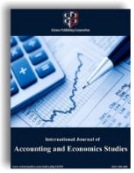
*International Journal of Accounting and Economics Studies*, 12 (7) (2025) 353-362

**International Journal of Accounting and Economics Studies**

*Website: www.sciencepubco.com/index.php/IJAES*
*https://doi.org/10.14419/2k6wex42*
***Research paper***



# Herding Behavior and Portfolio Management: A Behavioral A Finance Perspective on Individual Investors

**Di Cui *, Abu Sufian Abu Bakar ,Normizan bin Bakar**

*School of Economics, Finance and Banking Universiti Utara Malaysia,06010 UUM Sintok Kedah Darul Aman, Malaysia*
**Corresponding author E-mail: cuidicindy@gmail.com*

*Received: October 5, 2025, Accepted: October 22, 2025, Published: November 9, 2025*

**Abstract**

This paper analyzes the impact of herding phenomena in terms of behavioral finance, i.e., individual investors, on the management of a portfolio. The herding behavior is characterized as a state of individuals being most likely to copy the behavior of other individuals, and this can be highly ineffective in the market, leading to poor investments. The theories of finance are grounded in the assumption that rational investors make decisions within the framework of general information availability; however, the behavioral theory of finance assumes that numerous psychological biases, such as a sense of overconfidence, the fear of missing out (FOMO), and loss aversion, exert an immense influence on the investment decision. The following paper will be dedicated to the comprehension of such biases and their application to the diversification-tion, risk tolerance, and asset allocation of a portfolio. This research employs a quantitative approach where they employ simple random sampling and a structured survey to collect data about individual investors. The surveys are about demographics, investment strategies, herd-herding behavior, and the role that the Environmental, Social, and Governance (ESG) factors play in investment decisions. The results are that individual investors are likely to be influenced by market trends, behaviour of peers, and social forces, hence leading to herding behaviour, which has a negative impact on portfolio performance. Moreover, there is also the infiltration of ESG in decision-making, whereby investors consider ethical interest and monetary benefits. This study indicates that awareness of psychological bias and devising solutions on how to overcome herding in managing the portfolio is very important.

***Keywords***: *Behavioral Finance; Herding Behavior; Individual Investors; Psychological Biases; Portfolio Management.*

## 1. Introduction

### 1.1. Portfolio management

Portfolio management is a core component of the investment theory and practice currently because it entails the strategic use of assets in the eventual broad goal of resolving on the best trade-off of risk and returns [1]. Classical methods of portfolio management, such as the Modern Portfolio Theory (MPT), emphasize diversification as a risk management and optimal returns approach by diversifying investment among different classes of assets, such as stocks, bonds, and real estate [2]. The theory assumes that the investors are rational in their decisions and that the totality of the decisions is informed by the available information, which assumes that they are to maximize the portfolio performance [3].
The latter has since been challenged by the advent of behavioral finance, which asserts that most investors are not theoretical human beings, as they tend to become the victims of cognitive biases and emotion. It is the psychological aspect of the decision-making that will not necessarily help the traders adhere to the principle of risk diversification and effective allocation of assets, and do it on their own, at the level of individual investors. Herding reason is herding behavior, and that is to includes people in doing what other people are doing, especially in the volatile or uncertain markets [4].

### 1.2. Behavioral finance

Behavioral finance is a new area of financial theory, and psychology and economics are involved in the exposition of the phenomenon of human beings making irrational decisions in matters of investment [5]. This field recognizes that investors are employees of the heart, mental biases, and social influences that help to form the systematic mistakes of judgment. Conventional finance theories like the Efficient Market Hypothesis (EMH) suppose that all information is rationally embodied in asset prices, and that all investors are fully rational in their behaviour [6]. Behavioural finance, however, assumes that human behaviour frequently influences market results and that human behaviour may be irrational and psychologically disposed [7].
The other concept that has been the most influential in behavioral finance is the herding behavior, where people have a tendency to follow the behavior of others, overlooking their own scrutiny or the underlying principles of the investment. In both up-markets and down-markets,

herding may occur, and investors act to follow the majority action of the crowd, as it is part of bubbles and crashes in financial markets [8]. Although herding can be beneficial in the short term, in many cases, herding results in suboptimal portfolio decisions, including over-invested, overvalued assets or over-underdiversified portfolios [9].

### 1.3. Research problem

The herding behavior in the context of portfolio management has barely been studied, in spite of the accumulating research on the subject of behavioral finance, particularly concerning the role of these behaviors in personal decision-making regarding portfolio allocation and diversification. The main research question that will be used in this research is: How does herding behavior influence the portfolio management strategy of individual investors? As well, this project aims to learn how psychological biases, including loss aversion, overconfidence, and fear of missing out (FOMO), influence investment decisions.
Personal investors may have their own set of problems with handling their portfolios, including inaccessibility of information, emotional influences, and social influences. Consequently, this means their investment choices will not be in line with the best strategies, and they will perform poorly. The research will also focus on how demographics, including age, sex, and income, affect the vulnerability of investors to herding behavior and biases. Also, it will examine the increasing importance of Environmental, Social, and Governance (ESG) factors, as individual investors consider these criteria more and more in their decision-making process.

### 1.4. Research objectives and questions

The initial aim of the research is to examine the dynamics that exist in herding behavior on the part of individual investors in the portfolio management decision. The following questions are going to be used in the study:

- What is the impact of herding behavior on the asset allocation and diversification decision of the individual investor?
- Which psychological biases (including overconfidence, loss aversion, and FOMO) do individual investors have, and how do these biases affect their investment decisions?
- How are demographic factors (e.g., age, gender, income, and investment experience) relevant to the vulnerability to herding behavior and other cognitive biases of the investors?
- How are ESG factors incorporated in the individual investors' decision-making processes, and what effect do they have on the portfolios of the investors?

