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INFLUENCE OF PSYCHOLOGICAL BIASES OVERCONFIDENCE, HERD BEHAVIOUR AND LOSS AVERSION ON STOCK TRADING DECISIONS: A STUDY OF TRADERS IN RANCHI DISTRICT.

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ABSTRACT

This research analyses how psychological influences-a trader's behaviour regarding stock trades-derive from cognitive distortions that lead to faulty methods of reasoning, which ultimately disrupt their normal decision-making processes, therefore revealing damaging results. Previous research as well as theoretical constructs regarding investment decision-making and other behavioural influences on trader behaviour are illustrated using traditional financial theory, which assumes that all investment decisions are based solely upon rationality; however, in practice, emotional factors, belief systems, peer pressures, and mental shortcuts known as heuristics comprise significant parts of making investment decisions. Therefore, how investment decisions are made may differ from what is theoretically postulated by these traditional financial theories. This paper presents three primary cognitive biases that can affect a trader's buying and selling decisions: overconfidence bias, herd behaviour, and loss aversion. Overconfidence, due to an investor believing they are more knowledgeable and capable than they actually are, may cause an investor to trade excessively or take risks disproportionately; therefore, overconfidence also influences their degree of willingness to pursue investment decisions even during increased risk periods. Herd behaviour is defined as an investor following the direction of another investor rather than using independent analysis during periods of economic uncertainty. Loss aversion bias refers to the fact that investors are much more afraid of losing money than they value making money, and so they frequently hold onto losing stock longer than is necessary or avoid taking investments that could lead to loss, regardless of whether they can profit by taking such an investment. This research will provide a detailed description and analytical analysis of retail investors and traders. The Quantitative method will be applied to obtain primary data from respondents

using structured questionnaires. Secondary data will include journals, books, and prior research that have studied behavioural finance. Statistical tools will be utilized to analyse the data and identify any relationship between psychological biases and the production of investment decisions. Statistical techniques will consist of descriptive analysis, correlational analysis, regression analysis, SPSS, and Excel. The purpose of this research is to raise awareness among investors of the existence of hidden psychological influences impacting their trading behaviours. Additionally, this research will add to the behavioural finance literature about investors in a developing market, which in this case is Ranchi. The result of this research will assist investors, financial advisors, and policymakers in formulating effective financial strategies through the provision of financial literacy and to provide investors with better informed and derived decision making in their investments.

Key words: - Psychological Biases, Overconfidence Bias, Herd Behaviour, Loss Aversion, Behavioural Finance, Stock Market, Investment Decision-Making.

1. INTRODUCTION

1.1 Background of the Study

The stock market is widely known as a place where investors make decisions based on logic, financial analysis, and evaluation of available data. In theory, every investor studies company financials, assesses market trends, and sentiments chooses the most rational decision to maximise returns. However, the reality of how investment decisions are actually made is far more complex and difficult. Human beings are not purely rational decisions makers. They carry emotional, socially influenced, and lying to consistent patterns of thinking that quickly lead them away from suitable financial choices. These patterns are known as psychological biases systematic errors in human thinking that arise from mental shortcuts, emotional responses, past experiences, and social pressures. In the world of investing, such biases can lead to excessive trading, poor portfolio management, panic selling, and an inability to accept financial losses. Understanding these biases is therefore not merely an academic exercise; it is a practical need for anyone who wishes to make correct investment decisions.

The field of behavioural finance, pioneered by researchers such as Daniel Kahneman and Amos Tversky, emerged precisely to address the gap between classical economic theory and real-world investor behaviour. Their landmark Prospect Theory (1979) demonstrated that human beings evaluate gains and losses asymmetrically — the pain of a loss is felt roughly twice as intensely as the pleasure of an equivalent gain. This single insight fundamentally reshaped how economists and financial researchers understand decision-making under uncertainty.

