The diagram illustrates the symbiotic relationship between hardware and software by depicting the interrelated components of a comprehensive system. The hardware is the highest level and consists of networking, computation, and storage. These fundamental components provide the underlying infrastructure for many software applications. Such as social media (Jiang, 2024), trading applications, and online payment systems. robo-advisor, cryptocurrencies, and blockchain technology represent a rapidly evolving landscape, with various innovative applications being explored beyond traditional financial systems.

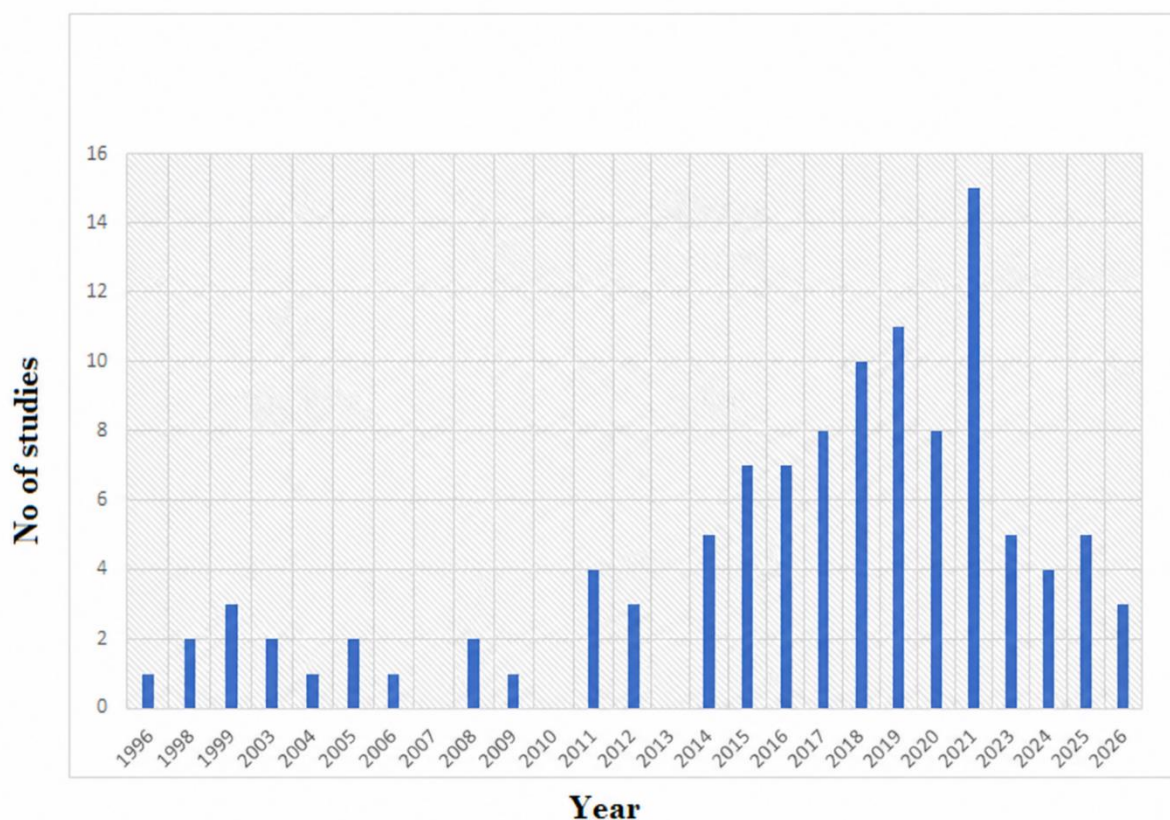
Data and Methodology

This study aims to investigate the impact of technological advancements on retail investors' behavior. Holding a specific focus on the role of the internet, smartphones, social media, social trading applications, and trading applications.



