

## Influence of Overconfidence Bias on Investment Decision Behaviour: The Moderating Role of Financial Literacy and Investment Experience among Corporate Employees in Mumbai

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### Abstract:

The investment decisions play a key role in life of individuals and family life. This study examines the influence of overconfidence bias on investment decision behaviour among corporate employees in Mumbai, with particular emphasis on the moderating roles of financial literacy and investment experience. Using a quantitative, cross-sectional, explanatory research design, primary data were collected through a structured questionnaire from 184 eligible corporate employees with investment exposure; 164 usable responses were included in the final analyses. The study measured overconfidence, investment decision behaviour, and self-assessed financial literacy using multi-item Likert scales, while investment experience was assessed through years of investment participation. Reliability, descriptive statistics, Pearson correlation, regression, and moderated regression analyses were performed using Jamovi. The measurement scales showed acceptable internal consistency, with Cronbach's alpha values ranging from .668 to .761. Overconfidence was not significantly associated with investment decision behaviour at the bivariate level. However, moderation analysis showed that investment experience significantly weakened the relationship between overconfidence and unfavourable investment decision behaviour ( $B = -0.255$ ,  $p = .006$ ) ( $B = -0.255$ ,  $p = .006$ ) ( $B = -0.255$ ,  $p = .006$ ). Financial literacy significantly strengthened this relationship ( $B = 0.229$ ,  $p = .034$ ) ( $B = 0.229$ ,  $p = .034$ ) ( $B = 0.229$ ,  $p = .034$ ), indicating that financially literate employees with greater confidence may be more likely to act on their perceived investment ability. The findings suggest that overconfidence is not a uniform or independent predictor of investment decision behaviour; rather, its influence depends on investors' knowledge and practical market exposure. The study contributes to behavioural finance literature by providing evidence from corporate employees in Mumbai and highlights the importance of workplace financial-wellness programmes that promote informed confidence, risk awareness, diversification, and experiential learning.

**Keywords:** Overconfidence bias; investment decision behaviour; financial literacy; investment experience; behavioural finance; corporate employees; Mumbai; moderated regression

### 1. Introduction

Traditional financial theories assume rational decision-making; however, behavioural finance highlights that investors are often influenced by cognitive and emotional biases (Singh et al., 2026; Kahneman & Tversky, 1979). The increasing participation of individual investors in financial markets has drawn significant attention to these psychological factors influencing investment decisions (Jain et al., 2023). Among these biases, overconfidence has been widely recognized as one of the most prominent and impactful determinants of investor behaviour, with herding discussed in the broader literature as a related social influence mechanism rather than a primary focus of this study (Prasetyo et al., 2023; Wibowo et al., 2023). Overconfidence bias leads investors to overestimate their knowledge, predictive abilities, and control over investment outcomes, often resulting in excessive trading, underestimation of risk, and suboptimal portfolio diversification (Adil et al., 2021). The present study specifically focuses on corporate employees in Mumbai, a major financial hub where individuals face constant market

information, peer influence, and investment opportunities (Suresh, 2024). This context is likely to heighten overconfidence, as frequent exposure to financial products and market news may make corporate employees feel more capable than they actually are, shaping their investment decision behaviour (Jain et al., 2023). While several behavioural biases exist, this study deliberately concentrates on overconfidence bias to ensure analytical clarity, conceptual focus, and empirical robustness (Prasetyo et al., 2023). Multiple biases within a single model create complexity and reduce interpretability; focusing on one measurable construct enables reliable estimation of its effect on investment decisions, particularly when moderators are incorporated (Singh et al., 2026). The study incorporates financial literacy and investment experience as moderating variables, recognizing that individual differences influence susceptibility to overconfidence (Adil et al., 2021; Wibowo et al., 2023). Literate, experienced investors may calibrate their confidence more accurately, whereas those with low literacy or limited experience may exhibit misaligned overconfidence (Rana, 2025). Thus, this study contributes to behavioural finance by examining the influence of overconfidence bias on investment decisions among Mumbai corporate employees, and by testing financial literacy and investment experience as moderators of this relationship (Jain et al., 2023; Suresh, 2024).

## **2. Problem Statement**

Investment decision-making has traditionally been framed by rational models that assume fully informed, risk-averse investors who optimise portfolios based on objective probabilities and expected returns (Fama, 1970; Markowitz, 1952). However, empirical evidence consistently shows that cognitive biases particularly overconfidence lead many investors to deviate from rational benchmarks and experience suboptimal outcomes (Barber & Odean, 2001; Statman, 2014). Overconfidence has been linked to excessive trading, poor diversification, mis-judgment of market risk, and systematic overestimation of one's forecasting ability, all of which can erode long-term performance (Odean, 1999; A Critical Review of Overconfidence in Investment Decisions). In India, studies indicate that overconfidence significantly influences retail investors' trading frequency, risk tolerance, and portfolio composition, yet much of this work concentrates on general individual investors rather than specific occupational groups (Bhatia & Chandra, 2022; Mehta et al., 2023). Corporate employees in Mumbai, despite their high exposure to financial information and potential involvement in formal financial decision processes, remain comparatively underexplored as a distinct investor category. At the same time, international and Indian research highlights that financial literacy and investment experience can alter how overconfidence manifests, suggesting that these factors may moderate the bias-behaviour relationship (Lusardi & Mitchell, 2014; Adil et al., 2021; Kumar & Prince, 2023).

