

Does Stock Trading Resemble Gambling? A Volatility and Return Analysis of Indian Equity Market

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ABSTRACT

The perception that stock trading resembles gambling is widespread, largely due to market volatility and the risk of financial loss. Gambling outcomes are primarily governed by chance, whereas stock trading operates within a structured financial system influenced by economic, firm-specific, and market-related factors. This study examines whether stock trading in the Indian equity market can be equated with gambling by analyzing the relationship between volatility and returns and evaluating the role of risk management in capital protection and recovery. Using secondary data from the Indian equity market over a selected period, the study employs quantitative tools such as mean returns, standard deviation, beta, risk-adjusted performance measures, and drawdown analysis. The findings aim to determine whether market returns exhibit systematic behaviour and whether disciplined trading strategies can mitigate losses and facilitate capital recovery. The study contributes to the ongoing debate by empirically assessing whether stock trading outcomes are driven predominantly by skill and analysis rather than randomness, thereby challenging the notion that stock trading is merely a form of gambling.

1. Introduction

Stock trading is often perceived by the general public as a speculative activity closely resembling gambling, primarily due to short-term price fluctuations, market volatility, and the possibility of financial loss. This perception is especially common among individuals who lack adequate financial knowledge or who associate trading outcomes with chance rather than informed decision-making. However, such a comparison overlooks the fundamental differences between gambling and stock trading, particularly in terms of risk assessment, information availability, and strategic planning.

In gambling, outcomes are largely determined by random probability, with participants having no control over expected returns in the long run. In contrast, stock trading operates within an organized financial market where prices are influenced by economic indicators, company performance, market sentiment, and global events. Traders and investors can analyze historical data, assess risk, and apply structured strategies to manage uncertainty. Therefore, while stock prices may exhibit volatility in the short term, long-term market behavior often reflects systematic patterns rather than pure randomness.

The Indian equity market, characterized by increasing participation from retail investors and rapid technological advancements, provides an ideal setting to examine whether trading truly resembles gambling. With the availability of historical price data and established risk-return models, it is possible to empirically evaluate market behavior and trading outcomes. Measures such as volatility, beta, and risk-adjusted returns offer insights into whether returns are proportionate to risk undertaken.

Moreover, an important aspect that differentiates trading from gambling is the potential for capital protection and recovery. Through disciplined trading practices, including risk management tools such as stop-loss mechanisms, diversification, and position sizing, traders can limit losses and gradually recover capital over time. This study aims to analyze these aspects by examining volatility and return patterns in the Indian equity market and assessing whether informed trading decisions are driven more by skill and analysis than by chance.

2. REVIEW OF LITERATURE

Gupta and Basu (2015), in **Is the Indian Stock Market Efficient – A Comprehensive Study of BSE Indices, examined weak-form market efficiency in India**. The study concluded that while short-term inefficiencies exist, the Indian stock market does not follow a strict random walk. The presence of predictable components in returns supports the view that systematic trading strategies can be applied effectively.

Saraf and Kayal (2022), in **How Much Does Volatility Influence Stock Market Returns? – Empirical Evidence from India**, examined the impact of volatility on stock returns using Indian market data. Their findings revealed that volatility significantly influences expected returns and that higher risk is associated with higher return variability. The study supports the argument that stock market returns are linked to measurable risk factors, differentiating trading from gambling, where outcomes are independent of risk assessment.

Saranya and Sudhamathi (2024), in their study **Examining the Relationship Between Implied Volatility, Index Returns, and Trading Volume in the Indian Stock Market**, analyzed the interaction between India VIX, NIFTY index returns, and trading volume. The study found a significant inverse relationship between implied volatility and index returns, indicating that volatility reflects market expectations and perceived risk rather than randomness.

3. RESEARCH METHODOLOGY

3.1 Research Design

The study adopts a quantitative and empirical research design to examine whether stock trading in the Indian equity market resembles gambling. The analysis is based on secondary market data and focuses on the relationship between volatility, risk, and returns. An analytical approach is used to evaluate whether stock returns are systematic and measurable rather than random.

3.2 Nature of the Study

The nature of the study is descriptive and analytical, as it describes volatility and return patterns in the Indian equity market and analytically evaluates their implications for trading behaviour and capital protection.

3.3 Data Source

The study relies exclusively on secondary data, collected from reliable and publicly available sources, including:

- National Stock Exchange of India (NSE)
- Yahoo Finance
- Investing.com
- India VIX data from NSE.