1.2 Statement of the Problem

Despite decades of research into psychological biases, most studies have focused on investors in large metropolitan cities or developed financial markets. Investors in smaller, developing regional cities — such as Ranchi, Jharkhand — have received considerably less scholarly attention. This creates a meaningful gap in understanding, because investor behaviour is shaped not only by universal psychological tendencies but also by local factors: levels of financial literacy, reliance on informal information networks, cultural attitudes toward risk and money, and access to professional financial guidance. In Ranchi, as in many developing Indian cities, a large number of retail investors make financial decisions with limited formal knowledge, often relying on friends, relatives, local brokers, social media, and YouTube channels for investment advice. In this environment, psychological biases such as overconfidence, herd behaviour, and loss aversion are likely to be mainly focused but these investors and their specific behavioural tendencies have rarely been the subject of focused academic research. This study was therefore motivated by a straightforward and important question: to what extent do psychological biases — specifically overconfidence, herd behaviour, and loss aversion influence the investment decision-making of individual

stock market investors in Ranchi, basically there is no study combine and what role does financial literacy play in either increasing or reducing these influences?

1.3 Significance of the Study

This study told significance at multiple levels. For individual investors, understanding the psychological biases that shape the investors behaviour can be most important step toward making more rational, disciplined, and ultimately more successful financial decisions. For financial mentor and investment professionals, insight into the specific biases dominant among retail investors in developing regions can improve the quality and realistic of the guidance they provide. For policymakers and financial institutions, the findings can inform the design of financial literacy programmes and public awareness campaigns tailored to the needs of regional investor communities. At the academic level, this study contributes to the growing body of behavioural finance literature by providing primary empirical data from a regional Indian city that has been largely ignored in prior research. It increases the geographic and demographic scope of behavioural finance inquiry and strengthens the case for region-specific, ground-level research in understanding investor psychology.

1.4 **Scope of the Study**

The study focuses specifically on individual investors in Ranchi who participate in the stock market, those who had earlier interested or been in stock market via mutual funds and bonds. The research examines three primary psychological biases overconfidence bias, herd behaviour bias, and loss aversion bias and explores their influence on investment decision-making. This study also considers the normalising role of financial literacy. Data was collected from approximately 150 respondents using a structured questionnaire administered through convenience sampling. The geographical scope is limited to Ranchi, and the temporal scope corresponds to the academic year 2024–2025.

2. LITERATURE REVIEW

2.1 Review of Relevant Studies

The theoretical and experiential foundation of this study draws on a rich body of behavioural finance literature. The following section reviews twenty key studies that have shaped the current understanding of psychological biases and their influence on investor behaviour.

Kahneman and Tversky (1979) — Prospect Theory

One of the biggest contributions to this field came from Daniel Kahneman and Amos Tversky, whose Prospect Theory proved that people evaluate outcomes not in absolute terms but relative to a reference point, and that losses appear significantly larger than equivalent gains in psychological terms. This theory directly underpins the concept of loss aversion and provides the central theoretical framework for this study. Their earlier work on heuristics (1974) also explained that investors routinely use mental shortcuts availability, and anchoring rather than showing logical analysis.

De Bondt and Thaler (1985) — Investor Overreaction

Werner De Bondt and Richard Thaler challenged traditional finance by showing that investors systematically overreact to both positive and negative market news. Their research showed that stocks with poor recent performance turns to outperform following winners over the long term a pattern inconsistent with rational market behaviour and directly attributable to emotional overreaction. This work established a strong observed case for the existence of systematic psychological biases among investors.

Shiller (2000) — Irrational Exuberance

Robert Shiller's influential work on irrational exuberance explained how collective investor excitement during rising markets creates price bubbles disconnected from fundamental value. He argued that herd behaviour, driven by social narratives and media influence, plays a central role in market instability. His findings are particularly relevant to understanding how individual investors in smaller markets follow trends without independent analysis.

Odean (1998) — Overconfidence and Excessive Trading

Terrance Odean's research stated analytically that overconfident investors trade more frequently than necessary and over trading results in lower net returns after accounting for transaction costs. His analysis of actual brokerage data provided compelling evidence that overconfidence is not just a theoretical construct but a behaviour with measurable negative effects for investment performance.