## **3. Objectives of the study**

To examine the influence of overconfidence bias on investment decision behaviour among corporate employees in Mumbai, and to assess the moderating roles of financial literacy and investment experience in this relationship.

- To examine the effect of overconfidence bias on investment decision behaviour among corporate employees in Mumbai.
- To assess the level of financial literacy among corporate employees in Mumbai.
- To profile the investment experience of corporate employees in Mumbai.
- To examine the moderating effect of financial literacy on the relationship between overconfidence bias and investment decision behaviour.
- To examine the moderating effect of investment experience on the relationship between overconfidence bias and investment decision behaviour.

## **3. Theoretical foundation**

Investment decisions rarely follow the perfectly rational logic assumed in classical finance. To understand why corporate employees in Mumbai may become overconfident in their investment choices, this study draws on two key perspectives: Prospect Theory and Behavioural Finance Theory. Prospect Theory (Kahneman & Tversky, 1979) shows that people think in terms of gains and losses relative to a reference point such as a recent portfolio value rather than in absolute wealth levels. Losses loom larger than gains, making investors loss-averse and prone to different risk preferences in gain and loss domains. When recent successes are highlighted and painful losses

are downplayed or reframed, investors can easily start believing their judgments are more accurate than they are. This selective learning fuels overconfidence, as individuals overestimate their knowledge and control while underestimating uncertainty. The behavioural Finance Theory brings these psychological insights directly into financial decision-making. Instead of treating investors as perfectly rational, it views them as “normal people” who rely on mental shortcuts and emotions (Statman, 2014). These theories also clarify the roles of financial literacy and investment experience. Better financial literacy can help investors understand risk, diversification, and the limits of forecasting, potentially keeping confidence in line with actual competence (Lusardi & Mitchell, 2014). Investment experience exposes individuals to different market conditions and feedback from past decisions; depending on how they interpret that experience, it can either correct mis-calibrated confidence or reinforce overconfidence (Kumar & Prince, 2023). In the Mumbai corporate context, daily exposure to market information, peer conversations, and easy trading access provides many chances to act on perceived expertise. Prospect Theory explains how outcomes are framed in ways that can inflate self-belief, while Behavioural Finance Theory explains how this self-belief emerges as overconfidence and shapes concrete behaviours such as trading frequency and risk taking. Financial literacy and investment experience are therefore conceptualised as moderators that influence how strongly overconfidence translates into actual investment decision behaviour in this group.

#### **4. Literature review**

##### **4.1 Overconfidence Bias and Investment Decision Behaviour**

Recent Scopus-indexed studies confirm that overconfidence remains a central behavioural driver of investment decisions across markets. Sharma and Prajapati (2024) show that Indian investors with higher overconfidence trade more frequently, tolerate greater risk, and experience distinctive portfolio outcomes, reinforcing classic evidence that mis-calibrated self-belief shapes trading behaviour and performance. Bao and Li (2020) document a similar pattern in Asia-Pacific REIT markets: positive past returns fuel investor overconfidence, which in turn triggers aggressive trading and contributes to market inefficiencies. Systematic reviews provide a broader perspective. Karki (2024) synthesises decades of work and concludes that overconfidence consistently leads to excessive trading, under-diversification and mispricing, though its strength varies with context and measurement. Kumar and Prince (2023) map the literature and highlight demographic factors, information sources and financial literacy as key correlates of overconfidence, calling for more research on occupational groups and emerging markets. Extending this agenda, Bouteska, Harasheh and Abedin (2023) find that in the U.S. market, return–volume dynamics during turbulent periods still reflect investor overconfidence, underscoring its persistence even in highly developed markets. Collectively, these studies justify a focused examination of overconfidence bias in Mumbai’s corporate employee segment and motivate testing moderating effects such as financial literacy and investment experience.

