

THE INTERPLAY OF PSYCHOLOGY AND INVESTMENT STRATEGIES IN FINANCIAL MARKETS

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Abstract

This paper explores the intricate interplay between psychology and investing strategies in financial markets. It argues that understanding psychological influences on investor choices is essential for navigating market complexities. After introducing the research aims, major psychological factors shaping behaviour are reviewed, including risk appetite, loss aversion, overconfidence, and emotions like fear and greed. The uneven weighing of potential profits and losses in loss aversion can skew decisions, for example, while overconfidence can lead to inflated projections. The paper then examines technical analysis, noting how behavioural patterns indicate shifts in market mood. However, accurately predicting changes based solely on past trends has limitations. Algorithmic trading is highlighted for its ability to remove emotional biases through pre-programmed, data-driven decisions. Additionally, the contrast in psychological foundations between value investing and behavioural finance approaches is analyzed. Value investing relies on enduring market dips to profit from undervalued assets, requiring mental discipline. Behavioural finance aims to capitalize on investor irrationality, needing the flexibility to adapt to volatility. Case studies of famous investors demonstrate applications of behavioural tactics for success. The paper also explains how cognitive biases shape market crashes and manias when emotions like fear and greed are unchecked. Strategies to mitigate effects include long-term thinking, risk control, and comprehending what drives collective behaviour. Finally, the need to incorporate behavioural concepts into investor education is discussed to close knowledge gaps. Improvement of psychological resilience through deliberate practices is also advocated. In conclusion, with technological advances like AI poised to further transform investing psychology dynamics, investors must continually evolve their understanding.

Keywords: Interplay of Psychology, Investment Strategies, Financial Markets

1. I. Introduction

It is clear from following past trends of psychology and investing interactions that the link is intricately entwined with the development of stock markets. In the past, the market's combined mental makeup has influenced prices and underlying economic principles. Events of excessive enthusiasm and fear, ranging from the 17th-century Tulip Mania to the late 20th-century Dot-Com boom, demonstrate the significant influence of the mind on the nature of investing.

According to Raut (2020), in today's intricate network of globalised operations and instantaneous exchange of information that is the stock market, it is imperative to comprehend financial conduct

and behavioural trading. Introducing fresh perspectives to market processes through the popularity of trading with high frequencies and trading algorithms has further integrated technology improvements with the mental components of decision-making. Market emotions, emotional catalysts and behavioural stereotypes all have a substantial impact on market movements, thus it is critical for investors to understand the nuances of financial psych.

The investigation's thesis is based on the idea that understanding the psychological influences on investing choices is essential to negotiating the complexities of contemporary stock markets. Aigbovo & Ilaboya (2019) state that for organisational and individual investors, a detailed knowledge of how social behaviour influences investing decisions is essential as economic ecosystems grow more complex and linked. This study aims to clarify the subtleties that impact decisions by exploring the psychological roots. It also sheds insight into the complex interactions between trading psychology and the dynamism in stock markets. This thesis will operate as a lighthouse, pointing the way for the further investigation of certain psychological variables that influence investing behaviours and, in turn, market results.

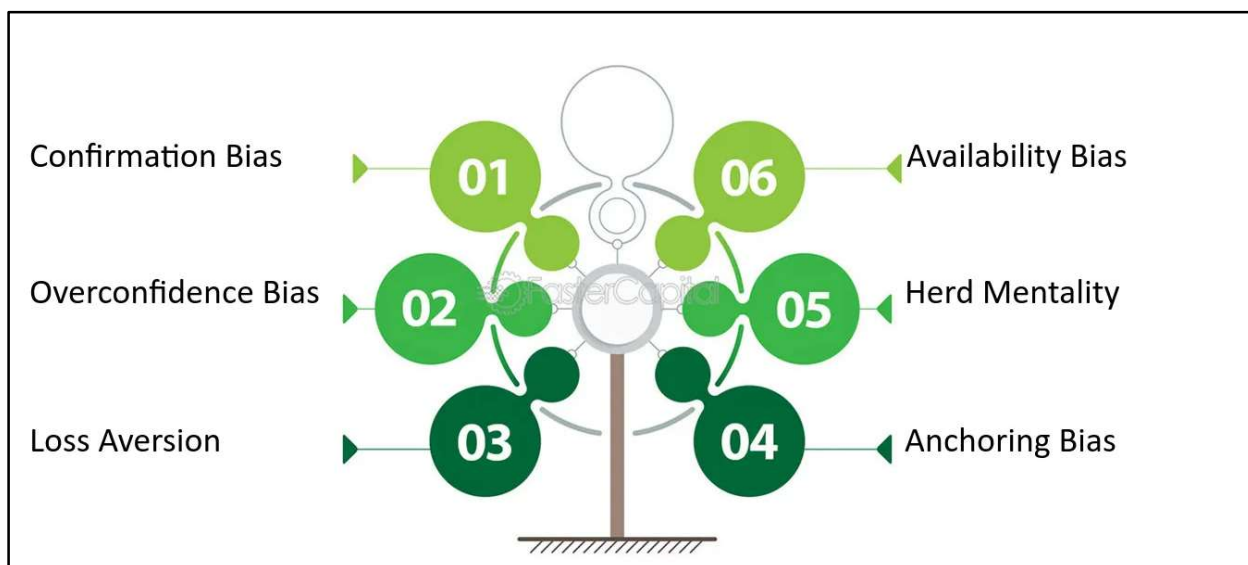


Figure 1: The major cognitive biases that influence investor behaviour and market trends, some of which are discussed below.

