

# ***The Impact of Behavioural Biases on Attitudes and Intentions of Institutional and Retail Investors Towards ESG Investing***

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**Abstract:** This paper examines the impact of behavioral biases on the attitudes and intentions of both institutional and retail investors towards Environmental, Social, and Governance (ESG) investing. Behavioral biases, such as loss aversion, overconfidence, and confirmation bias, can significantly influence investment decisions, often leading to irrational behavior in the face of complex and uncertain information related to ESG factors. By avoiding behavioral biases, investors can more easily make rational decisions based on available data and logical processes. This study primarily focuses on overconfidence and the disposition effect, emphasizing how these biases affect investors' perceptions. Additionally, the paper underscores the importance of recognizing and addressing behavioral biases and outlines methods to do so. The study shows that behavioral biases, particularly representativeness bias, significantly influence retail investors, often leading them to make decisions against market trends and potentially resulting in losses. In contrast, while institutional investors are also subject to behavioral biases, their expertise enables them to effectively mitigate or even leverage these biases to achieve positive outcomes. Ultimately, the paper calls for further research into the ways that behavioral finance can inform practices that enhance the adoption of sustainable investment strategies among all types of investors.

**Keywords:** Behavioural Biases, ESG investing, Overconfidence, Disposition effect

## **1. Introduction**

In recent years, with the increasing emphasis on social and environmental issues, ESG (Environmental, Social, and Governance) investing has gradually become a focal point for global investors. While seeking financial returns, investors also wish to make a positive contribution to society and the environment [1]. From the perspective of behavioral finance, we recognize that investors are not always rational, so their decisions are often influenced by various behavioral biases, such as overconfidence, loss aversion, and herd behavior. These biases can lead investors to make irrational choices, especially when it comes to ESG investments. When engaging in ESG investing, psychological and emotional factors play a crucial role for investors. They are susceptible to biases that can affect their judgment regarding investment impacts and return distributions[2]. That is to say, retail investors have characteristics of lack of experience, limited resources, and information

asymmetry, so that they are more easily influenced by behavioral biases, and more challenge for them to accurately assess the potential value of ESG investments; while institutional investors possess more experience and knowledge, they are not entirely immune to the effects of behavioral biases.

Although there are a lot of research on the impact of behavioral biases on investment decisions, particularly in traditional investment areas, the role of these biases in ESG investing remains under-explored. In particular, there has been insufficient discussion on how institutional and retail investors exhibit different behavioral responses in this emerging field. To address this gap, this paper conducts a comprehensive review of existing literature to identify key behavioral biases affecting investment decisions and examines whether these biases apply similarly within the ESG context. Specifically, this study aims to investigate how behavioral biases influence the attitudes and investment intentions of both institutional and retail investors and to analyze whether institutional investors demonstrate a stronger ability to counteract such biases compared to retail investors. This exploration provides insights into how behavioral factors may shape the decision-making processes of these two investor categories differently in ESG investing, and highlights the unique behavioral patterns in ESG-related financial decision-making.

## **2. Behavioural biases impact on retail investors**

### **2.1. Overconfidence**

The overconfidence bias and the disposition effect are the main factors that affect the financial investment decisions of individual investors [3]. There are many reasons for overconfidence among retail investors, such as limitations of experience, information and expertise. As a result of these limitations, they tend to overestimate their abilities and market judgement. Aigbovo & Ilaboya [4] mentioned that after experiencing some investment successes, they tend to attribute these achievements to their personal “talent” and foresight, while ignoring the impact of luck or favorable market conditions on these successes. Investors amplify their limited experiences of investment success, mistakenly believing they can replicate such success, which leads them to overestimate their judgment and market forecasting abilities. Furthermore, emotions and external environments also exacerbate the overconfidence of retail investors. Deka et al. [5] indicate that the behavior of retail investors is complex—they consider not only financial returns but also the influence of emotions and external factors when making investments. When investors have a strong personal emotional attachment to certain investments, especially if they have made early profits from them, which will make them become overly confident in their intuition and judgment. This reliance makes them even more confident in their judgement, and believe that their decisions are infallible, even if market conditions change. They often ignore new information or warnings and continue to rely on outdated cognitive models to make investment decisions. This emotional attachment not only intensifies their overconfidence but also delays necessary adjustments when facing unfavorable situations, ultimately leading to greater losses. Retail investors' overconfidence is the result of various psychological, cognitive biases, and external factors interacting together.

