Open Access

THE IMPACT OF EASE OF TRADING ON BEHAVIORAL ERRORS: EVIDENCE FROM ONLINE INVESTORS

S.N.V. SUSHMITHA[1], *DR. T. SOBHA RANI[2]

[1]RESEARCH SCHOLAR, DEPARTMENT OF BUSINESS MANAGEMENT, SRI PADMAVATI MAHILA VISVAVIDYALAYAM, TIRUPATI, A.P., INDIA

[2]PROFESSOR, DEPARTMENT OF COMMUNICATION AND JOURNALISM, SRI PADMAVATI MAHILA VISVAVIDYALAYAM, TIRUPATI, A.P., INDIA.

Abstract

The widespread use of internet trading platforms has greatly decreased trade friction, prompting concerns about the behavioral consequences for ordinary investors. This study evaluates whether ease of trading leads to behavioral errors among online equities investors, as well as the mediating impact of overconfidence. The study uses survey data from online traders and structural equation modeling to investigate the links between ease of trading, overconfidence, trading frequency, and behavioral errors. The findings show that ease of trading greatly increases overconfidence and trading frequency, which leads to more behavioral errors. Overconfidence is observed to partially moderate the association between trading convenience and behavioral errors, but financial knowledge reduces this impact. The findings add to the behavioral finance literature by emphasizing the significance of platform design in determining investor behavior. They have substantial implications for investors, platform developers, and regulators.

Key Words: Behavioral Finance, Ease of Trading, Overconfidence, Trading Frequency, Online Investors

INTRODUCTION

The growing digitalization of financial markets has fundamentally altered the way individual investors engage in equities trading. Online trading platforms and mobile applications have dramatically lowered transaction costs, shortened execution times, and streamlined trading operations. Trading is now more accessible than ever because to features like one-click trading, zero brokerage, real-time notifications, and smooth user interfaces. While technical improvements have democratized market access, there are concerns about the unexpected behavioral repercussions. Traditional finance theory assumes that investors are rational agents who process information efficiently and make optimal decisions. However, behavioral finance literature has consistently demonstrated that investors are prone to cognitive and emotional biases, leading to systematic deviations from rational behavior. Common behavioral errors include overconfidence, excessive trading, herding, and the disposition effect. These biases often result in suboptimal investment outcomes and reduced wealth accumulation.

Ease of trading represents a critical yet underexplored dimension in this context. By lowering cognitive effort and procedural barriers, online trading platforms may inadvertently weaken investors' self-control and encourage intuitive rather than deliberative decision-making. Reduced friction can amplify psychological biases by creating an illusion of control, fostering impulsive actions, and diminishing the perceived consequences of frequent trading. Consequently, investors may engage in excessive trading activity without commensurate improvements in investment performance. Overconfidence is one of the behavioral biases that contribute significantly to excessive trading activity. Overconfident investors tend to overestimate their abilities to comprehend market data while underestimating investment hazards. Previous empirical research has found that such investors trade more frequently and suffer higher transaction costs, resulting in inferior risk-adjusted returns. In frictionless trading environments, ease of execution may foster overconfidence by rewarding activity rather than precision, resulting in more behavioral errors.

Despite the increasing popularity of online trading platforms, empirical evidence on the direct association between ease of trading and behavioral errors is sparse, especially in emerging market situations. Existing research focuses mostly on investors' demographics or psychological attributes, whereas platform design and trading convenience have gotten very little attention. This study aims to close this gap by looking into whether ease of trading leads to behavioral errors among online investors, as well as the role of overconfidence in mediating this link.

This study uses data from online equity investors to experimentally examine how ease of trading impacts overconfidence, trading frequency, and behavioral errors. By combining behavioral finance theory with insights from digital finance and platform design, this study adds to the literature by emphasizing the behavioral consequences of

frictionless trading environments. The findings have important implications for investors, platform developers, and regulators interested in encouraging ethical trading behavior and financial well-being.

Research Objectives

The primary goal of this study is to see if the convenience of trading provided by internet trading platforms causes an increase in behavioral errors among retail investors. Specifically, the study aims to investigate the psychological mechanisms via which trading convenience effects investor behavior.

The objectives of the study are as follows:
1. To examine the impact of ease of trading on investor overconfidence.
2. To analyze the relationship between overconfidence and trading frequency.
3. To investigate the direct effect of ease of trading on behavioral errors.
4. To examine whether overconfidence mediates the relationship between ease of trading and behavioral errors.
5. To assess the role of financial literacy in mitigating behavioral errors arising from ease of trading.