(Source: Faster Capital, 2023)

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3. II. Psychological Factors Shaping Financial Behaviour

3.2 Risk Aversion and Risk Appetite

Within the context of investor conduct, risk appetite and aversion are important psychological variables that impact investing choices. Diverse forms of risk perception add to the complex terrain of investment choices. Traders frequently struggle with uncertainty, and different people may perceive different levels of risk. Bauer & Milstein (2023) believe some people may have a cautious attitude and want to avoid hazards (risk aversion), whilst others may be more willing to take chances and have a more positive view (risk appetite).

Decision-making becomes even more difficult due to prevalent prejudices related to risk assessment. For example, the prospect hypothesis emphasises how people often have an asymmetrical assessment of possible advantages and losses. According to a cognitive bias known as "risk aversion," which has its roots in behavioural finance, the emotional toll of losing is greater than that of benefits of the same size. Due to this prejudice, traders may choose poorly because of an inflated fear of losing money.

A multifaceted method is necessary for investors to effectively control their risk aversion. Distributing holdings over a variety of assets helps reduce susceptibility to any one risk. Diversifying is a key component of risk mitigation. In addition, investors may manage uncertainty without experiencing undue worry by clearly defining their risk tolerances and allocating their investment portfolios accordingly (Qarni & Gulzar, 2021). A more logical approach to risk may be fostered via awareness-raising and educational initiatives, which enable shareholders to make well-informed decisions based on an equal knowledge of potential results.

3.3 Loss Aversion

A key idea in behavioural economics, loss aversion describes people's psychological propensity to choose preventing deficits over obtaining comparable benefits. The prospect theory, as mentioned by Do Hwang (2021) holds that people assess probable results according to apparent losses or benefits compared to an anchor point—typically the status quo—is the theoretical foundation for this occurrence. The uneven weighing of profits and losses is central to the cognitive interpretation of loss aversion. Studies show that the psychological harm caused by a loss is about twofold as strong as the emotional boost that results from an identical gain (Naseem et al., 2021). This out-of-balance emotional reaction can have a big impact on decision-making, leading people to choose options that minimise possible damages rather than maximise rewards.

Implementing proactive tactics and having a detailed grasp of cognitive biases are necessary to mitigate the influence of loss aversion. Education is important because it helps investors overcome the impact of behavioural biases by educating them about them. Putting into practice prudent investing techniques, such as establishing and sticking to predetermined boundaries, can assist traders in overcoming the psychological attraction of loss aversion. Moreover, taking a long-term view and emphasising assets' intrinsic worth as opposed to their transient swings might offer a more sensible paradigm for making decisions.

3.4

3.5 Overconfidence Bias

Overconfidence bias is a common misconception in decision-making that describes people's propensity to place undue faith in their forecasts or choices due to an overestimation of their own skills, expertise or judgements. Overconfidence may have a variety of effects on investments. Investors who are too confident may overestimate the intricacy and unpredictability of the stock market, resulting in excessively bullish projections. This bias is susceptible to overtrading since overconfident people might assume they have better knowledge or abilities than others, which can result in repeated stock purchases and sales (Kumar & Prince, 2023). For instance, Nick Leeson, a trader at Barings Bank, was so confident in his trading skills that he made unapproved and

extremely dangerous transactions. Due to his acts, Barings Bank—one of the most prestigious and established banks in the world—collapsed.

Another significant instance included Jerome Kerviel, a Société Générale trader, who used dishonest trade practices and concealed enormous losses from his supervisors. His activities caused Société Générale to suffer billion-dollar losses, making it one of the biggest frauds on record (Laguecir & Leca, 2021). Shareholders may embrace evidence-based choices and develop an objective self-evaluation of their skills to prevent succumbing to arrogance. Overconfidence may be prevented by doing realistic risk evaluations and looking for a variety of data outlets.

3.6

3.7 Herding Behaviour

The propensity of people to follow the activities of a larger group, frequently dictated by sociological or emotional factors instead of unbiased evaluation, is known as herding behaviour, and it is a common phenomenon in finance. This kind of activity has the potential to greatly influence market trends by amplifying price fluctuations and forming patterns that are more influenced by general mood than by underlying causes.