## 2. Literature Review

### 2.1. Introduction to behavioral finance

Behavioral finance was developed in reaction to the shortcomings of the old finance theories, which suppose that investors are rational and that markets are efficient [10]. The traditional theories, such as the Efficient Market Hypothesis (EMH) and the Modern Portfolio Theory (MPT), are based on the assumption that financial markets are efficient predictors of the available information and that investors are rational to maximize their utility based on this information [11]. However, such models do not describe typical anomalies in a financial market, such as market bubbles, market crashes, and mispricings. Behavioral finance, originally developed by scholars like Daniel Kahneman, Amos Tversky, and Richard Thaler, uses the knowledge of psychology to explain why investors fail to always act rationally. It assumes that investors are not purely rational and that they make decisions on the basis of cognitive biases, emotions, and social influences. Behavioral finance does not believe that markets are efficient and presents a more complex view of the role of psychological factors in investment decisions and market performance [12].

### 2.2. Herding behaviour theories

One of the key principles of behavioral finance is referred to as herding and can be described as the behavior of people to imitate the behavior of others, and in particular situations that are characterized by uncertainty or a volatile situation [13]. Financial market herding can force investors into the crowd at the cost of the underlying fundamentals of the market. The outcome of this irrationality can be market inefficiencies (e.g., asset bubbles, crashes, and mispricing of securities).
Some theories describe the aspect of herding:

#### 2.2.1. Information cascades

This theory explains that people will base their decisions on the behaviour of other people, on the assumption that the other people have better information. The more individuals mimic such an action, the more individuals become part of a trend, which leads to a cascading effect of incorrect or incomplete information being made based on the behavior [14]. This tendency is frequent in cases of uncertainty where people use social cues to determine what to do.

#### 2.2.2. Social learning theory

According to this theory, people watch how others act and behave, and in situations where information or experience is limited. When it comes to the financial markets, investors can imitate the actions of perceived market leaders or other investors and suppose that they act based on superior knowledge [15].

#### 2.2.3. Bandwagon effect

Bandwagon effect is a psychological phenomenon where people follow behaviors or beliefs that are being followed by many people. This may create bubbles in financial markets where additional investors engage in the trend even though the underlying fundamentals may not support the market trend [16].

The actions of herding can have of great impact on portfolio management. By joining the crowd and failing to analyze the portfolio themselves, individual investors can find themselves holding portfolios that are not adequately diversified and that are vulnerable to risks that they do not need. Market volatility is common since herding causes the price of assets to be inexplicable to their inherent value.

## 2.3. Portfolio management and herding behavior

The effects of herding behavior on portfolio management are well researched. Portfolio management depends on using strategies such as diversification and minimization of risks in order to optimize returns and minimize risk exposure [17].
Nevertheless, these strategies may be weakened by herding behavior in several ways:

### 2.3.1. Absence of diversification

During herding, investors may focus their given portfolios on several over-hyped stocks or industries, and this can make their portfolios risky. The more investors jump onto the bandwagon, the more the prices of assets are exaggerated, the more the portfolio can be subjected to corrections by the market [18].

### 2.3.2. Excessive exposure to market trends

Herd investors can be too vulnerable to short-term market trends and price changes at the expense of long-term investment objectives. It can lead to unnecessary risk-taking taking especially in a market euphoria or panic [19].

### 2.3.3. Asset mispricing

Herding may also cause asset mispricing as investors herd and bid up the price of assets without any fundamental analysis. The result of this is market bubbles, where the price of assets is pushed out of their intrinsic value. Losses to the investors who have been following the herd can be huge when the bubble bursts [20].
A major issue that portfolio managers must deal with is how to handle the effect of herding behavior on the investments of their clients. Although classic portfolio management focuses on rational decision-making and asset diversification, behavioral aspects like herding may lead to poor choices by a single investor, which may lead to poor portfolio performance.

## 2.4. Behavioral biases in investment decisions

Other than the behavior of herding, there are other cognitive biases that influence the decision-making of individual investors. Such biases tend to cause irrational decisions by the investors, which are not in line with the principles of efficient portfolio management. The most widespread biases are:
Overconfidence Bias: Overconfident investors think that they are more knowledgeable or skilled than others and thus take on more risk than appropriate. This bias may lead to overtrading, insufficient diversification, and too much exposure to risk in portfolios [21].
Loss Aversion: The Prospect Theory states that investors would feel more strongly about a loss than about the same gain. Consequently, they can especially invest in losing assets too long in the hope of a rise in prices, and sell winning assets too soon to guarantee a profit. This may result in inefficient asset allocation and inefficient performance of the portfolio [22].
Mental Accounting: It is a prejudice that leads to the variability of investors to consider various kinds of money differently in relation to the way it came about or is supposed to be used. An investor can, as an illustration, spend the profits of a winning investment as house money and become more risky with it, and more conservative with original capital. This may give rise to inefficient management of the portfolio and bad decision-making [23].
Fear of Missing Out (FOMO): FOMO is a powerful mental bias compelling investors to make an investment in a popular investment, a hype to avoid losing out on an opportunity. This bias can cause investors to buy overvalued assets during a market rally that results in asset bubbles and dangerous portfolio behavior [24].
All these biases can lead to portfolio decisions that could not be sound in financial terms, such as diversification and risk management. Behavioral finance assists us in knowing how these biases can affect the decisions we make in investment and how psychology needs to be taken into consideration when managing a portfolio.
Herding behavior has far-reaching implications for the efficiency of the market. According to the Efficient Market Hypothesis (EMH), the prices of assets are based on all the available information, and no individual investor can always outperform the market. Herding behavior is, however, contrary to such an assumption, as it shows that in most cases markets are social and psychologically determined rather than driven by primary information [25].
The crowd is distorting the prices because the market will not be efficient any longer, by blindly investing in assets and making the crowd push the price of the assets either higher or lower. The most exemplary instances of how herding can bring market inefficiencies are in market bubbles and crashes. In the presence of a bubble, the herding behaviour results in the prices of the assets being way above the intrinsic value, hence a speculative frenzy. When a bubble bursts, several investors who have been in the herd may suffer massive losses, contributing to the uncertainties in the financial markets [26].