Overconfidence can bring negative impacts on investors, typically manifesting as excessive trading and underestimating risks, ultimately leading to portfolio losses [6]. Overconfident investors tend to trade frequently, overly certain in their views, and believe they can capture short-term profit opportunities. In reality, frequent trading not only increases transaction costs, while the returns are often insufficient to offset these costs, but also possibly causing them to miss out on the market's long-term stable gains. Overconfidence can also lead investors to underestimate the risks involved in investing and thus engage in risk-taking behaviour [6]. The more confident investors are, the more likely they are to choose high-risk investments [7]. Overconfident investors misjudge the level of risk they are taking on, leading them to allocate too much capital to high-risk assets, which could

ultimately result in significant losses. Hsu and Shiu [8] demonstrated that frequent bidders underperformed due to overconfidence. They bid aggressively in auctions, pay excessive prices, and are inferior in stock selection, mainly because they overestimated the future returns of companies or underestimated the investment risks.

## 2.2. Disposition effect

The disposition effect suggests that investors tend to sell winners prematurely, driven by the desire to avoid regret and seek feelings of pride, while holding on to losers for too long [6]. Investors are usually risk averse in the gain area and risk seeking in the loss area [9]. This means that rising stock values are often seen by investors as a sign of an impending decline, prompting them to sell to avoid risk. Similarly, falling stock values may be interpreted as a sign of a potential rise, leading investors to hold on to these stocks [5].

Specifically, retail investors, due to their lack of expertise, struggle to accurately assess the long-term returns of investments and instead focus on easily attainable short-term gains. Investors treat each investment as a separate account [6]. As soon as they make a profit, they want to realise it immediately, moving it from a “risk account” to a “safety account”. They wish to experience the joy of success by selling winners and avoiding the regret of not locking in profits early enough. On the other hand, investors tend to exhibit risk-seeking behavior when facing losses, so that they are willing to take greater risks while waiting for the market to rebound. They are reluctant to accept actual losses because doing so would mean admitting they made an erroneous decision. Additionally, they fear that selling a losing stock might lead to missing out on potential gains if the market rebounds afterward. Selling a losing stock requires investors to accept and acknowledge the loss, which psychologically signifies the closure of that loss account. However, investors often hesitate to admit such losses immediately, instead they choose to postpone this decision until the emotional pain of losing diminishes. In other words, they prefer to continue holding onto losers, hoping for future recovery, while trying to avoid the emotional discomfort associated with realizing the loss. At this point, their psychological discomfort makes them unwilling to “close” this mental account, and they may only consider cutting their losses when the pain they feel subsides. As a result, investors opt to hold onto losing stocks, and wait for the market to rebound again.

In reality, this emotional attachment often exacerbates the losses. Winners will continue to win, and losers will continue to lose [10]. Although individual investors can recognise market movements, they still tend to make opposite decisions. A study analyzing the trading records of 10,000 active accounts at a large nationwide discount brokerage house from 1987 to 1993 showed that investors were more inclined to sell winning stocks rather than losing ones [4]. This behavior was not driven by a desire to re-balance their portfolios or to avoid the higher transaction costs of low-priced stocks but was instead influenced by psychological biases. Even when investors knew that holding onto the losing stocks would not improve their returns, they still chose to keep them.

Overconfidence can also lead to the disposition effect. Investors' overconfidence is often based on their past investment returns and performance. For example, if an investor has experienced many successful trades in the past, they may believe they possess strong investment skills and judgment. This historical success can lead to excessive confidence in their future investment decisions, causing them to be reluctant to cut losses when facing losing assets and instead choosing to continue holding onto those losing investments and believing they will rebound.

However, incorporating sustainable business practices into investment decisions can effectively mitigate the impact of individual investors' loss aversion [11]. Therefore, the disposition effect may not significantly affect individual investors in ESG investing.