Examining past examples of herding offers important insights into how it affects the economy. For example, during the Dutch Tulip Mania (1636–1637), tulip bulbs caused a speculative frenzy that drove prices to absurd heights much above their inherent value. Öztürk (2022) opines when the bubble burst, many people lost everything they had financially. Furthermore, instances like the Reddit Gamestop incident and the growth of meme stocks—stocks that see significant value jumps caused by online talk and public mood, sometimes without solid underlying support—have been made possible by the prominence of websites and internet trading sites. There exist several possible dangers linked to herding. Primarily it may result in valuations of assets that are far off from their underlying numbers, a situation known as market inefficiency. Secondly, flocking behaviour has the potential to increase unpredictability by magnifying price movements as big pairs of investors concurrently switch holdings. Furthermore, the markets are more vulnerable to disinformation and speculation bubbles when there is a dearth of independent data in herding environments (Ah Mand et al., 2023). A careful strategy is needed to manage the dangers associated with herding. Shareholders may choose to take a contrarian approach, looking for chances when the market is unusually bullish or bearish. Diversifying their portfolio helps lessen the effect of market swings caused by herding.

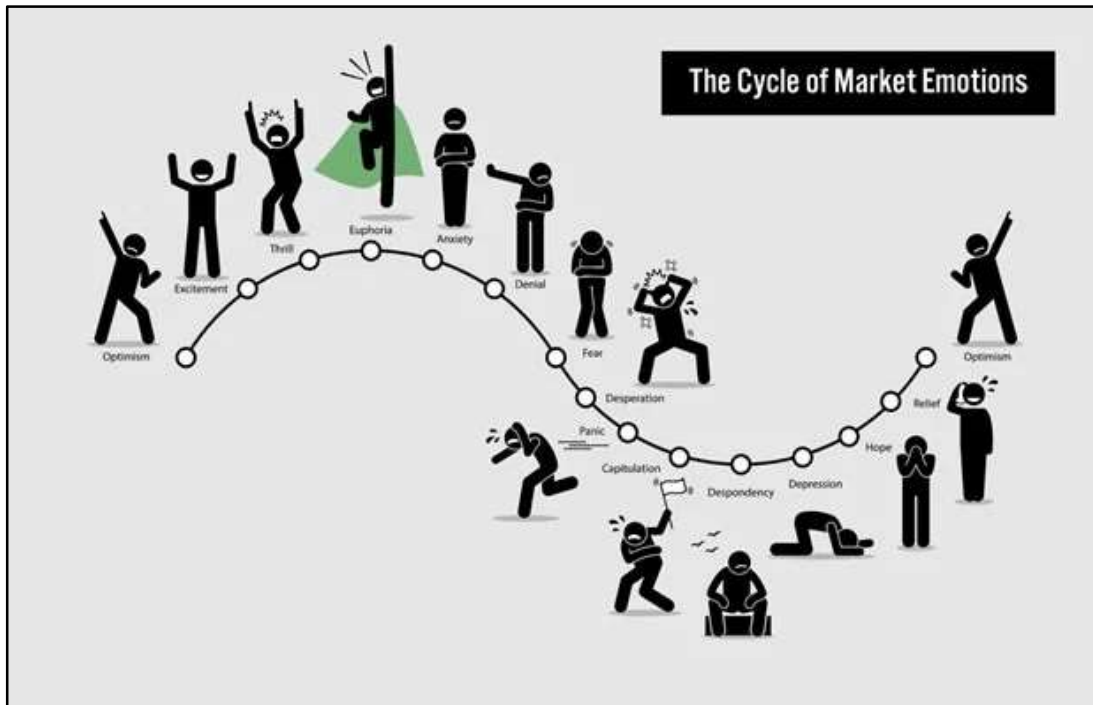


Figure 2: This stock market emotions chart illustrates the rollercoaster of emotions that investors experience as prices rise and fall.

(Source: Trading Sim, 2023)

4. III. The Role of Emotions in Trading

4.2 Fear and Greed

Market volatility is shaped by the powerful emotional interplay of fear and greed. Stock slumps are caused by traders selling off their assets out of fear, which is frequently brought on by uncertainties or unfavourable occurrences (Du, 2020). Alternatively, unreasonable optimism and asset overvaluation can be caused by greed, which is motivated by the expectation of profit. Markets are more volatile at times of worry, including recessions or political instabilities. Investors sometimes panic sell because they are afraid of losing money, which drives up asset values. This phenomenon was made clear during the global financial crisis of 2008, as fear-driven selling fueled a sharp decline in the market.