The objective is achieved by a systematic review of the literature. A systematic search of academic works in several electronic databases was conducted to identify relevant studies, mainly published between 2000 and 2023. The search terms included "technological advancements," "internet," "smartphones," "social media," "social trading applications," "trading applications," "retail investors," "investor behavior," and "investment decision-making, fintech. The literature review encompasses relevant studies and research articles that includes

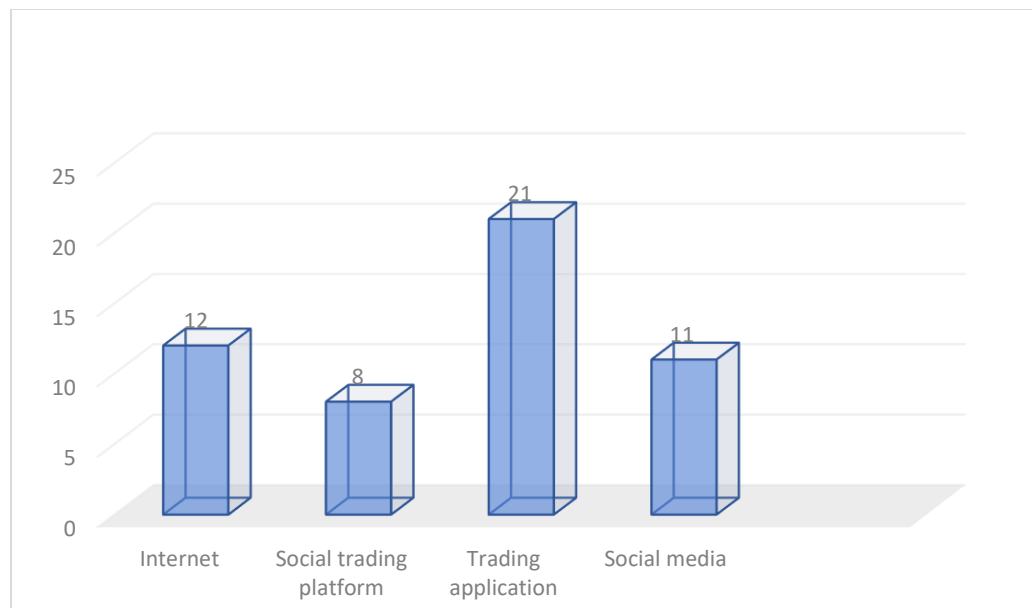
Figure 2- Presentation of literature review in Year wise data



- (1) Studies that examined the impact of at least one of the technological advancements listed above on the behavior of retail investors;
- (2) Studies that included quantitative or qualitative data on investor behavior or decision-making;
- (3) Studies that were conducted on individual retail investors, rather than institutional investors or investment professionals

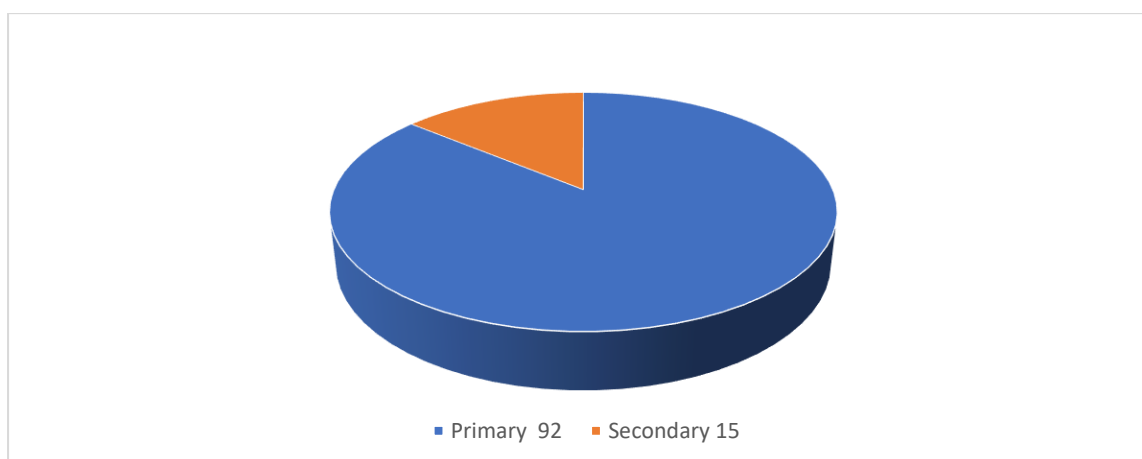


Figure 3: Contribution of the literature review for different variables



After screening the initial search results by title, abstract, and full-text, the relevant studies were identified, and their bibliographies were hand-searched for additional articles. The selected articles were then reviewed and analyzed for their key findings, methodologies, and limitations. The literature review results were synthesized and presented in narrative form, emphasizing the trends, patterns, and inconsistencies across the studies.

