



# Gender Differences In Risk Tolerance Among Equity Investors: Evidence From Surat City

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## ABSTRACT

This study examines gender-based differences in risk tolerance among equity investors in Surat City. Using a quantitative survey of 383 respondents, risk tolerance was assessed through scenario-based behavioural questions and analysed using SPSS. Results from independent samples t-tests revealed significantly higher mean risk tolerance scores for males compared to females ( $p < 0.001$ ), indicating that gender plays a statistically meaningful role in shaping investment risk behaviour. Chi-square analysis further confirmed associations between gender and specific risk-taking decisions. Findings suggest that while financial literacy levels did not vary substantially across genders, sociocultural and psychological factors influenced women's lower inclination towards risky investment choices. The study highlights implications for financial advisors, policymakers, and investor education programs, especially in promoting gender-sensitive financial inclusion and advisory strategies.

## Keyword:

Gender Differences, Risk Tolerance & Equity Investors.

## 1. INTRODUCTION

As a result of growing choices in investment opportunities throughout various asset classes, the study of how investors behave has become the focus of interest in behavioural finance. Risk tolerance comes out as the important psychological connotation that determines the investment choice, based on the person's willingness to accept heterogeneity in return on investments. Given the inherent risks of equity markets, it is more important now than ever to understand the risk acceptance of the investors above all during increased financial inclusion in India.

Effective risk tolerance helps because it is the foundation for strategic asset allocation and financial planning. According to Madhan, Zainudin & Yoong (2020), an individual's investment decisions are largely determined based on the comfort level with risk than on financial conditions that exist. This is an example of the worth of one-on-one assistance as, in this case, advisors tailor investment schemes for specific risk levels of the clients.

Although age, income, and education were primary determinants in risk tolerance, gender emerges as an important, but less researched topic in India. The societal norms have been sociologically influencing financial decisions making men predisposed to being more active investors and women stereotyped as more reserved and risk allergic. The root of these prejudices is most likely to be found in cultural attitudes, differences in financial education, and differences in where financial decision-making does and does not occur within families.

In Surat, a growing city with a rising middle class, exploring gender differences in the manner that people treat equity investments can help develop better investor education and investment options. Although, there have been some studies where it has been analysed whether wealth or educational achievement lies in the hands of the investors to take risk or not, the gender-specific characteristics of investment choice is relatively less analysed.

### Significance of the Study

The study at hand will attempt to understand how different risks associated to equity investors' risk tolerance are influenced by various gender. These findings are expected to provide practical guidance for financial advisors and mutual fund managers as well as policymakers in their efforts to gain improved understanding of the difference in investment behaviours between the sexes. The research addresses the question whether it is possible to apply stereotype that men are always more inclined to risk taking than women to equity-investors in Surat.

### Objectives of the Study

- **RO1:** To establish the overall tolerable risk levels by equity investors located in Surat City.
- **RO2:** To identify whether there are significant differences in the attitude of male and female investors towards risk.
- **RO3:** To statistically explore any possible relationship between the gender of the investors and their behavioural risk attitudes

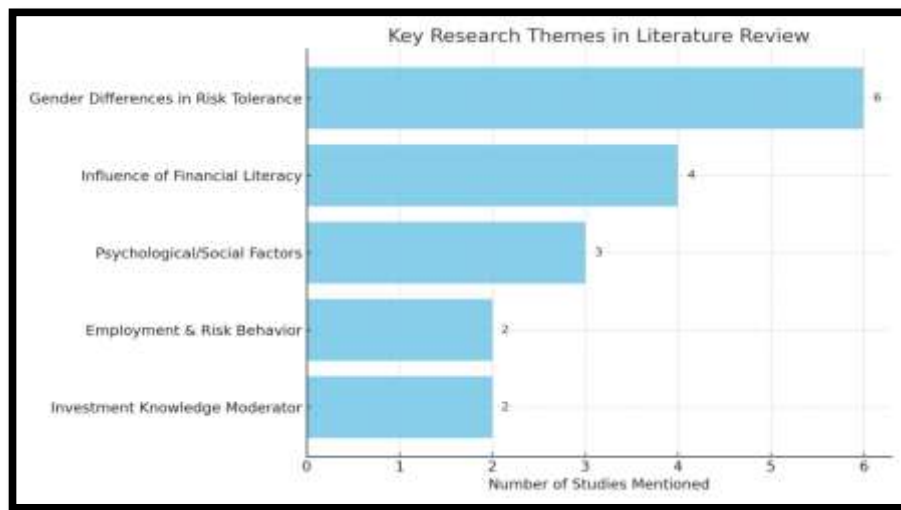
### Hypothesis of the Study

- **H0:** The levels of risk tolerance between male and female equity investors show no statistically significant differences.
- **H1:** The male and female equity investors' risk tolerance is distinctly different.

