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Research Article

Understanding Herd Behaviour And Risk Among Investors In Gujarat

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ABSTRACT

The study delves into investors' behavioural biases, emphasizing the importance of understanding herd behaviour and risk appetite. It acknowledges previous scholarly contributions on similar topics. The study aims to gauge these behaviours and risk appetites among investors in Gujarat state, assessing the impact of demographic variables. Utilizing a descriptive research design, primary data was collected through questionnaire using convenience sampling from 1164 respondents across five major cities of Gujarat. Analysis revealed 68% respondents exhibited herd behaviour. 32% of the respondent were in high risk appetite category. However, demographic variables such as age, gender, education, employment, and income showed no significant effect on herd behaviour. Furthermore, the correlation between herd behaviour and risk appetite was found to be 0.076, indicating a negligible linear relationship, suggesting they are essentially independent or have minimal association. These findings were derived from Chi-Square, descriptive statistics, and correlation analysis conducted using SPSS software.

Keywords: Investor behaviour, Herd behaviour, Risk appetite, Correlation analysis

INTRODUCTION

For many years, the economic system has depended on financial management, also referred to as the art of wealth management. Well-known academics have proposed a number of theories and presumptions to explain how the finance models work. (Syed Aliya Zahera and Rohit Bansa, 2018)
The majority of the theoretical frameworks put forth in the literature are founded on the primary standard of individual rational thinking. However, we frequently see riddles and abnormalities in the financial markets that behavioural finance theories can only explain; they cannot be rationally explained by standard finance theories. Furthermore, psychological considerations have a role in behavioural finance. (Anurag Shukla, Dr. N. Rushdi and Dr. R. Katiyar, 2019)
The systematic mistakes in reasoning and judgement that result from human psychology are referred to as behavioural biases. Investors frequently make illogical investing choices as a result of these biases, which can lead to substantial losses in money.
Investing biases are frequent mental or cognitive shortcuts that investors employ to hasten decision-making without thoroughly examining or taking into account all pertinent facts. These biases frequently result in subpar financial judgements, which then bring about large losses.

Behavioural Biases

Behavioural biases are psychological inclinations that can influence decision-making, often leading individuals to make choices that deviate from logical reasoning. One such bias is Confirmation Bias, where individuals seek, favor, and recall information that aligns with their existing beliefs, potentially leading to overly optimistic views of investments and disregarding warning signs.
Overconfidence Bias is another prevalent bias, characterized by an unwarranted belief in one's own abilities or judgments. This can lead traders to make riskier decisions based on inflated confidence in their knowledge of the market.

Anchoring Bias describes the tendency to place excessive importance on the first piece of information encountered when making decisions. For instance, investors might anchor their judgment on past prices, potentially leading to missed opportunities or suboptimal decisions.
Herding Bias involves individuals following the actions or opinions of a larger group, even against their better judgment. This can lead to a lack of independent thinking and may exacerbate market volatility.
Loss Aversion Bias refers to the tendency to avoid losses more strongly than seeking equivalent gains. This aversion to loss can result in overly conservative investment decisions, hindering potential gains.

Herd Behaviour

Herd behaviour is the tendency for individuals to follow the actions of others without independent evaluation, often driven by a fear of missing out or a desire to conform. This phenomenon is observable across various contexts, including financial markets, and can lead to decisions based on emotions rather than rational analysis.
Herd behaviour is closely linked to risk appetite, which refers to an individual's willingness to tolerate risk in pursuit of potential returns. Investors exhibiting herd behaviour may be more inclined to take on higher levels of risk, influenced by the actions of the crowd or a perception of safety in numbers.
However, herd behaviour carries inherent risks, such as market bubbles and contagion, which can result in abrupt market corrections and substantial losses for investors. To mitigate these risks, investors should prioritize independent analysis over blindly following the crowd and maintain a disciplined approach to investment.