## 2.5. Investment decisions

The importance of ESG factors in investment choices has grown and grown in the past years. ESG investing focuses on those businesses that practice sustainability, such as environmental responsibility, social justice, and good governance. Many investors (most notably long-term financial investors) view ESG criteria as a means of ensuring their investments meet their values, and to mitigate risks related to climate change, corporate governance, and social responsibility [27].
Although the adoption of ESG is growing, the issue of herding is posing a threat to the goals of ESG. ESG funds are usually selected by investors based on popularity or social trend without carrying out due diligence. Research (e.g., Gavrilakis and Floros, 2024) discovered that ESG asset bubbles occur when crowds associate themselves with ESG labels, which result in overvalued assets lacking sustainability support.
There is also a possibility that herding behavior influences the fact that ESG factors are taken into account when investing. The trend of ESG investing at the moment allows investors to easily jump onto the bandwagon without necessarily having a full concept of what ESG

investing is about and whether this type of investing is costly or worthwhile. This can cause excessive ESG stock investment and improper pricing of ESG assets. Therefore, investors should be wary and consider the possibilities of ESG investments and not merely jump on the bandwagon.

The herding study and the behavioral finance study would also prove helpful in explaining the role of psychological biases in making a decision in portfolio management. Poor returns on investment may also arise due to irrational decision-making by the individual investors, based on social influence, emotional response, and cognitive bias. The information about the significance of the herding behavior and the other biases is needed in the development of effective portfolio management strategies that would mitigate the risks. Considering that there is an added importance of ESG factors, the investors should also investigate how the social factors influence the moral investment decisions.

## 2.6. Applying herding theory to portfolio choices

Herding behavior refers to the behavior of investors following the crowd, usually with no personal analysis of their own, and the nature of an investment. When applied to portfolio management, such behaviour may result in poor management and inefficient decision-making. The concept of herding can be specifically applied to individual investors who are inexperienced, uninformed, or less confident in making independent investment decisions. The formation of market bubbles, asset mispricing, and volatility also includes market trends, social cues, and peer behaviour, and relies on these factors to make decisions [28].

The herding behavior contradicts the most significant principles of portfolio management, like diversification and risk minimization. Unlike diversification, where the risk is diversified among asset classes, herding investors are likely to invest their portfolio in some of the popular stocks or sectors, or assets. This behavior exposes them to market shocks and heightens the possibility of making huge losses when the herd works against them.

To make matters worse, it is possible that herding behavior is caused by inadequate risk management. The herd effect may also lead to overconfidence among investors in bull markets without necessarily thinking about the risks of the investments they are making. Similarly, herding may also cause panic selling during the recession, so instead of adhering to an effective risk management plan, such as diversification and long-term objectives, investors follow each other in panic selling [29].

### 2.6.1. Lack of diversification

Lack of diversification is one of the greatest effects that herding behavior has on portfolio management. The use of diversification is another important tool in modern portfolio management, as it aims to distribute the risk among various classes of assets to minimize the volatility of the total portfolio. When, however, individual investors are victim to the herding behavior, it will tend to over-invest in more popular stocks or sectors regardless of the underlying principle of risk dispersion.

This excessive concentration may be observed when the markets are in a boom and the herding tendency causes the price of some stock or industry to unsustainable levels. Due to the perceived short-term returns, investors rush to such overhyped investments without considering the dangers of putting their portfolios in only a few investments. This leaves their portfolios susceptible to a sudden reversal as the market is likely to correct, and their losses are great.

Regarding individual investors, a herding effect may bring about a bubble-like situation in a portfolio. To illustrate, in the dot-com bubble of the late 1990s, the market had a tendency to be blindly followed by individual investors who poured a lot of money into technology stocks without understanding the actual fundamentals of the stocks. By the time the bubble burst, these investors ended up holding portfolios that were not diversified and which had suffered huge losses [30].

### 2.6.2. Over exposure to market trends

The adverse effect of herding is that there is excess exposure to the market trends. In times of market optimism, the herding investor will be drawn to the current trend with the belief that others are better informed or better decision makers. It may result in a so-called momentum investing, wherein investors purchase stocks due to the price action over the last period without doing a fundamental analysis. As an example, when the economy is booming or the market is on a rising trend, investors can rush to investments that are doing well, like high-growth technology stocks or commodities. Although this may appear as a lucrative policy in the short run, it may result in a poor long-run performance. Momentum trading may make investors pursue the growth of stocks excessively, paying too much money for the overvalued ones. The investors can be subjected to devastating drops as the price of such assets is no longer pegged to their true value when the market strikes reality.

On the contrary, during a market decline, the herding process can lead to panic selling, where the investors sell their accounts in a rush to avoid additional losses. This can aggravate market falls and lead to more losses among investors who sell when they are scared than when they are focused on long-term investment targets [31].

## 2.7. Asset mispricing and bubbles

The asset mispricing that occurs when the market price of an asset is significantly lower than the intrinsic value of the asset is a result of the herding behavior. This mispricing is largely affected by emotion and psychological factors and not by rational assessment of the fundamentals of an asset.

A prime example of the classic asset mispricing of the herding effect, combined with a collective and overly optimistic investor, easy lending policy, and herd-following behaviour, is the housing bubble in the mid-2000s, with the price of homes driven massively up. The investors were more than happy to overprice the houses in the hope that other individuals would continue to purchase at high prices, a self-fulfilling prophecy. In the event that the bubble later broke, crowd-following investors suffered huge losses.

Equally, herding can contribute to inflated asset prices, as can be seen with the dot-com bubble of the late 1990s and the crypto boom of the 2010s. In such instances, the trend was emulated by the investors without subjecting the investments to critical scrutiny in terms of their sustainability in the long run. Consequently, by the time the bubble burst, several investors were left holding overvalued assets that were not much supported in terms of foundation.