### 2.3. Representativeness bias

Additionally, heuristic-driven representativeness bias is a common phenomenon among retail investors, especially in the context of ESG investing. ESG investing involves evaluating a wide array of information and data, encompassing multidimensional assessments of a company's environmental impact, social responsibility, and corporate governance practices. Retail investors, often lacking the requisite professional expertise, may struggle to interpret and analyze this complex information effectively. Furthermore, ESG investing has only gained significant traction in recent years, many individual investors are devoid of relevant experience to adequately assess market risks associated with these investments. This lack of familiarity can create a sense of uncertainty regarding future market performance and potential returns, thereby increasing reliance on simplified decision-making processes.

Faced with a multifaceted investment environment marked by complexity and uncertainty, investors frequently resort to heuristic methods to streamline their decision-making [4]. Heuristics are mental shortcuts that help individuals make judgments quickly; however, they can lead to cognitive biases. One such bias is representativeness bias, where investors attempt to categorize new information into familiar frameworks, even if the data do not align entirely with those categories [4]. This tendency can lead to judgments based on superficial characteristics rather than thorough analyses, which will cause investors to overlook critical details and inherent differences.

Investors may mistakenly attribute a company's positive characteristics to those of a good investment [9]. For example, in the realm of ESG investments, investors might erroneously categorize a company known for its strong ethical stance or social initiatives as a "good investment" solely because of these positive attributes. In doing so, they may neglect other essential factors that contribute to a sound investment decision, such as the company's financial stability, industry competitiveness, and robust risk management practices. This misclassification can result in a skewed perception of the investment's potential, ultimately impacting the quality of their investment decisions. A heightened degree of cognitive bias can lead to irrational and costly purchasing decisions, adversely affecting the overall returns of individual investment portfolios.

Moreover, retail investors are also vulnerable to extrapolation bias, wherein they base their future predictions on recent market trends. For instance, they may assume that a current price surge will persist, prompting them to buy stocks that have recently appreciated in value. This behavior illustrates the short-sightedness exhibited by retail investors, who tend to focus on immediate gains while neglecting the long-term potential and underlying risks of their investments.

## 3. Behavioural biases impact on institutional investors

Institutional investors are widely regarded as a group of investors with high cognitive abilities and financial expertise. Compared to retail investors, institutional investors have access to more abundant resources, data, and advanced analytical tools. These characteristics enable them to effectively reduce error rates in their decision making processes [12]. Nevertheless, the investment behavior of institutional investors is still influenced by emotional fluctuations, external environments, and market pressures, leading to the emergence of behavioral biases.

### 3.1. Overconfidence

Research indicates that as investors accumulate experience and enhance their expertise, they are more likely to exhibit overconfidence bias [13]. Most institutional investors have already undergone multiple successful investment cases, and these successes bolstered their confidence in their abilities, which finally made them mistakenly believe that their judgment is superior to that of other market

participants. The manifestation of overconfidence among institutional investors differs from that of retail investors.

First, overconfidence often leads to the phenomenon of frequent trading. Among retail investors, frequent trading is often associated with greater losses due to their potential lack of sufficient market insight and expertise. However, for capable institutional investors, frequent trading allows them to respond quickly and accurately to market information. This ability enables institutional investors to mitigate trading costs to some extent and even achieve excess returns.

Second, overconfident institutional investors tend to exhibit lower loss aversion, a stronger willingness to take risks, and less regret when facing them [3]. These phenomena can be explained through several aspects. First, overconfidence leads them to firmly believe that they possess enough knowledge, experience, and technical skills to effectively avoid or cope with market risks. As a result, their emotional state may not be as fearful or anxious as that of other investors when facing risk. Excessive confidence can lead investors to misjudge the risks associated with investments. When investors perceive the likelihood of losses to be low, they are naturally more willing to take risks because they believe the risks are smaller than perceived by others. This reflects a risk-seeking behavior, leading them to be more inclined to make high-risk, high-reward decisions. Lastly, institutional investors have abundant capital, allowing them to maintain diversified investment portfolios. When facing losses, a diversified portfolio helps them spread risk, which can help them to reduce reliance on any single investment and thereby lower the overall risk of the portfolio. That is to say, even if a particular asset underperforms, the good performance of other assets can compensate for the loss. Based on this, overconfident institutional investors are less likely to feel regret, as they firmly believe that losses are temporary, there will be many opportunities in the future to recover, and their strategies will ultimately lead to success.