Risk Tolerance

Risk tolerance is a personality trait that influences how individuals perceive and respond to risk in investment decisions. While some investors may have a high tolerance for risk and seek out higher returns, others may prefer more conservative investments to minimize potential losses.
Understanding one's risk tolerance is crucial for aligning investment decisions with long-term financial goals and individual circumstances. Investors should ensure that their investment choices are compatible with their risk tolerance levels to avoid undue stress or financial hardship.
The relationship between herd behaviour and risk appetite underscores the importance of recognizing individual risk profiles in investment decision-making. Investors with higher risk tolerance may be more susceptible to herd behaviour, potentially amplifying market dynamics and increasing volatility.
Awareness of behavioural biases, such as herd behaviour, and risk tolerance is essential for making informed investment decisions. By recognizing and mitigating these biases, investors can pursue their financial objectives with greater confidence and resilience in the face of market fluctuations.

LITERATURE REVIEW

The literature review covers diverse aspects of investor behaviour, focusing on various factors influencing investment decisions and risk tolerance across different geographical regions and market conditions. Trehan and Sinha (2000) investigate herd behaviour among Indian investors, highlighting the impact of liberalization and psychological factors on herd mentality during market volatility. Lin (2012) explores the relationship between investor types, risk tolerance, and herding bias, offering insights for investment strategies.

Yao, Ma, and He (2014) examine herding behaviour in the Chinese stock market, noting its prevalence during market downturns and the impact of regulatory reforms. Kannadhasan (2015) investigates the role of demographic factors in retail investors' risk tolerance, emphasizing the significance of demographics in understanding investors' behaviour.

Kubilay and Bayrakdaroglu (2016) study investor biases and personality traits in Istanbul, revealing associations between personal traits, psychological biases, and financial risk tolerance. Sarkar and Sahu (2018) analyze the investment behaviour of individual investors in West Bengal, underscoring the role of demographics, awareness, and risk perception.

Rushdi and Sushma (2019) explore the link between behavioural biases and risk tolerance among investors in Uttar Pradesh, emphasizing the importance of behavioural finance in enhancing financial advisory services. Christoffersen and Staehr (2019) investigate the relationship between individual risk tolerance and herding behaviours in financial forecasts, highlighting the impact of risk perception on forecasting outcomes.

Raheja and Dhiman (2019) explore the relationship between behavioural biases, risk tolerance, and investment decisions among investors in Punjab State, emphasizing the influence of overconfidence and regret biases on investment decisions. Hamid and Arfeen (2020) examine the influence of behavioural finance biases and demographic factors on financial risk tolerance among investors at the Pakistan Stock Exchange.

Adielyani and Mawardi (2020) investigate the influence of overconfidence, herding behaviour, and risk tolerance on stock investment decisions among millennial investors in Semarang City, Indonesia. Dutta, Sinha,

and Gahan (2020) explore the applicability of the BB&K model in understanding the relationships among investor types, risk tolerance, and herding bias in the Indian stock market.

Soni and Desai (2021) study the impact of behavioural biases on investor decision-making in the Gujarat stock market, highlighting the significance of factors beyond stock price movements. Zainul and Suryani (2021) compare herding behaviour and risk tolerance between male and female investors in Aceh Province, Indonesia.

Hascaryani and Maski (2021) investigate the influence of heuristic, herding, and disposition effects on investors' risk-taking behaviour, revealing the impact of heuristic intensity on disposition effect and herding behaviour. Jain and Kesari (2022) examine the impact of behavioural biases on investors' decision-making and financial risk tolerance in India.

Adil, Singh, and Ansari (2022) explore how financial literacy moderates the association between behavioural biases and investment decisions, highlighting the importance of financial literacy in investment choices. Tamara et al. (2022) investigate the influence of financial literacy, herding behaviour, and risk tolerance on investment decisions, with self-monitoring as a moderating factor.

Lastly, Sushma (2022) investigates the impact of herd behaviour on financial risk tolerance post-pandemic, emphasizing an inversely proportionate relationship between herd behaviour and financial risk tolerance. Ahmed et al. (2022) explore the mediating role of risk perception between behavioural biases and investment decisions, particularly in collectivist countries like Pakistan.

Existing literature has extensively explored various factors influencing investor behaviour and risk tolerance but lacks a comprehensive understanding of how demographic variables specifically influence herd behaviour and risk appetite.

Existing studies, such as those by Kannadhasan (2015) and Sarkar & Sahu (2018), have examined the impact of demographic factors on investor behaviour but have not specifically delved into their effect on herd behaviour. The research gap lies in investigating how demographic variables such as age, gender, education, and income levels influence the tendency of investors to exhibit herd behaviour.