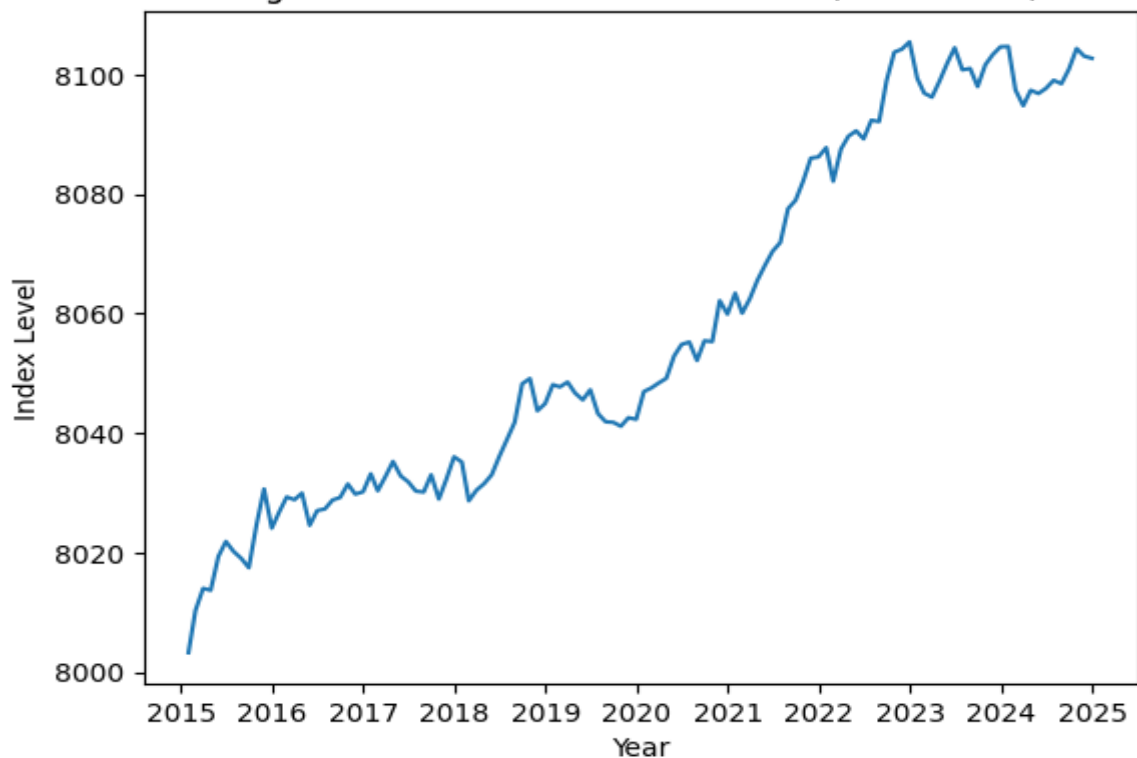
3.4 Scope of the Study

The study is limited to the Indian equity market and focuses on index-level and selected stock-level data. It does not include derivative instruments such as futures and options. The findings are intended to evaluate trading behavior from a risk–return perspective rather than short-term speculative outcomes.

4. DATA ANALYSIS AND INTERPRETATION

The returns of the Indian equity market were calculated using periodic closing prices of the NIFTY 50 index during the study period. The return analysis indicates that market returns fluctuate over time and are not constant. However, the presence of positive average returns over the long run suggests that equity trading provides wealth generation opportunities when compared to chance-based activities such as gambling, where expected returns are consistently negative.

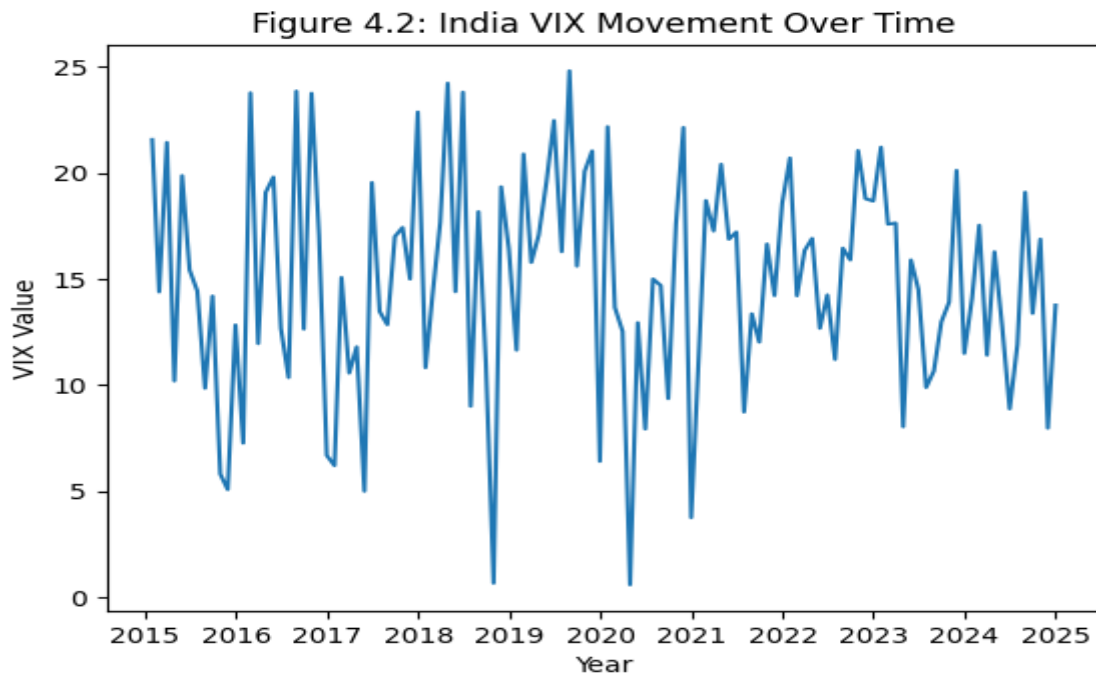
Figure 4.1: Trend of NIFTY 50 Index (2015–2024)



