Emotional Biases in Stock Market Trading: A Critical Analysis of Psychological Challenges

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Abstract

This review paper discusses the various psychological challenges that traders and investors face in their quest for financial success. Emotions are a major factor in decision-making in the complicated world of the stock market, which frequently results in suboptimal results. We look at a variety of emotional biases, such as herding behavior, disposition effect, fear, and overconfidence, among many others. This study examines the several problems that one could encounter when trading. We evaluate different emotional biases by analyzing a large body of empirical research as well as the literature on behavioral finance. This review highlights the importance of addressing emotional biases in the pursuit of rational, informed investment practices and increases our understanding of the relationship between psychology and finance. This analysis will ultimately result in a more aware and resilient investment community by helping anyone trying to comprehend and deal with the psychological challenges associated with stock market trading.

KEYWORDS: Psychological challenges, herding behavior, disposition effect, overconfidence, behavioral finance.

1. INTRODUCTION

The stock market, frequently referred to be the hub of financial activity, is a dynamic and intricate setting where investors purchase and sell securities in an attempt to optimize their profits. Even if it's a place where money may be made and opportunities abound, it's also a place where emotions heavily influence financial choices. The foundation of our investigation in this critical analysis is the complex relationship between emotions and financial decision-making.

Regardless of their level of experience or knowledge, stock market investors are susceptible to the impact of their emotions. Emotions that impair judgment, change risk perceptions, and causes irrational decision-making include overconfidence, fear, stress, and the disposition effect. Emotional bias is the term used to describe this ubiquitous phenomenon, which can have significant effects on both individual investors and the larger financial markets.

It is not new to acknowledge the existence of emotional biases in stock market investing. (Kahneman & Tversky, 1979) brought attention to the existence of cognitive biases resulting from emotional reactions through their revolutionary work in behavioral economics. They discovered that losses affect people more emotionally than gains of the same size. Their hypothesis states that when presented with two options that both provide the same outcome, people would choose the option that seems to offer more benefits. The study of emotional biases has evolved into a critical subfield of finance and psychology, providing insights into the psychological challenges that investors face.

Numerous research has looked at the effects of emotional biases on stock market trading. These studies have shown that wide variety of psychological and emotional biases affect the investors often display cognitive biases, such as overconfidence, loss aversion, and anchoring, can result in less-than-ideal choices when it comes to investments. (Chandra, 2008) found that a large number of individual investors do not make logical investing decisions. Instead, they are influenced by various psychological and emotional biases such as the representativeness heuristic, overconfidence, and anchoring. Additionally, they are affected by heuristics like regret aversion, mental accounting (taken from Prospect theory), cognitive dissonance, as well as the emotions of greed and fear, all of which impact their perception of risk and their decision-making process. (Khilar & Singh, 2020) outlined some of the emotional biases that affect decision-makers while they are making investment-related decisions, such as overconfidence, loss aversion, home bias, and endowment impact. (Barberis & Thaler, 2003) discusses the emotional and psychological difficulties that stock market traders encounter. It looks at biases in behavior such herding behavior, loss aversion, and overconfidence. The authors give a thorough summary of how these biases affect financial decision-making. The study emphasizes how crucial it is to comprehend these psychological obstacles in order to enhance trading tactics and results. (Shefrin, 2002) provides an extensive review of behavioral finance and the psychological difficulties faced by investors. It addresses a variety of emotional biases, such as issues with self-control, regret aversion, and overconfidence. In addition to discussing how these biases may affect judgment, the author offers advice on creating winning investing plans. Hirschleifer (2001) discusses how investor psychology affects asset pricing. It investigates the effects of several emotional biases on market prices, including availability heuristics, overconfidence, and representativeness heuristics. The study discusses the implications of investor psychology for understanding asset pricing anomalies and market efficiency. Emotional Biases also effect the performance of the trader. (Khan, Tan, & Chong, 2017) many people, unable to control their unquenchable greed, end up losing a significant portion or all of their funds before returning to the fundamentals of investing. Even those with patience may occasionally engage in trading activities that gradually diminish their

wealth. (Coval, Hirshleifer & Shumway ,2005) find out that there are few investors which consistently able to beat the market. In the same way, there are few investors who consistently underperform the markets. When holding period is long, successful investors outperform unsuccessful investors by about 8% per year. (Lo, Repin, & Steenbarger, 2005) conducted a clinical investigation of day-traders and found that those with a more prominent emotional reaction to profits or losses in their finances tend to do the worst while trading. Studies suggest that aptitude for trading may not be innate and that people with different types of personalities can be successful traders with the right coaching and experience. (Kaplanski, Levy, Veld, & Veld-Merkoulova, 2014) found out happy investors tend to exhibit optimism, and when they are in a positive mood overall, they anticipate greater returns from the financial markets.