While studies like Hamid and Arfeen (2020) have explored the influence of demographic factors on financial risk tolerance but could not found any significant effect. Moreover the study was conducted in Pakistan. The research gap entails investigating how demographic characteristics shape investors' risk preferences in India.

Although research by Huei-Wen Lin (2012) and Hascaryani & Maski (2021) has examined the relationship between herding behaviour and risk tolerance, there's a gap in understanding how demographic variables mediate this relationship. The research gap involves exploring how demographic factors interact with herd behaviour to influence investors' risk appetite, determining whether certain demographic groups are more susceptible to herd behaviour and its impact on their risk-taking behaviour.

By addressing these research gaps, future studies can contribute to a deeper understanding of the complex interplay between demographic variables, herd behaviour, and risk appetite in investor decision-making. This knowledge can provide valuable insights for financial practitioners, policymakers, and investors in developing tailored investment strategies, risk management techniques, and investor education programs.

METHODOLOGY

Research objectives of the study were to i) Measure herd behaviour. ii) Measuring risk appetite. iii) Understanding the effect of Demographic variables on Herd Behaviour iv) Understanding the relationship between herd behaviour and risk appetite.

The research adopts a descriptive research design, employing a quantitative approach to gather, analyze, and interpret numerical data. This structured methodology allows for the systematic examination of trends and patterns within the target population of individual investors in Gujarat State.
Data collection involves both primary and secondary sources. Primary data is collected through a formal questionnaire in digital format, directly from individuals, while secondary data is obtained from websites for literature review purposes.
Convenience sampling is employed to select the sample, comprising 1164 individual investors from Gujarat State. This sampling method prioritizes ease of access to participants and allows for efficient data collection within the research constraints.
The unit of analysis is individual investors, with data collected and analyzed at the individual level. Descriptive statistics are utilized to provide a comprehensive overview of the data's central tendency, variability, and distribution.

Statistical tests such as the Chi-Square Test is applied to examine relationship between variables. The Chi-Square Test assesses associations between categorical variables.

ANALYSIS OF HERD BEHAVIOUR

The responses to questions related to Herd Behaviour were averaged and on a 7 point likert scale, if the average happens to be less than 4 was considered to be not affected and greater than or equal to 4 was considered to affected.

Table 1 Analysis of Herd Behaviour

HERD				
	Frequency	Percent	Valid Percent	Cumulative Percent
(AFFECTED)	791	67.95	67.95	67.95
(NOT AFFECTED)	373	32.05	32.05	100
Total	1164	100	100	

It can be seen from the above table that approximately 68% of the investors of Gujarat are affected by Herd behaviour. This really empowers lot of finfluencers
to divert the investments which may not be good for the market driving it toward inefficiency.

ANALYSIS OF RISK

The risk appetite related questions were averaged and if the average turned out to be less than zero, they were categorised as less risky, between 1 and 2 as neutral and more than 2 as more risky.

Table 2 Analysis of Risk

RISK				
	Frequency	Percent	Valid Percent	Cumulative Percent
0 (LESS RISKY)	9	0.77	0.77	0.77
1 (NEUTRAL)	780	67.01	67.01	67.78
2 (MORE RISKY)	375	32.2	32.2	100
Total	1164	100	100	

The above data signifies that majority of investors are risk averse and only 32% respondent are having high risk appetite. Risk averse investors tend to avoid being active in self-trading and tend to rely on others for the want of security in decision making. This can also lead to herd behaviour which is risk averse behaviour of following the crowd.

In order to decide on the test to be applied for establishing relationship between herd behaviour, risk appetite and demographic variable normality of the data was checked.

SUMMARISED DESCRIPTIVE STATISTICS

Table 3 Summarised Descriptive Statistics

N	HERD (Q1)	HERD (Q2)	HERD (Q3)	HERD (Q4)	RISK(Q1)	RISK(Q2)	RISK(Q3)
Min value	1	1	1	1	1	1	1
Max value	5	5	5	5	3	3	3
Skewness	.367	.035	.376	.681	.003	-.186	.003
Std. Error of Skewness	5.116	.491	5.236	9.488	.044	-2.593	.41
Kurtosis	-1.259	-1.285	-1.232	-1.014	-1.508	-.564	-.612
Std. Error of Kurtosis	-8.771	-8.950	-8.580	-7.061	-10.500	-3.931	-3.266

If skewness value is -0.52 to 0.52 and the kurtosis is approx. 3 then the data is considered to be normal as per general guideline often found in statistical textbooks and research papers discussing normality tests. In the above table the criteria skewness signified normality while kurtosis is excess negative signifying platykurtic. We will use non parametric test such as chi square for establishing relationship (association in this case) between two variables.

