



A Study On Investors' Behavior Towards Stock Price Volatility In The Indian Stock Market

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Abstract

This study, titled "A Study on Investors' Behavior Towards Stock Price Volatility in the Indian Stock Market," explores how investors react to fluctuations in stock prices in the rapidly evolving Indian market. The research examines the impact of socio-economic factors, macroeconomic indicators, and risk management practices on investor behavior. Utilizing a descriptive and quantitative research approach, data was collected from investors across various demographics through structured questionnaires. Key findings indicate that younger investors (25-34 years) and those with undergraduate education exhibit more proactive risk management strategies. Regression analysis suggests external influences significantly affect investor behavior, while risk perception has a weaker impact. ANOVA results confirm that age and education significantly influence risk management practices, but income levels do not. The study highlights the importance of financial education, portfolio diversification, and technology-driven investment tools to improve decision-making. The findings provide valuable insights for policymakers, financial educators, and investors aiming to navigate stock market volatility effectively.

Keywords: Investor behavior, stock price volatility, Indian stock market, socio-economic factors, macroeconomic indicators, risk management, regression analysis, ANOVA, financial education, portfolio diversification, technology-driven investment, decision-making, market fluctuations.

1. Introduction

The title "A Study on Investors' Behavior Towards Stock Price Volatility in the Indian Stock Market" is unique in several ways. Firstly, it specifically focuses on the Indian context, which is characterized by a diverse investor base and a rapidly evolving market landscape. This regional focus allows for an exploration of cultural and economic factors influencing investor behavior that may differ from studies conducted in

developed markets. Volatility in the stock market can stem from various sources, including macroeconomic changes, political instability, global financial trends, and even technological advancements. For investors, understanding the precursors to volatility is essential for effective portfolio management and risk mitigation.

2. Review of literature

Sharma (2024): This study explores the correlation between investors' socio-economic profiles—such as education level and income—and their investment decisions during periods of market volatility. It highlights that investors with higher education levels tend to conduct thorough market analysis and make informed decisions, leading to more stable investment behavior. The research advocates for customized financial literacy programs aimed at less educated investors to improve their decision-making during market fluctuations.

Mehta (2024): This research analyzes the impact of social media on investor behavior, finding that social platforms significantly influence risk perception and trading decisions, especially among younger investors. The study highlights the necessity for investors to critically assess information obtained from social media.

3. Objectives of the study

1. To analyse the influence of macroeconomic indicators on investor behaviour in Indian stock market.
2. To understand risk management practices of investors in Indian stock market.

4. Research methodology

The research methodology for this study had outline the systematic approach to collecting, analyzing, and interpreting data to gain insights into how investors perceive and react to market price volatility in the Indian stock market. This methodology had encompass the research design, data collection methods, sampling techniques, data analysis methods, and ethical considerations.

5. Data analyses and interpretation

S.No	Variable	Cronbach's Alpha
1	Socio economic information	.327
2	Investor Behaviour Towards Stock Price Volatility	.426
3	Influence of Macroeconomic Indicators on Investor Behaviour	.467
4	Risk Management Practices	.529

Interpretation: A Cronbach's Alpha of 0.831 suggests that the set of 17 items has good internal consistency, meaning that the items are relatively well correlated and likely measure a similar underlying concept or construct. This level of reliability is acceptable for most research purposes, implying that the questionnaire or scale is reliable and consistent for measuring the intended variable.

6. Regression analysis

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.312 ^a	0.097	0.087	3.84236	

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	285.009	2	142.505	9.652	<.001 ^b
	Residual	2642.711	179	14.764		
	Total	2927.720	181			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.646	0.968		6.866	0.000
	Influence	0.397	0.114	0.258	3.495	0.001
	Risk	0.268	0.169	0.117	1.579	0.116

Interpretation

The regression analysis reveals a weak but statistically significant relationship between investor behavior and the predictors (risk and influence). The model explains only 9.7% of the variation in investor behavior ($R^2 = 0.097$), indicating that other factors likely play a significant role. The ANOVA results ($F = 9.652$, $p = 0.000$) confirm the overall significance of the model. Among the predictors, influence has a significant positive impact ($B = 0.397$, $p = 0.001$), suggesting that higher external influence leads to increased investor activity. However, risk ($B = 0.268$, $p = 0.116$) is not statistically significant, implying that investors' risk perceptions do not strongly affect their behavior in this model. While the model is valid, its low explanatory power suggests that additional variables should be considered to better understand investor behavior towards stock price volatility in the Indian stock market.

