

Study of Herd Behaviour in Financial Markets: An Examination of Investor Sentiments

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Abstract:

Behaviours in financial markets refer to the phenomenon in which investors chase the crowd and make investment decisions based on the actions of others rather than on their own analysis. This study uses a combination of quantitative and qualitative methods to consider the role of behavioural attitude on investors. It analyses a set of data on stock market trading and responses to surveys from individual investors to support the main motivations and identify the laws of conduct.

The paper highlights how investor moods such as fear, greed, and social influence play an important role in their investment decisions. It is also important to note that human sentiments impact more on the position of investments during periods of uncertainty and volatility in the market.

This study is important for politicians and market regulators who are trying to contribute to understanding the psychological and social factors that stimulate investor behaviour and promote more informed and rational investment decisions.

It is an attempt made to understand & analyse the relationship existing between investment positions & herd behaviour. The paper is based on primary data conducted through a structured questionnaire & secondary information collected through published articles, research papers from journals & news-papers.

Keywords: Investor atmosphere, financial markets, herd behaviour, sentiments.

Introduction

Herd behavior in financial markets refers to the tendency of investors to follow the actions of the majority, often disregarding their own analysis or available information. This phenomenon is driven by psychological and emotional factors such as fear, greed, and uncertainty, leading to market trends that may not always align with fundamental valuations.

Investor sentiments play a crucial role in shaping herd behaviour, as collective optimism or pessimism can amplify market movements. During bull markets, positive sentiment can lead to excessive risk-taking and asset bubbles, while in bear markets, panic-driven selling can cause sharp declines. Social influence, media coverage, and algorithmic trading further accelerate these trends, making herd behaviour a key factor in financial volatility.

Understanding the dynamics of herd behaviour is essential for investors, policymakers, and regulators, as it can lead to market inefficiencies, speculative bubbles, and financial crises. This paper examines the psychological drivers, economic impact, and real-world implications of herd behaviour in financial markets, offering insights into how investors can navigate these trends more effectively.

Examination Of Investor Sentiments

Investor sentiment refers to the collective mood or attitude of investors toward the market,

influencing their buying and selling decisions. It is often driven by emotions rather than fundamental analysis, leading to market trends that may not always reflect intrinsic value. Sentiment plays a key role in short-term price movements and can contribute to volatility, bubbles, and crashes.

Psychological factors significantly shape investor sentiment, leading to biases that affect decision-making. Overconfidence bias causes investors to overestimate their knowledge and take excessive risks, while loss aversion makes them more sensitive to potential losses than gains. Confirmation bias leads investors to seek information that aligns with their existing views, reinforcing market trends. Additionally, the fear of missing out (FOMO) pushes investors to follow the crowd, driving speculative bubbles and irrational market movements. Investor sentiment is measured using various indicators that reflect market psychology. The Volatility Index (VIX), often called the "fear index," gauges market uncertainty. Surveys like the American Association of Individual Investors (AAII) sentiment index track bullish and bearish trends. Trading volume and market flows also indicate investor confidence, while AI-driven sentiment analysis of news and social media helps assess broader market emotions. Sentiment-driven behaviour has a direct impact on financial markets. During bull markets, excessive optimism can push asset prices beyond their intrinsic value, creating bubbles like the dot-com boom. In bear markets, negative sentiment can lead to panic selling and sharp declines, as seen during the 2008 financial crisis. Herding behaviour, where large groups of investors follow the same trend, often leads to self-reinforcing cycles that increase volatility and market inefficiencies.

To mitigate the effects of investor sentiment, several strategies can be employed. Contrarian investing, where investors take positions opposite to prevailing sentiment, can lead to long-term gains. Awareness of behavioural finance helps investors recognize and counteract their biases. Regulatory measures, such as circuit breakers, help curb panic-driven trading and reduce market instability. By understanding and managing investor sentiment, market participants can make more informed and rational investment decisions.