2. LITERATURE REVIEW

2.1 OVERCONFIDENCE

Trinugroho & Sembel ,2011 concludes investors who are overconfident often adopt an aggressive and extravagant trading strategy, which eventually leads to poor trading success. These overconfident traders appear to be unfazed by "negative news." Their overconfidence leads to a high volume of transactions, incurring significant costs, and ultimately yielding unsatisfactory outcomes.

Montier, 2002 suggests one of the most well-documented psychological errors is our inclination to be excessively optimistic. Individuals tend to overestimate their own skills. For example, according to a survey, almost 80% of people think they drive well. Comparably, in a classroom full of students, roughly 80% anticipate placing in the top 50% of their class; yet, not all of them will be able to do so numerically, which leaves some of them disappointed. Daniel, Hirshleifer & Subrahmanyam, 1998 discusses the issue of stock market under- and overreactions. It looks at how investor psychology—such as the overconfidence bias and disposition effect—drives these market abnormalities. The paper looks into the effects of these behavioral biases on asset pricing and market efficiency and offers empirical proof of them. Bondt & Thaler ,1990 discusses the issue of stock market analyst overreaction. It looks into whether behavioral biases, like overconfidence and extrapolation, are present in the stock recommendations and earnings forecasts made by security experts. According to the study's empirical findings, analysts often react too quickly to new information, which might result in subsequent reversals. Hirshleifer & Luo ,2001 focuses on the problem of traders who are too confident in a securities market that is competitive, examining how overconfidence influences trading actions and financial performance. The study investigates the survival and performance of overconfident traders in the presence of rational traders and discusses the implications for market dynamics.

2.2 DISPOSITION EFFECT

Seru, Shumway & Stoffman, (2009) discovered that investors influenced by disposition bias tend to achieve lower returns compared to those unaffected by this bias. Odean, (1998) discovered that certain investors have a tendency to sell their profitable investments sooner than their lost ones. These investors still favor selling winners and retaining losers even after accounting for other reasonable incentives. Their actions align with two behavioural theories: prospect theory and the misconception that both winning and losing investments will revert to the mean. This behaviour doesn't seem to be driven by a need to readjust their investment portfolios or a dislike of having to pay higher trading expenses when dealing with inexpensive equities. Furthermore, it's not supported by later performance, as it actually results in diminished returns. Kaneko, (2004) concluded in his study on the trading of investment trusts, it was determined that investors have a significant fixation on the purchase price and often exhibit a tendency to sell quickly when the unit price surpasses their initial acquisition cost. Grinblatt & Keloharju, (2001) found an evidence of disposition effect in a thorough investigation of Finnish investment behavior, extending across five distinct investor categories: households, government agencies, non-profit organizations, nonfinancial corporations, and financial and insurance institutions. Notably, there is a marked reluctance to accept losses, particularly when they are substantial, although in December, investors are more prepared to accept losses in exchange for tax benefits. Seasholes & Feng, (2005) examined the disposition effect in relation to the experience and investor sophistication of a group of investors within the Chinese People's Republic. On average, these investors displayed a disposition effect, but those who were more experienced and sophisticated encountered fewer difficulties when it came to selling losing stocks. Experience and sophistication appeared to eliminate the hesitation to accept losses. Garvey & Murphy, (2004) studied proprietary traders and found out the traders studied in the group achieved over \$1.4 million in profits from intraday trading. However, they exhibited a pattern of realizing their winning trades much quicker than their losing trades, which ultimately had a negative impact on their overall profitability. According to an analysis of intraday price data, these traders may increase their earnings by hanging onto winning trades for longer periods of time and reducing their losses by selling lost deals sooner.

Locke & Mann, 2005 found that the professional traders tend to retain losing positions significantly longer than they do winning positions for all four commodities. Additionally, it was observed that traders who hold onto relatively substantial losing trades for extended periods (more than ten minutes) are subsequently less likely to achieve success. Dhar & Zhu, (2002) People who are wealthier and working in professions with higher pay show less of a disposition effect. Additionally, trading frequency usually lessens the influence of the disposition effect. Mutual fund managers often sell off more of their winners than their losers.