Figure 4: Classification of literature review in primary and secondary studies.



The limitations of this literature review include the potential exclusion of relevant studies published in languages other than English, the possibility of publication bias toward positive results, and the inherent limitations of relying on secondary data sources.



Objectives

- To examine the influence of technology on the behavior of retail investors.
- To investigate the impact of social media platforms and influencers on investor sentiment and behavior in the context of financial markets and investments
- To assess the challenges faced by retail investors due to information overload and overconfidence in decision-making, stemming from increased accessibility to financial information through technology.

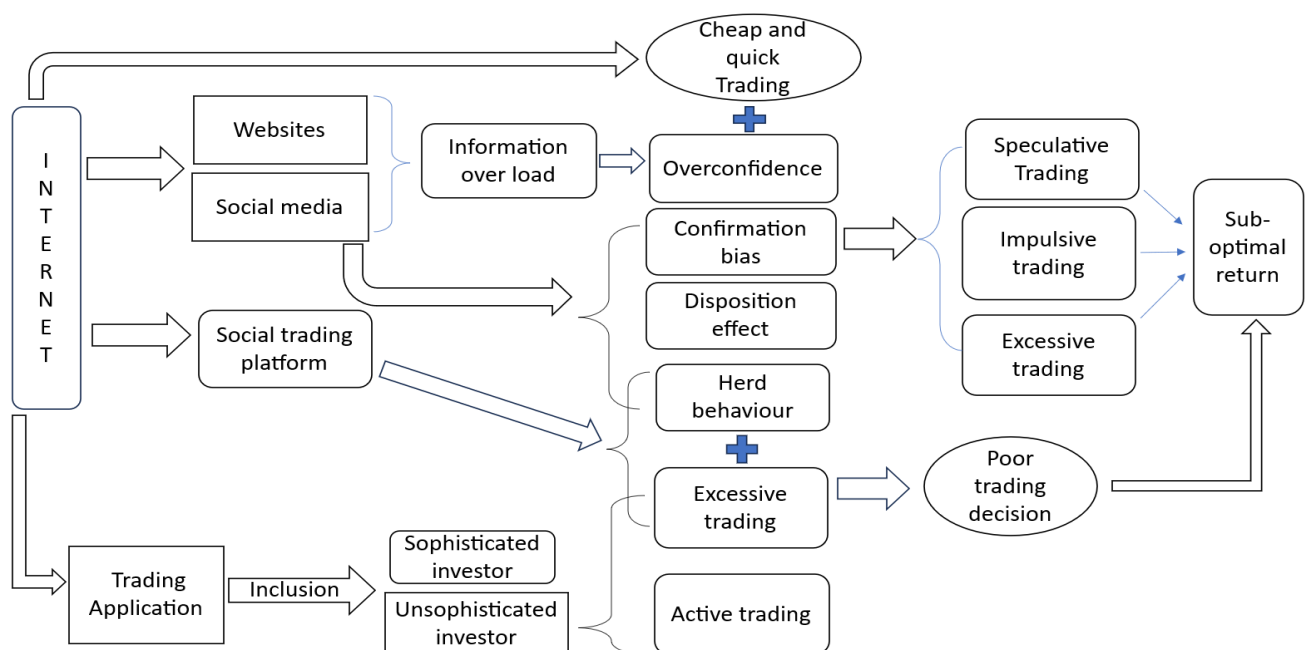
Hypothesis

Hypothesis 1: Increased accessibility of technology platforms for retail investors positively correlates with higher trading frequency among investors.

Hypothesis 2: The presence of influential individuals on social media platforms significantly affects investor sentiment.

Hypothesis 3: Overtrading through social platforms leads to suboptimal investment returns.