On the other hand, speculative bubbles or bull markets that are characterised by greed lead to extravagant purchasing patterns. Asset price inflation might result from investors ignoring basic dangers due to their avarice for large returns. For example, the late 1990s dot-com boom was characterised by a speculative frenzy motivated by the desire for rapid riches from companies tied to the web. Lehnert (2020) states that for shareholders, controlling feelings in tumultuous times is essential. Fear and greed may be lessened by using prudent investing techniques, such as establishing predetermined exits and following guidelines for risk control. Making more sensible decisions is also facilitated by developing a long-term view and concentrating on basic analysis rather than giving in to feelings.

4.3 Regret Aversion

One mental aspect that has a big impact on investing decisions is regret aversion. It comes from the dread of committing decisions that you could later regret. When considering potential damage or lost chances in the economy, traders frequently feel regret aversion. Remorse-averse traders may behave cautiously, steering clear of actions that seem likely to have unfavourable consequences. Shah & Malik (2021) believe this avoidance may show itself as a refusal to initiate a transaction out of a worry of future regrets or as hanging onto failing assets further than reasoned assessment would recommend.

Traders can utilise many ways to manage and get over regret aversion. First, emotional choices impacted by regret aversion may be lessened by investing with regulation, which is based on well-stated investing criteria and managing risks. Setting reasonable revenue goals and putting stop-loss strategies into place are doable steps to reduce the impact of regret-related distortions (Aren & Hamamcı, 2021). Furthermore, developing psychological toughness is essential for traders. This entails accepting that setbacks are an inevitable aspect of the market and redefining them as chances for growth and development. Traders should adopt an attitude that sees failures as learning opportunities rather than reasons for regret.

5. IV. Investment Strategies and Psychological Considerations

5.2 Value Investing vs. Behavioural Finance Approaches

In the field of financing techniques, value investing and behavioural finance methods are two distinct approaches that are based on different psychological factors and ideas.

Value investing, which was first popularised by Warren Buffett and Benjamin Graham, focuses on finding assets that are cheap. Investors who use this strategy examine financial accounts closely, looking for businesses whose true worth is higher than their asking price. Value investing is psychologically based on taking advantage of market imperfections and hoping that the market will eventually fix undervaluations (Wirawan & Sumirat, 2021). Among the greatest value investors of all time is Warren Buffett. By finding cheap firms and long-term holdings, he has routinely outperformed the market. Berkshire Hathaway, a textile firm he turned into a wide-ranging holding corporation with an estimated valuation of over \$1 trillion, was one of his most well-known assets.

On the other hand, behavioural finance applies psychological concepts to comprehend how market players are influenced by cognitive biases. This method recognises that feelings and psychological flaws cause investors to frequently stray from making logical decisions. The goal of behavioural finance methods is to take advantage of these aberrations by highlighting the importance of irrational conduct and market emotion in determining the success of investments. Robert Arnott launched the hedge fund Transtrend, which utilises a behavioural investment strategy to find and take advantage of mispriced commodities. Arnott et al., (2021) opine that by concentrating on firms that are unloved or overlooked by their peers, the portfolio has continuously beaten the market.

Value investment is dependent on quantifiable indicators and past financial success, according to research by Israel & Richardson (2020). Behavioural finance, on the other hand, incorporates qualitative elements and acknowledges the influence of investor mood and mental predispositions. The subtleties of psychology are crucial to both strategies. Value investors need to be disciplined to endure temporary price swings and cling to stocks that are genuinely good. Variations in the market, particularly slumps, can cause worry and stress, which might result in hasty decisions. For value investors to stick to their investing philosophies and withstand the psychological constraints imposed by transient market fluctuations, mental strength is essential.

Behavioural finance investors, on the contrary, must be aware of and mindful of their own prejudices in order to take advantage of the regular trends that arise from general market emotion. In behavioural finance, the psychological component of flexibility is equally important. Frequent changes in markets and in public opinion mean that investors must modify their strategy as necessary. Effective behavioural finance specialists possess a mental competence that sets them apart: the capacity to adjust to new knowledge and volatile markets without giving in to emotional responses.