Review Of Literature

1. **Shiller, R. J. (2000)**, In the research titled "Irrational Exuberance" Shiller argues that investor sentiment plays a crucial role in asset price movements, often leading to speculative bubbles. He emphasizes that psychological factors such as overconfidence and herd mentality drive market inefficiencies. His work provides evidence that stock prices are frequently influenced by irrational exuberance rather than fundamental values, making markets prone to booms and crashes.
2. **Bikhchandani, S., Hirshleifer, D., & Welch, I. (1992)**, In the research titled "A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades" This study explains how investors often mimic the decisions of others due to informational cascades, where individuals ignore personal information and rely on collective actions. The authors conclude that such behaviour can cause asset prices to deviate significantly from intrinsic values, leading to the formation of speculative bubbles and subsequent market corrections. They stress that herd behaviour is a major contributor to volatility in financial markets.
3. **Barberis, N., Shleifer, A., & Vishny, R. (1998)**, In the research titled "A Model of Investor Sentiment" The authors present a theoretical model demonstrating how investor sentiment leads to systematic overreaction and underreaction in financial markets. Their

findings suggest that investors often misinterpret new information due to biases such as representativeness and conservatism, leading to stock price movements that do not reflect true fundamentals. They argue that this mispricing can persist for extended periods before being corrected, contributing to prolonged market inefficiencies.

4. **De Long, J. B., et.al (1990)**, In the research titled “Noise Trader Risk in Financial Markets” This study explores how noise traders—investors who make decisions based on sentiment rather than fundamentals—introduce additional risk into financial markets. The authors conclude that noise traders create price deviations from fundamental values, increasing market volatility. They also highlight that rational investors may not always counteract these mis-pricings due to the risk of losing money in the short term, allowing sentiment-driven fluctuations to persist.

5. **Lux, T. (1995)**, In the research titled “Herd Behaviour, Bubbles, and Crashes” Lux examines the role of herd behaviour in asset price bubbles and market crashes. His research shows that as more investors align their decisions with the majority, price movements become exaggerated, often leading to extreme fluctuations. He finds that herd behavior amplifies both upward trends (bubbles) and downward spirals (crashes), making financial markets inherently unstable. His study suggests that regulatory interventions may be necessary to mitigate the impact of herd-driven market distortions.

6. **Nofsinger, J. R. (2005)**, In the research titled “Social Mood and Financial Economics” This paper explores how broader social mood influences financial markets. The author argues that collective optimism or pessimism affects investor sentiment, leading to herd-driven market trends. He finds that positive social moods contribute to bullish trends and speculative excess, while negative moods lead to pessimism and market sell-offs. He concludes that understanding social mood trends can help predict investor behaviour and market cycles.

7. **Chiang, T. C., & Zheng, D. (2010)**, In the research titled “An Empirical Analysis of Herd Behaviour in Global Stock Markets” This study provides empirical evidence of herd behaviour in various global stock markets, particularly during periods of financial stress. The authors find that investors are more likely to engage in herd behaviour when uncertainty is high, leading to synchronized market movements that often result in excessive volatility. Their findings suggest that financial markets are highly susceptible to collective investor sentiment, making them prone to bubbles and crashes.

8. **Baker, M., & Wurgler, J. (2007)**, In the research titled “Investor Sentiment in the Stock Market” The authors propose that investor sentiment is a key driver of stock market fluctuations, particularly in assets that are difficult to value objectively. They find that sentiment-driven mispricing is more pronounced in stocks with lower institutional ownership, suggesting that professional investors help stabilize prices to some extent. Their study concludes that sentiment-driven mispricing is a persistent feature of financial markets and can lead to long-term deviations from fundamental values.

Research Gap

While existing literature extensively explores the role of investor sentiment and herd behaviour in financial markets, several gaps remain. Most studies focus on developed markets, with limited research on how sentiment-driven trading affects emerging economies, where retail investor participation is high. Additionally, while psychological biases such as overconfidence and loss aversion are well-documented, their interplay with algorithmic and institutional trading remains underexplored. The impact of real-time news sentiment and social media influence on herd behavior is another area that requires deeper empirical analysis.