Ferris, Haugen & Makhija, (1988) discovered investors often refrain from selling stocks that have lost value in order to avoid acknowledging their previous mistake and experiencing regret. On the other hand, people typically sell stocks that have increased in value in order to prevent the regret of missing out on the opportunity to sell before the stock subsequently declines. Shefrin & Statman, (1985) highlights the issue with the disposition effect, namely the propensity of traders to hold onto losing stocks over long periods of time and sell winning equities too soon. The authors present a theoretical framework and provide empirical evidence supporting this behavioral bias. The study highlights the emotional biases and psychological challenges that contribute to this behavior, shedding light on the impact on trading performance and market efficiency.

2.3 LOSS AVERSE AND FEAR

(Dhaoui, Bourouis & Boyacioglu, 2013) concluded that overconfidence and optimism have less of an effect on trading volume than pessimism. Moreover, logical investors have a bigger impact on trade volume than overconfident and optimistic investors. Coval & Shumway, (2001) examined the actions of Chicago Board of Trade (CBOT) proprietary traders and revealed that traders exhibit a loss-averse behavior. The study's findings demonstrate that when professional traders incur losses in the morning, they tend to take on higher afternoon risks than usual, in line with the concept of loss aversion. Heisler, (1994) Loss aversion is evident among small speculators, who hold onto deals that show an initial paper loss for a significantly longer period of time than those that show an early paper gain. Loewenstein, Weber, Hsee & Welch, (2001) focuses on the problem of how emotions influence risk perception and decision-making. The paper discusses the affective factors that shape individuals' risk attitudes, such as feelings of fear and loss aversion. It highlights the impact of emotional biases on traders' risk-taking behavior in the stock market. Benartzi & Thaler, (1993) explains the phenomenon known as the "equity premium puzzle," which is the empirical finding of higher stock market returns in comparison to less volatile assets. It presents the idea of myopic loss aversion, which states that people are more immediately affected by losses than by wins. The study explores how this psychological bias can explain the equity premium puzzle. Griffith, Najand & Shen, (2019) studied small investor sentiment measured in terms of stress, joy, sadness, and fear was conducted to forecast market returns and volatility The findings indicate that fear consistently and significantly affects market outcomes. Contrarily, stress is frequently noticed one day later and has a negligible impact on results. Joy and sorrow have no bearing on forecasting market gains.

2.4 STRESS

Fernández, Augusto, Seepold, & Madrid, (2010) studied that trading stocks can be an extremely stressful job, and that a trader's own feelings and choices can frequently work against them. Awareness of technologies for measuring stress levels can provide traders with an advantage in managing their emotions and making more informed decisions. Andersson, (2008) For some expert traders, trading stocks is akin to working for themselves. In general, self-employment seems to improve both general life satisfaction and job satisfaction. Though some people might not consider it to be intellectually taxing, it can also potentially exacerbate mental health problems. Bin Abdulrahman et. al, (2022) studies the matter of stress and anxiety among day traders, highlighting the elevated risk of experiencing stress and anxiety, which could ultimately result in conditions like depression and other mental disorders among individuals engaged in day trading.

2.5 HERD BEHAVIOUR

Thaler, (1993) concluded that even individuals who make entirely rational decisions can engage in herd behavior when they consider the opinions and actions of others, even if they are aware that everyone else is following a herd mentality. While each individual may act rationally, the collective behavior can lead to irrational group dynamics that impact the market. The 'noise trading' theory is a result of this phenomena, whereby investors with shorter time horizons have a stronger impact on stock prices than do long-term investors. These investors tend to react impulsively to market noise, treating it as valuable information in the absence of insider knowledge, which may ultimately affect their trading decisions. Shiller & Pound, (1986) surveyed the private investors and it was revealed that only six percent of these investors attributed their initial interest in a company they recently invested in to newspapers and periodicals. This suggests that, despite extensive reading, interpersonal communication plays a more influential role in capturing their attention and prompting action. One important element that significantly influences herding behavior is word of mouth. Conventional media, such as print publications, radio, and television, have the capacity to spread ideas broadly but are not very effective at encouraging proactive conduct. On the other hand, interpersonal communication is one of the most important forms of human social interaction. Shiller, (2000) discussed the issue of speculative bubbles in financial markets. It talks about the psychological and emotional elements that lead to times of extreme optimism and asset overvaluation. The author examines how irrational enthusiasm, investor mood, and herd mentality affect market dynamics. Hirshleifer & Teoh, (2003) examines and summarizes the research on capital market cascades and herd behavior. It tackles the issue of how asset price bubbles and market inefficiencies might result from social influence and information cascades. The study sheds light on the causes and effects of herd mentality in the financial markets.