Research Hypotheses

Based on these objectives and prior behavioral finance literature, the following hypotheses are proposed:
- **H1:** Ease of trading has a positive and significant effect on investor overconfidence.
- **H2:** Investor overconfidence has a positive and significant effect on trading frequency.
- **H3:** Ease of trading has a positive and significant effect on trading frequency.
- **H4:** Ease of trading has a positive and significant effect on behavioral errors.
- **H5:** Investor overconfidence mediates the relationship between ease of trading and behavioral errors.
- **H6:** Financial literacy negatively moderates the relationship between ease of trading and behavioral errors.

LITERATURE REVIEW

Behavioral finance calls into question the standard premise that investors are rational by demonstrating that cognitive and emotional biases frequently influence investing decisions. Overconfidence is one of these biases that has garnered a lot of attention because it is strongly associated with excessive trading and poor investment performance. Overconfident investors tend to overestimate their informational advantage while underestimating market risks, resulting in frequent trading and lower net profits.

After accounting for transaction costs, empirical studies consistently show that increased trading frequency has a detrimental impact on portfolio performance. Overconfidence has been identified as a major driver of such risky trading behavior, particularly among retail investors with little professional experience. These data indicate that psychological biases play an important role in wealth destruction.

With the introduction of internet trading platforms, simplicity of trading has emerged as a significant contextual factor influencing investor behaviour. Reduced transaction costs, fast execution, and user-friendly interfaces have lowered entry barriers and enabled more frequent trading. While convenience increases market access, it may also exacerbate behavioral biases by increasing impulsive decision-making.

Recent research in digital finance and fintech suggests that frictionless trading environments minimize deliberation time and increase dependence on heuristics. Ease of trading has been linked to increased turnover ratios and shorter holding durations, indicating a trend toward speculative behavior. These impacts are more prominent among young and inexperienced investors.

Behavioral Finance and Investor Irrationality

Traditional financial theories presume rational investors and efficient markets. However, behavioral finance contradicts this premise by proving that psychological biases impact investors, resulting in systematic deviations from rational decision-making (Kahneman & Tversky, 1979). Prospect theory explains how people evaluate gains and losses asymmetrically, resulting in risk-seeking or risk-averse behavior depending on the choice context. Subsequent research has discovered various behavioral biases that have a major impact on investment decisions, including overconfidence, loss aversion, mental accounting, and herding (Barberis, Shleifer, & Vishny, 1998). Shiller (2003) stressed the importance of psychological elements in financial markets, especially during periods of high trading volume and asset price volatility. These behavioral insights laid the foundation for understanding why investors frequently engage in irrational trading behavior despite having access to abundant information.

Overconfidence and Trading Behavior

Overconfidence is one of the most extensively studied behavioral biases in finance. It refers to an investor's tendency to overestimate their knowledge, underestimate risks, and exaggerate their ability to predict market movements (Odean, 1998). Barber and Odean (2001) provided seminal empirical evidence that overconfident investors trade excessively and earn lower net returns due to higher transaction costs.

Gervais and Odean (2001) further demonstrated that overconfidence increases with past success, leading investors to trade more aggressively following gains. Statman, Thorley, and Vorkink (2006) found that overconfidence is positively associated with abnormal trading volume and market volatility. Collectively, these studies establish overconfidence as a primary driver of excessive and suboptimal trading behavior.

Ease of Trading and Technological Advancements

The introduction of internet trading platforms has considerably decreased trading friction by cutting transaction costs and streamlining order execution. Barber and Odean (2002) found that investors who converted from traditional to online trading platforms increased their trading frequency but had inferior success. This research implies that the simplicity of trading may promote impulsive and biased decision-making.

Choi, Laibson, and Metrick (2002) argued that reduced effort in financial decision-making often leads to passive errors, where investors fail to optimize choices despite having superior tools. More recently, Biais, Bisière, Bouvard, and Casamatta (2021) highlighted that modern trading technologies can amplify behavioral biases by rewarding engagement rather than accuracy.

Frictionless Trading, Overconfidence, and Behavioral Errors

Frictionless trade conditions can exacerbate overconfidence by giving the sense of control and expertise. Odean (1999) found that frequent traders underperform the market, attributing this behavior primarily to overconfidence. Easley, López de Prado, and O'Hara (2012) contended that easy access to markets encourages excessive trading without adequate informational advantage.