##### **4.2 Financial Literacy and Investment Decision Behaviour**

Recent work consistently shows that financial literacy is a key determinant of how individuals make and implement investment decisions. Seraj (2022) finds that higher objective financial literacy improves investment decision quality and interacts significantly with overconfidence, suggesting that literacy can both enable more informed choices and shape the way behavioural biases manifest. In the Indonesian context, Putri and colleagues (2023) report that financial literacy has a negative effect on behavioural biases, meaning that more literate investors are less prone to overconfidence, representativeness and illusion of control, and thereby more objective in their investment behaviour. Focusing on Indian Gen Z investors, Nag and Shah (2022) show that financial literacy has the strongest positive effect on stock market investment intention, partly through attitudes toward investment and perceived behavioural control, highlighting the role of literacy in building confidence and readiness to invest. Baloch (2025) extends this view by distinguishing between behavioural and digital financial literacy and finds both dimensions significantly associated with more prudent investment choices, especially when social impact and financial technologies are involved. Complementing these findings, Khan and Iqbal (2023) demonstrate in Pakistan that financial literacy moderates the impact of behavioural biases on investment decisions, reducing the likelihood that overconfidence and related biases translate into harmful trading behaviour. Together, these studies position financial literacy as both a direct driver of investment decision behaviour and a crucial moderator of bias-driven distortions.

### **4.3 Investment Experience and Investment Decision Behaviour**

Evidence from recent Scopus-indexed work shows that investment experience shapes how investors perceive risk and make decisions, but not always in purely beneficial ways. Li et al. (2023), using a laboratory stock-investment task, demonstrate that early investment experiences influence novice investors' later behaviour through changes in risk perception: favourable initial experiences lower perceived risk and encourage more risk-taking, while adverse experiences heighten risk perceptions and dampen investment activity. In a large-scale empirical study in the *Journal of Financial Economics*, Huang (2019) finds that investors tend to categorise stocks based on past experience; positive returns in a given industry increase the likelihood of buying new stocks from that industry, but this categorical thinking can lead investors to systematically choose the wrong stocks and suffer losses, revealing that experience can reinforce biased selection rather than rational diversification. At a broader level, Malmendier (2021) reviews "experience effects" in finance and concludes that personal histories of returns and macroeconomic events leave long-lasting imprints on beliefs and risk-taking, exhibit strong recency effects, and are highly domain-specific. Together, these Scopus-indexed studies suggest that investment experience is a crucial determinant of investment decision behaviour—capable of both improving performance through learning and entrenching biases such as return extrapolation and familiarity-driven stock choice.

## **5. Hypotheses Development**

### **Overconfidence Bias and Investment Decision Behaviour**

Overconfident investors tend to overestimate their knowledge and forecasting ability, which may lead to excessive trading and risky investment decisions (Barber & Odean, 2000, 2001; Odean, 1999; Karki et al., 2024).

**H1:** Overconfidence bias has a significant positive effect on investment decision behaviour among corporate employees in Mumbai.

### **Moderating Role of Financial Literacy**

Financial literacy improves understanding of risk, return, and diversification, which may reduce the effect of overconfidence on investment decisions (Adil et al., 2022; Lusardi & Mitchell, 2014; Seraj & Aref, 2022).

**H2:** Financial literacy significantly moderates the relationship between overconfidence bias and investment decision behaviour among corporate employees in Mumbai.

### **Moderating Role of Investment Experience**

Investment experience shapes risk perception and decision-making. It may either reduce overconfidence through learning or reinforce it through selective interpretation of previous success (Karki et al., 2024; Li et al., 2023; Malmendier, 2021).

**H3:** Investment experience significantly moderates the relationship between overconfidence bias and investment decision behaviour among corporate employees in Mumbai

## **6. Methodology**

### **6.1 Research Design and Sample**

This study employed a quantitative, cross-sectional, explanatory design to examine the effect of Overconfidence on investment decision behaviour among corporate employees in Mumbai. It further assessed whether Financial\_Literacy and Experience moderate this association. The study excluded anchoring and herding constructs; consequently, only the four variables used in the Jamovi analysis were retained in the empirical model. Primary data were obtained using a structured, self-administered questionnaire. The target population was corporate employees in Mumbai with personal investment exposure in products such as shares, mutual funds, fixed deposits, bonds, insurance-linked products, or exchange-traded funds. A purposive sampling approach was adopted because investment experience was an eligibility condition. After screening for completeness and eligibility, 184 valid responses were retained for analysis.

## 6.2 Measures and Variables

The questionnaire included demographic information and measures of overconfidence, investment decision behaviour, financial literacy, and investment experience. Likert-scale statements were rated on a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree. The financial-literacy measure represents self-assessed rather than objectively tested financial literacy because it is based on respondents' agreement with knowledge statements. The underlying questionnaire contains five investment-decision-behaviour items, four overconfidence items, four financial-literacy items, and an ordinal years-of-investing measure for experience.

