

## **Investor Sentiment and Market Volatility: An Analytical Study in the Context of Indian Stock Market**

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### **Abstract**

Market volatility and investor sentiment are key elements of the financial markets that have a significant impact on asset price and investment choices. Investor sentiment is the term used to describe the group psychology and emotional state of market participants that affect their sense of hopefulness, pessimism, or uncertainty on upcoming market moves. It is influenced by a wide range of variables, such as economic data, current affairs, and investment behavior. Positive emotion can boost demand and potentially reduce volatility, whilst negative sentiment might encourage selling pressure and raise market volatility. The amplitude and regularity of price swings in financial markets are gauged by market volatility. It depicts the degree of risk, uncertainty, and price volatility that investors encounter. Investors worry and caution result from high volatility, whereas confidence and risk-taking are promoted by low volatility. Investor sentiment and market volatility have a cyclical and mutually reinforcing relationship. A feedback loop can develop between investor sentiment shifts and market volatility changes. Positive sentiment can help to reduce volatility and promote a favorable market environment, whilst negative sentiment can raise volatility and cause periods of greater market instability. Market players and investors could more successfully manage market circumstances, reduce risks, and grasp chances for possible returns by understanding the complicated interplay between these components.

*Keywords:* India, Investor, Market, Sentiment, Stocks, Volatility

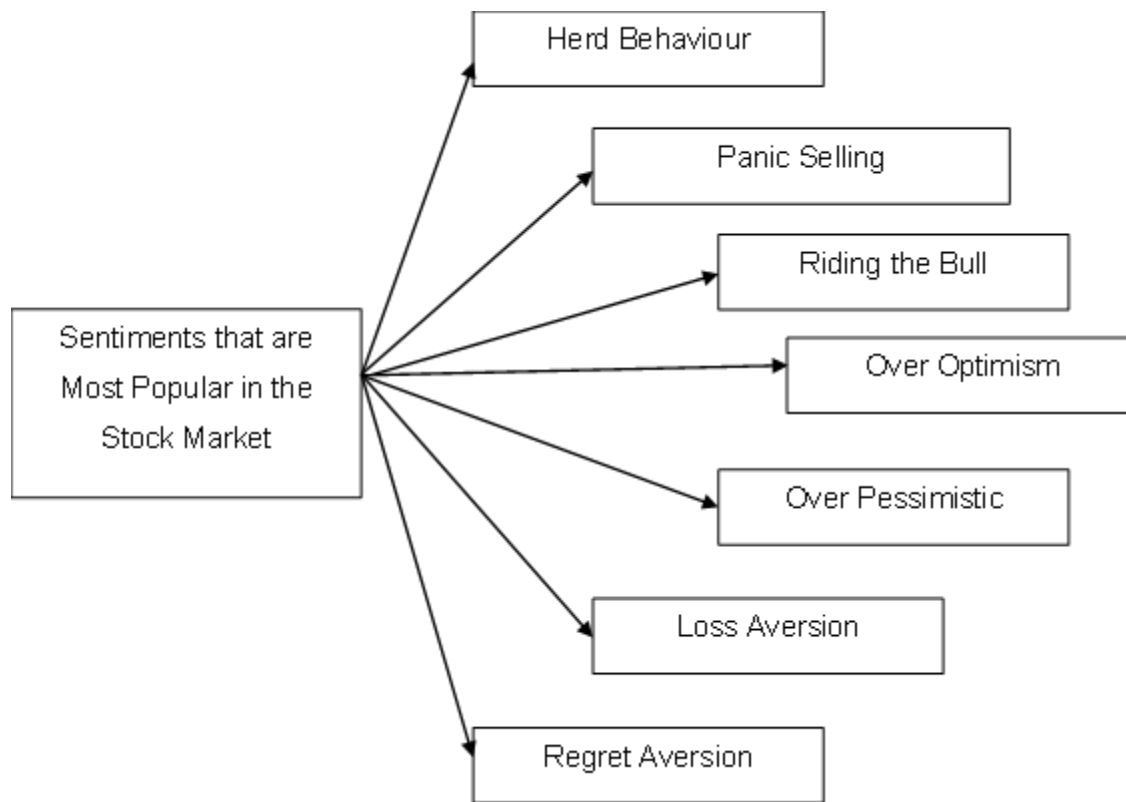
### **Introduction**

The Indian stock market is primarily driven by investor sentiment and market volatility, which affect investment choices and shape the market's behavior. In relation to the Indian stock market, investor sentiment reflects the collective psyche and attitude of market participants. It includes all their thoughts, opinions, and projections regarding the course of the stock market. Investors who are positive and confident regarding the future of the market and who are highly likely to acquire stocks are said to be exhibiting a positive attitude. Negative sentiment, on the other hand, develops when investors are unsure, afraid, or pessimistic about the state of the market, which increases the propensity to sell. Positive emotion can boost investor faith in the market. It can be fueled by strong company results, positive governmental reforms, and positive economic statistics. On the other side, unfavorable economic trends, ambiguous policy environments, and market patterns around the world could cause unfavorable feelings, which make investors risk-averse and cautious.