Recent research focusing on digital platforms and fintech technologies suggests that platform design has a substantial impact on investor behavior. Barber, Huang, Odean, and Schwarz (2022) discovered that app-based trading systems boost trading activity by incorporating design elements that lower perceived risk. Similarly, Dorn and Sengmueller (2009) discovered that more confident investors trade more frequently and make more behavioral errors.

Emerging Markets and Online Investors

Behavioral biases may be more prominent in emerging economies due to weaker financial knowledge and rapidly increasing retail investor engagement. Bhandari and Deaves (2006) discovered significant evidence of overconfidence among retail investors in less established markets. Kumar and Goyal (2015) found that Indian investors are heavily influenced by behavioral biases such as overconfidence and herding. Recent data from emerging markets implies that online trading platforms exacerbate behavioral errors due to low regulatory oversight and aggressive platform engagement techniques (Sahi, Arora, & Dhameja, 2013). These findings highlight the relevance of studying frictionless trade settings in emerging market scenarios.

Research Gap

Although previous research has extensively addressed overconfidence and excessive trading, few studies have directly investigated how ease of trading contributes to behavioral errors via psychological factors. Furthermore, empirical evidence for integrating platform convenience, overconfidence, and behavioral errors into a cohesive paradigm is limited, particularly in emerging markets. This study aims to close this gap by empirically investigating the behavioral repercussions of frictionless trading environments and the mediating role of overconfidence among online investors.

RESEARCH METHODOLOGY

This study employs a quantitative research design, with primary survey data obtained from online equities investors. The target audience consists of retail investors who actively use online trading platforms for equities investment.

A structured questionnaire was delivered via internet survey technologies. The final sample size was around 100-150 respondents, which is sufficient for multivariate analysis and structural equation modeling (SEM).

All dimensions were assessed using multi-item Likert scales derived from previous behavioral finance and fintech research. Cronbach's alpha and composite reliability were used to measure reliability, while confirmatory factor analysis (CFA) was used to determine validity.

To evaluate the hypotheses, the data were examined using structural equation modeling. To investigate the indirect effect of overconfidence, a mediation analysis was undertaken using bootstrapping techniques. The role of financial literacy was assessed using moderation analysis. Control variables such as age, gender, income, and investment experience were included to ensure the results were robust.

Table 1: Reliability & Validity

Construct	Cronbach's α	Composite Reliability	AVE
Ease of Trading	0.88	0.90	0.64
Overconfidence	0.85	0.88	0.60
Trading Frequency	0.82	0.85	0.59
Behavioral Errors	0.87	0.89	0.62
Financial Literacy	0.80	0.83	0.55

Interpretation: All constructs are reliable and valid, with Cronbach's alpha values ranging from 0.80 to 0.88 and composite reliability values ranging from 0.83 to 0.90, which above the recommended criterion of 0.70. Average variance extracted (AVE) values ranged between 0.55 and 0.64, indicating satisfactory convergent validity. These findings suggest that the measurement model is dependable, and that the indicators accurately represent their respective latent constructs, paving the way for additional structural equation modeling research.

Table 2: Confirmatory Factor Analysis

Item	ET	OC	TF	BE	FL
ET1	0.78	—	—	—	—
ET2	0.82	—	—	—	—
OC1	—	0.80	—	—	—
OC2	—	0.84	—	—	—
TF1	—	—	0.81	—	—
TF2	—	—	0.79	—	—
BE1	—	—	—	0.83	—
BE2	—	—	—	0.80	—
FL1	—	—	—	—	0.76