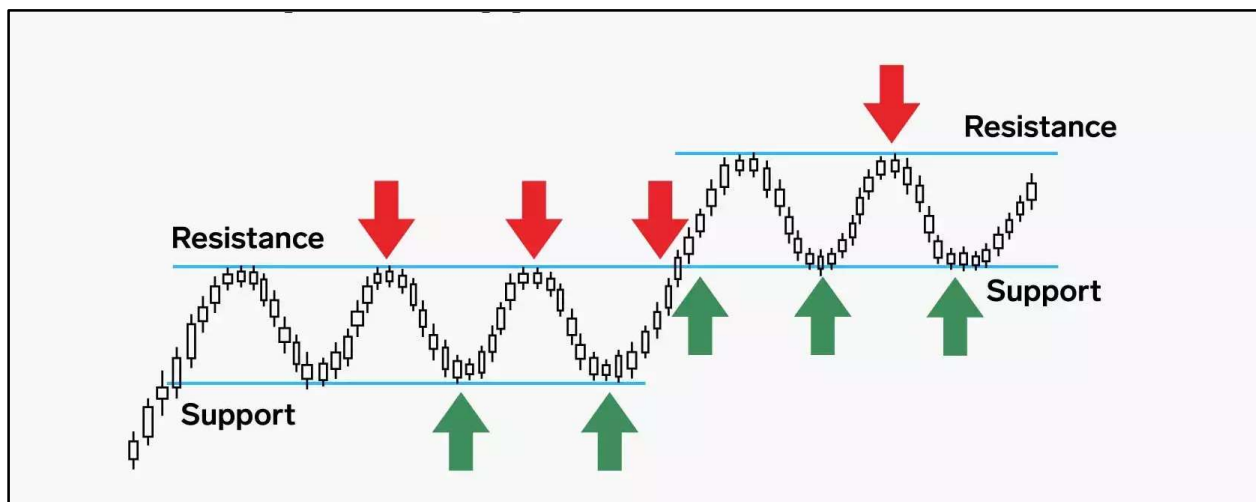


Figure 3: Technical analysis uses support and resistance levels as guiding lights.

(Source: Sciaudone, 2021)

5.3 Technical Analysis and Behavioural Patterns

A key component of stock market analysis is technical analysis, which includes behavioural trends in its approach. This method makes the assumption that past price changes and trading activity are a reflection of the psyche of all market players. Behavioural designs, which show up as patterns and chart formations, are thought to be crucial indications for projecting future price changes. Triangles, head and shoulders and double tops/bottoms are examples of chart patterns that may be used by technical analysts to identify behavioural trends (Nti & Weyori, 2020). These trends are said to reflect changes in market mood and may indicate future tendency extensions or reverses. Technical researchers and investors make investment choices based on such trends, which help them predict the emotional reactions of investors.

Some who criticise technical analysis claim that even with the inclusion of behavioural patterns, it is unable to adequately navigate the complexities of human psychology-influenced markets. The excessive focus on past pricing information and chart trends, that could overgeneralise the complex structure of stock markets, is one main point of dispute. Unexpected developments or quick adjustments in investor mood highlight this oversimplification. One of the main arguments against technical evaluation's efficacy is that it might ignore market abnormalities caused by psychological prejudices. For example, overreacting is an emotional bias that may not be sufficiently taken into consideration in technical analysis designs, wherein traders overreact unduly to fresh news. During periods of increased anxiety or noteworthy announcements, overreaction may lead to inflated market swings, making conventional technical indicators less trustworthy.

The forecasting ability of technical analysis is challenged by herd mentality, another important behavioural element. Shantha (2019) mentions the mental effects of a market herd can be difficult for technical analysis systems to simulate, particularly in times of fear or excessive excitement. Furthermore, it is challenging to predict changes in shareholder mood only based on previous chart patterns since these changes are sometimes brought on by unanticipated outside events such as political turmoil or financial turmoil. Reliable forecasts based on technical analysis, which is based on historical price campaigns, may not hold up in the midst of sudden shifts in the overall economic environment. Given these constraints, traders and analysts are recommended to augment technical research with a thorough comprehension of behavioural finance concepts and a well-rounded strategy that integrates the basics and current market circumstances.

5.4 Algorithmic Trading and Emotional Automation

One of the mainstays of finance, algorithmic trading, is essential for reducing the negative effects of emotions on trade choices. Algorithmic trading systems make deals without giving in to feelings like eagerness or anxiety since they rely on mathematical frameworks and predetermined procedures (Gómez Martínez & Plaza Casado, 2019). The probability of impulsive conduct is decreased by this scientific and dispassionate approach, which guarantees that investment judgements are only based on facts and statistical analysis.

Trading methods may be automated into programmes to help traders avoid emotional responses to abrupt swings in the market. Additionally, fast trade execution is made possible by algorithmic trading. Algorithms are capable of quickly analysing data and executing transactions at the best times in rapid market conditions where sentiments may cause people to make hurried or delayed judgements (Bao et al., 2022). This reduces the impact of feelings while also quickly and precisely seizing business possibilities. When using predictive trading tactics, openness, integrity and possible price manipulation are the main moral issues. Some algorithmic tactics, according to their detractors, can make use of market flaws or participate in unfair business practices if they are not appropriately controlled. Regulation policies continue to face the difficulty of finding an equilibrium between the efficacy improvements that algorithmic trading brings about and preserving market integrity.



Figure 4: Examples of AI usage in Investing.