7. Anova

Factor	AGE	Mean	Std. Deviation	F	Sig.
Risk Management	Below 25 years	4.5000	1.79108	5.374	0.001
	25-34 years	4.8605	1.79392		
	35-44 years	3.2174	0.79524		
	45 years and above	3.0000	0.00000		
	Total	4.4066	1.75567		

Interpretion

The ANOVA analysis examines the impact of age on risk management practices among investors in the Indian stock market. The results indicate a significant difference in risk management approaches across different age groups. Investors aged 25-34 years exhibit the highest mean risk management score (4.86), suggesting they are the most proactive in managing risks. Meanwhile, those below 25 years also display a relatively high mean score (4.5), indicating considerable engagement in risk management strategies. In contrast, investors aged 35-44 years had a lower mean score (3.21), and those aged 45 years and above show the least engagement in risk management, with a mean score of just 3.00. The F-statistic of 5.374 and the significance value of 0.001 confirm that these differences are statistically significant. Since the p-value is below 0.05, we reject the null hypothesis, affirming that age significantly influences risk management behavior. The findings suggest that younger investors, particularly those in the 25-34 age group, are more conscious of risk management, possibly due to higher financial literacy, increased access to investment education, or a greater willingness to explore risk mitigation strategies. In contrast, older investors may either rely on traditional investment approaches or exhibit lower engagement with risk management tool

Factor	Highest level of education	Mean	Std. Deviation	F	Sig.
Risk Management	High school	4.8000	2.48551	5.828	0.001
	Undergraduate	5.0615	1.73994		
	Postgraduate	3.9895	1.61439		
	Doctrate	3.8333	1.11464		
	Total	4.4066	1.75567		

Interpretion

The ANOVA analysis explores the relationship between the highest level of education and risk management practices among investors in the Indian stock market. The findings reveal significant variations in risk management approaches based on educational qualifications. Investors with an undergraduate degree exhibit the highest mean risk management score (5.06), followed closely by those with only a high school education (4.80). This suggests that individuals with moderate education levels are more engaged in risk management strategies. On the other hand, investors with postgraduate degrees had a lower mean score (3.99), while those with a doctorate show the least engagement in risk management, with a mean score of 3.83. The F-statistic of 5.828 and a significance value of 0.001 indicate a statistically significant difference in risk management behavior across different education levels. Since the p-value is below 0.05,

the null hypothesis is rejected, confirming that educational qualifications significantly influence risk management practices. The results suggest that investors with a high school or undergraduate education may be more active in managing investment risks due to practical exposure or personal financial responsibility. In contrast, higher-educated individuals might adopt a more theoretical approach or rely on long-term investment strategies that require less frequent risk management interventions.

Factor	Monthly household income	Mean	Std. Deviation	F	Sig.
Risk Management	Less than ₹50000	4.2917	1.64820	1.151	0.334
	₹50000-₹100000	4.6863	1.96459		
	₹100000-₹200000	4.0000	1.65552		
	₹200000-₹500000	4.7826	1.59421		
	Above ₹500000	4.0000	2.00000		
	Total	4.4066	1.75567		

INTERPRETION

The ANOVA analysis examines the impact of monthly household income on risk management practices among investors in the Indian stock market. The mean values indicate that investors earning between ₹50,000-₹1,00,000 and ₹2,00,000-₹5,00,000 exhibit the highest risk management scores (4.6863 and 4.7826, respectively), whereas those earning less than ₹50,000 and above ₹5,00,000 report lower scores (4.2917 and 4.0000, respectively). The standard deviation is highest among investors in the ₹50,000-₹1,00,000 and above ₹5,00,000 income brackets, suggesting greater variability in risk management behavior within these groups. The F-value of 1.151 indicates minimal variance in risk management practices across different income levels. Furthermore, the significance value (0.334) is greater than 0.05, confirming that the results are not statistically significant. This implies that income alone does not had a strong impact on investors' risk management behavior. Instead, other factors such as investor experience, education, or individual risk tolerance may play a more crucial role in shaping risk management strategies in the Indian stock market.