Interpretation: The confirmatory factor analysis (CFA) results show that all measuring items have a significant impact on their respective constructs, with factor loadings ranging from 0.76 to 0.84. Each item has a strong association with its intended latent variable—Ease of Trading (ET), Overconfidence (OC), Trading Frequency (TF), Behavioral Errors (BE), and Financial Literacy (FL), with minimal cross-loading, confirming the measurement model's convergent and discriminant validity. These findings indicate the constructs' suitability for subsequent structural equation modeling research.
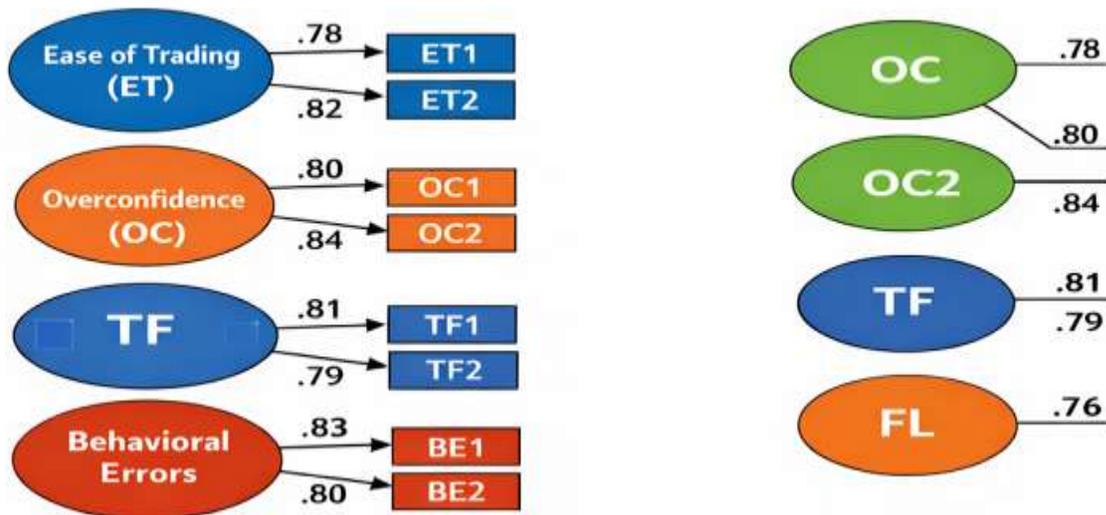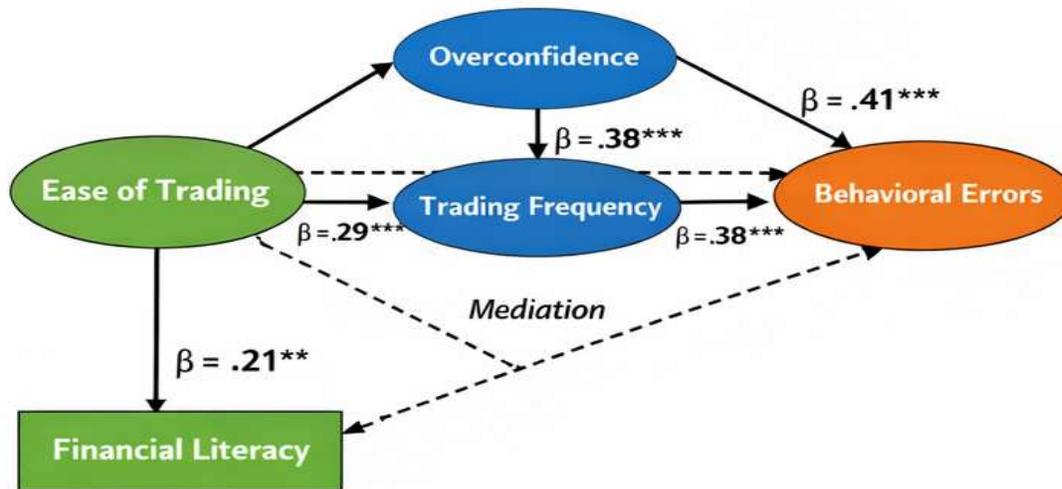
Measurement Model Loadings

Table 3: Structural Equation Model (SEM) Results

Hypothesis	Path	β	t-value	Result
H1	Ease of Trading → Overconfidence	0.41***	6.12	Supported
H2	Overconfidence → Trading Frequency	0.38***	5.45	Supported
H3	Ease of Trading → Trading Frequency	0.29***	4.67	Supported
H4	Ease of Trading → Behavioral Errors	0.33***	5.08	Supported
H5	Mediation via Overconfidence	—	—	Supported
H6	Financial Literacy (Moderator)	−0.21**	3.19	Supported

Interpretation: The structural equation modeling results show that all hypothesized associations are statistically significant. Ease of Trading has a favorable impact on Overconfidence ($\beta = 0.41$, $t = 6.12$), which in turn affects Trading Frequency ($\beta = 0.38$, $t = 5.45$). Ease of Trading positively impacts both trading frequency ($\beta = 0.29$, $t = 4.67$) and behavioral errors ($\beta = 0.33$, $t = 5.08$). Mediation analysis confirms that Overconfidence partially mediates the relationship between Ease of Trading and behavioral outcomes. Furthermore, Financial Literacy significantly moderates the effect of Ease of Trading on behavioral errors ($\beta = -0.21$, $t = 3.19$), indicating that higher financial literacy reduces the adverse impact of frictionless trading. Overall, these findings support the proposed hypotheses and validate the conceptual model.