2.6 OVERTRADING, REGRET AND MENTAL ACCOUNTING

Odean, (1999) focuses on the problem of excessive trading by individual investors. It looks into the emotional biases that lead to frequent trading behavior as well as the effect of trading activity on investment success. The research emphasizes the detrimental effects of excessive trading and how it affects investment profits. Barber & Odean, (2000) addresses the problem of individual investor underperformance in stock trading. Individual investors tend to underperform the market on average, according to an analysis of their investing record. The study investigates the emotional biases that fuel this ongoing issue, including overconfidence and compulsive trading. Gilovich et. al., (1995) revealed in their research that although people tend to regret their actions more than their inactions in the near term, they regret their inactions more in the long run. Phan, Rieger, & Wang, (2018) Behavioural and psychological bias are associated with overtrading. Thaler (1985) examined the issue of how people classify and assess wins and losses in terms of money. The emotional and psychological aspects of trading decisions and risk-taking behavior in the stock market are covered in this research. It presents the idea of mental accounting and emphasizes how it affects portfolio management and investing choices.

3. CONCLUSION

In conclusion, this review study looked at the intricate psychological problems that stock market traders face, which can have a significant impact on an individual's performance and ability to make financial decisions. We have investigated how issues like overconfidence, disposition effect, loss aversion and anxiety, stress, herd behavior, overtrading, remorse, and mental accounting affect traders through a review of numerous research publications. Together, these psychological phenomena highlight how complicated human thought is when it comes to financial markets, underscoring how crucial it is for investors and traders to recognize and control their emotions and biases. Furthermore, given that the financial markets are constantly changing and present traders with new chances and difficulties, it is clear that continued research in this field is essential. The negative impacts of these psychological biases can be lessened by employing risk management strategies, developing emotional intelligence, and encouraging mindfulness. Furthermore, data-driven algorithms and technological advancements present intriguing paths for the creation of instruments and interventions that can help traders make more logical and knowledgeable judgments.

This paper concludes by highlighting the importance of recognizing and resolving the psychological obstacles that stock market traders encounter. Traders can work toward better decision-making, increased resilience in the face of difficulty, and eventually, more successful results in the complicated world of finance by understanding these cognitive biases and

emotional responses. Introducing behavioral finance concepts into trading procedures has the ability to completely change how we think about the financial markets and provide people the knowledge and confidence they need to navigate them.

REFERNCES

Andersson, P. (2008). Happiness and health: Well-being among the self-employed. The Journal of Socio-Economics, 37(1), 213–236. https://doi.org/10.1016/j.socec.2007.03.003

Bin Abdulrahman, K.A., Alsharif, A.Y., Alotaibi, A.B., Alajaji, A.A., Alhubaysh, A.A., Alsubaihi, A.I. and Alsubaie, N.E. (2022). Anxiety and Stress among Day Traders in Saudi Arabia. International Journal of Environmental Research and Public Health, 19(18), p.11252.

doi:https://doi.org/10.3390/ijerph191811252.

Barberis, N. and Thaler, R. (2002). A Survey of Behavioral Finance. [online] National Bureau of Economic Research Working Paper Series. Available at: https://www.nber.org/papers/w9222.

Bondt, W.F.M.D. and Thaler, R.H. (1990). Do Security Analysts Overreact? The American Economic Review, [online] 80(2), pp.52–57. Available at:

https://www.jstor.org/stable/2006542.

Benartzi, S. and Thaler, R.H. (1993). Myopic Loss Aversion and the Equity Premium Puzzle. [online] National Bureau of Economic Research Working Paper Series. Available at: https://www.nber.org/papers/w4369.

Barber, B.M. and Odean, T. (2000). Trading is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors. SSRN Electronic Journal, 2. doi:https://doi.org/10.2139/ssrn.219228.

Chandra, A., (2008). Decision Making in the Stock Market: Incorporating Psychology with Finance. [online] papers.ssrn.com.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1501721

Coval, J.D. and Shumway, T. (2001). Do Behavioral Biases Affect Prices? SSRN Electronic Journal. doi:https://doi.org/10.2139/ssrn.269113.

Coval, J.D., Hirshleifer, D.A. and Shumway, T. (2005). Can Individual Investors Beat the Market? [online] papers.ssrn.com. Available at:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=364000.