Herding behavior may cause market bubbles, in which group behavior by investors contributes to an unsustainable increase in asset prices, which are then abruptly corrected. By the time the herd realizes the gap between price and value, they stampede to sell, which increases the downward spiral. The herding behavior is a cyclical phenomenon, which makes risk hard to identify in a sound portfolio choice by investors [32].

#### 2.7.1. Herding and risk management

Risk management is a vital component of portfolio management, and it is aimed at minimizing potential losses and ensuring long-term investment success. However, the irrational decision-making and failure to examine the risk of a concentrated portfolio can run counter to this objective and lead to a herding mentality. In times of herding, investors tend to be convinced about the effectiveness of their choices, and they assume that the crowd is right. This may result in excessive exposure to risky assets because investors become more exposed to risk than when they would act in a more rational state. As an example, at times when new speculative investments like cryptocurrency or tech stocks emerge, the herding investors can disregard the dangers they take, as they think that others were more informed or that the market trend will last indefinitely.

In order to overcome the impact of herding on portfolio management, investors must establish a clear investment strategy focusing on diversification, long-term objectives, and sound risk management habits. The investors should not rely on the market or social forces, but rather they should develop a balanced portfolio that is in compliance with the individual risk tolerance and investment objectives [33].

### 2.8. Reducing measures of herding behavior

To address the consequences of herding behavior, it is possible to devise several strategies by which investors can overcome the effects of herding behavior and enhance their behavior of portfolio management behavior:

Education and Awareness: Financial literacy training can assist investors to be conscious of the threat of herding conduct, and it can persuade investors to make a more conscious decision that is founded on sensible financial standards.

Independent Research: In this case, investors are expected to do their research and due diligence, which will aid in making investment decisions, as opposed to being influenced by the actions of other investors or market trends.

Robo-Advisors and automated portfolio management systems: They can assist investors in making diversified investments, which can assist them in realizing their long-term financial objectives by mitigating the effects of short-term markets and herding patterns.

Control of emotions: The investors are to be trained to control their emotions, especially during volatile times in the market. The herding and ineffective portfolio can be boosted with emotional decision-making.

ESG Integration: By integrating ESG in investment policies, the investors can concentrate on the long-term sustainability and ethical investment and diminish the propensity to react according to the market fluctuations in the short run [34].

The art of herding relates much to the process of individual investor decision-making to invest. Investors who follow the mob and do not analyze the portfolios themselves exploit this risk and can cause their portfolios to perform poorly. The effect of herding on diversification, assets mispricing, and market volatility shows the value of good portfolio management practices to curb the influence of psychological bias. By educating themselves, performing independent research, and practicing good risk management practices, investors will be able to counter the effects of herding behavior to enhance their investment performance.

## 3. Methodology

### 3.1. Research design

The current study uses a quantitative research design to establish the impact of herding behavior on the portfolio management practices of individual investors. The main aim is to know what role psychological bias and other social factors, especially herding behavior, have in influencing the investment decisions and performance of a portfolio. The data is gathered using a survey-based technique to examine the behaviour of individual investors, their demographics, their portfolio management process, their herding behaviour, and the effects of Environmental, Social, and Governance (ESG) issues on their decision-making process. The research design will be designed in such a manner that the psychological aspects in the decision-making of the investment are measured, and also the performance of the portfolio, which is brought about by their judgment. This way, the survey items will be formulated by identifying how the problem of herding, cognitive biases (including loss aversion, overconfidence, and FOMO), and demographic factors (including age, gender, and work experience in the investing industry) influence the portfolio of individual investors.

### 3.2. Data collection

This data is gathered through a well-formulated survey, which was given to individual investors. The questionnaire will be rather lengthy, and the sections will depict the following important areas:

Demographic: First age, gender, marital status, income, experience, and investment experience.

Investment Strategies: Research on investment in assets [35], diversification of portfolio [36], risk tolerance, and decision making.

Herding Behavior: These questions are used to determine whether investors tend to follow market behavior or the behavior of other investors, specifically in the uncertain or volatile market arena.

Psychological Biases: The overconfidence, loss aversion, FOMO, and other behavioural biases are measurable and can affect investment decision-making [37].

ESG Considerations: ESG questions assist in evaluating the role of ESG criteria in decision-making in making investment and the impacts of ESG criteria on portfolio management.

Most questions in the survey are compiled on a Likert scale, which gives the respondent an opportunity to respond to how much they agree or disagree with numerous statements. Using this scale, one can receive measurable data on the psychological influence and the herding behavior on the portfolio decision. The survey is also designed with multiple-choice questions to obtain demographic data and investment preferences.

This study has a target population of individual investors who have different levels of experience in the stock market, mutual funds, and other investment vehicles. The sampling technique employed is simple random sampling, so that the sample is representative of the overall population of individual investors. The survey will be distributed electronically to a large population of investors, and the sample will be varied in geographical and demographic aspects.

### 3.3. Sampling technique

The sampling technique is a simple random one because the data collected will be representative of a general population of individual investors. The approach is most appropriate in minimizing selection bias and providing every investor in the target population an equal chance to participate in the survey. It is statistically significant because the sample size is calculated on the basis of the total number of individual investors in the target population.
Although the exact number of respondents depends on the exact situation of the study, the aim is to gather data from at least 300 individual investors, which will be statistically powerful enough to reveal the trends and relationships between herding behavior, psychological bias, and portfolio management results. The survey will be sent electronically through email and other online systems, and a reminder shall be sent to the respondents to enhance their response rate.