Figure 6: Research framework



Internet

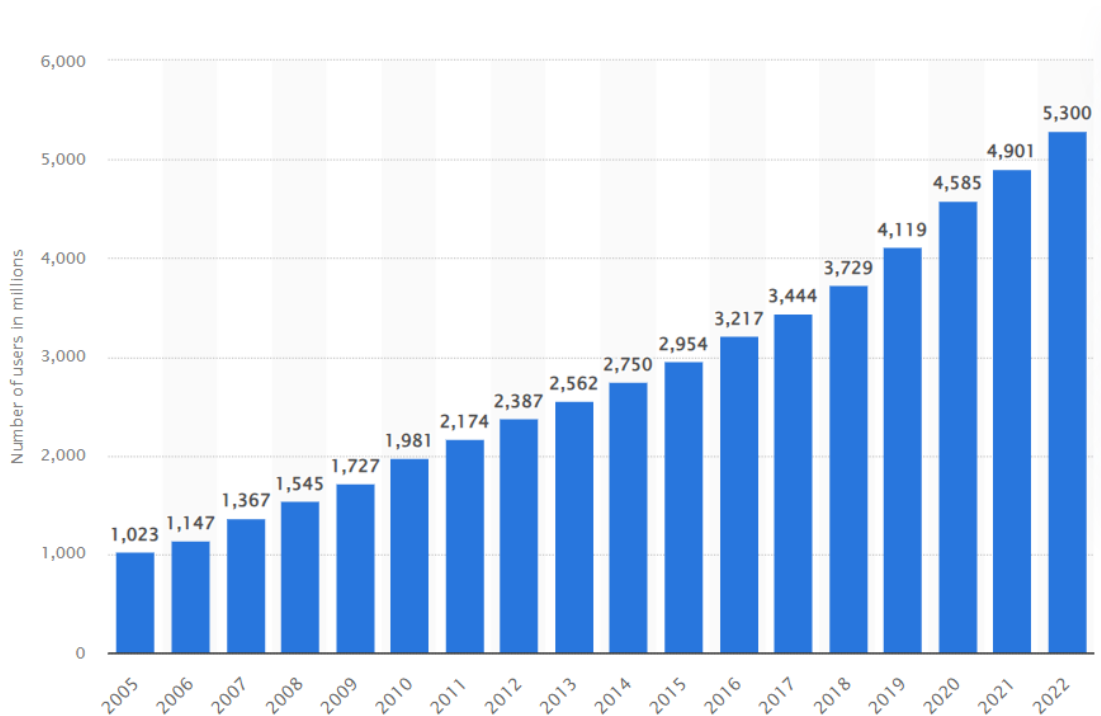
The emergence of the internet in the late 20th century has transformed how people conduct business and interact with one another. It leads to a pronounced increase in stock market



participation (Hvide, 2022). It has had a profound impact on investors' satisfaction, behavior, and decision-making. The time and cost savings, as well as perceived trust, are important motivators for investors to use online trading and trade in the stock market. This finding is substantiated by (A. Abroud, 2015), who validated these elements using the Decomposed Technology Acceptance Model (DTAM).

With the Internet, investors now have access to vast amounts of information on companies, markets, and industries that were once unavailable to them (He et al, 2025; Rao et al, 2025). They can easily and quickly research potential investments and stay up-to-date on market trends (Flicker, 2004). This has led to greater efficiency and transparency in the investment process (Jafarpour, 2006). Widespread use of the internet, facilitating e-banking and fintech technologies provided through the internet, has contributed to the “democratization of finance (Suresh et al., 2025; Hvide, 2022), i.e., increasing ordinary people's access to financial instruments for wealth creation (Ram et al., 2026), which leads to an increase in trading activity (Engel, 2022; Chang & Dutta, 2012). Additionally, the internet penetration has enabled the growth of online trading platforms, making it easier than ever for individuals to invest directly in stocks, bonds, and other securities.

Figure 7: Number of internet users worldwide from 2005 to 2022



Source: Statista

While the Internet has undoubtedly brought many benefits to investors, it has also had some negative effects on investor behavior. (Bizzi, 2019) suggested that access to so much information at their fingertips creates the illusion of knowledge, investors may feel more confident in their ability to make investment decisions, even if they lack the necessary knowledge and expertise,



creating self-attribute bias (Looney 2006). This illusion of knowledge, self-attribute bias, along with a sense of control, gives overconfidence, known to be found substantial by (Barber, 2002), who analysed 1607 investor who switched from phone based to internet-based investing, found that the greater ease of access, reduced commission, and faster trade execution, encourage investors to trade more speculative and frequently, and lag by 3% annually. Miscalibration, which is the tendency to overestimate the precision of one's information, as a form of overconfidence, reduces trading performance (Biais, 2005). Further, it leads to excessive risk-taking, which can result in significant financial losses (Odean, 2001; Odean, 2000). Additionally, along with overconfidence, cheaper and faster trading results in impulsive and speculative decision-making (Barber, 2002). Investors may be more prone to making quick trades based on short-term market movements rather than taking a long-term view of their investments.