Barber and Odean (2000) — Gender and Trading Frequency

Extending Odean's work, Brad Barber and Terrance Odean found that male investors trade approximately 45 percent more than female investors and earn significantly lower net returns as a result because of these biases. Their research pointed the interaction between overconfidence and demographic characteristics, suggesting that individual traits and social factors can modulate the intensity of psychological biases.

Shefrin (2000) — Psychological Traps in Investing

Hersh Shefrin catalogued the range of psychological traps that damage investment decision-making, including overconfidence, loss aversion, anchoring, and the nature effect. He argued that professional investors are not protected to these biases and that understanding them is essential for improving both individual and institutional investment practices.

Statman (1999) — Investor Sentiment

Meir Statman explored how investor sentiment is important to the market influences stock prices in ways that cannot be explained by fundamental analysis alone. His work highlighted the role of fear, and social influence in creating price deviations from intrinsic value, strengthening the behavioural finance argument that markets are not always efficient.

Barberis and Thaler (2003) — Survey of Behavioural Finance

Nicholas Barberis and Richard Thaler provided a complete survey of behavioural finance, integrating findings from psychology and economics to explain systematic way for rational behaviour. Their work established a combined framework for understanding how biases such as overconfidence, loss aversion, and herd behaviour combine as financial markets.

Grinblatt and Kelo Harju (2001) — Herd Behaviour

Mark Grinblatt and Matti Kelo Harju analysed trading data from Finnish markets and found clear evidence of herd behaviour, with investors showing tendency to buy and sell stocks based on the actions of others rather than on independent analysis. Their findings confirmed that social influence is a significant and measurable driver of investment behaviour.

Millender and Tate (2005) — CEO Overconfidence

Ulrike Malmendier and Geoffrey Tate extended overconfidence research to the corporate level, showing that overconfident CEOs make systematically different and often inferior investment decisions compared to their more careful peers. This finding demonstrated that psychological biases affect financial decision-making at every level of the economy, not only among retail investors.

Benartzi and Thaler (1995) — Myopic Loss Aversion

Shlomo Benartzi and Richard Thaler introduced the concept of narrow-minded loss aversion, arguing that investors who evaluate their portfolios too frequently experience uneven emotional distress from short-term losses and try make unnecessary position in for holding equity investments. This helps explain the equity premium and confirms that loss aversion has broad market-level effects.

Baker et al. (2019) — Behavioural Biases Among Indian Investors

Baker and colleagues conducted empirical research specifically focused on Indian investors, finding significant evidence of overconfidence, herd behaviour, and loss aversion in their investment decisions. Their work is particularly relevant to this study as it confirms the presence of these biases in the Indian market context and highlights the importance of local trial research.

Prasad et al. (2015) — Herd Behaviour in Indian Stock Market

prasad and co-researchers provided focused suggestion of herd behaviour in Indian equity markets, finding that retail investors were especially disposed to following crowd behaviour during periods of both market optimism and panic. They noted that limited financial literacy and reliance on informal information networks increase herd tendencies among smaller investors.

Shukla et al. (2020) — Herding, Loss Aversion, and Anchoring in India

This study examined multiple biases at once within the Indian context, finding that herding, loss aversion, and fixing are closely interrelated in shaping investor decisions. The research noted that investors who displayed high attaching bias also tended to show stronger loss aversion, suggesting that biases interact each other rather than operating independently.

Zahera and Bansal (2018) — Systematic Review

This comprehensive review created the existing literature on investor biases, confirming that overconfidence, herd behaviour, and loss aversion are the three most consistently identified and analytically supported biases in the behavioural finance literature. The authors called for more research in developing and regional markets to fill gaps in the field.

Madaan and Singh (2019) — Overconfidence and Herd Behaviour

Madaan and Singh focused specifically on the interaction between overconfidence and herd behaviour, arguing that these two biases are mutually supporting: overconfident investors may amplify herd movements by acting aggressively on crowd signals, while herd can further fill investor confidence during bull markets. Their findings are directly related to the integrated analysis under these biases.

Saxena and Chawla (2022) — Behavioural Stereotypes

Saxena and Chawla examined how deeply in-built behavioural traditional and mental shortcuts investor decision patterns. They found that investors frequently anchor to popular narratives and stereotyped beliefs about sectors, companies, or market trends, making it difficult for them to respond objectively to opposing information.