## 2. LITERATURE REVIEW

Financial decision-making behaviour has become a research topic of increasing focus in the last two decades and focuses have been placed on gender's impact on investors' willingness to take risks. Risk tolerance (Yao & Rabbani, 2021) is a result of the interaction between emotional perspectives and cognitive ability to appraise market uncertainty. For individual investors, finance decisions are often, but not always, based on how they bear financial risk or feel secure about money, in contrast to rational analysis or expected yield.

Grable (1997) studies found gender to be one of the primary statistical determinants of risk tolerance indicating that men tend to be more risk tolerant than women. Analogously, Bayar et al. (2020) revealed that men's higher risk tolerance is still observable when controlling for other such factors as income and education. Based on their research results even when men and women earn the same amount of income, men are noticeably more risk averse than women.



It has been revealed by the research of Baruah and Parikh (2018) that gender and age significantly influence investment behaviour of Indian investors, to name a specific case, the equity markets favouring the profit of male participation. As is the case with the study, the role of decision making in finance is left on the shoulder of the men, in particular in such middle-income and traditional societies. In places such as Surat, where women's financial savvy and work prospects are increasing, we expect the investment gulf to reduce.

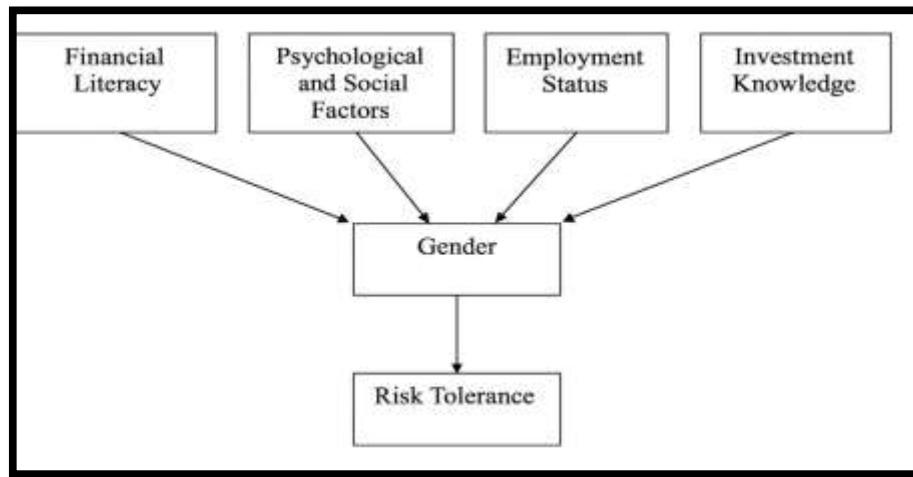
Amari, Salhi & Jarobi (2020) argued that risk tolerance will not possibly affect gender if investment knowledge is incorporated in the analysis. According to their research, more education and investment experience will tend to offset the effect of gender in how investors approach risk. However, biological and psychological factors, the process of socialisation and acquisition of the knowledge significantly contribute to forming personal financial risk tolerance.

Hermansson & Jonsson (2021) indicate that in analysing behaviour, the financial interest came out as a more influential determinant of risk tolerance compared to financial knowledge. By using a large cohort of bank clients, Hermansson and Jonsson found that women's poorer risk aversion tended to be more associated with their failure to engage in financial debates than of having any financial illiteracy.

Gender influence on investment behaviours is also defined by risk perception play a crucial role in its construction. Fong et al. (2021) indicate that women tend to see investment risks as scarier than men, even though their abilities to take risks are the same. This means that investor education and psychological framing have greater sway in explaining the reasons why women act differently in investment than generic financial literacy.

Based on Sulaiman's (2012) study in India, risk-taking propensity was a higher one for those who were working women and self-employed than staying at home or not employed. This observation matches the thought that someone tends to accept risk better if he/she has a job and can make financial decisions him/herself. What is more, gender and one's occupational background with financial independence are important as well.