Overall, while the internet has revolutionized the investment landscape, investors need to remain vigilant and cautious when using online resources.

Social media

Social media as a communication channel

In recent years, social media has emerged as a popular information source (Hu, 2016), (Agarwal et al., 2017) an influencer of retail investor behaviour. Influencers on social media platforms can impact investor sentiment, impacting the way investors gather information and make investment decisions (BD Egger, 2014) (Piñeiro-Chousa 2017), The consumer population's dependence on social media as a source of information has significantly increased in recent years, impacting their decision-making across a broad range of contexts (Florendo, 2019).

Social media platforms, such as Twitter and Reddit, provide investors with access to a vast array of information sources and expert opinions, enabling them to stay informed about market trends and investment opportunities (Zhang 2020), (Sprenger et al., 2014). Taking into consideration the fundamental role of social media as a modern-day communication channel it is imperative to recognize the significance of the studies like (Wysocki, 1998) the pioneering work suggests that communication, in the form of message postings, can have an impact on trading activity which is also seconded by, (Heimer, 2015), (Jin, 2022) who employee different and different analysis on dataset drawn from a social trading platform concluded that social media plays an important role in shaping investing behaviour supporting, the contagion model of information spread proposed by Shiller and Pound (1989) for financial markets, which suggest the notion that direct human communications are the most influential in influencing investor decisions.

Chan (2003) analyzed investors' reactions to news using a database of headlines for specific firms and found that stocks with negative public news exhibit a high negative drift, whereas equities with positive public news experience little drift. (Agarwal et al., 2017) Their study implied that media coverage can affect investor behavior and stock performance, and among them, social media has a stronger impact on stock performance than traditional media. This emphasizes the significance of media influence on investors and stock market performance.



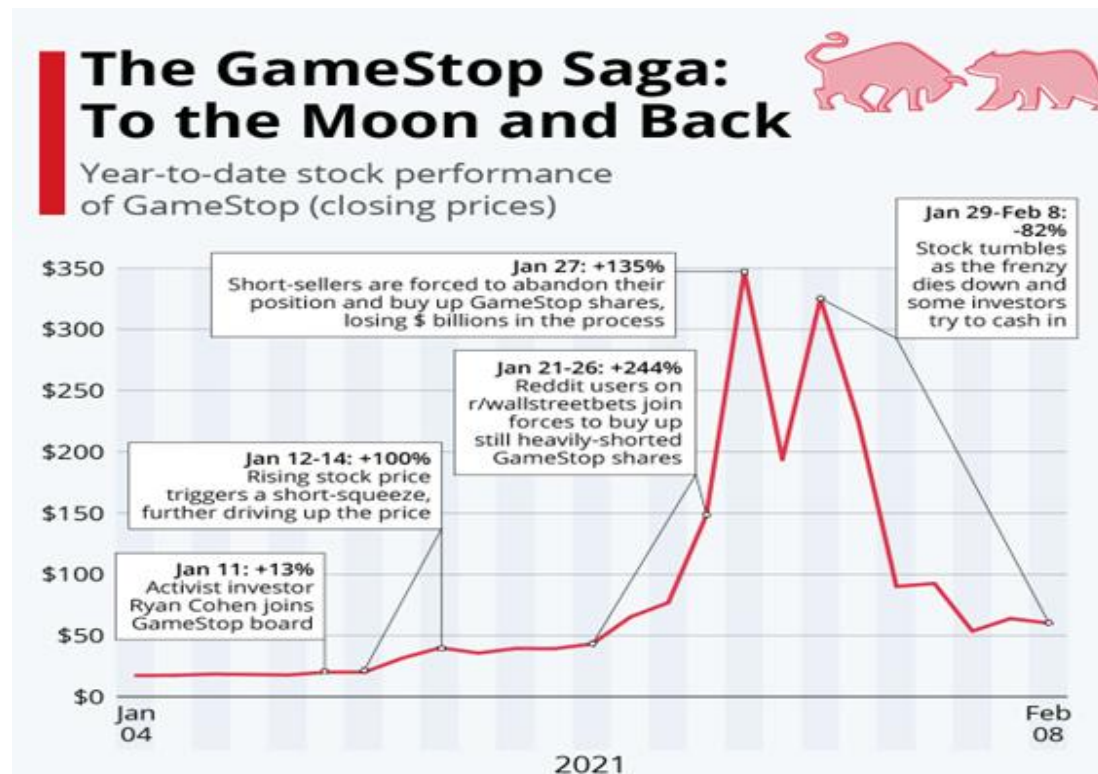
Social media's role in investors' cognitive bias