Dhar, R. and Zhu, N. (2002). Up Close and Personal: An Individual Level Analysis of the Disposition Effect. [online] papers.ssrn.com. Available at:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=302245.

Daniel, K., Hirshleifer, D. and Subrahmanyam, A. (1998). Investor Psychology and Security Market Under- and Overreactions. The Journal of Finance, 53(6), pp.1839–1885. doi:https://doi.org/10.1111/0022-1082.00077.

Dhaoui, A., Bourouis, S. and Boyacioglu, M.A. (2013). THE IMPACT OF INVESTOR PSYCHOLOGY ON STOCK MARKETS: EVIDENCE FROM FRANCE. Journal of Academic Research in Economics, [online] 5(1 (June)), pp.35–59. Available at:

https://econpapers.repec.org/article/shcjaresh/v_3a5_3ay_3a2013_3ai_3a1_3ap_3a35-59.htm.

Julia Martínez Fernández, Juan Carlos Augusto, Ralf Seepold and Natividad Martínez Madrid (2010). Why Traders Need Ambient Intelligence. Advances in intelligent and soft computing, pp.229–236. doi:https://doi.org/10.1007/978-3-642-13268-1_32.

Ferris, S.P., Haugen, R.A. and Makhija, A.K. (1988). Predicting Contemporary Volume with Historic Volume at Differential Price Levels: Evidence Supporting the Disposition Effect. The Journal of Finance, [online] 43(3), pp.677–697. doi:https://doi.org/10.2307/2328191.

Griffith, J., Najand, M., & Shen, J. (2019). Emotions in the Stock Market. Journal of Behavioral Finance. doi:10.1080/15427560.2019.1588275

Grinblatt, M. and Keloharju, M. (2001). What Makes Investors Trade? The Journal of Finance, 56(2), pp.589–616. doi:https://doi.org/10.1111/0022-1082.00338.

Garvey, R. and Murphy, A. (2004). Are Professional Traders Too Slow to Realize Their Losses? Financial Analysts Journal, 60(4), pp.35–43. doi:https://doi.org/10.2469/faj.v60.n4.2635.

Gilovich, Medvec, Husted, V., Bickford, T., Blau, K., Charlton, A., Buckley, T., Fidler, D., Hattiangadi, N., Himelfarb, A., Jeffries, E., Kaplan, D., Katzer, D., Korenbrot, T., Lowe, J., Savitsky, K., Schacht, M., Sirlin, S. and Steele, S. (1995). Psychological Review The Experience of Regret: What, When, and Why Regrets of Action and Inaction What People Regret Most in Their Lives The Temporal Aspects of Regret Intuitions About the Short-Term and Long-Term Regrets of Others Recent and Life-Long Regrets Why Regrets Shift Systematically With Time Factors That Reduce the Pain of Regrettable Actions Factors That Bolster the Pain of Regrettable Inactions. [online] 102(2), pp.379–395. Available at:

https://www.anderson.ucla.edu/faculty/keith.chen/negot.%20papers/GilovichMedvec_Regret 95.pdf.

Heisler, J. (1994). Loss aversion in a futures market: an empirical test. Review of futures markets, [online] 13(3). Available at: https://www.econbiz.de/Record/loss-aversion-in-a-futures-market-an-empirical-test-heisler-jeffrey/10001169328 [Accessed 19 Sep. 2023].

Hirshleifer, D.A. (2001). Investor Psychology and Asset Pricing. [online] papers.ssrn.com. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=265132.

Hirshleifer, D. and Luo, G.Y. (2001). On the survival of overconfident traders in a competitive securities market. Journal of Financial Markets, [online] 4(1), pp.73–84. Available at: https://econpapers.repec.org/article/eeefinmar/v_3a4_3ay_3a2001_3ai_3a1_3ap_3a73-84.htm [Accessed 16 Sep. 2023].

Hirshleifer, D. and Hong Teoh, S. (2003). Herd Behaviour and Cascading in Capital Markets: a Review and Synthesis. European Financial Management, [online] 9(1), pp.25–66. doi:https://doi.org/10.1111/1468-036x.00207.

Kahneman, D. and Tversky, A. (1979). Prospect Theory: an Analysis of Decision under Risk. Econometrica, [online] 47(2), pp.263–292. doi:https://doi.org/10.2307/1914185.