Furthermore, existing models primarily address short-term sentiment effects, whereas the long-term persistence of mispricing and its implications for asset allocation strategies are less understood. Lastly, there is a need for more research on regulatory mechanisms that could mitigate excessive volatility caused by herd-driven sentiment, ensuring market stability and investor protection.

Rationale Of Study

The study is gathering importance in specifically with reference to investment decisions based on markets. There are various factors that affect decision making. The market volatility is rising due to geo-political chaos & forecasting its impact on market situation. The paper is an attempt to describe these factors & analysing its impact on investment.

Objectives Of Study:

- To analyse the factors influencing investors to follow herd behaviour in financial markets.
- To assess the trustworthiness and impact of herd behaviour on investment decisions.
- To examine the role of social and financial information sources in shaping herd behaviour among investors.

Scope Of Study

The research paper is based on the responses collected from 80-100 market investors residing in Thane & Mulund.

Sample & Population

The convenient sampling is used to collect information about investment decision making. The sample of 120 respondents residing in Thane city & Mumbai suburbs specifically, Mulund.

Limitations Of Study

As paper is based on primary information collected from limited respondents, therefore its outcome cannot be generalised.

Analysis Of Data

Sr No.	Particular	Statement	Frequency	Percent
1	Gender	Male	80	66.7
		Female	40	33.3
2	Age	Up to 30 Years	27	22.5
		31 to 40 Years	49	40.8
		41 to 50 Years	30	25.0
		Above 50 Years	14	11.7
3	Qualification	Undergraduate	5	4.2
		Graduate	64	53.3
		Postgraduate	40	33.3
		Professional degree	11	9.2
4	Occupation	Government Service	25	20.8
		Private Service	70	58.3
		Business	10	8.3

	Self-employed	5	4.2
	Others (Homemaker. Retired, Students, etc.)	10	8.3

The given data provides a demographic breakdown of respondents based on gender, age, qualification, and occupation. The majority of respondents are male (66.7%), while females constitute 33.3%. In terms of age distribution, the largest group falls within the 31 to 40 years category (40.8%), followed by 41 to 50 years (25%), up to 30 years (22.5%), and above 50 years (11.7%). Regarding educational qualifications, most respondents are graduates (53.3%), with postgraduates accounting for 33.3%, followed by those with professional degrees (9.2%) and undergraduates (4.2%). Occupation-wise, private sector employees form the largest segment (58.3%), followed by government employees (20.8%), business owners (8.3%), others including homemakers, retirees, and students (8.3%), and self-employed individuals (4.2%).

Objective And Hypothesis

Objective 1 To Study association between herd behaviour in financial market and demographic factors of investors.

Null Hypothesis H_{01} : There is no significant difference in herd behaviour in financial market according to Qualification of investors.

Alternate Hypothesis H_{11} : There is a significant difference in herd behaviour in financial market according to Qualification of investors.

To test the above ANOVA test is applied and results are as follows.

ANOVA					
Investment Decision Based on Herd Behaviour					
	Sum of Squares	df	Mean Square	F	P-value
Between Groups	8658.037	3	2886.012	7.797	.000
Within Groups	42938.629	116	370.161		
Total	51596.667	119			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, f-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a significant difference in herd behaviour in financial market according to Qualification of investors.

Findings: To understand the findings of hypothesis, mean score of herd behaviour in financial market according to Qualification of investors.

Report	
Mean	
4. Qualification	Investment Decision Based on Herd Behavior
Undergraduate	76.50
Graduate	67.23
Postgraduate	57.53
Professional degree	49.87
Total	64.17

The report presents the mean values of investment decisions based on herd behaviour across different educational qualifications. The data indicates that undergraduates exhibit the highest tendency to follow herd behaviour in investment decisions, with a mean score of 76.50.

Graduates also show a significant influence, with a mean of 67.23, while postgraduates demonstrate comparatively lower susceptibility at 57.53. Those with professional degrees have the least inclination towards herd behaviour, with a mean score of 49.87. The overall average across all qualification levels stands at 64.17, suggesting that while herd behaviour affects investment decisions to a considerable extent, its impact decreases with higher levels of education.