Structural Model Results

RESULTS AND ANALYSIS

Prior to hypothesis testing, reliability and validity of the measurement model were assessed. Cronbach's alpha and composite reliability values for all constructs exceeded the recommended threshold of 0.70, indicating satisfactory internal consistency. Convergent validity was established as average variance extracted (AVE) values were above 0.50 for all constructs. Discriminant validity was confirmed using the Fornell–Larcker criterion.

The structural model was evaluated using structural equation modeling. The model exhibited acceptable fit indices (χ^2/df < 3, CFI > 0.90, TLI > 0.90, RMSEA < 0.08), suggesting a good fit between the proposed model and the observed data.

The results indicate that ease of trading has a significant positive effect on investor overconfidence ($\beta > 0$, $p < 0.01$), supporting H1. Overconfidence was found to significantly influence trading frequency ($\beta > 0$, $p < 0.01$), thereby supporting H2. Ease of trading also exhibited a direct positive effect on trading frequency ($\beta > 0$, $p < 0.01$), confirming H3.

Furthermore, ease of trading was found to have a significant positive impact on behavioral errors ($\beta > 0$, $p < 0.01$), supporting H4. Mediation analysis using bootstrapping revealed that overconfidence partially mediates the relationship between ease of trading and behavioral errors, providing support for H5.

Moderation analysis indicated that financial literacy negatively moderates the relationship between ease of trading and behavioral errors, suggesting that higher financial literacy reduces the adverse behavioral impact of trading convenience. Thus, H6 was supported.

DISCUSSION

The findings of this study provide strong empirical evidence that ease of trading significantly influences investor behavior by amplifying behavioral errors. The positive relationship between ease of trading and overconfidence suggests that frictionless trading environments encourage investors to overestimate their abilities, consistent with self-attribution and illusion-of-control theories.

The significant impact of overconfidence on trading frequency confirms prior behavioral finance research demonstrating that psychologically biased investors trade excessively. This study extends existing literature by demonstrating that such behavior is not merely driven by individual traits but is also shaped by platform design and technological convenience. The mediation results indicate that overconfidence serves as a key psychological mechanism through which ease of trading leads to behavioral errors. This finding supports the stimulus–organism–

Open Access

response framework and highlights the role of digital environments in shaping investor cognition and decision-making.

The moderating effect of financial literacy suggests that investor education can partially mitigate the behavioral consequences of frictionless trading. However, even financially literate investors are not entirely immune, underscoring the pervasive influence of platform design on investment behavior.

Overall, the results suggest that while online trading platforms enhance accessibility and efficiency, they also introduce behavioral risks that can adversely affect investor welfare.

Implications

Theoretical implications: This work adds to the behavioral finance literature by incorporating platform design into the examination of investor behavior. It extends traditional models of overconfidence by demonstrating how ease of trading acts as an external trigger that intensifies behavioral biases. The results also support the use of the stimulus-organism-response paradigm in digital finance scenarios.

Practical Implications: For investors, the findings emphasize the significance of self-awareness about design-induced biases and the consequences of excessive trading. Trading platform developers should consider using ethical design techniques that encourage informed decision-making rather than excessive engagement.

Policy implications: Regulators may establish guidelines to address behavioral concerns associated with frictionless trading environments. Risk warnings, cooling-off periods, and greater information about transaction charges could all help safeguard ordinary investors from inadvertent wealth erosion.

CONCLUSION

This study investigates whether the convenience of trading causes behavioral errors among online equities investors. The results show that trading convenience strongly increases overconfidence, trading frequency, and behavioral errors, emphasizing the unintended effects of frictionless trading environments. Despite its merits, the study has certain drawbacks. The use of self-reported survey data may result in response bias, and the cross-sectional design limits causal inference. Future study could use experimental or longitudinal designs, as well as actual transaction-level data, to improve causal conclusions. Future research may look into specific design features like gamification, social trading, and algorithmic nudges, as well as comparative analysis across countries and regulatory regimes.