Khan, M., Tan, S.-H., & Chong, L.-L. (2017). Active trading and retail investors in Malaysia. International Journal of Emerging Markets, 12(4), pp.708–726. Available at: https://ideas.repec.org/a/eme/ijoemp/ijoem-03-2016-0063.html [Accessed 19 Sep. 2023].

Kaplanski, G., Levy, H., Veld, C. and Veld-Merkoulova, Y. (2014). Do Happy People Make Optimistic Investors? Journal of Financial and Quantitative Analysis, 50(1-2), pp.145–168. doi:https://doi.org/10.1017/s0022109014000416.

Khilar, R. and Singh, S. (2020). Role Of Emotional Bias On Investment Decision From Behavioural Finance Perspective. [online] Available at: https://www.ijstr.org/final-print/mar2020/Role-Of-Emotional-Bias-On-Investment-Decision-From-Behavioural-Finance-Perspective.pdf.

Kaneko, H. (2004). Individual Investor Behavior. [online] Semantic Scholar. Available at: https://www.semanticscholar.org/paper/Individual-Investor-Behavior-Kaneko/587534fab248fdf14d305c893f54e7a4c3e6a8ab [Accessed 19 Sep. 2023].

Lo, A.W., Repin, D.V. and Steenbarger, B.N. (2005). Fear and Greed in Financial Markets: A Clinical Study of Day-Traders. doi:https://doi.org/10.3386/w11243.

List, J., 2003. Does Market Experience Eliminate Market Anomalies? Quarterly Journal of Economics, February, 41-71.

Locke, P.R. and Mann, S.C. (2005). Professional trader discipline and trade disposition. Journal of Financial Economics, 76(2), pp.401–444. doi:https://doi.org/10.1016/j.jfineco.2004.01.004.

Loewenstein, G.F., Weber, E.U., Hsee, C.K. and Welch, N. (2001). Risk as feelings. Psychological Bulletin, 127(2), pp.267–286. doi:https://doi.org/10.1037/0033-2909.127.2.267.

Montier, J. (2002). Behavioural Finance: Insights into Irrational Minds and Markets. [online] Semantic Scholar. Available at: https://www.semanticscholar.org/paper/Behavioural-

Finance%3A-Insights-into-Irrational-Minds-

Montier/a57582fdb661609c7c66459bb1730e11479df802 [Accessed 10 Sep. 2023].

Odean, T. (1999). Do Investors Trade Too Much? American Economic Review, 89(5), pp.1279–1298.

Odean, T. (1998). Are Investors Reluctant to Realize Their Losses? The Journal of Finance, 53(5), pp.1775–1798. doi:https://doi.org/10.1111/0022-1082.00072

Phan, T., Rieger, M., & Wang, M. (2018, August). Survey data on Vietnamese retail investors 'trading behavior and their psychological and behavioral patterns. Data in Brief, 19, 1176-1180. From https://doi.org/10.1016/j.dib.2018.05.113.

Seru, A., Shumway, T. and Stoffman, N. (2009). Learning by Trading. Review of Financial Studies, 23(2), pp.705–739. doi:https://doi.org/10.1093/rfs/hhp060.

Seasholes, M.S. and Feng, L. (2005). Do Investor Sophistication and Trading Experience Eliminate Behavioral Biases in Financial Markets? [online] papers.ssrn.com. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=694769.

Shiller, Robert J. and Pound, John, Survey Evidence on Diffusion of Investment Among Institutional Investors (March 1986). NBER Working Paper No. w1851, Available at SSRN: https://ssrn.com/abstract=341816

Shefrin, H. and Statman, M. (1985). The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence. The Journal of Finance, [online] 40(3), pp.777–790. doi:https://doi.org/10.2307/2327802.

Shiller, R. J. (2000). Irrational Exuberance and Speculative Bubbles. The Journal of Economic Perspectives, 16(2), 3-18.

Shefrin, H. (2002). Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing. Oxford University Press.

doi:https://doi.org/10.1093/0195161211.001.0001.

Trinugroho, I. and Sembel, R. (2011). Overconfidence and Excessive Trading Behavior: An Experimental Study. International Journal of Business and Management, 6(7). doi:https://doi.org/10.5539/ijbm.v6n7p147.

Thaler, R. (1985). Mental Accounting and Consumer Choice. Marketing Science, [online] 4(3), pp.199–214. Available at: https://www.jstor.org/stable/183904.

Thaler, R. H. (1993). Advances in Behavioural Finance; Noise Trader Risk in Financial Markets. Journal of Political Economy, 98(4), 703-738