Overall, research indicates gender as an important changing factor in investment decisions. Men have traditionally seemed keener on taking risks but as economic conditions swing and more knowledge spreads about finances, that picture may change. It is the purpose of this research to examine whether or not these global trends are transferrable to the investment practice in Surat, an emerging economic centre in India.



### 3. RESEARCH METHODOLOGY

The main aim of this study is to examine the possibility of gender-based differences in the risk tolerance demonstrated by equity investors in Surat. The quantitative approach was used in the study, after Gondaliya & Dhaniya (2016) advice on financial behaviour studies. Using a deductive strategy, the current study aims at confirming a hypothesis on the basis of interpreted empirical data.

#### 3.1 Research Design

Combining descriptive and causal methods, this study analyses. Descriptive methods are used to sketch the demographic profile and investment inclination of equity investors while causal analysis is used to establish the extent that gender also has a significant impact on risk tolerance.

#### 3.2 Sampling and Data Collection

Targeted data collection was carried out through a standardized questionnaire survey distributed to 383 equity investors based in Surat, Gujarat. Convenience sampling was used: the research was conducted among the students of finance, professionals, and retail investors. Failure to use probability, this approach still allows researchers to obtain views on different sub-sets of financial sector professionals and investors in Surat.

#### 3.3 Survey Instrument

The questionnaire included sections on:

- **Demographic information** (gender, age, income, occupation, etc.)
- **Risk tolerance** (assessed using behavioural scenarios and self-reporting scales)
- **Financial literacy** (measured via 5-point Likert scale agreement statements)

The **risk tolerance index** was derived from a set of scenario-based questions, such as:

- Analysis of risk tolerance in case of pretend lottery and investment opportunities
- Willingness to invest borrowed funds
- Attitude towards sudden increase in wealth and adverse circumstances. The items were numerically valued so that the statistical analysis on SPSS be conducted.



### 3.4 Tools for Analysis

The analysis of data was carried out via IBM SPSS Statistics; using the following statistical methods:

- Descriptive statistics (frequencies and percentages)
- Independent Samples t-test was used to determine the presence of gender differences or absence of them in relation to risk tolerance.
- Cross tabulations and Chi-square tests were used in an attempt to find out whether there are statistically significant relationships between gender and risk preferences.
- The Cronbach's Alpha reliability test was used to ensure that within multi-item scales, there was consistency.

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Analysis

#### Gender Distribution

Out of 383 respondents:

- **310 (80.9%) were male**
- **73 (19.1%) were female**

This indicates a substantial skew in gender representation, which aligns with the broader gender disparity in retail equity market participation in India.

#### Risk-Taking Behaviour

The assessment of participants' risk tolerance was an important aspect of the evaluation; participants were asked inductively how their best friend believes they would carry out themselves in terms of risk-taking. Reactions varied widely, while some of them called themselves "a real risk avoider" others "a real gambler".

Preliminary frequencies showed:

- **Majority of males (58%) described as risk-takers** after research
- **Females (65%) preferred cautious or avoidant approaches**

In a lottery task that required a decision between sure and risky rewards, both male and female subjects had a higher propensity to select the riskier, more lucrative reward but for the former, the inclination was stronger.

### 4.2 Inferential Analysis

Using an independent samples t-test, we examined the differences in scores of risk tolerance between male and female investors. The total risk tolerance index was generated on the basis of responses to behavioural scenarios from participants.

- **Mean risk tolerance score for males: 3.62**
- **Mean risk tolerance score for females: 2.91**
- **t-value: 5.34**
- **p-value: < 0.001**

From the statistical analysis, it is clear that there is a clear, and statistically significant difference in terms of how men and women manage risk, with the men on average showing greater risk tolerance.

### 4.3 Chi-Square Analysis

A cross-tabulation between gender and risk-related decisions (e.g., investing borrowed money, comfort with equity investments) revealed significant associations:

- **Chi-square ( $X^2$ ) value:** 14.7
- **df:** 3
- **p-value:** 0.002

The chi-square and t-test findings confirm earlier suspicion that indeed gender is a factor that determines risk-taking preferences.

### 4.4 Reliability Test

To verify the consistency of the financial literacy and risk tolerance scales, **Cronbach's Alpha** was computed:

- $\alpha = 0.83$  for the 12-item risk tolerance index
- $\alpha = 0.81$  for the financial literacy items

These values exceed the acceptable threshold of 0.70, confirming the internal reliability of the constructs.