(Source: Bowman, 2023)

Artificial Intelligence (AI) has great potential to eliminate emotional biases in the future. Cutting-edge AI systems are immune to human emotions and are capable of analysing enormous databases, seeing designs and making snap choices. More advanced algorithms that can automatically execute trading methods and instantly adjust to shifting market circumstances are possible as AI technology develops. This capacity for adaptation can reduce the effects of psychological distortions and increase competitiveness. Nonetheless, moral issues continue to arise during the creation and implementation of AI-powered trading platforms. It is essential to make sure algorithms follow moral principles, refrain from discriminating behaviour, and give market stability first priority. Tighter laws and monitoring procedures are required to handle any ethical issues that may arise from the application of AI in the financial markets.

6. V. Case Studies: Real-world Application

6.2 Market Crashes and Behavioural Explanations

Market collapses that offer valuable instances for examining significant past recessions through psychological prisms include Black Monday in 1987, Tulip Mania in 1636–1637, the South Sea Bubble in 1720, the Japanese asset prices bubble in 1985–1991, the dot-com bubble in 1995–2000, and the recent meme stock frenzy. The impact of anxiety and terror is one behavioural component that is frequently seen in these catastrophes. Nygaard (2020) states fears of major monetary damages during Black Monday led to a surge of frantic selling, which in turn caused shares to spiral downward. Comparable to this, fear of missing out (FOMO) fueled a frenzy during the Tulip Mania that resulted in exaggerated tulip bulb values that ultimately crashed. Another recurrent element is the herd mentality. Investors imitating one another's behaviour during the South Sea Bubble added to the bullish fervour. The dot-com boom demonstrated herd mentality as traders rallied behind the idea that cyberspace could revolutionise business, leading to an excessive surge in the price of electronic stocks. In addition, the Japanese asset price bubble represented a widespread conviction in unending economic expansion, which resulted in

exaggerated asset values (Asher, 2021). The latest meme stock craze is a prime example of the modern herd mentality driven by social media when individual retail investors influence the pricing of particular companies together.



Figure 5: Perhaps the biggest stock market collapse of this century, which led to the Global Financial Crisis in 2008 and its eventual consequences.

(Source: Amadeo, 2022)

By applying a psychological perspective to analyse these past events, we can see how mental preconceptions like fear, FOMO, and overreaction shape market trends. The takeaways from these collapses underscore how crucial it is for shareholders to comprehend behavioural elements. Retaining a long-term outlook, minimising bullish frenzy and practising rigorous risk control are some strategies to counteract these prejudices. A better understanding of behavioural determinants might have lessened the severity of these collisions. For example, acknowledging the part fear played on Black Monday may have resulted in more controlled reactions and a decrease in panicked sales. In a similar vein, being conscious of herd mentality during Tulip Mania would have encouraged prudence and prevented involvement in the bubble of speculation.

Investors may mitigate the effects of market slumps and contribute to a profitable future by adopting more educated and adaptive tactics by detecting and grasping psychological components.

6.3 Success Stories and Behavioural Strategies

Analysing the achievement narratives of well-known traders shows how behavioural approaches have a significant influence on attaining exceptional results in the financial sphere. The acclaimed investor and humanitarian Warren Buffet is an outstanding instance of how to use behavioural methods to make successful investments, but since we've previously talked about him, we focus on his long-time partner and investment sage, Charlie Munger and his mental models. According to Gant (2023), Charlie Munger offers an extensive basis for evaluating difficult circumstances through his focus on psychological frameworks. Munger mitigates the hazards linked with subconscious prejudices by ensuring careful investigation while preventing alternatives and

oversimplification. His multi-perspective method, which is based on many mental models, lessens the impact of confirmation bias and promotes a thorough comprehension of financial prospects. Secondly, the event-driven investment strategy of well-known hedge fund manager Bill Ackman demonstrates the value of taking advantage of emotional reactions and comprehending herding tendencies. Ackman takes advantage of market inefficiencies by spotting mispriced stocks motivated by ephemeral sentiments. His capacity to uphold his commitment in spite of oppositional viewpoints emphasises the value of tenacity in the midst of temporary setbacks. Apart from this, there exist a number of prominent personalities that serve as examples of how comprehension and use of behavioural factors facilitate effective choices. Co-founder of Oaktree Capital Management Howard Marks effectively integrates behavioural methods into his value investing methodology (Greenwald et al., 2020). Marks finds stocks that are cheap because of psychological traits like overconfidence or fear. This strategy emphasises how important it is to identify and take advantage of market gaps caused by behavioural prejudices. Secondly, Michael Maebach highlights the importance of behavioural tactics in his path to early prosperity. Maebach promotes sane investing choices and responsible financial conduct by comprehending and controlling impulses like fear and greed. Furthermore, the understanding of behavioural tendencies served as the foundation for John Bogle's transformative influence on the finance sector with low-cost index funds and passive investment. Bogle promotes investing techniques in line with logical decision-making, addressing problems like as excessive trust and disappointment of active managers.

When taken as a whole, these instances of success provide guidelines for making wise decisions. Prosperous investors utilise these perceptions to manoeuvre intricate financial environments, illustrating the long-lasting influence of behavioural tactics in attaining financial prosperity.