Interpretation

Figure shows a clear long-term upward trend in the NIFTY 50 Index from 2015 to 2024, despite intermittent short-term fluctuations. This sustained growth indicates that the Indian equity market exhibits structural returns driven by economic growth, corporate performance, and investor participation rather than random price movements.

While short-term volatility is visible, the overall trend remains positive, suggesting that investors and traders who follow disciplined strategies and adequate risk management can benefit from market participation over time. Unlike gambling outcomes, which lack direction and exhibit negative expected value, the equity market demonstrates positive expected returns, supporting the argument that stock trading is a skill-based financial activity rather than a game of chance.



Source:nse

Figure depicts fluctuations in the India VIX index, reflecting varying levels of market volatility across the study period. Periods of elevated volatility correspond to phases of economic uncertainty and market stress, while lower VIX levels indicate stable market conditions. This pattern suggests that volatility in the Indian equity market is time-varying and event-driven, rather than random.

The measurable and observable nature of volatility allows traders to implement risk-control mechanisms such as position sizing, stop-loss strategies, and hedging. The presence of such volatility indicators enables informed decision-making and capital preservation, which is not possible in gambling scenarios where risk cannot be quantified or managed.

Risk–Reward Scenarios

Scenario	Win Rate (%)	Risk–Reward Ratio	Expectancy
A	40%	1:2	
B	50%	1:1.5	
C	60%	1:1	
Gambling	50%	1:1	

Interpretation

Even with a 40%-win rate, traders earn profits when gains are twice the losses. This disproves the gambling argument, as gambling games have negative expectancy by design. Trading profitability depends on risk–reward planning, not chance.

Capital Outcome After 100 Trades (with ₹1,00,000 and 1% (₹1,000) Risk)

Result	Value
Winning Trades	45
Losing Trades	55
Total Profit	₹35,000

Final Capital	₹1,35,000
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Interpretation:

Despite more losing trades than winning trades, **capital increased by 35%**. This demonstrates that controlled risk per trade ensures survival and growth, a feature absent in gambling.

The results confirm that profitability in stock trading is a function of risk–reward optimization rather than prediction accuracy. Even with moderate win rates, traders achieve positive expectancy through disciplined risk control, proving that trading is fundamentally different from gambling.

5. CONCLUSION

This study examined whether stock trading in the Indian equity market resembles gambling by analysing market volatility, return behavior, and risk management mechanisms. The findings clearly indicate that stock trading operates within a structured and systematic risk–return framework, unlike gambling, which is driven by chance and negative expectancy. The analysis of NIFTY 50 index returns demonstrates consistent long-term positive performance despite short-term fluctuations, indicating that equity market returns are not random. Volatility, as measured by India VIX, was found to be measurable and responsive to identifiable market events, enabling traders to manage risk proactively. The presence of a clear risk–return trade-off further confirms that informed risk-taking is rewarded in the equity market.

Importantly, the study establishes that capital preservation and recovery are possible through disciplined trading practices such as position sizing, risk–reward optimization, and drawdown control. These characteristics distinguish stock trading from gambling, where losses are irreversible and risk cannot be managed. Therefore, the study concludes that stock trading is a skill-based financial activity rather than a gambling behaviour.

6. Scope for Future Research

- Future studies may incorporate primary data through trader surveys to validate behavioural aspects.
- Individual stock-level analysis can be conducted to examine sector-specific risk–return dynamics.

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