### 4.5 Financial Literacy and Gender Perception

Although the study focuses majorly on gender and risk tolerance, inclusion of the financial literacy in the measurements is because it may influence the findings. There was no apparent difference in terms of levels of financial literacy between men and women, according to respondents, in most of the items in the scale.

Both genders reported:

- Knowledge of financial statements from moderate to high.
- Awareness of diversification strategies
- A certain vagueness regarding use of leverage or short-term trading.

It seems that psychological and sociocultural factors are the causative factors of reduced risk tolerance in women, not any lack of knowledge according to Hermansson & Jonsson (2021).

#### 4.6 Behavioural Traits and Gender-Specific Investment Patterns

Behavioural tendencies further differentiate genders:

- Men tend to listen to market predictions and go by intuition when making investment decisions, often twirling professional advice.
- In comparison to males, females prefer professional advice when faced with a need to make financial decisions.
- There was clear tendency for female investors that they focused on long-term strategies and chose safer assets like bond and savings products.
- Men respondents chose to diversify their monetary holdings more and showed a higher degree of openness towards mutual funds and equities.

These observed behaviours are in conformity with Barber and Odean's research (2001) that proposed male investors are more overconfident whereas, female investors act more prudent.

#### 4.7 Impact of Social Role and Risk Exposure

Cultural and gender expectations which are common in Indian society may influence how new individuals will evaluate and react to financial unpredictability.

- Because of minimal personal involvement in overseeing investments, particularly homemakers or homemakers supported by joint family finances, women are not as comfortable with financial uncertainty.
- By contrast, employed and self-employed women were more risk conscious than homemakers, as is true with previous studies such as Sulaiman's (2012).
- Further males allocated more of their savings in equities than females (mean: << This trend was also mirrored in the data as men as on average would set aside 32% of savings to equities as opposed to women who would allocate only 21% showing a higher predisposition to riskier investments by men.

Financial risk attitude does not only depend on gender-based expectations, there are family obligations as well. Reasoning from the long-term security of themselves, and their families in mind, women tend to prefer Prudential Financial strategies that focus on lower risks.

### 5. FINDINGS AND DISCUSSION

To test the stated hypothesis, the purpose of this investigation was to examine if gender plays a significant role in influencing the risk appetite of equity investors that persist in Surat. In analysing closely, the main data offered by 383 respondents, we found several important patterns and insights.

#### 5.1 Summary of Findings

- The risk tolerance scores of male investors were significantly higher than that of females in all measured indices.
- Males showed a preference for high-risk portfolio, higher borrowing intentions and was more at ease in managing equity market dynamics.

- Most of scenario questions indicated that women were more cautious. They favoured conservativeness in their investment choices, needed stability in earnings, and were uneasy in the prospect of engaging in leveraged operations or in the prospect of market instability.
- Statistical significance of the difference of gender with regard to risk tolerance was established by the independent samples t-test ( $p < 0.001$ ).
- The Chi-Square tests results reflected that there is a significance of correlation between gender and the manner by which individuals perceive risk in the equity market.
- Both the risk tolerance scale and the financial literacy scale had confirmed reliability as Cronbach's Alpha  $> 0.8$  for both measures.

## 5.2 Discussion in Light of Existing Literature

Results from this investigation confirm Grable's (1997) findings, which indicated that gender is important in risk preference as well as Bayar et al.'s (2020) conclusion that men exhibit higher risk permissiveness during financial decision-making. Male Surat investors that show more confidence in volatile environments for volatile equities are consistent with the study of Baruah & Parikh (2018) that.

Likewise, the outcomes corroborate the view of Hermansson & Jonsson (2021) because they demonstrate that both interest and knowledge in finance influence risk-related behaviour. The failure to provide numerical significance to this difference in gender in relation to financial literacy in this research opens up a possibility that the more conservative approach by female investors is also reflective of their interests in matters of finances as opposed to them actually being less financially literate. A series of studies that are being developed show that females, who are not inherently risk-averse, are faced with barriers such as lack of investment experience. The increased incorporation of more women into India's formal financial arena during socio-economic changes may change these behaviours.