Figure 6: Warren Buffett's success story with Berkshire Hathaway, a textile firm he turned into a wide-ranging holding corporation with a \$1 trillion valuation.

(Source: Rabener, 2021)

7. VI. Strategies for Investor Education and Psychological Resilience

An analysis by Hani & Isworo (2020) of current shareholder education initiatives shows how urgently broad strategies for tackling behavioural and economic literacy issues are needed. The mental components of making decisions in finance are frequently ignored in favour of an emphasis

on fiscal ideas and investing tactics in many contemporary programmes. Incorporating behavioural finance ideas into the school curriculum is one suggestion for improving financial awareness, especially with regard to psychological issues. This entails introducing courses that explore cognitive biases—such as overconfidence, loss aversion and herd mentality—that impact investing decisions. By offering helpful perspectives into these prejudices, shareholders may have a more sophisticated knowledge of how they make decisions.

Moreover, the significance of experience learning is emphasised by the way that education helps to mitigate prevalent prejudices, suggest Deliema & Pak (2020). Investors may get practical experience in controlling impulses while rendering judgements in real-time trading scenarios, scenarios and participatory seminars. People can use academic information in real-life situations through these usages which promote behavioural resilience. Furthermore, promoting cooperation among financial institutions, educational establishments, and business specialists might improve the efficacy of investor education initiatives. This cooperative strategy guarantees that educational resources are kept up to date with the most recent findings from behavioural and financial studies. These programmes help close the knowledge gap between theories and practice, which helps better prepare individuals to handle the intricacies of the stock market.

Individual trader mental toughness can be improved through a variety of techniques that take into account mental preconceptions and feelings related to market swings. Self-awareness, deliberate decision-making, mentoring, continuous learning and support systems are all necessary to help traders develop psychological resilience (Luong et al., 2023). By putting these ideas into practice, individual investors may make more sound and informed decisions by navigating the intricacies of the stock market with more compassion and endurance.

8. VII. Conclusion

Overall, this thorough investigation of the relationship between investing methods and psychology offers important new understandings for players in the business and for investors. The close relationship between human behaviour and financial results is highlighted by the examination of mental factors influencing financial behaviour, the significance of feelings in trading and different investing techniques. Important discoveries included how fear and greed affect market volatility, how risk avoidance and fear of loss affect investing choices, and how well certain investment techniques work to overcome psychological biases. Case studies with well-known investors like Bill Ackman, Charlie Munger, and others show how behavioural insights may be used in real-world situations to make lucrative investments.

There are important ramifications for the foreseeable future of the stock market too. Future changes to technology, particularly artificial intelligence (AI), are probably in store for the way psychology and investing interact. Investors hoping to traverse the intricate terrain of economic choices will need to comprehend these shifts and adjust accordingly.

9. References

1. Ah Mand, A., Janor, H., Abdul Rahim, R., & Sarmidi, T. (2023). Herding behavior and stock market conditions. *PSU Research Review*, 7(2), 105-116.
2. Aigbovo, O., & Ilaboya, O. J. (2019). Does behavioural biases influences individual investment decisions. *Management Science Review*, 10(1), 68-89.
3. Amadeo, K. (2022, May 25). The stock market crash of 2008. *The Balance*. <https://www.thebalancemoney.com/stock-market-crash-of-2008-3305535>
4. Aren, S., & Hamamcı, H. N. (2021). Biases in managerial decision making: Regret aversion, endowment, confirmation, self-control, recency. *International Journal of Multidisciplinary Research and Development*, 8(7), 62-69.
5. Arnott, R. D., Harvey, C. R., Kalesnik, V., & Linnainmaa, J. T. (2021). Reports of value's death may be greatly exaggerated. *Financial Analysts Journal*, 77(1), 44-67.
6. Asher, D. L. (2021). *Economic Myths Explained: What Became of the Japanese "Miracle"*. In *The Japanese Economy and Economic Issues since 1945* (pp. 199-218). Routledge.
7. Bao, T., Nekrasova, E., Neugebauer, T., & Riyanto, Y. E. (2022). 23. Algorithmic trading in experimental markets with human traders: A literature survey1. *Handbook of Experimental Finance*, 302.
8. Bauer, M. D., Bernanke, B. S., & Milstein, E. (2023). Risk appetite and the risk-taking channel of monetary policy. *Journal of Economic Perspectives*, 37(1), 77-100.
9. Bowman, J. (2023, November 14). How AI can be used in investing. *The Motley Fool*. <https://www.fool.com/investing/stock-market/market-sectors/information-technology/ai-stocks/ai-in-investing/>
10. Day Trading Psychology | TradingSim. (2023). <https://www.tradingsim.com/resources/trading-psychology>
11. Deliema, M., Shadel, D., & Pak, K. (2020). Profiling victims of investment fraud: Mindsets and risky behaviors. *Journal of Consumer Research*, 46(5), 904-914.
12. Do Hwang, I. (2021). Prospect theory and insurance demand: Empirical evidence on the role of loss aversion. *Journal of Behavioral and Experimental Economics*, 95, 101764.
13. Du, Q. (2020, October). Fear or Greed? How Retail Trades Move Markets?. In *The 15th Annual Conference on Asia-Pacific Financial Markets (CAFM)*.
14. Faster Capital. (2023). Behavioral Finance: ChFC s Insights into Investor Psychology - FasterCapital. <https://fastercapital.com/content/Behavioral-Finance--ChFC-s-Insights-into-Investor-Psychology.html>
15. Gant, L. (2023). Models of investing: Value investing 2.0, Warren Buffett's methods beyond net-nets. *Equity*, 37(6), 4-5.
16. Gómez Martínez, R., Prado Román, M., & Plaza Casado, P. (2019). Big data algorithmic trading systems based on investors' mood. *Journal of Behavioral Finance*, 20(2), 227-238.
17. Greenwald, B. C., Kahn, J., Bellissimo, E., Cooper, M. A., & Santos, T. (2020). *Value investing: from Graham to Buffett and beyond*. John Wiley & Sons.