### **3.2. Disposition effect**

As institutional investors' level of overconfidence increases, their disposition effect weakens [3]. When institutional investors hold winners and believe that their decisions or actions can influence the market value of these winners, they choose to continue holding them, and sell the losers [3]. This behavior is in stark contrast to that of retail investors.

As their level of overconfidence increases, institutional investors become more convinced of the correctness of their decisions. When an asset generates profits, it further reinforces their confidence in their judgment. They believe that their analysis and decisions are the key drivers behind this success, so they choose to continue holding the winners to achieve greater returns, rather than locking in profits too early. In contrast, retail investors often fear missing out on existing profits, leading them to sell assets prematurely. This distinction stems from institutional investors' stronger risk tolerance and long-term investment perspective, making them more willing to hold assets in a profitable run.

Additionally, institutional investors often manage large pools of capital, giving their buying and selling activities a significant impact on the market. For instance, when institutional investors decide to buy a stock in large volumes, their actions can drive up the stock's market price, and the opposite is true for selling. This phenomenon leads them to believe that their decisions not only predict market trends but also influence market expectations. As a result, when holding winners, institutional investors often leverage their market position to continue driving the stock price higher, and further solidify the success of their investment decisions through the follow-up trading of other investors. In contrast, retail investors, with limited capital and lack of market influence, are unable to advantage from this mechanism. Emotions and short-term market volatility are more likely to influence their decisions to hold stocks, making them more sensitive to market fluctuations.

Institutional investors have access to abundant resources and more comprehensive information channels, such as advanced analytical tools, market data, and opportunities to communicate with

company executives. This enables them to react more swiftly and accurately before major market shifts occur, thereby increasing the success rate of their investments. As a result, when faced with losing assets, they are more likely to quickly sell off the "losers" to reduce the presence of underperforming assets in their portfolios and optimize capital allocation. Due to information asymmetry, retail investors often fail to correctly assess market trends and hold on to a false hope that their losing stocks will rebound, thus being reluctant to cut their losses.

Finally, overconfidence not only influences institutional investors' perception of risk but also alters their tolerance for failure. Institutional investors are typically not anxious or regretful over short-term market fluctuations; instead, they are more confident that the market will eventually validate their judgments. As a result, their willingness to invest in high-risk assets increases, especially when they believe they can influence the performance of those assets through their market power. This mindset allows them to maintain consistency in their strategies, even when facing short-term losses, rather than being swayed by emotions.

#### 4. Countermeasures

Behavioral biases are significant contributors to irrational decision-making and poor investment performance [14]. Therefore, it is especially crucial to effectively address the impacts of these behavioral biases.

First, relevant institutions should strengthen market regulation, especially in controlling the dissemination of information. The spread of misinformation often misleads individual investors, leading them to make irrational decisions. Therefore, regulatory bodies can implement measures to ensure the transparency and accuracy of market information. This includes enhancing oversight of market communication channels and combating the spread of false information, thereby protecting the rights of investors and reducing investment losses caused by misinformation.

Second, although behavioral biases present many negative impacts for institutional investors, some forward-thinking institutions have begun to view these biases as investment opportunities. Successful fund managers apply behavioral finance theories to their investment analysis and management strategies, learning from these experiences to achieve profitability. For example, MarketPsych LLC is a company that focuses on investment analysis, utilizing psychological analysis and neuroscience perspectives to identify behavioral risks [13]. By studying human psychology and behavior, they can more accurately identify factors that may influence market trends. This analysis, grounded in behavioral finance theory, not only helps them better understand investor behavior but also enables them to make more informed investment decisions amid market fluctuations.

For individual investors, understanding and recognizing behavioral differences and their impacts is crucial. By learning the basic theories of behavioral finance, individual investors can gain a clearer understanding of the cognitive biases they may face. This will enable them to make more rational decisions in the face of market volatility, avoiding investment errors caused by emotions and psychological biases.