| Variable              | Analytical role      | Operationalisation                                                                                                                                                                           |
|-----------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overconfidence        | Independent variable | Mean score of four overconfidence items assessing perceived superior market knowledge, confidence in earning high returns, risk underestimation, and market-timing confidence                |
| IDB_Score             | Dependent variable   | Mean score of five investment-decision-behaviour items assessing intuition-based decisions, investment regret, inadequate analysis, short-term trend following, and weak long-term alignment |
| Financial_Literacy    | Moderator            | Mean composite score of four self-assessed financial-literacy statements covering risk-return trade-off, financial statements, diversification, and inflation                                |
| Experience            | Moderator            | Ordered score based on respondents' years of investment participation in financial markets                                                                                                   |
| Demographic variables | Profile variables    | Age, gender, education, occupation, monthly income, and investment-related characteristics                                                                                                   |

IDB\_Score was calculated from negatively framed statements. Hence, higher values indicate a greater tendency towards unfavourable investment decision behaviour, rather than better decision quality. This direction was retained when interpreting the regression coefficients.

## 6.3 Data Screening and Reliability

The data were screened in Jamovi for missing values, coding errors, incomplete cases, outliers, and permissible response ranges. The composite variables—Overconfidence, IDB\_Score, and Financial\_Literacy were calculated from their corresponding multi-item scales, while Experience was retained as the reported ordinal years-of-investing variable. These four variables formed the basis for descriptive, correlation, regression, and moderation analyses. Internal consistency was evaluated separately for the Overconfidence, IDB\_Score, and Financial\_Literacy scales using Cronbach's alpha and McDonald's omega. Item-rest correlations and alpha-if-item-deleted statistics were also inspected. A reliability coefficient of .68 or higher was considered an acceptable benchmark for the multi-item scales. Reliability was not calculated for Experience, as it was measured through a single item.

## 6.4 Descriptive and Correlation Analysis

Frequencies and percentages were calculated to describe respondents' demographic characteristics, including age, gender, education, occupation, monthly income, years of investment experience, and transaction activity. Means, standard deviations, minimum and maximum values, skewness, and kurtosis were examined for Overconfidence, IDB\_Score, Financial\_Literacy, and Experience. Pearson's correlation analysis was then conducted to determine the preliminary direction and strength of relationships among Overconfidence, IDB\_Score, Financial\_Literacy,

and Experience. Correlation coefficients, significance levels, and confidence intervals were reported before estimating the regression models.

### 6.5 Hypotheses Testing

The direct effect of overconfidence was tested using a simple linear regression model:

$$\text{IDB\_Score} = b_0 + b_1(\text{Overconfidence}) + e$$

Here, IDB\_Score is the dependent variable, Overconfidence is the independent variable,  $b_0$  is the intercept,  $b_1$  is the regression coefficient, and  $e$  is the residual term. The direct-effect hypothesis was supported if the coefficient for Overconfidence was statistically significant at  $p < .05$ . The model results included unstandardised coefficients, standard errors, standardised coefficients,  $t$ -values,  $p$ -values, 95% confidence intervals,  $R^2$ , adjusted  $R^2$ , and the overall  $F$  statistic. The linear regression procedure is used when the dependent variable is continuous and the explanatory variables are continuous and/or categorical. The moderating role of financial literacy was tested through moderated multiple regression:

$$\text{IDB\_Score} = b_0 + b_1 (\text{Overconfidence}) + b_2 (\text{Financial\_Literacy}) + b_3 (\text{Overconfidence} \times \text{Financial\_Literacy}) + e$$

The coefficient of the interaction term,  $b_3$ , was the main test of moderation. A statistically significant interaction at  $p < .05$  indicated that the association between Overconfidence and IDB\_Score varied across different levels of Financial\_Literacy. Where significant, simple slopes and an interaction plot were used to interpret the relationship at low, average, and high levels of financial literacy.

A second moderated multiple regression was estimated to test the moderating role of investment experience:

$$\text{IDB\_Score} = b_0 + b_1(\text{Overconfidence}) + b_2(\text{Experience}) + b_3(\text{Overconfidence} \times \text{Experience}) + e$$

The Overconfidence  $\times$  Experience interaction determined whether investment experience altered the relationship between overconfidence and investment decision behaviour. The financial literacy and experience moderation models were estimated separately to align with the two study objectives. Moderated regression, interaction plots, and simple-slope analyses were used to interpret the interaction effects.

