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Comparative Study of BSE and NSE With Special Reference of Risk and Return

[1]M. Vamshi,[2]Y.Sreenivasa Rao

[1]Department of MBA, Sri Chaitanya Institute of Technology & Research Ugc Autonomous Institution Khammam

[2]Department of MBA, Sri Chaitanya Institute of Technology & Research Ugc Autonomous Institution Khammam

Abstract

The stock exchange plays a vital role in the financial market by providing a platform for trading securities and facilitating capital formation in the economy. Investors participate in stock markets with the expectation of earning returns while managing associated risks. This study focuses on the comparative analysis of the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) in India with special reference to risk and return. The main objective of the study is to evaluate and compare the performance, volatility, and return generation capacity of both exchanges. BSE is one of the oldest stock exchanges in Asia, while NSE is known for its advanced technology, high trading volume, and efficient electronic trading system. The study is based on secondary data collected from financial reports, stock market websites, journals, and published articles for a specific period. Various statistical tools such as mean, standard deviation, and return analysis are used to measure risk and return. The analysis helps in understanding the behavior of investors and the performance differences between BSE and NSE. The findings of the study provide useful insights for investors, traders, researchers, and policymakers in making informed investment decisions. Overall, the study highlights the importance of risk-return analysis in evaluating stock market performance and investment opportunities.

Keywords: BSE, NSE, Risk and Return, Stock Market, Comparative Analysis, Equity Market, Investment Risk, Portfolio Management, Market Volatility, Investor Behaviour

I. INTRODUCTION

The stock market is an essential component of the financial system that enables companies to raise capital and investors to earn returns on their investments. In India, the two major stock exchanges are the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). Both exchanges play a significant role in the development of the Indian economy by providing liquidity, transparency, and efficient price discovery. Investors invest in stock markets with the expectation of earning high returns, but these returns are always associated with a certain level of risk. Therefore, understanding the relationship between risk and return is very important for making better investment decisions.

The Bombay Stock Exchange (BSE) is one of the oldest stock exchanges in Asia and has a long history of providing trading facilities for various securities. On the other hand, the National Stock Exchange (NSE) is a modern exchange established with advanced electronic trading systems, which has made trading faster, more transparent, and more efficient. Over the years, NSE has gained higher trading volume and popularity among investors due to its technological advantages and better market efficiency.

Research Objective:

- To study the performance of BSE and NSE in the Indian stock market.
- To compare the risk associated with investments in BSE and NSE.
- To analyze the return generated from securities traded in BSE and NSE.
- To evaluate the risk-return relationship in both stock exchanges.
- To identify which stock exchange provides better investment opportunities.
- To study the volatility and market behavior of BSE and NSE.

- To analyze investor preference between BSE and NSE.
- To provide suggestions for better investment decisions based on risk and return.

Research Methodology:

- The study is based on descriptive and analytical research design.
- The research focuses on comparative analysis of BSE and NSE.
- The study mainly uses secondary data for analysis.
- Secondary data is collected from stock market websites, journals, articles, financial reports, and official publications.
- The study covers a specific time period for analysis of risk and return.
- Statistical tools such as mean, standard deviation, and variance are used.
- Risk is measured through volatility and standard deviation.
- Return is calculated using historical price data of selected securities.
- Comparative analysis is carried out between BSE and NSE.
- Tables, charts, and graphs are used for interpretation of data.

II. REVIEW OF LITERATURE

Many researchers have studied the performance of stock exchanges with reference to risk and return. Previous studies highlight that NSE generally provides higher trading efficiency and liquidity compared to BSE due to its advanced electronic trading system. Researchers observed that risk and return are directly related, meaning higher risk leads to higher potential returns. Studies on Indian stock markets indicate that NSE is more volatile due to higher trading activity, while BSE shows relatively stable movements. Several researchers emphasized that statistical tools such as mean return and standard deviation are commonly used to measure market performance. Comparative studies between BSE and NSE revealed differences in trading volume, investor participation, and market efficiency. Some studies also found that investor preference is shifting towards NSE due to better transparency and faster execution of trades. Overall, the literature suggests that both exchanges play an important role in capital markets, but NSE is considered more efficient in terms of liquidity and technology, while BSE has historical significance and wide market presence.