#### 5. Conclusion

This paper has explored the significant impact of behavioral biases on the attitudes and intentions of both institutional and retail investors towards ESG investing. The analysis has shown that biases such as overconfidence and the disposition effect can distort rational decision-making, leading to varying levels of engagement with sustainable investment practices. Institutional investors tend to exhibit a lower susceptibility to these biases, likely due to their experience and expertise, and access to comprehensive data.

The findings underscore the importance of recognizing and addressing behavioral biases in the investment community. By fostering awareness and implementing strategies to counteract these biases, investors can make more informed decisions that align with sustainable investment goals.

Furthermore, this study highlights the need for continued research into the interplay between behavioral finance and sustainable investment strategies. While this research focuses on institutional and retail investors behavioral biases in ESG investing, it is limited by its scope, as it does not fully consider other influential factors. Future research could explore the impact of behavioral biases on investors of different genders, nationalities, and ages, which may also shape investment behavior. Understanding these variations will be essential for developing targeted strategies that enhance the decision-making processes of diverse investor groups. As the field of ESG investing continues to evolve, gaining insight into the psychological factors at play will be vital for promoting sustainable investment practices across the board.

## References

- [1] Upadhyaya, C., Khan, S., Sandanshive, V., & Awasthi, M. G. (2023). A study of impact of behavioural factors on ESG investment. *The journal of contemporary issues in business and government*, 29(1), 546-553.
- [2] Shefrin, H. (2024). *ESG and Behavioral Finance: Why ESG-Investing is Primarily a Psychological Phenomenon*. Available at SSRN.
- [3] Gunathilaka, R. C., & Fernando, J. M. (2021). Do behavioral biases differ among institutional and individual investors?. *Accounting & Finance/Oblik i Finansi*, (92).
- [4] Aigbovo, O., & Ilaboya, O. J. (2019). Does behavioural biases influences individual investment decisions. *Management Science Review*, 10(1), 68-89.
- [5] Deka, J., Sharma, M., Agarwal, N., & Tiwari, K. (2023). Linking ESG-Investing Consciousness, Behavioral Biases, and Risk-Perception: Scale Validation with Specifics of Indian Retail Investors. *European Journal of Business Science and Technology*, 71-91.
- [6] Nofsinger, J. R. (2022). *The psychology of investing (7th ed.)*. Routledge.
- [7] Broihanne, M. H., Merli, M., & Roger, P. (2014). Overconfidence, risk perception and the risk-taking behavior of finance professionals. *Finance Research Letters*, 11(2), 64-73.
- [8] Hsu, Y., & Shiu, C. Y. (2010). The overconfidence of investors in the primary market. *Pacific-Basin Finance Journal*, 18(2), 217-239.
- [9] Chen, G., Kim, K. A., Nofsinger, J. R., & Rui, O. M. (2007). Trading performance, disposition effect, overconfidence, representativeness bias, and experience of emerging market investors. *Journal of behavioral decision making*, 20(4), 425-451.
- [10] Feng, L., & Seasholes, M. S. (2005). Do investor sophistication and trading experience eliminate behavioral biases in financial markets?. *Review of finance*, 9(3), 305-351.
- [11] ELAHI, A. R., IQBAL, A., MINHAS, B. A., & ASHFAQ, F. (2023). THE BEHAVIOR RISK BIASES AND SUSTAINABLE INVESTMENT DECISION. *Bulletin of Business and Economics (BBE)*, 12(3), 74-88.
- [12] Bodnaruk, A., & Simonov, A. (2015). Do financial experts make better investment decisions?. *Journal of financial Intermediation*, 24(4), 514-536.
- [13] Ahmad, Z., Ibrahim, H., & Tuyon, J. (2017). Institutional investor behavioral biases: syntheses of theory and evidence. *Management Research Review*, 40(5), 578-603.
- [14] Maheshwari, H., Samantaray, A. K., & Jena, J. R. (2023). Unravelling behavioural biases in individual and institutional investors investment decision-making: intersection of bibliometric and systematic literature review. *South Asian Journal of Business and Management Cases*, 12(3), 275-299.