The abundance of information available on these platforms may also lead to confirmation-biased behavior (Park, 2010), giving way to Prospect theory, which implies that investors place a higher value on perceived profits than on perceived losses (Tversky & Kahneman, 1974)—leading to the disposition effect (Shefrin & Statman, 1985), which describes the inclination to sell winning assets while deferring losses, and overconfidence (Briere, M. 2023) (Yu, 2022) among investors in their trading decisions. The element of overconfidence is also positively related to trading frequency (Biais, 2005; Odean, 1998), as overconfident investors trade more often. Also, according to Park (2010), overconfident traders exhibit higher trading activity than low-confidence traders. Leading to reduced performance, resulting in suboptimal investment outcomes (Grinblatt & Keloharju, 2009).

Additionally, the reliability and credibility of information shared on social media may be questionable, rendering investors vulnerable to misinformation and rumors (Walia, 2016). The dissemination of information can affect financial markets, including predicting market volatility and influencing stock returns (Antweiler, 2004; Renault, 2017).

Role of social media in market volatility

Also, information from social media publishers often appeals to audiences through sensationalism and the rapid amplification of extreme opinions, thereby exacerbating positive or negative views (Bizzi, 2019). A behaviour where Investors and fund managers rush into risky businesses without appropriate information or awareness of the risk-reward trade-offs and escape to a safer option at the first indication of crisis (Bikhchandani & Sharma, 2000). (Bizzi, 2019) in his empirical study reflects that heavy social media users are more likely to engage in online trading, and are four times more likely to follow other traders unthinkingly. Moreover, they are unlikely to receive adequate returns (Teplova, T, 2022).



Source: Statista

Social trading platform

Social media has considerably aided the birth and growth of online trading platforms, especially social trading platforms. A platform that represents an even more focused and refined approach to delivering stock market information and advice to investors has revamped the investment landscape by providing a unique avenue for investors, as these platforms incorporate some social network characteristics into online trading platforms (Dorfleitner, 2021). On trading platforms, the signal provides share investment ideas, develops trading strategies for specific financial assets, and posts comments in real-time (Wohlgemuth 2016), (Dorfleitner, 2021). These platforms have redefined investment as a collaborative effort, allowing users to follow strategies of their choice and even copy trades from other successful investors (Yu, 2022; Doering, 2015), such as eToro, ZuluTrade, and Stockal. Furthermore, some platforms offer the opportunity to invest directly in others' strategies. Providing a space for traders to connect, share trading ideas, and learn from more experienced traders (Pan, 2012). Information transparency and the participation of professionals and media companies have led to greater acceptance of social trading (Glaser, 2018; Dorfleitner, 2021).

(Ammann, 2020) explored the impact of social network characteristics on trading activity on sophisticated and unsophisticated investors, the results revealed that unsophisticated followers' investment decisions were more likely influenced by the comments of traders on the social trading platform, confirming with (Yu, 2022) where the study suggested that an increase in portfolio owners' trading frequency can potentially be caused by the sharing of investment ideas by leaders on social trading platforms propagating to active trading. Likewise, the Han et al (2022) model



explains self-enhancing transmission bias, or SET, which is defined as the characteristics of the social transmission process that determine the probability that return messages about a strategy are conveyed to other investors and cause those investors to adopt it. A natural link between the dominance of investment strategies and their communicability is established. Also provide the empirical implication that increased sociability induces the frequency of the active trading approach.

(Han, 2022) and (Ammann, 2020) both point out overconfidence characteristic of traders, who exhibited irrational behaviour, tended to harm their performance by engaging in excessive trading activities. As a result, social trading platforms have the potential to transform the way investors approach their investment portfolios, and their impact on the financial industry warrants further investigation as social trading platforms' significant influence on investor trading behaviour.