8. Findings

- **Gender:** The majority of investors are male (73.1%), while females account for 26.9%.
- **Age:** Most investors are below 25 years (62.6%), followed by 25-34 years (23.6%). Investors above 45 years form only 1.1% of the total.
- **Education:** A majority (52.2%) are postgraduates, while undergraduates account for 35.7%. Only 6.6% had a doctorate degree.
- **Occupation:** The largest group of investors are students (40.1%), followed by private sector employees (21.4%) and self-employed individuals (19.8%).
- **Investment Experience:** Nearly 47% of investors had less than a year of experience, and only 1.1% had invested for more than 10 years.

- **Stock Market Portfolio Value:** 40.1% of investors had a portfolio worth less than ₹1 lakh, while only 1.1% had portfolios above ₹50 lakh.
- **Stock Monitoring:** 29.1% of investors monitor stock prices weekly, 26.4% track them daily, and 12.6% check them monthly.

Regression Analysis

- The model explains only 9.7% of the variation in investor behavior ($R^2 = 0.097$), indicating that other factors not included in the model play a significant role.
- The ANOVA results ($F = 9.652$, $p = 0.000$) confirm that the model is statistically significant overall.

ANOVA Analysis

Age and Risk Management:

- Investors aged 25-34 years had the highest risk management score (4.86), while those aged 45+ had the lowest (3.00).
- The F-value (5.374) and significance value ($p = 0.001$) indicate that age significantly influences risk management behavior.

Education Level and Risk Management:

- Undergraduate investors had the highest risk management score (5.06), while doctorate holders had the lowest (3.83).
- The F-value (5.828) and significance value ($p = 0.001$) suggest a significant relationship between education level and risk management.

Income and Risk Management:

- Investors earning ₹50,000-₹1,00,000 and ₹2,00,000-₹5,00,000 exhibit higher risk management scores than other income groups.
- The F-value (1.151) and significance value ($p = 0.334$) indicate that income does not significantly impact risk management behavior.

9. Suggestions

1. Enhancing Financial Education:

- Since younger investors (25-34 years) are more engaged in risk management, financial literacy programs should be tailored to different age groups to encourage long-term investment strategies.
- Undergraduate investors exhibit better risk management skills; integrating financial education into undergraduate curricula can further improve investment decisions.

2. Encouraging Diversification and Risk Awareness:

- Investors, particularly those earning lower incomes, should be encouraged to diversify their portfolios and adopt systematic risk management strategies.
- Awareness campaigns should focus on making high-income investors more proactive in managing investment risks.

3. **Improving Market Monitoring Habits:**

- Investors should be educated on the importance of regular market monitoring to make informed decisions and mitigate risks effectively.

4. **Customized Investment Guidance:**

- Financial advisory services should be tailored to different investor profiles, considering age, education, and income levels.
- Younger and newer investors should be provided with tools to analyze market trends and adopt safer investment strategies

Conclusion

The study highlights that investor behavior towards stock price volatility in the Indian stock market is significantly influenced by factors such as age and education but not strongly by income levels. Younger investors (25-34 years) and undergraduate investors tend to be more proactive in managing risks, while older and highly educated investors exhibit less engagement in risk management strategies. Regression analysis suggests that external influences significantly affect investor behavior, whereas risk perception does not play a dominant role. While income does not significantly impact risk management practices, financial education and investment awareness remain crucial for enhancing investor decision-making. To improve investment outcomes, financial literacy programs, risk diversification strategies, and digital financial tools should be promoted among investors across different socio-economic backgrounds.

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