## 7. Analysis

### 7.1 Reliability Statistics for Study Constructs

| Construct                     | Items | Mean | SD    | Cronbach's $\alpha$ | McDonald's $\omega$ |
|-------------------------------|-------|------|-------|---------------------|---------------------|
| Overconfidence                | 3     | 2.89 | 0.833 | 0.668               | 0.675               |
| Investment Decision Behaviour | 5     | 3.01 | 0.801 | 0.701               | 0.711               |
| Financial Literacy            | 4     | 3.81 | 0.698 | 0.761               | 0.767               |

Table 1(Reliability Test)

**Source:** Computed by the author using Jamovi (Version 2.6) from the primary survey data.

Note. Scale scores were computed as the mean of the retained items. Overconfidence was measured using OC1\_KnowledgeHigh, OC2\_HighReturnConf, and OC4\_TradeConfidence. Investment Decision Behaviour was measured using IDB1\_GutFeeling, IDB2\_Regret, IDB3\_NoAnalysis, IDB4\_TrendFollow, and IDB5\_NoLongTerm. Financial Literacy was measured using FL1\_RiskReturn, FL2\_Statements, FL3\_Diversification, and FL4\_Inflation. Cronbach's alpha and McDonald's omega were used to assess internal consistency. The reliability results indicate that all three study constructs were acceptable for further analysis. Financial Literacy showed the strongest internal consistency, followed by Investment Decision Behaviour, while

Overconfidence had slightly lower but still usable reliability. Overall, the values suggest that the scales were consistent enough to support the subsequent correlation, regression, and moderation analyses.

# • **Descriptive Statistics**

Table 1 presents the descriptive statistics of the study variables. The mean scores ranged from 2.94 to 3.81, indicating moderate to relatively high levels of the measured constructs. Financial Literacy recorded the highest mean ( $M = 3.81$ ,  $SD = 0.698$ ), whereas Overconfidence had the lowest mean ( $M = 2.94$ ,  $SD = 0.715$ ). The skewness values ranged from -0.608 to 0.007, and kurtosis values ranged from -1.750 to 0.392. As all skewness and kurtosis values were within the acceptable range of  $\pm 2$ , the data were considered approximately normally distributed and suitable for subsequent parametric analyses, including Pearson correlation, linear regression, and moderation analysis.

| Descriptives        |                |           |                    |            |
|---------------------|----------------|-----------|--------------------|------------|
|                     | Overconfidence | IDB_Score | Financial Literacy | Experience |
| Mean                | 2.94           | 3.01      | 3.81               | 3.05       |
| Median              | 3.00           | 3.00      | 4.00               | 3.00       |
| Standard deviation  | 0.715          | 0.801     | 0.698              | 0.936      |
| Minimum             | 1.25           | 1.00      | 2.00               | 1          |
| Maximum             | 5.00           | 5.00      | 5.00               | 4          |
| Skewness            | 0.00672        | -0.105    | -0.608             | -0.154     |
| Std. error skewness | 0.190          | 0.190     | 0.192              | 0.188      |
| Kurtosis            | -0.0694        | -0.176    | 0.392              | -1.75      |
| Std. error kurtosis | 0.377          | 0.377     | 0.381              | 0.375      |

**Table 2 (Descriptive Statistics)**

**Source:** Computed by the author using Jamovi (Version 2.6) from the primary survey data.

# • **Demographic profile of respondents**

The demographic profile of respondents ( $N = 164$ ). With respect to gender, 61.4% of the respondents were male and 38.6% were female. Nearly half of the respondents (47.0%) belonged to the 30–40 years age group, followed by 30.1% in the 40–50 years age group. Regarding investment experience, 45.8% of the respondents had more than five years of investing experience, while 39.2% had between one and three years of experience. In terms of investment activity, 54.2% reported making between five and ten transactions per year, followed by 23.5% reporting ten to twenty transactions. Monthly income was concentrated in the 50,000–100,000 category (32.5%), followed by 0–50,000 (21.7%) and above 500,000 (18.1%). In terms of education, most respondents were postgraduates (58.4%), followed by professionals (23.5%), undergraduates (12.0%), and graduates (6.0%). These results indicate that the sample largely comprised educated, financially active, and experienced corporate employees.

- Correlation**

Pearson's correlation analysis was conducted to examine the relationships among Overconfidence, Investment Decision Behaviour (IDB), Financial Literacy, and Investment Experience. As shown in Table 2, Overconfidence was moderately and positively correlated with Financial Literacy,  $r(158) = .376$ ,  $p < .001$ , indicating that respondents with higher financial literacy tended to report greater overconfidence. Likewise, Financial Literacy was positively associated with Investment Experience,  $r(158) = .323$ ,  $p < .001$ . In contrast, Investment Decision Behaviour was not significantly correlated with Overconfidence,  $r(162) = .074$ ,  $p = .349$ , Financial Literacy,  $r(158) = -.028$ ,  $p = .728$ , or Investment Experience,  $r(162) = -.149$ ,  $p = .057$ . Overall, the correlation coefficients suggested that the independent variables were not highly intercorrelated, indicating no evidence of serious multicollinearity. These findings provided a basis for conducting multiple regression and moderation analyses to further examine the hypothesised direct and interaction effects.

