BEHAVIOURAL PATTERNS AND DECISION-MAKING PROCESSES OF RETAIL INVESTORS IN THE STOCK MARKET: A STUDY OF MUMBAI SUBURBAN REGION

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ABSTRACT
This research investigates the behavioral patterns and decision-making processes of retail investors in the stock market, focusing on how external factors, demographic variables, and risk perceptions influence their investment choices. The study finds that retail investors predominantly adopt a moderate investment strategy, with a preference for balanced risk and steady growth. Self-research and market news are identified as the most influential factors in investment decisions, while social media trends have a lesser impact. The study also reveals that most investors have moderate risk tolerance, and both male and female investors exhibit similar risk preferences. Chi-square tests indicate no significant difference in investment experience and strategy of investment as well as in risk tolerance between male and female investors. The findings offer insights into the key drivers of retail investors' behavior and contribute to a better understanding of their decision-making processes in the stock market.

Keywords: Retail Investors, Stock Market, Investment Strategy, Risk Tolerance, Behavioural Patterns

1. INTRODUCTION

The stock market serves as a dynamic platform where retail investors—individuals who buy and sell securities for personal accounts rather than for institutions—participate in trading with the goal of capital appreciation, dividend income, or both. Unlike institutional investors, retail investors tend to exhibit unique behavioural patterns, often influenced by a combination of psychological, demographic, and external factors, including social media trends, economic news, and global events. In recent years, the growth of digital platforms and the accessibility of online trading have transformed the investment landscape, making it easier for individuals to engage with the stock market. However, this increase in accessibility also means retail investors face heightened exposure to information that can influence their decision-making processes, frequently in unpredictable ways.

Behavioural finance, a field that merges insights from psychology with financial theory, helps explain the cognitive biases and emotional factors that drive investors' choices. This research aims to identify and analyze the distinct behavioural patterns and decision-making processes of retail investors, focusing on factors that influence their actions in the market. Among these are the psychological influences that shape risk perception, the effects of demographic factors like age, education, and income level, and the impact of social and external cues such as media trends and news events. These elements together contribute to the complexity of investment behaviour, which can vary widely based on individual attitudes toward risk, past experiences, and situational responses to market fluctuations.

2. REVIEW OF LITERATURE

This study, "**A Study on the Impact of Behavioral Biases on the Investment Pattern of Indian Retail Investors with a Reference to the Millennial Generation**," examines how behavioral biases influence Indian millennials' investment decisions. Findings show that most investors prioritize principal safety, herding bias is notably influential, and a weak positive relationship exists between income proportion invested and returns. Statistical tests (chi-square, ANOVA) reveal no significant difference in factors considered before investing or impact of biases on average returns. Most investors' average return on investment remains below 10%. **(Pooja D. & Vidya R., 2022)**

The study titled "**Factors Influencing Retail Investors' Trading Behaviour in the Thai Stock Market**" explores the impact of behavioral biases on Thai retail investors' trading behavior, with data collected from a 2016 survey of 491 participants. Findings suggest that retail investors often exhibit biases, with men displaying higher overconfidence than women. Additionally, experienced investors tend to hold stocks for shorter durations, and younger investors (aged 45 and under) typically maintain more diversified portfolios. Higher-income investors and those using multiple brokers also tend to have diversified portfolios, mirroring trends observed in other emerging markets, such as Turkey, India, and Vietnam. **(Paisarn, Chancharat, & Chancharat, 2021)**

The thesis, titled "**A Study of Retail Investors' Behavior Towards Equity Investment in the Stock Market: A Case Study of the Mumbai Region**," examines how demographic factors (age, gender, income, and education) influence investment objectives and patterns. The results show that demographic factors have a notable impact on both investment objectives and patterns, with findings also confirming that investment experience influences investment decisions. Similarly, sources of information significantly impact investment patterns. Additionally, the study uses Garrett's Ranking method to assess investment preferences, revealing that retail investors favor equity investments for returns, liquidity, and additional benefits. **(Pereira, 2020)**