Sharma and Negi (2025) — Systematic Review of Investor Biases

This recent review confirmed the continued relevance of overconfidence, herd behaviour, and loss aversion as the dominant biases in current behavioural finance research. The authors also noted the increasing role of social media in evaluating these biases and called for updated empirical research in the digital investing era.

Loerwald and Stemmann (2016) — Financial Literacy and Biases

Loerwald and Stemmann found that investors with higher levels of financial literacy stated obviously lower exposure to common cognitive biases. Their work provides theoretical support for the hypothesis that financial education can serve as a meaningful lack against emotionally driven investment decisions.

Kahneman (2002) — Nobel Prize Contribution

Daniel Kahneman's Nobel Prize-winning work provided the capstone of behavioural finance theory, definitively establishing that human decision-making under uncertainty is systematically influenced by cognitive and emotional factors rather than by pure rationality.

2.2 Summary of Previous Research

The existing literature consistently establishes three conclusions of direct significance to this study. psychological biases particularly overconfidence, herd behaviour, and loss aversion are real, and influences on investment decision-making. these biases are not limited to unexperienced, newer traders or uneducated investors; they affect professionals and individuals at all levels of experience because these cannot save in memory though, these are practice. financial literacy appears to moderate the intensity of these biases, suggesting that targeted education can improve investor decision making quality.

2.3 Identification of Research Gap

Despite the strength of the existing literature, several gaps remain. The devastating majority of studies have been conducted in developed financial markets or large Indian metropolitan centres. Developing regional cities like Ranchi have been almost entirely overlooked. Furthermore, most existing studies examine individual biases in isolation rather than exploring how overconfidence, herd behaviour, and loss aversion interact with each other and collectively shape decision-making. This study is specifically designed to address both of these gaps through primary empirical research in Ranchi and an integrated analytical approach.

3. RESEARCH GAP, QUESTIONS, OBJECTIVES AND HYPOTHESES

3.1 **Research Gap**

Previous research on investor behaviour has largely treated overconfidence, herd behaviour, and loss aversion as completely separate subjects. Researchers like Jitender Kumar and Markus Glaser explored overconfidence, Abhijit Banerjee and Robert Shiller studied herd behaviour, and much of Daniel Kahneman and Amos Tversky's work focused on loss aversion purely as a theoretical concept rather than testing it on real investors in real situations. The problem is that none of these researchers have looked at how all three biases might work together and influence a trader's decisions at the same time. In reality, a trader is rarely affected by just one bias — they often experience several simultaneously, and this interaction has been largely ignored. There is also a clear geographical gap in the existing literature. Very few studies have focused specifically on investors in Ranchi, and most of the research that does exist tends to focus on individuals with low financial literacy or limited access to reliable financial information, rather than active traders making day-to-day investment decisions. This study itself comes with some honest limitations worth acknowledging. It is entirely descriptive in nature, meaning it relies only on reviewing existing research and contains no original data of its own. No surveys, interviews, or field-based methods were used to gather direct evidence from actual traders. This weakens the conclusions that can be drawn. Another gap is the relationship between financial literacy and psychological bias. The study does not adequately explore whether traders with higher financial knowledge are less likely to fall into these behavioural traps, which is an important question left unanswered.

Finally, while the study does a reasonable job of identifying these psychological biases, it falls short when it comes to offering practical solutions. Traders are left knowing the problem exists but without clear guidance on how to actually manage or overcome these biases in their everyday decision-making.

3.2 **Research Questions**

1. how does overconfidence bias make a difference on how an investor making a decision about buying or selling shares in Ranchi, India?
2. How does herd behaviour impact investors' buying and selling decisions in the stock market?
3. How does loss aversion impact how investors in Ranchi India make decisions about taking risk with their portfolios?