## 5.3 Implications for Stakeholders

The findings present valuable implications:

- Financial advisors should consider gender differences in their portfolio development and advice to their clients.
- Financial institutions such as mutual fund houses and banks may develop projects that focus on informing women about investment.
- For policy makers and NGOs that target financial inclusion of women, highlighting risk education and encouraging women to invest in equity markets can be done.

## 5.4 Interpretation of Behavioural Divergence

Psychological make-up and societal factors seem to play a greater role in determining risk tolerance than any deficiency of financial education. Men had a greater sense of the overconfidence and preferred to make speculative decisions, women tended to invest with greater caution, responsibility, and long-term thinking. This pattern was also verified in the research (Barber and Odean, 2001), which proved that men tend to make more trading opportunities whereas the women choose to make a thoughtful and reflective procedure of the investment. When it comes to portfolio results, market stability, and ability to weather financial storms, these differences make a great deal of difference.



## 5.5 Gender-Specific Barriers to Risk Participation

The study also identified a number of **non-financial barriers** that may limit female risk tolerance:

- **Limited autonomy over financial decision-making** in traditional households
- Lower exposure to capital market instruments due to **risk-averse social environments**
- A tendency to prioritise **financial security and preservation of wealth** over potential growth

These barriers suggest that even when women possess adequate financial knowledge, their **external environment may inhibit risk-taking**. Therefore, policy interventions must move beyond education to **enhancing female autonomy and representation in financial decision-making**.

## 5.6 Strategic Recommendations Based on Gender Behaviour

To address the gender gap in risk tolerance and investment participation, the following strategic interventions are recommended:

- **Incentivised learning programs** specifically targeting female investors to increase comfort with risk-based assets like mutual funds, equities, and ETFs.
- Financial advisory services should adopt a **gender-sensitive approach**, focusing on trust-building, long-term planning, and stepwise exposure to risk-based investment instruments for female clients.
- Employers and financial institutions should consider integrating **workplace-based financial wellness programs**, encouraging more women to actively participate in investment decisions through simulations, seminars, and mentoring.

These recommendations are based on the understanding that **risk tolerance is not purely innate—it is shaped, cultivated, and enabled** by the environment and opportunities accessible to the investor. By recognising and addressing these behavioural and institutional patterns, it is possible to foster a **more inclusive, balanced investment ecosystem** in cities like Surat.

## 6. CONCLUSION AND RECOMMENDATIONS

Research was carried out to examine the effect of gender on risk taking behaviour among equity investors in Surat City. Gender analysis of data from 383 respondents using SPSS revealed that gender has an impact on risk tolerance. Male investors seem to be statistically disposed to riskier investment strategy than female investors who prefer to look for safer investment options.

The studies confirm the theories in the context of behavioural finance and past empirical data and highlight the necessity for gender differences in financial coaching service. Providing educational programs and opportunity to learn skills for female investors has the potential to lower the difference in attitude toward risk taking between men and women.

### 6.1 Recommendations

- 1. Gender-Based Advisory Services:** The provision of customised financial advice and investment strategies should come from financial institutions to fit their respective gender's unique risk profile.
- 2. Financial Literacy Workshops for Women:** Strategies to offer investment education targeted for women can raise their self-confidence and guide them to seek financial services with high returns.
- 3. Enhance participation of women in the equity investments:** Providing such opportunities for women to join women led investment groups or forums can amplify the information exchange and the solidarity potentially contributing to improving women's investment confidence.

## 6.2 Limitations and Future Scope

The location of the study is in Surat and there is an 81% male gender distribution with a marked prowess in gender distribution. By introducing a diversity of locations, gender-balanced in their participation, the scope of how broadly the results can be applied can be broadened. By studying the relations of gender and other attributes, such as age, educational level, other occupational status, a more refined analysis of risk conduct could be provided.