### 3.4. Analytical methods

In order to examine the data, the descriptive statistics are employed to summarize the demographic data, herding behavior, and psychological biases of the sample. The frequency distributions, mean scores, and standard deviations will also be helpful in revealing the prevalence of herding behavior and cognitive biases among individual investors.
Inferential statistical methods will then be used to determine the significant relationship between the herding behavior, the strategy used in managing the portfolio, and the outcome of the investment. In particular, regression analysis will be employed to establish how far herding behavior and psychological biases are used to forecast the major portfolio management results, i.e., risk tolerance, asset allocation, and portfolio performance. To illustrate, the paper will examine the hypotheses of whether the more herding behavior there is, the less the investors possess diversified or risky portfolios.
Moreover, correlation analysis will be implemented to investigate the interaction between such demographic variables as age, gender, income, and the propensity to show herding behavior. This will carry information on how some groups of demographics are prone to herding behavior and how this affects portfolio management. An illustration of this is that a younger investor or a less experienced investor is likely to be influenced by market trends or peer behavior more than an older investor or experienced investor.
To evaluate the impact of ESG factors, the research will apply regression models to test the effect of the application of ESG criteria in investment decisions to determine whether the herding behavior affects the integration of ESG criteria in investment decisions. As an example, it will address the question of whether the current trend towards popular ESGs is more likely to cause investors to diversify their portfolio to include sustainable companies or a consequence of social pressure and not individual values.

### 3.5. Limitations of the study

Despite the reasonable structure of a methodology to examine the nature of herding and its consequences to portfolio management, it might have certain limitations:
Self-reported Data: The survey is based on self-reporting data of self-reporting, and this can be biased. The information is subject to error due to the possibility of overstatement and understatement of investment behavior or decision-making.
Sample Size: As the research aims to gather statistics of at least 300 investors, the sample size may limit the generalization of the findings, especially when some of the population groups are over-/under undersampled.
Cross-Sectional Design: The study uses the cross-sectional design, which provides the image of the investor behavior at a single point in time. The longitudinal studies, following the behavior shifts over time, can provide further data on how the behavior of herding changes and what impact they have on the portfolio decisions.
External Factors: The study does not take into account the external factors, such as macroeconomic conditions, which may also influence investor behavior. These can possibly moderate the connection between herding behavior and the outcome of portfolio management.

### 3.6. Ethical considerations

The study has pursued the cause of ethics to ensure the privacy and confidentiality of the respondents. The survey will be voluntary, and the respondents will be informed of the purpose of the study and their right to withdraw at any point in time. All the data will be anonymous, and no personal identifying data will be collected and disseminated. In addition, the results are going to be utilized only for academic purposes and will not be sent to third parties.

## 4. Analysis and Discussion

### 4.1. Evidence of herding behavior

The information gathered by the survey on individual investors can be very significant for the occurrence of herding behavior and its impact on portfolio management. The answers show that a significant percentage of individual investors have a tendency to follow the crowd and not conduct independent research or analysis in making investment decisions.
According to the survey results, we may make the following conclusions:
Most of the respondents, 70.6% indicated that market trends were the chief reason behind investing. This means that most investors tend to make decisions based on the prevailing market trends, even when they are guided by idealistic factors or emotional factors rather than fundamental analysis.

### 4.2. Psychological biases and their role in portfolio management

Psychological biases are usually coupled with herding behavior as they result in irrational decision-making. The outcomes of the survey indicate that a number of cognitive biases play an important role in shaping the portfolio of individual investors. The biases that are the most notable include:

Overconfidence: A big percentage of respondents, and more so the male investor, were overconfident in their prediction skills on the market movements. Overconfidence bias causes investors to feel that they can do better than the market, and this can lead to excessive risk-taking and poor diversification of their portfolios.
Example: Respondents who prided themselves on their level of investment skill tended to use their portfolios to focus on investments in risky assets, rather than diversify their investments in less risky ones.
Loss Aversion: Loss aversion was another big bias in the survey, where people were not willing to sell losing investments in fear of having to register the loss. This usually results in under-diversified portfolios and lost chances to trim down the loss.
Scenario: A large proportion of investors held underperforming investments longer than they should have, in the hope that the prices would ultimately rise, instead of rebalancing their portfolios to have more positive risk-reward profiles.
FOMO (Fear of Missing Out): FOMO is the fear of potential gains of trending assets, and as a result, many investors were driven into trend following, even where the underlying fundamentals were unfavorable to the investment decision.
Examples: A lot of investors bought assets that were on the uptrend based on social media influence or word-of-mouth, even though they did not have much knowledge of the long-term performance of the asset.

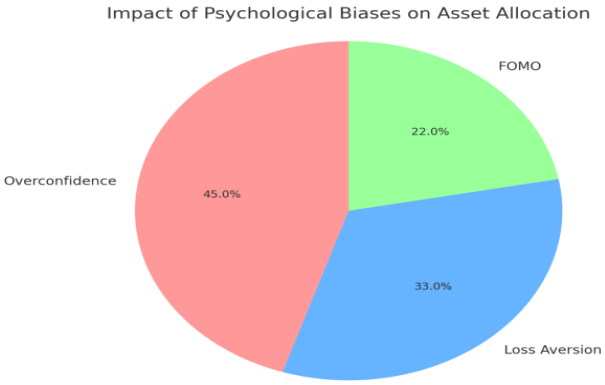



**Fig. 1:** Herding Behavior Impact on Asset Allocation.

Figure 1 illustrates how psychological biases like overconfidence and FOMO correlate with skewed asset allocation among respondents. It shows that investors scoring high on these biases tended to concentrate investments in riskier sectors like tech and crypto, reducing portfolio diversity.
Such psychological biases can contribute significantly to the poor performance of portfolio management. One such example is that over-confidence and FOMO may cause investors to take on excessive risk beyond their capabilities, and loss aversion may cause investors to become incapable of realizing losses and shift capital to more profitable opportunities. A combination of these biases leads to a circle of poor decision-making that can lead to poor portfolio performance.