18. Hani, S., Heru, S. S., & Isworo, E. S. (2020). The effect of investment education and investment experience on investment decision with financial knowledge as intervening variable. *Russian Journal of Agricultural and Socio-Economic Sciences*, 99(3), 143-150.
19. Israel, R., Laursen, K., & Richardson, S. (2020). Is (systematic) value investing dead?. *The Journal of Portfolio Management*, 47(2), 38-62.
20. Kumar, J., & Prince, N. (2023). Overconfidence Bias in Investment Decisions: A Systematic Mapping of Literature and Future Research Topics. *FIIB Business Review*, 23197145231174344.
21. Laguecir, A., & Leca, B. (2021). Organized decoupling of management control systems: An exploratory study of traders' unethical behavior. *Journal of Business Ethics*, 1-17.
22. Lehnert, T. (2020). Fear and stock price bubbles. *Plos one*, 15(5), e0233024.
23. Luong, T. A., Lim, S., Ngo, T. T., Nguyen Huynh, N. Y., Le, Q. D., & Cartwright, E. (2023). Risk attitudes and resilience of trading networks: Evidence from smallholders in Vietnam. Available at SSRN 4528537.
24. Naseem, S., Mohsin, M., Hui, W., Liyan, G., & Penglai, K. (2021). The investor psychology and stock market behavior during the initial era of COVID-19: a study of China, Japan, and the United States. *Frontiers in Psychology*, 12, 626934.
25. Nti, I. K., Adekoya, A. F., & Weyori, B. A. (2020). A systematic review of fundamental and technical analysis of stock market predictions. *Artificial Intelligence Review*, 53(4), 3007-3057.
26. Nygaard, K. (2020). The Federal Reserve's Response to the 1987 Market Crash. *Journal of Financial Crises*, 2(3), 116-130.
27. Öztürk, A. (2022). Dutch Tulip Mania: Tulip Crisis. In *Black Swan: Economic Crises*, Volume I (pp. 13-31). Singapore: Springer Nature Singapore.
28. Qarni, M. O., & Gulzar, S. (2021). Portfolio diversification benefits of alternative currency investment in Bitcoin and foreign exchange markets. *Financial Innovation*, 7(1), 1-37.
29. Rabener, N. (2021, November 22). Warren Buffett: The greatest factor investor of all time? CFA Institute Enterprising Investor. <https://blogs.cfainstitute.org/investor/2019/04/15/warren-buffett-the-greatest-factor-investor-of-all-time/>
30. Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, 15(6), 1243-1263.
31. Sciaudone, C. (2021, November 12). Technical analysis: Using historical patterns and group behavior to predict future moves in stocks and other assets. *Business Insider India*. <https://www.businessinsider.in/investment/news/technical-analysis-using-historical-patterns-and-group-behavior-to-predict-future-moves-in-stocks-and-other-assets/articleshow/87672674.cms>
32. Shah, I., & Malik, I. R. (2021). Role of Regret Aversion and Loss Aversion Emotional Biases in Determining Individual Investors' Trading Frequency: Moderating Effects of Risk Perception. *Humanities & Social Sciences Reviews eISSN*, 2395-6518.

33. Shantha, K. V. A. (2019). Individual investors' learning behavior and its impact on their herd bias: an integrated analysis in the context of stock trading. *Sustainability*, 11(5), 1448.
34. Wirawan, G. H., & Sumirat, E. (2021). Performance Analysis of Investment Portfolio Strategy Using Warren Buffett, Benjamin Graham, and Peter Lynch Method in Indonesia Stock Exchange. *European Journal of Business and Management Research*, 6(4), 394-401.