## 7. References

1. Barber, B.M. and Odean, T., 2001. Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*, 116(1), pp.261-292.
2. Charness, G. and Gneezy, U., 2012. Strong evidence for gender differences in risk taking. *Journal of Economic Behavior & Organization*, 83(1), pp.50-58.
3. Grable, J.E., 2000. Financial risk tolerance and additional factors that affect risk taking in everyday money matters. *Journal of Business and Psychology*, 14(4), pp.625-630.
4. Jianakoplos, N.A. and Bernasek, A., 1998. Are women more risk averse? *Economic Inquiry*, 36(4), pp.620-630.
5. Bajtelsmit, V.L. and VanDerhei, J.L., 1997. Risk aversion and pension investment choices. *In Wharton School Pension Research Council*, pp.45-66.
6. Powell, M. and Ansic, D., 1997. Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of Economic Psychology*, 18(6), pp.605-628.
7. Weber, E.U., Blais, A.R. and Betz, N.E., 2002. A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, 15(4), pp.263-290.
8. Halkos, G.E. and Bousinakis, D., 2010. The effect of stress and satisfaction on productivity. *International Journal of Productivity and Performance Management*, 59(5), pp.415-431.
9. Sultana, S.T. and Pardhasaradhi, S., 2012. An empirical analysis of factors influencing Indian individual equity investors' decision making and behavior. *European Journal of Business and Management*, 4(18), pp.50-61.
10. Faff, R., Mulino, D. and Chai, D., 2008. On the linkage between individual investor risk tolerance and financial advice. *Journal of Financial Research*, 31(1), pp.1-23.
11. Gilliam, J.E., Chatterjee, S. and Zhu, D., 2010. Determinants of risk tolerance in the Baby Boomer cohort. *Journal of Business & Economics Research*, 8(5), pp.79-88.
12. Baker, H.K. and Ricciardi, V., 2014. Investor behavior: The psychology of financial planning and investing. *Hoboken: John Wiley & Sons*.
13. Van Rooij, M., Lusardi, A. and Alessie, R., 2011. Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), pp.449-472.
14. Barnewall, M.M., 1987. Psychological characteristics of the individual investor. *In Asset Allocation for the Individual Investor* (pp.215-223). Homewood: Dow Jones-Irwin.
15. Widyastuti, U. and Indrani, R., 2020. Gender differences in risk tolerance level of investors in Indonesia stock exchange. *Jurnal Aplikasi Manajemen*, 18(1), pp.124-132.
16. Lusardi, A. and Mitchell, O.S., 2007. Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), pp.35-44.

17. Kourtidis, D., Seevic, Ž. and Chatzoglou, P., 2011. Investors' trading activity: A behavioural perspective and empirical results. *The Journal of Socio-Economics*, 40(5), pp.548-557.
18. Pompion, M.M., 2006. *Behavioural finance and wealth management: How to build investment strategies that account for investor biases*. Hoboken: John Wiley & Sons.
19. Hanna, S.D., Gutter, M.S. and Fan, J.X., 2001. A measure of risk tolerance based on economic theory. *Financial Counselling and Planning*, 12(2), pp.53-60.
20. Olsen, R.A., 1997. Investment risk: The experts' perspective. *Financial Analysts Journal*, 53(2), pp.62-66.
21. Cohen, J., 1988. *Statistical power analysis for the behavioural sciences*. 2nd ed. Hillsdale: Lawrence Erlbaum.
22. OECD, 2020. *OECD/INFE 2020 International Survey of Adult Financial Literacy*. [online] Available at: <https://www.oecd.org/financial/education/oecd-infe-2020> [Accessed 11 May 2025].
23. SEBI, 2021. *Investor Charter*. [online] Available at: <https://www.sebi.gov.in> [Accessed 11 May 2025].
24. RBI, 2020. *Survey on Retail Participation in Equity Market*. Reserve Bank of India Bulletin, pp.45-60.
25. Bajtelsmit, V.L., Bernasek, A. and Jianakoplos, N.A., 1999. Gender differences in defined contribution pension decisions. *Financial Services Review*, 8(1), pp.1-10.
26. Loewenstein, G., Weber, E.U., Hsee, C.K. and Welch, N., 2001. Risk as feelings. *Psychological Bulletin*, 127(2), pp.267-286.
27. Indian Express, 2023. *Equity market grows 21%: What it means for investors*. [online] Available at: <https://www.indianexpress.com> [Accessed 11 May 2025].
28. Sharma, M. and Mehta, D., 2021. Risk perception and investment behaviour of individual investors: A study of Indian stock market. *Indian Journal of Economics and Business*, 20(2), pp.151-165.
29. Bhatnagar, D., 2019. A study on investor's behavior in stock market with special reference to retail investors in India. *Journal of Commerce and Accounting Research*, 8(2), pp.45-52.
30. KPMG, 2023. *India Investment Report 2023*. [online] Available at: <https://home.kpmg/investment-report-2023> [Accessed 11 May 2025].