### 4.3. Effects of herding on portfolio diversification and portfolio returns

Diversification is one of the objectives of portfolio management and can assist in mitigating risk as it distributes investments in various asset classes. Nonetheless, herding behavior, according to the survey results, tends to lack diversification, and many individual investors will concentrate on a small pool of assets or sectors.
Excessive Investment in Contagious Investments: A high proportion of the participants reported having invested a lot in well-known stocks or industries, including technology, property, or cryptocurrencies, because of the market trends and other investors. Although these sectors might have performed well in the short term, they are also subjecting the investors to high risks in case the market faces a downward trend.
Illustration: In the cryptocurrency boom, a large number of investors were driven by the crowd and invested in Bitcoin and other digital currencies, which resulted in the concentration of risk in extremely volatile investments.
Sector-Specific Herding: The survey also found that investors who were found to be herding were more likely to invest in certain sectors that were under the current hype, like technology or green energy. The result of such sector-specific herding may cause bubbles in the market, where prices of particular assets are artificially inflated as a result of too much demand created by such herding.
This herding behavior causes the portfolio of investors to be over-invested in some assets or sectors, which leads to a lack of overall diversification and thus the chances of huge losses upon the market correcting. These over-concentrated portfolios may fail to perform as market corrections or adjustments in asset prices will leave investors holding overpriced assets (that are susceptible to price corrections).

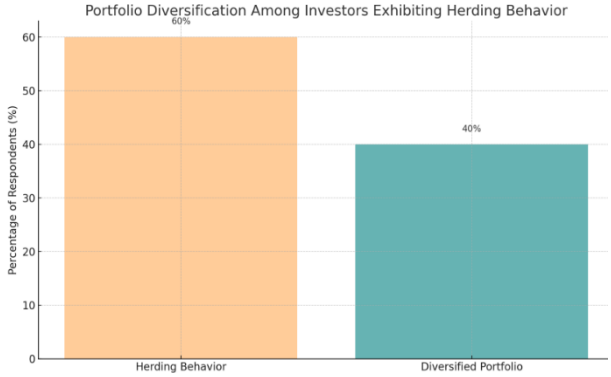



**Fig. 2:** Portfolio Diversification Among Investors Exhibiting Herding Behavior.

Figure 2 compares diversification levels between investors who reported high herding tendencies and those who did not. 40% of herding investors had concentrated portfolios with less than 3 asset classes, while non-herding investors were more diversified.

### 4.4. The association of herding behavior and market inefficiency

The Efficient Market Hypothesis (EMH) holds that the marketplace is informationally efficient, i.e., that all accessible market information is reflected in the prices of the assets. But this assumption is challenged by herding behavior, which demonstrates that when investing in assets, social signals and herding behavior may lead to the distortion of asset prices (instead of fundamental analysis). According to the survey findings, herding behaviour is a contributor to market inefficiencies, including volatility and asset mispricing.

Asset Mispricing: When markets are in frenzy or when they are fearful, they cause investors to overprice or underprice assets not according to the underlying economic fundamentals but based upon behavioral shifts. Findings of the surveys indicate that several individual investors make their decisions on short-term market trends and the behavior of others, but not on the inherent value of the assets. This results in overpricing during boom times and underpricing during periods when the market is declining.

Example: Stock prices were inflated in the late 1990s in the dot-com bubble in the stock market; this was the result of herding behavior, investors jumped into the crowd and into technology stocks without looking at the underlying value of the companies. In the same vein, in the COVID-19 pandemic, the herding effect resulted in the excessive growth of specific industries and areas such as healthcare and technology, which are not always related to the future of these companies.

Market Volatility: The propensity of investors to act as a crowd magnifies the market volatility. In bull markets, the individual purchasing activity generates a buying behavior that generates upward pressure on asset prices. On the other hand, when the market is experiencing a downswing, the panic selling causes a downward trend, which makes the downturn worse. The herding effect is associated with boom-and-bust cycles of the financial markets, where the prices of securities become way out of their normal value.

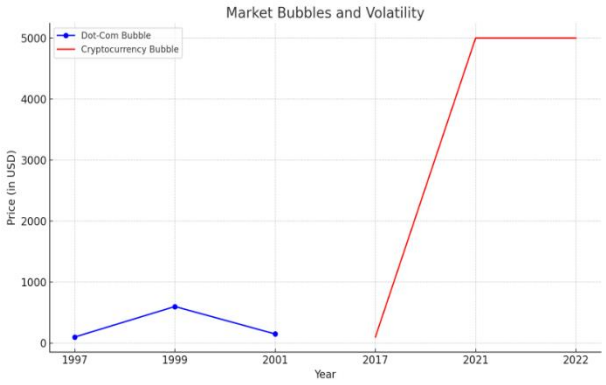



**Fig. 3:** Market Bubbles and Volatility Due to Herding Behavior.

Figure 3 visualizes historical market bubbles (e.g., Dot-Com, Crypto Boom) to highlight how herd-driven speculation inflated asset prices unsustainably. It reflects a pattern where social influence outweighs fundamental analysis.

### 4.5. The herding behavior and ESG investing

The survey also discusses the issue of Environmental, Social, and Governance (ESG) in investing. Although ESG investing has been a popular trend over the past few years, the survey indicated that herding behavior is also important in the decision-making process of ESG investors. Most of the respondents reported that they had been influenced by other investors or the market in integrating ESG criteria in their portfolios.

Herding ESG Investment: ESG investing is gaining more and more popularity, and most investors are finding themselves in the crowd without really knowing what it all entails in the long term. The survey findings reveal that many participants invested in ESG-oriented companies merely because they saw other people doing the same without necessarily having to research the ESG activities of the companies.

Example: ESG funds have become very popular since the Paris Climate Agreement and a heightened understanding of sustainability, which has resulted in massive herding in ESG funds. Social media trends or the activities of institutional investors often attract investors, which leads to higher demand for ESG assets despite the lack of proper diversification or pricing.

Though the ESG consideration is significant in ensuring the alignment of investments with ethical values, the survey findings indicate that herding behavior in ESG investing may result in asset mispricing and market inefficiencies, just as with other common investments.