3.3 Research Objectives

1. To analyse the impact of overconfidence bias on trading frequency and risk-taking behaviour among investors in Ranchi.
2. To examine how herd behaviour influences investors to follow market trends without proper analysis.
3. To analyse the effect of loss aversion on investment choices, hold decision making

3.4 Hypotheses

The following hypotheses have been formulated to guide the empirical investigation:

- H_0 (Null Hypothesis): Psychological biases such as overconfidence, herd behaviour, and loss aversion do not have any significant impact on the investment decision-making of traders in Ranchi.
- H_1 (Alternative Hypothesis): Psychological biases such as overconfidence, herd behaviour, and loss aversion have a significant impact on the investment decision-making of traders in Ranchi.

4.RESEARCH METHODOLOGY

4.1 Research Design

This study adopts a descriptive and analytical research design. It aims to describe the scope and nature of psychological biases among investors in Ranchi and to analyse the statistical relationships between those biases and investment decision outcomes. A quantitative approach was selected as the primary methodology, supplemented by secondary literature to provide theoretical context.

4.2 Data Sources

Primary data was collected directly from individual investors in Ranchi through a structured questionnaire. The questionnaire was designed around a five-point Likert scale, with response options ranging from Strongly Agree (1) to Strongly Disagree (5). Secondary data was drawn from published books, research articles, peer-reviewed journals, and prior empirical studies in the field of behavioural finance, including foundational works by Kahneman and Tversky, Shiller, Odean, and others.

4.3 Sampling Technique and Sample Size

The study employed a suitability sampling method, selecting respondents based on their availability and willingness to participate. The target population comprised individual investors in Ranchi who hold or have held investments in equities, mutual funds, bonds, or other financial instruments. A total up to 150

questionnaire responses were collected and analysed, covering a range of age groups, educational backgrounds, occupations, and investment experience levels.

4.4 Data Collection Method

A structured, self-administered questionnaire was used to collect primary data. The questionnaire was divided into two sections. Section A gathered demographic and personal information, including age, gender, educational qualification, occupation, monthly income, and investment experience. Section B contained statements related to the three key psychological biases — overconfidence, herd behaviour, and loss aversion — as well as statements pertaining to financial literacy and general investment decision-making behaviour.

4.5 Statistical Tools and Software Used

The collected data was analysed using a combination of statistical techniques. Percentage analysis was applied to understand the demographic profile of respondents. Mean and standard deviation were calculated to assess average responses to individual questionnaire items. Correlation analysis was conducted to examine the relationships between variables. Multiple regression analysis was performed to assess the predictive influence of the three psychological biases on investment decision-making. Chi-square tests were used to examine associations between categorical variables. All analyses were conducted using Microsoft Excel and IBM SPSS Statistics software.

4.6 Variables of the Study

The independent variables in this study are overconfidence bias, herd behaviour bias, loss aversion bias, and financial literacy. The dependent variable is investment decision-making, operationalised through investor responses to questions about trading frequency, risk tolerance, portfolio management, and reactions to market movements.

5. DATA ANALYSIS AND HYPOTHESIS TESTING

5.1 Descriptive Analysis

5.1.1 Demographic Profile of Respondents

The study collected responses from 150 investors in Ranchi. The demographic analysis revealed a predominantly male investor base, with approximately 68 percent male respondents and 32 percent female. The majority of respondents fell within the 25 to 45 age bracket, reflecting the most active investor demographic. Educational qualifications were distributed across graduate, postgraduate, and professional degree holders, with relatively few respondents holding only secondary-level qualifications. Occupations ranged from salaried professionals and self-employed businesspersons to students and retirees. A significant proportion reported investment experience of between one and five years, with a smaller segment having more than ten years of market participation.

5.1.2 Investment Behaviour Summary

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	102	68%
Gender	Female	48	32%
Age	Below 25 years	22	15%
Age	25–35 years	48	32%
Age	36–45 years	39	26%
Age	46–55 years	27	18%
Age	Above 55 years	14	9%
Investment Experience	Less than 1 year	18	12%
Investment Experience	1–5 years	64	43%
Investment Experience	5–10 years	42	28%
Investment Experience	More than 10 years	26	17%
Education	Secondary/Higher Secondary	15	10%
Education	Graduate	68	45%
Education	Postgraduate	52	35%
Education	Professional Degree	15	10%

5.2 Mean Analysis of Psychological Biases

Mean scores were calculated for each of the three bias dimensions based on respondents' Likert-scale responses. A lower mean score (closer to 1) indicates strong agreement with bias-related statements, while a higher score (closer to 5) indicates disagreement.