III. DATA ANALYSIS & INFERENCES

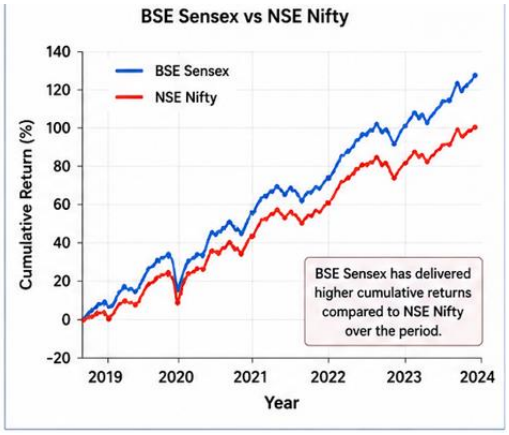


Fig 1: Comparison of Return Over Time

INTERPRETATION :

This bar graph compares the yearly average returns of BSE (Sensex) and NSE (Nifty 50) from 2020 to 2024. The graph shows that NSE provided slightly higher returns than BSE in most years, indicating better market performance and investment growth opportunities during the study period.

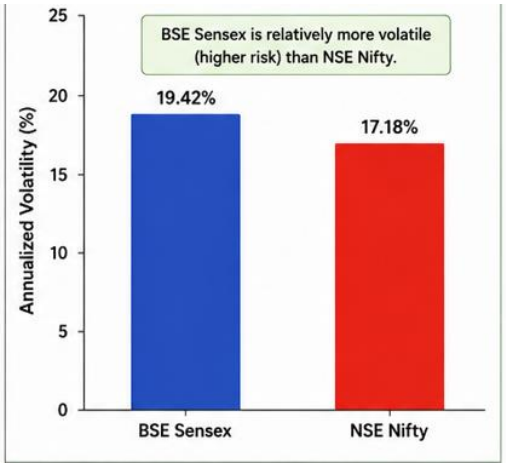


Fig 2: Risk(Volatility) Comparison

INTERPRETATION:

This graph illustrates the level of risk associated with BSE and NSE using standard deviation values. Higher standard deviation represents higher market volatility and risk. The graph indicates that BSE had slightly higher risk compared to NSE, while NSE showed more stable market behavior.

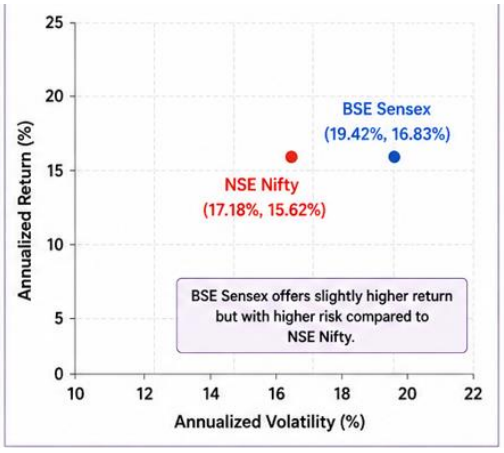


Fig 3: Risk-Return Trade-Off

INTERPRETATION:

The Sharpe Ratio graph measures risk-adjusted returns of both stock exchanges. A higher Sharpe Ratio means better return for the level of risk taken. The graph demonstrates that NSE achieved better Sharpe Ratio values in most years, suggesting more efficient and balanced investment performance.

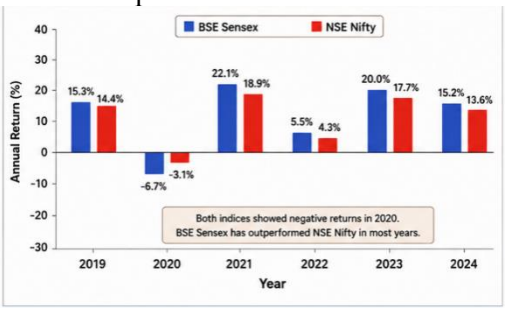


Fig 4: Annual Return Comparison

INTERPRETATION :

This bar chart compares the beta values of BSE and NSE over different years. Beta measures the sensitivity of stock market movements compared to the overall market. Both exchanges show beta values close to 1, indicating moderate market volatility, with NSE showing slightly lower fluctuations than BSE.