## 5. Conclusion

Plans that can be used to reduce Herding Behavior

According to the survey findings, there is a range of measures that can be taken by individual investors to reduce the effects of herding behavior and achieve better portfolio management results:

Education and Financial Literacy: Financial literacy can be promoted to assist investors in noticing the herding effect and making better decisions. By learning about the dangers of herding and the need to diversify, investors may learn not to go with the crowd and make more rational and long-term investment choices.

Independent Research and Analysis: Social signals can be reduced by encouraging investors to do their own research and analysis, as opposed to following social signals. Among the tools that might allow one to have a more realistic notion of the asset value and risk are financial analysis, fundamental valuation, and technical indicators.

Long-term Investment Focus: By focusing on the long-term goals and avoiding the tendency to follow the short-term trends of the market, investors can reduce the impact of market movements and herding behavior in their portfolio. Fundamental analysis as a strict investment discipline can also help investors not to give up on their goals and not to make emotional decisions.

Automated Investing and Robo-Advisors: The services of robo-advisors can help an individual investor construct diversified portfolios that meet his or her long-term goals. In managing the portfolio recommendations, the robot advisors use algorithms in consideration of risk tolerance, financial goal, and investment time being considered, and this removes the temptation of following short-term market trends.
The discussion confirms the fact that herding behavior is significant to the portfolio management strategy of individual investors. One of the reasons that leads to poor diversification, inefficient asset pricing, and inefficient functioning of the market is herding, which is deemed contrary to good portfolio management principles. An overconfidence bias, loss aversion, and FOMO are psychological biases that magnify the effects of herding, leading to irrational decision-making and non-optimal investment outcomes. The ability of investors to increase financial literacy, self-motivate to do their own research, and concentrate on long-term goals can help them mitigate the effects of herding and make their portfolios stronger.

### 5.1. Suggestions for future study

Even though this study came as an eye-opener to the behavior of herding or portfolio management, there remain several aspects that can be researched in the future:
Longitudinal Studies: Future studies can take into consideration how the herding behavior will develop over time and how the behavior will influence portfolio performance over the long run. Longitudinal studies that track the same investors over years would give a more accurate picture of how decision-making in different conditions of market conditions is influenced by the behavioral biases.
Social Media and Herding: As new social media like Twitter, Reddit, and Instagram emerge, a future study can explore how online communities can affect the herding effect in investment decisions. As an academic and portfolio manager, it would be interesting to learn how social media is being exploited to feed investor sentiment and herd-following behavior.
Institutional vs. Individual Herding: A comparison of herding in individual investors and institutional investors may be another area where future research can be done. Although institutional investors are believed to behave more rationally, it would be intriguing to investigate whether they are also prone to herding behavior, especially when it comes to the market moods of crowds or when it is influenced by a financial crisis.
ESG Behaviour and Long-term Performance: Since ESG investing is becoming increasingly significant, future research might examine the long-term performance of portfolios with ESG orientation in contrast to traditional portfolios. This research is able to assess the effectiveness of ESG factors in mitigating risk and improving the long-term returns to investors who may be exposed to the herding effect.
In this paper, the authors have vigorously analyzed the impact of herd behavior and biases in psychology on the portfolio management decisions of individual investors. It highlights the importance of informing more investors and portfolio managers about the principles of behavioral finance and the need to minimize the negative influence of herding to improve the performance of the portfolio. Financial literacy will enable investors to make more informed decisions, which will suit their long-term financial needs. Furthermore, the regulating bodies play an important role in establishing the environment that assists in improving rational decision-making and preventing the dangers of herding and psychological bias in the financial markets.

## References


[1] Stewart SD, Piros CD, Heisler JC. Portfolio management: theory and practice. John Wiley & Sons; 2019 Mar 26.
[2] Kaya I. Understanding the Mathematical Background of Modern Portfolio Theory. Press Academia Procedia. 2024 Dec 12;20(1):29-33. https://doi.org/10.17261/Pressacademia.2024.1921.
[3] Wen Z. Theoretical analysis of modern portfolio theory. BCP Business & Management AFTEM. 2023;2023. https://doi.org/10.54691/bcpbm.v47i.5177.
[4] Surtee TG, Alagidede IP. A novel approach to using modern portfolio theory. Borsa Istanbul Review. 2023 May 1;23(3):527-40. https://doi.org/10.1016/j.bir.2022.12.005.
[5] Hon TY, Moslehpour M, Woo KY. Review of behavioral finance with empirical evidence. Advances in Decision Sciences. 2021 Dec 1;25(4):1-30. https://doi.org/10.47654/v25y2021i4p15-41.
[6] Nunes, R. The Efficient Market Hypothesis as an Extension of Neoclassical Theory: A Theoretical and Empirical Critique. Journal of Economics, Finance and Accounting Studies. 2025 Jul 21;7(4):117-34. https://doi.org/10.32996/jefas.2025.7.4.10.
[7] Ogunlusi OE, Obademi O. The Impact of behavioural finance on investment decision-making: A study of selected investment banks in Nigeria. Global Business Review. 2021 Dec;22(6):1345-61. https://doi.org/10.1177/0972150919851388.
[8] Mittal SK. Behavior biases and investment decision: theoretical and research framework. Qualitative Research in Financial Markets. 2022 Apr 13;14(2):213-28. https://doi.org/10.1108/QRFM-09-2017-0085.
[9] Rola-Janicka M. Essays on financial instability and political economy of regulation. Rozenberg Publishers; 2021. https://doi.org/10.2139/ssrn.3685733.
[10] Ritter JR. Behavioral finance. Pacific-Basin finance journal. 2003 Sep 1;11(4):429-37. https://doi.org/10.1016/S0927-538X(03)00048-9.
[11] Hodnett K, Hsieh H. Capital market theories: Market efficiency versus investor prospects. International Business & Economics Research Journal. 2012 Aug;11(8):849-62. https://doi.org/10.19030/iber.v11i8.7163.
[12] Thaler RH, editor. Advances in behavioral finance, Volume II. Princeton University Press; 2005 Jul 5. https://doi.org/10.1515/9781400829125.
[13] Komalasari PT, Asri M, Purwanto BM, Setiyono B. Herding behaviour in the capital market: what do we know and what is next?. Management Review Quarterly. 2022 Sep;72(3):745-87. https://doi.org/10.1007/s11301-021-00212-1.
[14] Bikhchandani S, Hirshleifer D, Tamuz O, Welch I. Information cascades and social learning. Journal of Economic Literature. 2024 Sep 1;62(3):1040-93. https://doi.org/10.1257/jel.20241472.
[15] Rachmad YE. Social Learning Theory. United Nations Economic and Social Council. 2025 Feb 11.
[16] Henshel RL, Johnston W. The emergence of bandwagon effects: A theory. Sociological Quarterly. 1987 Dec;28(4):493-511. https://doi.org/10.1111/j.1533-8525.1987.tb00308.x.
[17] Maug E, Naik N. Herding and delegated portfolio management: The impact of relative performance evaluation on asset allocation. The Quarterly Journal of Finance. 2011 Jun;1(02):265-92. https://doi.org/10.1142/S2010139211000092.
[18] Chang CY, Chen HL, Jiang ZR. Portfolio performance in relation to herding behavior in the Taiwan stock market. Emerging Markets Finance and Trade. 2012 Jul 1;48(sup2):82-104. https://doi.org/10.2753/REE1540-496X48S205.
[19] Sheng D, Montgomery HA. Does Herding and Anti-Herding Reflect Portfolio Managers' Abilities in Emerging Markets?. Mathematics. 2024 Apr 18;12(8):1220. https://doi.org/10.3390/math12081220.
[20] Moustafa E, El-Shal A. Sovereign Risk Mispricing and Investor Herding: MENA Debt Markets. Borsa Istanbul Review. 2025 Feb 28. https://doi.org/10.1016/j.bir.2025.02.009.
[21] Mittal SK. Behavior biases and investment decision: theoretical and research framework. Qualitative Research in Financial Markets. 2022 Apr 13;14(2):213-28. https://doi.org/10.1108/QRFM-09-2017-0085.