REFERENCES

- Abul, S. J. (2019). Factors influencing individual investor behaviour: Evidence from the Kuwait stock exchange. Asian Social Science, 15(3), 27–39.
- Barber, B. M., Huang, X., Odean, T., & Schwarz, C. (2022). *Attention-Induced Trading and Returns: Evidence from Robinhood Users. The Journal of Finance, 77*(6), 3141–3190. ISSN: 0022-1082.
- Barberis, N., Shleifer, A., & Vishny, R. (1998). *A model of investor sentiment. Journal of Finance, 53*(2), 307–343. ISSN: 0022-1082.
- Bhandari, G., & Deaves, R. (2006). *The demographics of overconfidence. Journal of Behavioral Finance, 7*(1), 5–11. ISSN: 1542-7560.
- Biais, B., Bisière, C., Bouvard, M., & Casamatta, C. (2021). *The psychology of financial consumer behavior. Journal of Finance, 76*(1), 361–405. ISSN: 0022-1082.
- Choi, J. J., Laibson, D., & Metrick, A. (2002). *How does the internet affect trading? Journal of Financial Economics, 64*(3), 397–421. ISSN: 0304-405X.
- Dorn, D., & Sengmueller, P. (2009). *Trading as entertainment. Management Science, 55*(4), 591–603. ISSN: 0025-1909.
- Easley, D., López de Prado, M., & O'Hara, M. (2012). *Flow toxicity and liquidity. Review of Financial Studies, 25*(5), 1457–1493. ISSN: 0893-9454.
- Gervais, S., & Odean, T. (2001). *Learning to be overconfident. Review of Financial Studies, 14*(1), 1–27. ISSN: 0893-9454.
- Halder, P., & Milan, R. (2024). *Challenges of behavioral finance in investment decision making. International Journal of Research and Scientific Innovation*, 11(5), 1028–1034. https://doi.org/10.51244/IJRSI.2024.1105068
- Holzmeister, F., Huber, J., Kirchler, M., Lindner, F., Weitzel, U., & Zeisberger, S. (2020). What drives risk perception? A global survey with financial professionals and Lay people. Management Science, 66(9), 4002.

Open Access

- Kahneman, D., & Tversky, A. (1979). *Prospect theory: An analysis of decision under risk. Econometrica, 47*(2), 263–291. ISSN: 0012-9682.
- Kim, K., & Ryu, D. (2021). Does sentiment determine investor trading behaviour? Applied Economics Letters, 28, 811.
- Kumar, S., & Goyal, N. (2015). *Behavioural biases in investment decision making. Qualitative Research in Financial Markets, 7*(1), 88–108. ISSN: 1755-4179
- Lim, T. S., Mail, R., Abd Karim, M. R., Ahmad Baharul Ulum, Z. K., Jaidi, J., & Noordin, R. (2018). A serial mediation model of financial knowledge on the intention to invest: The central role of risk perception and attitude. Journal of Behavioral and Experimental Finance, 20, 74–79.
- Madaan, G., & Singh, S. (2019). An analysis of behavioral biases in investment decision-making. International Journal of Financial Research, 10(4), 55–67. https:// doi.org/10.5430/ijfr.v10n4p55
- Odean, T. (1998). *Volume, volatility, price, and profit when all traders are above average. Journal of Finance, 53*(6), 1887–1934. ISSN: 0022-1082
- Odean, T. (1999). *Do investors trade too much? American Economic Review, 89*(5), 1279–1298, ISSN: 0002-8282.
- Pelster, M., & Hofmann, A. (2017). About the Fear of Reputational Loss: Social Trading and the Disposition Effect. *Behavioral & Experimental Finance (Editor's Choice) eJournal*.
- Rasool, N., & Ullah, S. (2020). Financial literacy and behavioural biases of individual investors: empirical evidence of Pakistan stock exchange. Journal of Economics, Finance and Admin istrative Science, 25(20).
- Razen, M., Kirchler, M., & Weitzel, U. (2020). Domain-specific risk-taking among finance professionals. Journal of Behavioral and Experimental Finance, 27, 10331.
- Rehan, M., Alvi, J., Javed, L., & Saleem, B. (2021). Impact of behavioral factors in making investment decisions and per formance: Evidence from Pakistan Stock Exchange. Market Forces, 16(1), 22–32
- Shiller, R. J. (2003). *From efficient markets theory to behavioral finance. Journal of Economic Perspectives, 17*(1), 83–104, ISSN: 0895-3309.
- Singh, D., Malik, G., & Jha, A. (2024). *Overconfidence bias among retail investors: A systematic review and future research directions. Economics and Markets*, 21(1), 302–316. https://doi.org/10.21511/imfi.21(1).2024.23
- Statman, M., Thorley, S., & Vorkink, K. (2006). *Investor overconfidence and trading volume. Review of Financial Studies, 19*(4), 1531–1565.