DEMOGRAPHIC VARIABLES

The analysis of Demographic variables plays an important role here. As the third and fourth objectives the study clearly justifies about the association between Herd Behaviour with Demographic variables & relationship between Risk appetite & Demographic variables by the using Chi square test.

Approximately 49% are male and 51% are female respondents. 27% respondents are less than 40 years age, 26% are between 41 – 60 years, 24% between 61-70 and 23% > 70%.

76% of the respondent are graduates and above while 24% are undergraduates.

Based on the available data, it has been observed that 21% of all the respondents are govt employees, 19% are private employees, 20% are retired, self-employed and students respectively.

DATA ANALYSIS AND INTERPRETATION

HYPOTHESIS TESTING BETWEEN DEMOGRAPHIC VARIABLES AND HERD BEHAVIOUR OF THE INDIVIDUAL INVESTORS

Table 4 DEMOGRAPHIC VARIABLES V/S HERD BEHAVIOUR

DEMOGRAPHIC VARIABLES V/S HERD BEHAVIOUR			
VARIABLES	**HYPOTHESIS**	**PEARSON CHI-SQUARE VALUE**	**REMARKS**
AGE	H0: There is no association between herd behaviour among the individual investors and their age. H1: There is an association between herd behaviour among the individual investors and their age.	0.079	We fail to reject the null hypothesis
GENDER	H0: There is no association between gender and the herd behaviour of the individual investors. H1: There is an association between gender and the herd behaviour of the individual investors.	0.756	We fail to reject the null hypothesis
EDUCATION	H0: There is no association between education and the herd behaviour of the individual investors. H1: There is an association between education and the herd behaviour of the individual investors.	0.068	We fail to reject the null hypothesis
EMPLOYMENT	H0: There is no association between employment and herd behaviour of individual investors. H1: There is an association between employment and herd behaviour of individual investors.	0.842	We fail to reject the null hypothesis
INCOME	H0: There is no association between income and herd behaviour of individual investors. H1: There is an association between income and herd behaviour of individual investors	0.794	We fail to reject the null hypothesis

It can be observed from the above table that there was no significant association found between any demographic variable and herd behavior.

In order to achieve the fourth objective of measuring the relation between herd behaviour and risk, correlation test was applied.

CORRELATION OF HERD & RISK

Table 6 Correlation of Herd & Risk

		HERD	RISK
HERD	Pearson Correlation	1	.076
	Sig. (2-tailed)		.341
	N	1164	1164
RISK	Pearson Correlation	.076	1
	Sig. (2-tailed)	.341	
	N	1164	1164

Interpretation:

A correlation coefficient between Herd & Risk is 0.076 which signifies a very weak linear relationship between the two variables, indicating that they are essentially independent or have an extremely minimal association.

CONCLUSION

In conclusion, the achievement of the objectives has been the cornerstone of all the efforts and has helped in aligning the actions to the framed objectives to understand the topic at hand.
Through rigorous analysis, data collection and interpretation, the study has as provided the valuable insights into the subject matter and has addressed the specific goals outlined in the research objectives.
The first objective of this study was to measure the herd behaviour and it was observed that 68% of the respondents were found affected of the herd behaviour.

The second objective was to analyse and measure the risk appetite among the investors of Gujarat and coincidently it was observed that 68% of the respondent are risk averse and only 32% of the responded are risk takers.
The third objective aimed at understanding the effect of demographic variables on herd behaviour and it is reached on conclusion using Chi-Square test from this study that no demographic variables which were taken into account had a significant effect on herd behaviour.
The fourth objective of this study aimed at understanding the relationship between herd behaviour and risk appetite and it is concluded from this study that the correlation between herd behaviour and risk appetite is 0.076 which signifies a very weak linear relationship & indicates that they are essentially independent or have an extremely minimal association.

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