| Correlation Matrix |              |                |           |                    |            |
|--------------------|--------------|----------------|-----------|--------------------|------------|
|                    |              | Overconfidence | IDB_Score | Financial Literacy | Experience |
| Overconfidence     | Pearson's r  | —              |           |                    |            |
|                    | df           | —              |           |                    |            |
|                    | p-value      | —              |           |                    |            |
|                    | 95% CI Upper | —              |           |                    |            |
|                    | 95% CI Lower | —              |           |                    |            |
| IDB_Score          | Pearson's r  | 0.074          | —         |                    |            |
|                    | df           | 162            | —         |                    |            |
|                    | p-value      | .349           | —         |                    |            |
|                    | 95% CI Upper | 0.224          | —         |                    |            |
|                    | 95% CI Lower | -0.081         | —         |                    |            |
| Financial Literacy | Pearson's r  | 0.376***       | -0.028    | —                  |            |
|                    | df           | 158            | 158       | —                  |            |
|                    | p-value      | <.001          | .728      | —                  |            |
|                    | 95% CI Upper | 0.502          | 0.128     | —                  |            |
|                    | 95% CI Lower | 0.235          | -0.182    | —                  |            |
| Experience         | Pearson's r  | 0.021          | -0.149    | 0.323***           | —          |



| Correlation Matrix                                |              |                |           |                    |            |
|---------------------------------------------------|--------------|----------------|-----------|--------------------|------------|
|                                                   |              | Overconfidence | IDB_Score | Financial Literacy | Experience |
|                                                   | df           | 162            | 162       | 158                | —          |
|                                                   | p-value      | .791           | .057      | <.001              | —          |
|                                                   | 95% CI Upper | 0.174          | 0.004     | 0.455              | —          |
|                                                   | 95% CI Lower | -0.133         | -0.295    | 0.176              | —          |
| Note. * $p < .05$ , ** $p < .01$ , *** $p < .001$ |              |                |           |                    |            |

**Table 3(Correlation Analysis).**

**Source:** Computed by the author using Jamovi (Version 2.6) from the primary survey data.

- Linear regression**

A multiple linear regression analysis was conducted to examine the influence of the independent variables on Investment Decision Behaviour. The overall regression model was statistically significant,  $F(4, 155) = 6.38$ ,  $p < .001$ , indicating that the set of predictors collectively explained a significant proportion of the variance in the dependent variable. The model yielded a correlation coefficient of  $R = .376$ , suggesting a moderate positive relationship between the observed and predicted values of Investment Decision Behaviour. The coefficient of determination ( $R^2 = .141$ ) indicated that approximately 14.1% of the variance in Investment Decision Behaviour was explained by the predictors included in the model. After adjusting for the number of predictors, the Adjusted  $R^2 = .119$  showed that the model explained 11.9% of the variance, reflecting a modest but meaningful explanatory power. The regression analysis was based on a sample of 164 respondents.

| Model Fit Measures                                |       |                |                         |                    |     |     |       |
|---------------------------------------------------|-------|----------------|-------------------------|--------------------|-----|-----|-------|
|                                                   |       |                |                         | Overall Model Test |     |     |       |
| Model                                             | R     | R <sup>2</sup> | Adjusted R <sup>2</sup> | F                  | df1 | df2 | p     |
| 1                                                 | 0.376 | 0.141          | 0.119                   | 6.38               | 4   | 155 | <.001 |
| Note. Models estimated using sample size of N=164 |       |                |                         |                    |     |     |       |

**Table 4 (Linear Regression Analysis).**

**Source:** Computed by the author using Jamovi (Version 2.6) from the primary survey data.

## 7.2 Moderation Analysis

As presented in Table 5.1, the moderation analysis examined whether Investment Experience influences the relationship between Overconfidence and Investment Decision Behaviour (IDB). The results showed that the interaction between Overconfidence and Investment Experience was statistically significant ( $B = -0.255$ ,  $SE = 0.091$ ,  $t = -2.81$ ,  $p = .006$ ). This negative interaction suggests that the effect of overconfidence on investment

decision behaviour becomes weaker as investors gain more experience. In practical terms, experienced investors appear to be less influenced by overconfidence when making investment decisions, possibly because they rely more on their knowledge and previous market exposure than on excessive confidence. The analysis also indicated that the direct effects of Overconfidence ( $B = 0.858, p = .003$ ) and Investment Experience ( $B = 0.621, p = .025$ ) were statistically significant. As shown in Table 5.2, Financial Literacy also played a significant moderating role in the relationship between Overconfidence and Investment Decision Behaviour. The interaction effect was positive and statistically significant ( $B = 0.229, SE = 0.107, t = 2.13, p = .034$ ), indicating that the influence of overconfidence on investment decision behaviour becomes stronger as financial literacy increases. This finding suggests that financially literate individuals who are highly confident in their investment abilities may be more inclined to act on that confidence while making investment decisions. However, the direct effects of Overconfidence ( $B = 0.052, p = .593$ ) and Financial Literacy ( $B = -0.031, p = .756$ ) were not statistically significant, indicating that these variables influenced investment decision behaviour primarily through their combined interaction rather than independently.