The project titled "**A Study on Investment Patterns and Preferences of Retail Investors**" shows that most investors favor safe, low-risk options, with many choosing bank investments. While some allocate a family budget, most do not set annual savings targets. The majority prefer a 1–2-year investment horizon for liquidity and long-term goals like home ownership. Decisions are influenced by media advice and past performance, focusing on liquidity, moderate returns, and low tax benefits. Many investors avoid high-risk options, regularly monitor their investments, and prefer steady, low-growth returns. Statistical tests indicate a link between investment horizon and period, but no significant connection between education level and mutual fund preferences. **(Basha, 2021)**

3. OBJECTIVES OF THE STUDY

1) To identify the key behavioral patterns exhibited by retail investors in the stock market.

2) To assess the impact of external factors, such as market news and social media trends, on the investment choices of retail investors.

3) To analyze the risk perception among retail investors.

4. HYPOTHESIS STATEMENTS

H_0: There is no significant difference in investment experience and investment strategy in the stock market among retail investors

H_0: There is no significant difference in overall risk tolerance for stock market investments between male and female retail investors

5. RESEARCH METHODOLOGY

5.1 Type of Research:
The current study aims to describe and understand the various factors influencing investors' perceptions, preferences, and strategies, the research employs a **descriptive and conclusive research design**. This design is suitable for identifying and detailing the specific behaviors, motivations, and decision-making factors of retail investors, enabling a comprehensive understanding of their investment patterns and choices.

5.2 Area of study:
The research was conducted among the retail investors of suburb area of Mumbai city.

5.3 Sampling method
Here Non-Probability Convenient sampling technique is used for the purpose of data collection.

5.4 Target Population and Sample size:
A sample size of 77 respondents, who are retail investors in the stock market, is selected from a specific suburban area of Mumbai city.

5.5 Type and Source of Data:
The present study is based on primary data. The primary data was collected by structured questionnaire. Close ended questions were asked in the questionnaire to get the answers.

5.6 Statistical Tools Use:
Graph is used to organize data and to display the data in a way that is easy to understand and remember. Chi-square test is used to test hypothesis.

6. DATA ANALYSIS AND FINDINGS OF THE STUDY

6.1 Descriptive Statistics of Demographic Variables

		Count
Gender	Female	34
	Male	43

Age	Below 25	16
	25-35	14
	36-45	21
	46-55	24
	Above 55	2
Monthly Income (in INR)	Below 25,000	13
	25,000-50,000	17
	50,001-1,00,000	17
	1,00,001-2,00,000	13
	Above 2,00,000	17
Educational Qualification	HSC	10
	Under Graduation	29
	Post Graduation	38

Source: Primary Data

6.2 Investment Experience in Stock Market

Particulars	Count
Less than 1 year	25
1-3 years	26
4-7 years	14
More than 7 years	12

Source: Primary Data

The data shows that most participants have relatively short investment experience in the stock market, with 26 individuals having 1-3 years and 25 having less than a year. Fewer participants, 14 in total, have 4-7 years of experience, while only 12 have more than 7 years, indicating a smaller group of long-term investors.

6.3 How often do you review your stock portfolio

Particulars	Count
Daily	29
Weekly	19
Monthly	14
Quarterly	2
Annually	3
Not specific	10

Source: Primary Data

The majority of participants review their stock portfolios frequently, with 29 individuals checking them daily and 19 doing so weekly. A smaller group, 14 participants, reviews their portfolios monthly, while just 2 and 3 individuals review them quarterly and annually, respectively. Additionally, 10 participants do not have a specific review schedule. This suggests that most investors are highly engaged with their portfolios, while some take a more relaxed approach.

6.4 sources influence your investment decisions the most

Particulars	Does not influence	Influence somewhat	Influence the most
Financial advisors / Broker	22	32	23
Social media	30	36	11
Family and friends	34	20	23
Market news and reports	9	29	39
Self-research	14	20	43

Source: Primary Data

The data reveals that self-research is the most influential factor in investment decisions, with 43 participants indicating it influences them the most. Market news and reports follow closely, with 39 individuals considering it the most impactful. Financial advisors or brokers also play a significant role, with 23 participants citing them as the top influence. Family and friends have a more moderate influence, with 23 individuals rating them the highest, while social media has the least strong influence, with only 11 participants rating it the most influential.