[22] Ilbahar E, Kahraman C, Cebi S. Risk assessment of renewable energy investments: A modified failure mode and effect analysis based on prospect theory and intuitionistic fuzzy AHP. Energy. 2022 Jan 15;239:121907. https://doi.org/10.1016/j.energy.2021.121907.
[23] Skwara F. Effects of mental accounting on purchase decision processes: A systematic review and research agenda. Journal of Consumer Behaviour. 2023 Sep;22(5):1265-81. https://doi.org/10.1002/cb.2193.
[24] Jajoo K, Kumar Baag P. The Role of Fomo (Fear of Missing Out) in Making Financial Decisions.
[25] Khairajani D. Efficient market hypothesis: A conceptual framework. Emerging Trends and Innovations in Industries of the developing world 2023 Sep 28 (pp. 140-145). CRC Press. https://doi.org/10.1201/9781003457602-25.
[26] Memarista G, Prasetio AL. When the Crowd Moves: Investor Herding in Indonesia's Bull and Bear Markets. Journal of Management and Entrepreneurship Research. 2025 Jun 30;6(2):124-38. https://doi.org/10.34001/jmer.2025.6.06.2-65.
[27] Mittal SK. Behavior biases and investment decision: theoretical and research framework. Qualitative Research in Financial Markets. 2022 Apr 13;14(2):213-28. https://doi.org/10.1108/QRFM-09-2017-0085.
[28] Gavrilakis N, Floros C. The impact of heuristic and herding biases on portfolio construction and performance: the case of Greece. Review of Behavioral Finance. 2022 Jun 16;14(3):436-62. https://doi.org/10.1108/RBF-11-2020-0295.
[29] Rahayu S, Rohman A, Harto P. Herding behavior model in investment decision on emerging markets: Experimental in Indonesia. Journal of Asian Finance, Economics and Business. 2021 Jan;8(1):053-9.
[30] Gavrilakis N, Floros C. The impact of heuristic and herding biases on portfolio construction and performance: the case of Greece. Review of Behavioral Finance. 2022 Jun 16;14(3):436-62. https://doi.org/10.1108/RBF-11-2020-0295.
[31] Sewando PT. Efficacy of risk reducing diversification portfolio strategies among agro-pastoralists in semi-arid area: A modern portfolio theory approach. Journal of Agriculture and Food Research. 2022 Mar 1;7:100262. https://doi.org/10.1016/j.jafr.2021.100262.
[32] Xu Y. RETRACTED CHAPTER: Behavioral Finance: An Introduction of Herd Effect-Take the Dotcom Bubble in 2000s as an Example. In8th International Conference on Financial Innovation and Economic Development (ICFIED 2023) 2023 May 15 (pp. 216-224). Atlantis Press. https://doi.org/10.2991/978-94-6463-142-5_25.
[33] 35.Fairchild RJ, Kinsella J, Hinvest N, He C. Crypto Investors' Behaviour and Performance and the Dot-Com Bubble Compared: This Time it is Different?.
[34] Compen B, Pitthan F, Schelfhout W, De Witte K. How to elicit and cease herding behaviour? On the effectiveness of a warning message as a debiasing decision support system. Decision support systems. 2022 Jan 1;152:113652. https://doi.org/10.1016/j.dss.2021.113652.
[35] Wei X, Mohsin M, Zhang Q. Role of foreign direct investment and economic growth in renewable energy development. Renewable Energy. 2022 Jun 1;192:828-37. https://doi.org/10.1016/j.renene.2022.04.062.
[36] Zaimovic A, Omanovic A, Arnaut-Berilo A. How many stocks are sufficient for equity portfolio diversification? A review of the literature. Journal of Risk and Financial Management. 2021 Nov 15;14(11):551. https://doi.org/10.3390/jrfm14110551.
[37] Othman NN. Emotional economics: The role of psychological biases in personal investment outcomes. Available at SSRN 4844927. 2024 May 28. https://doi.org/10.2139/ssrn.4844927.