The size and frequency of price movements are measured by market volatility, another crucial component of the Indian stock market. It indicates the degree of risk and ambiguity that investors face. Greater volatility denotes more extreme price fluctuations and increased market risk, whilst lower volatility denotes a more stable market environment. Numerous variables affect market volatility in the Indian stock market. These include economic indices such as interest rates, inflation, and GDP growth. Global market movements, regulatory shifts, geopolitical events, investor behavior, and other factors can all affect market volatility. Unexpected occurrences might cause the market to be very volatile, such as political unrest or abrupt shifts in world opinion.

Within the Indian stock market, market volatility and investor mood have a complicated and reciprocal relationship. Market volatility can change in response to fluctuations in investor sentiment, and investor

sentiment can change in response to rising volatility. The interaction of these variables has a substantial impact on market dynamics, trading volume, and asset pricing. For market players looking to successfully manage the complexity of the stock market, it is necessary to comprehend the connection between investor sentiment and market volatility. Prominent benchmarks which reflect the Indian stock market draw a wide variety of investors, including retail investors, domestic institutional investors, and overseas institutional investors. Investors may allocate their portfolios appropriately, manage their risks, and time their trades effectively by understanding the changing patterns of investor mood and market volatility. Figure 1 shows the various investors' sentiments that are most popular in the stock market:



**Figure 1 Various Investors' Sentiments Popular in the Stock Market**

### **Literature Review**

According to the widely accepted idea of "market noise", noise traders balance an asset's systematic and non-systematic risk by trading on noisy signals in the financial markets. As per this theory, market inefficiencies are a result of noise, which also prevents investors from making money off of these inefficiencies. The gravity of emotive factors in theories regarding asset pricing is supported by empirical research from industrialized economies. Theories of behavioral finance offer an answer to the problem regarding how investors' irrational beliefs affect asset prices and expected returns in the market (**P H & Rishad, 2020**). As a result of rational arbitrageurs' actions, which caused stock prices to be over- or undervalued at times of low or strong sentiment, "noise" was created by noise traders (**Lemmon and Portniaguina 2006**).

The emergence of behavioral finance concepts generated discussions on how investor sentiment impacts asset return in the unified stock market. Empirical and theoretical investigations have found that investor sentiment has a considerable power on stock prices, which obviously has effects on portfolio management and the pricing of assets. This is because the market's assessment of assets is influenced by psychological differences among diverse people. The effect of the sentiments of investors on asset price volatility is frequently attributed to a confluence of investors' reactions to the status of the market at the time and their irrational expectations of future cash flows (**Baker and Wurgler, 2006**). The intensity of a sentiment's influence on judgment and decision-making is determined by its sentiment state. People who are happy seem to process information less methodically, in lesser detail, and with less vigor, whereas those who are unhappy seem to process information more methodically, thoroughly, and thoughtfully. So, bias and inaccuracy frequently occur from being in a pleasant mood (**Shu & Chang, 2015**). The return predictability of mood is at its highest in an expansion condition, while the predictive capacity is minimal in a recession condition, according to **Chung et al.'s (2012)** evidence. Additionally, **Stambaugh et al. (2012)** discovered that market anomalies are more pronounced after high degrees of investor sentiment, leading them to claim that the market is less rational during these times.

Using a comparable investor sentiment index, **Yu & Yuan (2011)** investigate how investor sentiment affects market returns and volatility and discover that, during times of low investor sentiment, predicted returns are positively correlated with volatility, but not significantly so during times of high investor sentiment. Investor sentiment-driven volatility results in idiosyncratic risk rather than systematic risk (**Naik & Padhi, 2016**).

The impact of noise trading on Indian stock market volatility was observed by **Verma and Verma (2007)**. They observed that "noise trading," which is defined as the buying and selling of equities based on investor mood as opposed to fundamental causes, had a large impact on market volatility. They observed that traders who are motivated by emotion and make choices based on their feelings can cause "excessive volatility" in the market. The trading's behavioral component and how it affects market dynamics. They emphasized this point by referring to these transactions as "noise trading," which highlighted that they are motivated by noise or irrationality rather than well-informed decision-making. Market disruption and elevated volatility can occur from such noise trading, which is mostly affected by investor mood. They asserted that investors add bias and uncertainty into the market when they make trades based on attitude rather than fundamental analysis. This bias could cause price changes that aren't consistent with the equities' underlying fundamentals. Prices change in response to the shifting opinions of market participants, which increases market volatility. Market dynamics and volatility are greatly influenced by investor emotion. Sentiment can set off a chain reaction of trades that increases market volatility, depending on whether it is favorable or negative. As it can provide an unsteady and uncertain market environment, the extreme volatility brought on by noise trading presents difficulties for both investors and policymakers. Market participants and regulators must comprehend how investor emotions and noise trading affect market volatility. Investors can become more conscious of their own biases and emotions while making financial decisions by understanding the importance of sentiment-driven trading. The promotion of transparency and educating market players about the value of making well-informed decisions based on facts rather than just on emotion are other actions that policymakers might take.