6.5 How would you describe your investment strategy in stock market?

Particulars	Count
Aggressive (high returns by taking on higher risks)	11
Conservative (low-risk, stable returns)	17
Moderate (steady growth with moderate risk)	44
Speculative (High-risk, high-reward approach focused on short-term gains)	5

Source: Primary Data

The majority of participants adopt a moderate investment strategy, with 44 individuals seeking steady growth while managing moderate risk. Seventeen participants follow a conservative approach, prioritizing low-risk, stable returns. Eleven individuals prefer an aggressive strategy, aiming for high returns by taking on higher risks, while only five participants engage in speculative investing, focusing on high-risk, short-term gains. This suggests that most investors favor a balanced approach to risk and reward.

6.6 How often do you engage in high-risk investment opportunities?

Particulars	Count
Frequently	7
Never	6
Rarely	24
Sometimes	40

Source: Primary Data

The majority of participants engage in high-risk investment opportunities occasionally, with 40 individuals doing so sometimes. A smaller group, 24 participants, invest rarely in high-risk opportunities, while 7 individuals do so frequently. Six participants never engage in high-risk investments, indicating that while most investors are cautious, there is still a subset willing to take on higher risk from time to time.

6.7 How often does market news affect your investment decisions?

Particulars	Count
Never	4
Often	21
Rarely	11
Sometimes	29
Very often	12

Source: Primary Data

Market news significantly influences investment decisions for many participants, with 29 individuals stating it affects their decisions sometimes, and 21 reporting it often. Twelve participants are highly responsive to market news, indicating it affects their decisions very often. Only 11 participants are rarely influenced by market news, and just 4 individuals report that it never impacts their investment decisions. This suggests that most investors closely monitor market news in making decisions.
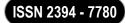
6.8 To what extent do social media trends / online forums influence your stock market decisions?

Particulars	Count
Insignificant	8
Neutral	39
Significant	22
Very insignificant	5
Very significant	3

Source: Primary Data

The influence of social media trends and online forums on stock market decisions varies among participants. A majority, 39 individuals, feel it has a neutral impact, while 22 participants consider it significant. However, only 8 participants view it as insignificant, and just 3 find it very significant. A small group, 5 participants, feels it has a very insignificant influence on their decisions, suggesting that while some investors are influenced by social media and online forums, the impact is not overwhelming for most.

6.9 How would you describe your overall risk tolerance when it comes to stock market investments?

Particulars	Count
High	18
Low	8
Moderate	45
Very high	4
Very low	2

Source: Primary Data

The majority of participants have a moderate risk tolerance, with 45 individuals indicating a balanced approach to risk in their stock market investments. Eighteen participants are comfortable with high risk, while 8 have a low risk tolerance. Only 4 participants are very high-risk takers, and 2 have a very low risk tolerance. This suggests that most investors prefer a cautious approach, with a smaller group willing to take on higher risks.

6.10 How likely are you to invest in stocks when there is significant market volatility?

Particulars	Count
Likely	26
Neutral	35
Unlikely	6
Very likely	8
Very unlikely	2

Source: Primary Data

The majority of participants are neutral or likely to invest in stocks during significant market volatility, with 35 individuals remaining neutral and 26 considering it likely. A smaller group, 8 participants, are very likely to invest in volatile markets, while 6 find it unlikely and 2 are very unlikely to do so. This indicates that while many investors are cautious or indifferent, there is still a notable portion willing to invest even in volatile conditions.