The moderation results presented in Tables 5.1 and 5.2 provide support for the proposed hypotheses. The findings demonstrate that the relationship between Overconfidence and Investment Decision Behaviour is not uniform across all investors but varies according to their levels of Investment Experience and Financial Literacy. While greater investment experience reduces the behavioural influence of overconfidence, higher financial literacy strengthens this relationship. These results highlight the importance of considering moderating factors when examining the role of behavioural biases in investment decision-making.

| Predictor                   | Estimate | SE     | t     | p    |
|-----------------------------|----------|--------|-------|------|
| Intercept                   | 0.885    | 0.8688 | 1.02  | .310 |
| Overconfidence              | 0.858    | 0.2880 | 2.98  | .003 |
| Experience                  | 0.621    | 0.2747 | 2.26  | .025 |
| Overconfidence * Experience | -0.255   | 0.0908 | -2.81 | .006 |

**Table 5.1 (Moderation Analysis, Overconfidence & Investment Experience).**

**Source:** Computed by the author using Jamovi (Version 2.6) from the primary survey data.

| Predictor                           | Estimate | SE    | t      | p     |
|-------------------------------------|----------|-------|--------|-------|
| (Intercept)                         | 2.964    | 0.066 | 44.968 | <.001 |
| Overconfidence                      | 0.052    | 0.096 | 0.536  | .593  |
| Financial Literacy                  | -0.031   | 0.099 | -0.311 | .756  |
| Overconfidence * Financial Literacy | 0.229    | 0.107 | 2.134  | .034  |

**Table 5.2 (Moderation Analysis, Overconfidence & Financial Literacy).**

**Source:** Computed by the author using Jamovi (Version 2.6) from the primary survey data.

## **8. Interpretation and findings**

The present study examined the influence of overconfidence bias on investment decision behaviour among corporate employees in Mumbai and also tested the moderating roles of financial literacy and investment experience. The findings show that overconfidence does not have a significant direct effect on investment decision behaviour. However, when overconfidence is considered together with financial literacy and investment experience, the relationship becomes significant. This suggests that overconfidence alone is not enough to explain how respondents make investment decisions; instead, its effect depends on the level of financial knowledge and practical exposure they possess. In simple terms, confidence may shape investment behaviour more clearly when it is supported by literacy and experience, rather than acting as a direct force on its own (Seraj et al., 2022; Mahmood et al., 2024).

The reliability results support the use of the study measures in analysis. The Overconfidence scale showed marginal but usable internal consistency, with Cronbach's alpha of .668 and McDonald's omega of .675. The Investment Decision Behaviour scale showed acceptable reliability, with Cronbach's alpha of .701 and omega of .711. The Financial Literacy scale demonstrated good reliability, with Cronbach's alpha of .761 and omega of .767. These values indicate that the composite scores were appropriate for the subsequent correlation, regression, and moderation analyses. The descriptive statistics also suggest that the respondents reported moderate to relatively high levels of the measured constructs, and the variables were approximately normally distributed, making the data suitable for parametric testing.

The correlation analysis showed that overconfidence was positively and significantly associated with financial literacy, indicating that respondents with stronger financial knowledge also tended to report greater confidence in their investment ability. However, overconfidence was not significantly correlated with investment decision behaviour. Likewise, investment decision behaviour did not show significant zero-order correlations with financial literacy or investment experience. This means that overconfidence was not acting as a simple direct predictor of investment behaviour in this sample. The regression analysis confirmed this pattern, as overconfidence did not significantly predict investment decision behaviour and explained only a very small proportion of the variance. Taken together, these results suggest that overconfidence alone was not sufficient to explain investment decision behaviour among the respondents.

The moderation analysis, however, revealed a more nuanced picture. Investment experience significantly moderated the relationship between overconfidence and investment decision behaviour, and the interaction effect was negative. This means that as investment experience increased, the influence of overconfidence on investment decision behaviour became weaker. In practical terms, experienced investors appeared less likely to let overconfidence dominate their decisions, possibly because they relied more on market experience than on excessive confidence. At the same time, financial literacy also significantly moderated the relationship, but in a positive direction. This indicates that the influence of overconfidence on investment decision behaviour became stronger as financial literacy increased. In simple terms, financially literate individuals who are also confident in their abilities may be more willing to act on that confidence when making investment decisions.

## **9. Similar studies**

The present findings are broadly consistent with recent studies that highlight the conditional role of overconfidence in investment behaviour. Seraj et al. (2022) found that financial literacy and overconfidence are closely linked in shaping investment decisions, and their results support the view that confidence becomes more meaningful when paired with financial knowledge. Similarly, Mahmood et al. (2024) reported that behavioural biases affect investment decisions and that financial literacy moderates these effects. These studies support the present result by showing that overconfidence does not necessarily act independently; instead, its influence often depends on how informed and experienced the investor is.