Trading application

So far, the study focused on the information diffusion characteristics of technology and its impact on investor behaviour further the study moves to the technology which facilitating as well as influencing investor trading activities.

Previously, investors relied on internet, social media and trading platforms for information related to stock trading. However, with the introduction of trading applications, investors now have access to a greater range of information, as well as the ability to participate in stock trading on their own. Trading apps are mobile applications that enable users to access financial markets and trade a variety of financial instruments such as stocks, currencies, commodities, and cryptocurrencies. These apps provide real-time market data, news, charts, and trading tools. It empowers users to make trading decisions and execute trades directly from their mobile devices (Lee-Lee Chong, 2021).

The key factor why investors are preferring trading applications instead of the traditional method is performance expectancy (Nair, 2022) as determined by their belief that using such applications will improve their investment performance i.e., return. Applications that are user-friendly and require less effort to use (effort expectancy) are more likely to be adopted. (Malhotra 2020), (Balapour, 2020); (Venkatesh & Davis, 2000), (Hussain M, 2019). And Social influence, which refers to the impact of social factors on an investor's decision to adopt a trading application. It can increase adoption rates if the application is perceived as socially acceptable or popular among their peers as per (Tai, 2013), (Chao, C. M. 2019).

(Tai, 2013) who applied The Unified Theory of Acceptance and Use of Technology (UTAUT), a model which is developed by (Venkatesh, 2003) for explanation of user perception and acceptance behaviour toward the acceptance and use of technology the proposed model - The unified theory of acceptance and use of technology integrated the core elements from eight models and prominent theories (including the theory of reasoned action [TRA], theory of planned behaviour [TPB], the TAM; the joint TAM-TPB, model of PC utilisation [MPCU] motivational model (MM),



innovation diffusion theory [IDT], and social cognitive theory [SCT]) to predict or explain new technology adoption, acceptance, and usage. It finds that the primary factors of intention to utilise new technology are performance expectancy, effort expectancy, social influence, and favourable circumstances for behavioural intention and user behaviour. Along with that, mobile apps are gaining more acceptance among retail investors as an investment tool, due to their low cost, as they eliminate intermediaries and significantly reduce investing expenses while benefiting both investors and markets.

While some important external factors that investors consider when selecting a platform for mobile stock trading are high levels of security as perceived security was Technology Acceptance Model's (TAM) most prevalent external factor affecting the uptake of mobile financial services, followed by subjective norm and trust (Gbongli K, 2022), low transaction costs, and high speed (Lee-Lee Chong, 2021), (Malhotra 2020). Those with a positive attitude towards mobile stock trading, who find it easy to use, see benefits in using it and trust it, are more likely to use it for their investments. (Lee-Lee Chong, 2021), (Hermanto & Napitupulu, 2023). A user-friendly, useful, and trusted mobile app can encourage investors to use the mobile app for stock trading (Moustafa Abuelfadl, 2016), (J Venkatesh, 2016) Encouraging them to trade more frequently. (Tai, 2013), (Nair, 2022) leading to increased investor interest and trading activity, and affects their response to short-term market indicators (Cen, 2021), but the impact may not be in favour of investors in the form of positive returns as stated by (Odean, 2001) (Barber, 2002) again high trading frequency is associated with poor performance.

Conclusion

In conclusion, this review of the impact of technology advancement on the behaviour of retail investors highlights the significant role collectively played by the internet, social media platforms, social trading platform and trading application, in providing financial information, decision making and trade executing. Retail investors now have a wide range of information sources, including corporate reporting, financial news, expert opinions, and easy investment avenue, to inform and facilitate their investment decisions. This increased accessibility to information and trading avenues has also led to challenges, such as information overload and the potential for overconfidence in decision-making which results in impulsive and frequent trading. social media, one of the essential sources of information and opinion, also to be credited with impacting investor sentiment and behaviour leading to herd behaviour and suboptimal return.

While technology has transformed the retail investment landscape, there is still much to learn about the impact of these changes on investor behaviour. Future research should focus on exploring how technology can be harnessed to help retail investors make better investment decisions while mitigating the risks associated with cognitive and behavioural bias.