6.11 How does the potential for loss influence your investment decisions?

Particulars	Count
Does not impact	3
Minimally impacts	7
Neutral	29
Significantly impacts	11
Somewhat impacts	27

Source: Primary Data

The potential for loss has a varied impact on participants' investment decisions. A significant portion, 29 individuals, are neutral about the potential for loss, while 27 participants say it somewhat impacts their decisions. Eleven participants report that the potential for loss significantly influences their choices, and 7 individuals find it minimally impactful. Only 3 participants state that the potential for loss does not impact their decisions at all, suggesting that most investors consider the risk of loss to some degree when making investment choices.

7. HYPOTHESIS TESTING

H_0: There is no significant difference in investment experience and investment strategy in the stock market among retail investors

7.1 Chi-square test statistics

		1-3 years	4-7 years	Less than 1 year	More than 7 years	Total
Aggressive (high returns by taking on higher risks)	Observed	3	3	3	2	11
	Expected	3.71	2.00	3.57	1.71	11.00
Conservative (low-	Observed	4	3	9	1	17

risk, stable returns)						
	Expected	5.74	3.09	5.52	2.65	17.00
Moderate (steady growth with moderate risk)	Observed	**18**	**6**	**12**	**8**	44
	Expected	14.86	8.00	14.29	6.86	44.00
Speculative (High-risk, high-reward approach focused on short-term gains)	Observed	**1**	**2**	**1**	**1**	5
	Expected	1.69	0.91	1.62	0.78	5.00
Total	Observed	26	14	25	12	77
	Expected	26.00	14.00	25.00	12.00	77.00
		8.14	chi-square			
		9	df			
		.5200	p-value			

Source: Primary Data

The chi-square test was conducted to assess whether there is a significant difference between investment experience and investment strategy among retail investors. The chi-square value is 8.14, with 9 degrees of freedom, and the p-value is 0.5200. Since the p-value is greater than the 0.05 significance level, we fail to reject the null hypothesis, indicating that there is no significant difference in the investment experience and investment strategy of retail investors. This suggests that investors with varying levels of experience approach their investment strategies similarly.

H$_0$: There is no significant difference in overall risk tolerance for stock market investments between male and female retail investors

7.1 Chi-square test statistics

		Female	Male	Total
High	Observed	**5**	**13**	18
	Expected	7.95	10.05	18.00
Low	Observed	**3**	**5**	8
	Expected	3.53	4.47	8.00
Moderate	Observed	**23**	**22**	45
	Expected	19.87	25.13	45.00
Very high	Observed	**2**	**2**	4
	Expected	1.77	2.23	4.00
Very low	Observed	**1**	**1**	2
	Expected	0.88	1.12	2.00
Total	Observed	34	43	77
	Expected	34.00	43.00	77.00
		3.07	chi-square	
		4	df	
		.5466	p-value	

Source: Primary Data

The chi-square test was conducted to assess if there is a significant difference in risk tolerance between male and female retail investors. With a chi-square value of 3.07, 4 degrees of freedom, and a p-value of 0.5466, which is greater than 0.05, we fail to reject the null hypothesis. This indicates no significant difference in risk tolerance between male and female investors, suggesting that both groups exhibit similar risk levels in stock market investments.

8. LIMITATIONS

1) The study has selected geographic location i.e. Mumbai suburban city.

2) The study has limited sample size i.e. 77 respondents.

3) It may not be suitable to make generalization of the findings. This is mainly because of its limited sample size and study area being limited only to limited location or suburb area.

9. CONCLUSION

In conclusion, the data reveals a general trend where most retail investors have relatively short-term investment experience, frequently review their stock portfolios, and rely on self-research and market news for investment decisions.

Further, the findings reveal that retail investors in the stock market display a blend of caution and selective risk-taking. While they are attentive to market news and somewhat influenced by social media, most prioritize a balanced approach with moderate risk tolerance. This indicates a cautious but opportunity-seeking investor mindset, where calculated risks are acceptable within a structured investment strategy.

The chi-square tests suggest that there is no significant difference in the investment experience and strategy among retail investors, nor is there a significant difference in risk tolerance between male and female investors. This indicates that, despite varying investment experiences and genders, retail investors tend to approach the stock market similarly in terms of strategy and risk-taking behaviour.

There exists large scope for further study both at micro and macro levels.

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