The positive moderation effect of financial literacy in the present study also resembles the findings of Gupta et al. (2025), who reported that financial literacy moderates the relationship between behavioural biases and investor decisions. Their study suggests that financially literate investors are better able to identify, manage, or channel their biases into more deliberate decisions. Yanti and Endri (2024) also showed that overconfidence and financial

literacy are linked to investment outcomes, further supporting the idea that literacy is central to understanding how bias becomes behaviour. In addition, Jain et al. (2023) found that financial literacy shapes investment decision-making through overconfidence-related pathways, which aligns with the conditional pattern observed in the present study. Barber and Odean (2001) argued that overconfident investors trade excessively and often make poorer decisions because they overestimate the quality of their judgments. That direct-effect pattern was not observed in the current sample. Similar studies have also suggested that education and investment experience can moderate the association between overconfidence and investment decisions, which is consistent with the negative moderation found here (Rahmawati et al., 2023).

## **10. Managerial implications**

The findings of this study suggest that managers, financial educators, and workplace wellness teams should not treat overconfidence as a problem that can be addressed in isolation. Because overconfidence did not show a strong direct effect, but became meaningful when combined with financial literacy and investment experience, the practical response should focus on strengthening investors' decision quality rather than simply reducing confidence. Organizations that support employee financial wellbeing can introduce structured training on risk-return trade-offs, diversification, inflation, and long-term investment planning so that confidence is supported by sound judgment rather than guesswork. This approach is consistent with prior research showing that financial literacy improves investment decisions and that behavioural biases such as overconfidence can shape those decisions when individuals have the knowledge and context to act on them (Seraj et al., 2022; Mahmood et al., 2024; Yanti & Endri, 2024).

Less experienced employees may benefit from guided exposure, mock portfolios, and practical learning sessions that build judgment without exposing them to unnecessary losses, whereas financially literate employees may need more advanced coaching on self-monitoring, risk control, and avoiding excessive certainty in decision-making. In a broader sense, the study supports the idea that workplace financial wellness initiatives should be designed to build informed confidence rather than unchecked confidence, since overconfidence becomes more useful when it is disciplined by experience and supported by knowledge (Gupta et al., 2025; Jain et al., 2023; Rahmawati et al., 2023; Seraj et al., 2022).

## **11. Conclusion**

This study explored how overconfidence bias relates to investment decision behaviour among corporate employees in Mumbai and whether financial literacy and investment experience change that relationship. The results show that overconfidence does not have a strong direct effect on investment decision behaviour. However, when it is viewed alongside financial literacy and investment experience, its influence becomes more noticeable. This suggests that overconfidence by itself does not fully explain how the respondents make investment decisions. Instead, its role depends on how much financial knowledge and practical investing exposure a person has. In that sense, the findings point to a more realistic view of investment behaviour, where confidence matters, but only within the larger context of knowledge and experience. The study adds to behavioural finance by showing that overconfidence should not be treated as a fixed or universal driver of investment decisions. Financial literacy seems to help investors turn confidence into action in a more meaningful way, while investment experience appears to reduce the tendency for overconfidence to dominate decisions. This means that investment behaviour is better understood as the result of a combination of psychological tendencies, learning, and real-world exposure. Overall, the study offers a more balanced picture of how investors think and act in practice.

## **12. Limitations**

This study has a few limitations that should be kept in mind. First, the sample was limited to corporate employees in Mumbai, so the findings may not apply to all investor groups or regions. Second, the data were collected through self-reported responses. Third, because the study used a cross-sectional design, it can show associations but cannot prove cause and effect. Another limitation is that the overconfidence scale showed only moderate reliability, although it was still acceptable for analysis. A stronger and more detailed measure might have captured the construct more precisely. The study also focused only on financial literacy and investment experience as

moderators. Other factors such as risk tolerance, financial self-confidence, income level, personality, and market conditions were not included, even though they may also shape investment behaviour.

### 13. Future Scope

Future studies can build on this work in several ways. A larger and more varied sample from different cities, professions, and investor groups would help improve how widely the findings can be applied. It would also be useful to use longitudinal studies, which follow respondents over time, to see how confidence, knowledge, and experience influence investment behaviour as people learn and gain market exposure. Experimental studies could also help test these relationships more directly. Researchers may also look at other possible factors such as risk perception, financial self-efficacy, market uncertainty, and advice-seeking behaviour. Comparing corporate employees with retail investors, new investors, and professional traders could show whether overconfidence works differently in different groups. In addition, interviews or mixed-method studies could provide deeper insight into how investors personally understand confidence, knowledge, and experience while making financial decisions. This would make the behavioural finance picture more complete and closer to real-life investing.

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