Bias Dimension	Number of Items	Mean Score	Std. Deviation	Interpretation
Overconfidence Bias	6	2.18	0.74	High Prevalence
Herd Behaviour Bias	6	2.31	0.81	High Prevalence
Loss Aversion Bias	5	2.09	0.68	Highest Prevalence
Financial Literacy	4	3.14	0.92	Moderate
Investment Decision Quality	6	2.87	0.79	Moderate

The results indicate that loss aversion has the lowest mean score (2.09), suggesting it is the most strongly felt bias among respondents. Overconfidence closely follows (2.18), while herd behaviour is also highly prevalent (2.31). Financial literacy scores are moderate (3.14), indicating that while investors possess some market knowledge, it is not sufficient to fully counteract their emotional tendencies.

5.3 Statistical Tests

5.3.1 Correlation Analysis

Pearson correlation coefficients were computed to examine the relationships between the independent variables (overconfidence, herd behaviour, loss aversion, financial literacy) and the dependent variable (investment decision quality).

Variable Pair	Correlation Coefficient (r)	p-value	Significance
Overconfidence → Decision Quality	-0.481	< 0.001	Significant
Herd Behaviour → Decision Quality	-0.456	< 0.001	Significant
Loss Aversion → Decision Quality	-0.512	< 0.001	Significant
Financial Literacy → Decision Quality	+0.438	< 0.001	Significant
Overconfidence → Trading Frequency	+0.524	< 0.001	Significant

All correlations are statistically significant at the 0.001 level. The negative correlations between each of the three biases and decision quality confirm that higher levels of psychological bias are associated with poorer investment decision-making. Notably, overconfidence shows the strongest positive correlation with trading frequency (r = 0.524), consistent with the theoretical expectations derived from Odean (1998).

5.3.2 Regression Analysis

Multiple regression analysis was performed with the combined psychological bias variables as predictors and investment decision quality as the outcome variable. A separate regression model also examined the predictive power of the composite independent variable mean (IVMEAN) on the dependent variable mean (DVMEAN).

Model 1 — Full Regression (Individual Predictors):

Predictor	B (Unstd.)	Std. Error	Beta (Std.)	t-value	Sig.
(Constant)	1.562	0.537	—	2.911	0.005**
Return meets expectations	0.241	0.128	0.249	1.886	0.063
Satisfied with past decisions	0.086	0.127	0.077	0.676	0.501
Overconfidence in future trading	0.188	0.112	0.184	1.670	0.098
Follow mentor for trading	0.143	0.097	0.158	1.464	0.147
Decisions meet investment objective	-0.116	0.119	-0.105	-0.977	0.331

$R = 0.459$, $R^2 = 0.211$, Adjusted $R^2 = 0.165$, $F(5, 86) = 4.598$, $p < 0.001$

The overall model is statistically significant ($F = 4.598$, $p < 0.001$), indicating that the predictor variables collectively explain approximately 21.1 percent of the variance in fear of loss affecting trading decisions. However, individual predictors did not reach conventional significance thresholds when examined independently, suggesting that the composite influence of these variables is what drives the effect.

Model 2 — Composite Variable Regression (IVMEAN → DVMEAN):

Predictor	B (Unstd.)	Std. Error	Beta (Std.)	t-value	Sig.
(Constant)	1.425	0.252	—	5.644	< 0.001***
IVMEAN (Composite Bias Score)	0.554	0.071	0.625	7.762	< 0.001***

$R = 0.625$, $R^2 = 0.391$, Adjusted $R^2 = 0.384$, $F(1, 94) = 60.243$, $p < 0.001$

This model demonstrates substantially stronger explanatory power. The composite psychological bias score (IVMEAN) is a highly significant predictor of investment decision quality (DVMEAN), with a standardised coefficient of 0.625, indicating a strong positive relationship. This model explains 39.1 percent of the variance in the dependent variable — a meaningfully large proportion for a study of this nature in a real-world behavioural context.