**Maitra and Dash (2017)** used a unique strategy to investigate the relationship between market volatility and sentiment in the Indian stock market. To investigate this association, they used a time-frequency domain analysis. They observed "sentiment" is a key factor in determining why stock returns are so volatile in the near term on the Indian market. They noticed that there was a tendency for the market to become more volatile during times of "high sentiment." When investor emotions and sentiments are high, which may result in more pronounced market swings, this is referred to as a "high sentiment" period. This suggested that investor emotion can serve as a "predictor" of market volatility in the Indian stock market.

To comprehend market dynamics, they emphasized the importance of mood. They highlighted that sentiment-driven variations in stock returns happen over relatively short periods of time by utilizing the term "short-term volatility." This suggested that the volatility of the market can be directly and quickly impacted by investor attitude, which can then affect price changes in a short amount of time. Market volatility may increase because of the sentiment-driven trading patterns.

The Indian stock market's asset volatility and investor sentiment have a positive link, according to **Kumari and Mahakud (2015)**. They revealed that heightened volatility frequently results from positive investor sentiment. This suggests that the emotions and beliefs of market participants have a big impact on how the market behaves. They demonstrated how investor sentiment might serve as an indicator of upcoming market volatility. Depending on whether the mood is positive or negative, investors are more inclined to take actions that could increase market fluctuations and volatility. Positive feelings might lead to more buying, which can raise prices and create volatility. Negative emotion, on the other hand, might cause selling pressure, which lowers prices and increases volatility. Investors can modify their trading tactics to take into consideration the current market sentiment by being aware of how sentiment affects asset volatility. This information can also be used by policymakers to implement actions targeted at reducing and stabilizing market volatility. They also emphasized the significance of market participants taking investor behavior into account when making investment decisions. Participants in the market can learn more about market movements and potential hazards by understanding the impact of investor sentiment. An in-depth awareness of both basic and sentiment-driven issues can help investors traverse volatile periods more skillfully and make wise judgements. It shows that, in the developing Indian stock market, there is a direct correlation between investor sentiment and asset volatility. They emphasised how important it is for market participants' emotions and perceptions to have an impact on market movements. Understanding how mood affects volatility can help investors make better decisions and regulators develop strategies to effectively control market volatility.

In the context of the Indian stock market, **Kumari & Mahakud (2016)** empirically investigate the theoretical relationship between stock market volatility and investor sentiment volatility. Their data depicts that the market responds more strongly to the impact of bearish or negative sentiment than to bullish or positive sentiment. In layman's terms, bad news happens to affect investors more than good news and bad sentiment is more responsible for volatility than good sentiment. The bivariate VAR estimates point to a one-way causal relationship between the volatility of investor sentiment and the volatility of the stock market. Essentially, it suggests that both institutional and individual investors will experience negative and positive effects on stock market volatility depending on how investors' sentiment changes. These results of one-way causality confirm the hypothesis of noise trading, according to which sentiment-driven noise traders cause prices to diverge from fundamentals, making it impossible for systematic variables to account for volatility alone. It suggests that stock market volatility is influenced differently by optimism, pessimism, heuristic biases, and the overconfidence of investors. According to the findings, India's noise trading prohibits or restricts perfect arbitrage, invalidating the theory of an efficient market's ability to explain India's stock market volatility. To create extra returns, investors should, according to the available research, discuss price sentiment apart from market fundamentals and individual risk variables.

## **Conclusion**

The Indian stock market is significantly impacted by investor sentiment and market volatility. Asset prices, trade activity, and general market dynamics are all heavily influenced by how these two elements interact. Investor sentiment is affected by several variables, including investor perceptions, earnings from companies, government policies, domestic economic indicators, and worldwide market patterns, in the Indian stock market. Positive feelings, which are defined by enthusiasm and confidence, can stimulate more purchasing, which could raise prices and possibly lessen market volatility. In contrast, a negative

mood that is motivated by worries or uncertainties can lead to selling pressure and increase market volatility. A mixture of domestic and international variables affects the Indian stock market's volatility. The level of volatility is significantly influenced by economic indices like growth in GDP, rate of inflation, and interest rates. The volatility of the Indian market can also be significantly influenced by geopolitical developments, legislative changes, and international market patterns. Variations in investor sentiment can affect market volatility, which in turn can affect investor sentiment. This feedback loop can amplify market swings and present investors with both opportunities and threats. Market participants who want to manage the Indian stock market efficiently must keep an eye on investor sentiment indicators, including surveys, sentiment indexes, and news sentiment analyses. Additionally, constantly monitoring market volatility indicators like the volatility index (VIX) can assist investors in determining their tolerance for risk and modifying their investment strategy accordingly.

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