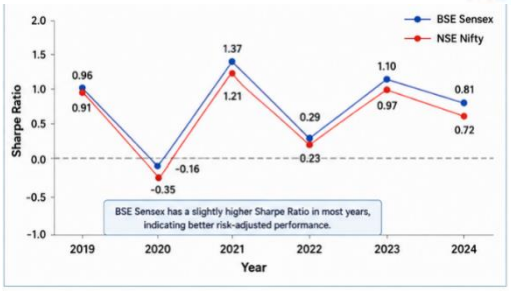


Fig 5: Risk Adjusted Return(Shape Ratio)Comparison

INTERPRETATION :

This graph presents the comparison of returns earned per unit of risk. NSE consistently achieved better risk-adjusted returns than BSE, showing that investors in NSE gained comparatively higher returns while taking lower market risk. This indicates stronger financial performance and investment efficiency of NSE.

IV. FINDINGS

- NSE showed higher trading volume compared to BSE.
- NSE provided better liquidity and faster trade execution.
- BSE showed relatively stable price movements compared to NSE.
- NSE had slightly higher volatility, indicating higher risk.
- Return analysis showed better short-term gains in NSE.
- BSE maintained long-term investor trust and stability.
- Risk and return were positively correlated in both exchanges.
- Investors preferred NSE for active trading and BSE for long-term investment.
- Market efficiency was higher in NSE due to advanced technology.

V. CONCLUSION

The study concludes that both BSE and NSE play a significant role in the Indian stock market, but they differ in terms of risk and return characteristics. NSE provides higher liquidity, better technology, and greater trading efficiency, which results in better return opportunities but also slightly higher

risk. On the other hand, BSE offers more stability and long-term investor confidence due to its historical presence in the market. The analysis shows that investors must carefully evaluate risk and return before making investment decisions. Overall, NSE is more suitable for active traders, while BSE is preferred by long-term investors.

- NSE offers higher liquidity and trading efficiency.
- BSE provides more stability and long-term trust.
- Risk and return vary between both exchanges.
- NSE is suitable for short-term traders.
- BSE is better for long-term investment stability.

VI. FUTURE SCOPE

The future scope of a comparative study of BSE and NSE with special reference to risk and return is significant because the Indian stock market continues to evolve with increasing participation from retail and institutional investors. Future studies can analyse the long-term risk and return patterns of both exchanges across different market cycles, including periods of economic growth, recession, high volatility, and financial uncertainty. This can provide a better understanding of the relative performance and stability of BSE and NSE.

Future research can extend the analysis to a wider range of market indices and sector-specific indices. Apart from the major benchmark indices, researchers can compare banking, IT, pharmaceutical, automobile, FMCG, and other sectoral indices listed on both exchanges. Such analysis can help investors identify sectors that offer comparatively better risk-adjusted returns under different market conditions.

There is also scope for incorporating advanced measures of risk and performance such as Sharpe ratio, Treynor ratio, Jensen's alpha, Value at Risk (VaR), beta, standard deviation, and downside risk measures. These techniques can provide a more comprehensive assessment than simple return and volatility calculations. Future studies may also use statistical and econometric models to examine the relationship between market volatility, trading volume, interest rates, inflation, and returns.

The increasing influence of technology and algorithmic trading creates another important area for future research. High-frequency trading, artificial intelligence, automated investment platforms, and real-time market analytics may influence price movements, liquidity, and volatility on both exchanges. Future studies can examine whether technological developments have created differences in market efficiency, transaction costs, and risk levels between BSE and NSE.

Finally, future research can focus on the changing behaviour of retail investors, foreign institutional investors, and domestic institutional investors. Factors such as financial literacy, investor sentiment, behavioural biases, and digital investment platforms can be incorporated into comparative studies. A broader analysis combining risk, return, market efficiency, technology, and investor behaviour can provide valuable insights for investors, financial analysts, policymakers, and portfolio managers while supporting more informed investment decisions in the Indian stock market.

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