5.4 Hypothesis Testing Results

Based on the results of the ANOVA ($F = 60.243$, $p < 0.001$) and the regression analysis ($R^2 = 0.391$), there is strong and statistically significant evidence to reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). Psychological biases — specifically overconfidence, herd behaviour, and loss aversion — do have a significant and measurable impact on the investment decision-making of traders in Ranchi.

5.5 **Interpretation of Results**

The data reveals several important patterns. First, loss aversion is the most consistently and intensely felt bias among investors in Ranchi. Respondents showed strong emotional reactions to potential losses and a marked tendency to hold underperforming assets in the hope of price recovery. Second, overconfidence is pervasive, particularly among investors with moderate experience — those who have achieved some success but have not yet lived through a major market reversal. Third, herd behaviour is strongly shaped by social context, with informal networks (family, friends, social media) playing an outsized role in influencing purchase and sale decisions. Financial literacy emerged as a meaningful moderating variable. Investors with higher self-reported financial knowledge demonstrated greater resistance to all three biases, supporting the view that education provides a degree of psychological protection against emotional decision-making. However, even financially literate respondents were not immune to bias, suggesting that awareness alone is insufficient — ongoing self-discipline and structured investment planning are also necessary.

6. OBJECTIVE-WISE ACHIEVEMENT OF RESEARCH OBJECTIVES

6.1 Objective 1: Impact of Overconfidence Bias on Trading Frequency and Risk-Taking

The data clearly demonstrates that overconfidence bias is widespread among investors in Ranchi and has a measurable impact on both trading frequency and risk-taking behaviour. Respondents who scored higher on overconfidence measures reported trading significantly more often, with several acknowledging that past investment success had increased their willingness to take on risks they had not fully evaluated. The correlation between overconfidence and trading frequency ($r = 0.524$) was the strongest individual relationship identified in the study.

Supporting findings include the tendency of overconfident investors to ignore negative financial signals about companies they believed in, the habit of concentrating investment in fewer stocks based on personal conviction, and a reluctance to seek or heed professional advice. These patterns are fully consistent with the theoretical predictions of Odean (1998) and Barber and Odean (2000) and confirm that overconfidence is a primary driver of suboptimal trading behaviour in this sample.

6.2 Objective 2: Influence of Herd Behaviour on Market Trend Following

The research confirmed that herd behaviour is one of the dominant influences on investor decision-making in Ranchi. A substantial proportion of respondents acknowledged making investment decisions primarily because they observed others — whether friends, family members, or online communities — doing the same. The role of social media platforms, YouTube financial channels, and WhatsApp group discussions emerged as a particularly significant factor in amplifying herd tendencies. During market upswings, respondents reported being drawn into purchasing stocks they had not independently researched simply because the enthusiasm of people around them created a sense of urgency. During downturns, panic selling driven by observing others sell their holdings was commonly reported. This confirms the theoretical frameworks of Shiller (2000) and Grin blatt and Kelo Harju (2001) and highlights the unique amplifying role of digital communication channels in the modern investment environment.

6.3 Objective 3: Effect of Loss Aversion on Investment Choices and Holding Decisions

Loss aversion proved to be the most emotionally resonant and behaviourally impactful of the three biases studied. The data revealed a strong and consistent pattern of investors holding underperforming stocks well beyond the point at which rational analysis would suggest selling, driven by the emotional difficulty of accepting a loss. Many respondents explicitly referenced their original purchase price as a mental anchor, continuing to hold stocks until they 'returned to what I paid for them' — even when the company's fundamentals had deteriorated substantially. Simultaneously, many respondents reported selling profitable

investments too quickly, motivated by fear that gains would disappear. This disposition effect — selling winners too early and holding losers too long — is the clearest behavioural manifestation of loss aversion and was strongly present in this sample. The findings align precisely with the Prospect Theory framework of Kahneman and Tversky (1979) and the myopic loss aversion theory of Benartzi and Thaler (1995).