Objective 2 To assess the impact of Confidence on herd behaviour on investment decisions.

Null Hypothesis H_{02A} : There is no significant difference in Confidence on herd behaviour in financial market according to Qualification of investors.

Alternate Hypothesis H_{12A} : There is a significant difference in Confidence on herd behaviour in financial market according to Qualification of investors.

To test the above ANOVA test is applied and results are as follows.

ANOVA					
Investor Confidence					
	Sum of Squares	df	Mean Square	F	P-value
Between Groups	9516.790	3	3172.263	22.178	.000
Within Groups	16591.877	116	143.033		
Total	26108.667	119			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, f-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a significant difference in Confidence on herd behaviour in financial market according to Qualification of investors.

Findings: To understand the findings of hypothesis, mean score of Confidence on herd behaviour in financial market according to Qualification of investors.

Report	
Mean	
4. Qualification	Investor Confidence
Undergraduate	70.00
Graduate	68.77
Postgraduate	50.24
Professional degree	53.33
Total	61.83

The report presents the mean values of investor confidence across different educational qualifications. Undergraduates exhibit the highest investor confidence, with a mean score of 70.00, followed closely by graduates at 68.77. However, postgraduates show a significant drop in confidence, with a mean of 50.24, while individuals with professional degrees have a slightly higher confidence level at 53.33. The overall average investor confidence across all qualification levels stands at 61.83. This trend suggests that while undergraduate and graduate investors display relatively higher confidence, those with advanced degrees, particularly postgraduates, tend to be more cautious or risk-averse in their investment approach.

Null Hypothesis H_{02B} : There is no relation between impact of Confidence and herd behaviour

in financial market according to Qualification of investors.

Alternate Hypothesis H_{12B} : There is a relation between impact of Confidence and herd behaviour in financial market according to Qualification of investors.

To test the above Correlation test is applied and results are as follows.

Correlations			
		Investor Confidence	Investment Decision Based on Herd Behaviour
Investor Confidence	Pearson Correlation	1	.201*
	P-value		.027
	N	120	120
Investment Decision Based on Herd Behavior	Pearson Correlation	.201*	1
	P-value	.027	
	N	120	120

*. Correlation is significant at the 0.05 level (2-tailed).

Interpretation: The above results indicate that calculated p-value is 0.027. It is less than 0.05. Therefore, correlation test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a relation between impact of Confidence and herd behaviour in financial market according to Qualification of investors.

Findings: The Pearson correlation coefficient between Investor Confidence and Investment Decision Based on Herd Behaviour is 0.201, indicating a weak positive correlation. This suggests that as investor confidence increases, there is a slight tendency for investment decisions to be influenced by herd behaviour. The correlation is statistically significant at the 0.05 level ($p = 0.027$), meaning there is sufficient evidence to suggest that the relationship is not due to random chance. With a sample size of 120, this finding implies that while investor confidence plays a role in herd-driven investment decisions, other factors may also be at play in influencing such behaviour.

Objective 3 To examine the role of social and financial information sources in shaping herd behaviour among investors.

Null Hypothesis H_{03} : There is no role of social factor and financial information sources in shaping herd behaviour among investors.

Alternate Hypothesis H_{13} : There is a role of social factor and financial information sources in shaping herd behaviour among investors.

To test the above Friedman test is applied and results are as follows.

Test Statistics ^a	
N	120
Chi-Square	72.686
df	4
P-value	.000
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, Chi-square test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a role of social factor and financial information sources in shaping herd behaviour among investors.

Findings: To understand the findings of hypothesis, mean score of role of social factor and financial information sources in shaping herd behaviour among investors.

Ranks	
	Mean Rank
I rely on financial news channels and reports when making investment decisions.	2.99
Social media and online forums strongly influence my investment choices.	2.45
I trust investment recommendations from friends, family, or colleagues.	3.35
I follow expert analysts' advice when selecting stocks or financial assets.	3.63
I invest in stocks that receive significant media attention.	2.58

The mean rank values indicate the relative importance investors place on different sources of information when making investment decisions. The highest-ranked factor is following expert analysts' advice (3.63), suggesting that investors consider professional insights the most reliable. Trust in recommendations from friends, family, or colleagues (3.35) follows closely, highlighting the influence of personal networks. Relying on financial news channels and reports (2.99) ranks third, indicating moderate importance. Investing in stocks that receive significant media attention (2.58) and social media/online forums (2.45) rank the lowest, suggesting that while these sources have some influence, they are not as heavily relied upon compared to expert opinions and personal recommendations.