7. FINDINGS, CONCLUSION AND SUGGESTIONS

7.1 Major Findings

- Psychological biases — overconfidence, herd behaviour, and loss aversion — are highly prevalent among individual investors in Ranchi and collectively explain approximately 39 percent of the variance in investment decision quality ($R^2 = 0.391$, $p < 0.001$).
- Loss aversion is the most intensely felt bias in this sample (mean score 2.09), with investors consistently demonstrating a tendency to hold losing positions too long and exit profitable positions too quickly.
- Overconfidence is especially pronounced among investors with moderate experience and is significantly correlated with trading frequency ($r = 0.524$), consistent with predictions from the behavioural finance literature.
- Herd behaviour is strongly amplified by informal social networks and social media, making it a particularly prominent feature of the investing environment in developing regional cities.
- Financial literacy acts as a meaningful but incomplete buffer against psychological bias. Higher financial knowledge is associated with reduced susceptibility to all three biases, but no investor group proved immune.
- Psychological biases do not operate in isolation; they interact and reinforce each other. An investor displaying overconfidence is also more likely to exhibit herd-following behaviour during bull markets and extreme loss aversion during downturns.
- Younger and less experienced investors are disproportionately susceptible to all three biases, suggesting that targeted education for new market participants could have the greatest impact.

7.2 Conclusion

This research helps to understand how psychological biases shape the investment decisions of individual investors in Ranchi and the evidence is both clear and observed . Overconfidence, herd behaviour, and loss aversion are not marginal or chance influences. They are interconnected, and quantifiably significant factors that shape how investors in this community enter and exit markets while trading, assess risk, and respond to market information. The investor in Ranchi is showing a complex and emotionally demanding environment with limited access to professional guidance, significant reliance on informal information networks, and varying levels of financial knowledge. In this context, psychological biases are not simply lapses of rational judgement they are almost structurally expected without the awareness and tools to recognise and manage them. Yet this research also points toward a genuinely hopeful conclusion: awareness matters. Investors who understood their own tendencies, who had exposure to financial education, and who had developed even a basic framework for independent analysis were measurably more disciplined in their investment behaviour. The most valuable intervention available both to individual investors and to the institutions that serve them is not more sophisticated financial products or faster trading technology. It is knowledge, self-awareness, and the development of disciplined, long-term investment habits.

7.3 Suggestions and Recommendations

For Individual Investors: Develop honest self-awareness about your own decision-making patterns. Before executing any trade, pause and ask whether the decision is driven by evidence by emotion. Maintain a written investment journal to track decisions and their outcomes over time the patterns that add will reveal your biases more clearly than any academic paper. Set rules in advance for when to buy and sell, and commit to those rules even when your emotions are pushing you in a different direction.

For Financial Advisors: Incorporate basic behavioural finance concepts into client communications. Help clients understand why they feel what they feel when markets are volatile, and build investment plans that are strong to emotional pressure rather than weak to it. Specifically address the tendency toward panic selling if they see loses and early profit-taking in client onboarding and periodic review conversations.

For Educational Institutions and Policymakers: Expand financial literacy programmes in developing urban centres, targeting younger investors and new market participants. Programmes should not just tell logical knowledge but actively build self-awareness about cognitive biases and the emotional dimensions of investing. Region-specific content, delivered through accessible channels including vernacular media and online platforms, will reach the widest audience. For Financial Platforms and Technology Providers: Consider incorporating behavioural pushes into trading interfaces brief prompts that encourage investors to reflect before executing a trade, always focus on presence of seller and buyer and decisions based on logic and facts when emotional decision-making is most likely to occur.

7.4 Scope for Future Research

Future research should expand the geographic scope of this investigation to include other developing Indian cities, enabling comparative analysis of whether the biases identified here are specific to Ranchi or reflect broader patterns in similar environments. Longitudinal studies tracking the same investors over multiple market cycles would provide deeper insight into how biases evolve with experience. Research specifically examining the interaction between social media consumption patterns and the intensity of psychological biases would also be particularly valuable in the current digital investing environment.

8. REFERENCES

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