Findings & Suggestions

The study highlights that herd behaviour in investment decisions varies significantly based on investors' educational qualifications, with undergraduates exhibiting the highest tendency to follow the crowd, while those with professional degrees are the least influenced. Similarly, investor confidence also differs by qualification, with undergraduates and graduates displaying higher confidence compared to postgraduates and professionals. A weak but significant positive correlation (0.201, $p = 0.027$) exists between investor confidence and herd behaviour, indicating that higher confidence levels slightly increase the likelihood of following herd behaviour. Additionally, social and financial information sources play a crucial role in shaping herd behaviour, with expert analysts' advice being the most influential, followed by recommendations from personal networks. Social media and online forums have the least impact. Based on these findings, investors, particularly those with lower education levels, should be encouraged to rely more on fundamental analysis rather than herd mentality. Investment education programs should emphasize independent decision-making and risk assessment to mitigate the effects of herd-driven choices.

Conclusion

The research establishes that investor confidence, educational qualifications, and information sources significantly impact herd behaviour in financial markets. Investors with lower education levels are more prone to herd mentality, and confidence levels influence this tendency. Moreover, while expert advice and personal recommendations play a significant role, social media and media hype have a comparatively lower impact. These insights suggest that fostering financial literacy and critical evaluation skills can help investors make more rational and independent investment decisions, reducing the risks associated with herd behaviour in financial markets.

References

1. Shiller, R. J. (2000). *Irrational Exuberance*. Princeton University Press.

2. Bikhchandani, S., Hirshleifer, D., & Welch, I. (1992). A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades. *Journal of Political Economy*, 100(5), 992-1026.
3. Barberis, N., Shleifer, A., & Vishny, R. (1998). A Model of Investor Sentiment. *Journal of Financial Economics*, 49(3), 307-343.
4. De Long, J. B., Shleifer, A., Summers, L. H., & Waldmann, R. J. (1990). Noise Trader Risk in Financial Markets. *Journal of Political Economy*, 98(4), 703-738.
5. Lux, T. (1995). Herd Behaviour, Bubbles, and Crashes. *The Economic Journal*, 105(431), 881-896.
6. Nofsinger, J. R. (2005). Social Mood and Financial Economics. *Journal of Behavioural Finance*, 6(3), 144-160.
7. Chiang, T. C., & Zheng, D. (2010). An Empirical Analysis of Herd Behaviour in Global Stock Markets. *Journal of Banking & Finance*, 34(8), 1911-1921.
8. Baker, M., & Wurgler, J. (2007). Investor Sentiment in the Stock Market. *Journal of Economic Perspectives*, 21(2), 129-151.
9. Tetlock, P. C. (2007). Giving Content to Investor Sentiment: The Role of Media in the Stock Market. *Journal of Finance*, 62(3), 1139-1168.
10. Brown, G. W., & Cliff, M. T. (2004). Investor Sentiment and the Near-Term Stock Market. *Journal of Empirical Finance*, 11(1), 1-27.
11. Avery, C., & Zemsky, P. (1998). Multidimensional Uncertainty and Herd Behavior in Financial Markets. *American Economic Review*, 88(4), 724-748.
12. Keynes, J. M. (1936). *The General Theory of Employment, Interest, and Money*. Macmillan.
13. Banerjee, A. V. (1992). A Simple Model of Herd Behavior. *Quarterly Journal of Economics*, 107(3), 797-817.
14. Jegadeesh, N., & Titman, S. (1993). Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency. *Journal of Finance*, 48(1), 65-91.
15. Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor Psychology and Security Market Under- and Overreactions. *Journal of Finance*, 53(6), 1839-1885.