

Analysis Of The National Stock Exchange (NSE) And Bombay Stock Exchange (BSE): A Comparative Study

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Abstract

Long-term funding was required by entrepreneurs, while investors required the ability to turn their capital into cash at any time. The solution was to create an accessible marketplace for investments, which is how the Stock Exchange was established. The expansion of the stock market indicates the state of the economy. As time went by, the Indian stock market has improved. The Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) are currently India's two prominent stock exchanges. An essential segment of the capital market infrastructure in India is the National Stock Exchange, as well as the Bombay Stock Exchange. They display unique qualities that distinguish them. The Indian stock market has been led by NSE's technological prowess and inventiveness, while BSE's distinctive standing is bolstered by its historical significance and dynamic operations. The combination of these two exchanges is crucial in determining how India's financial future develops. The combined turnover of the Bombay Stock Exchange and the National Stock of India Limited currently accounts for 99% of the total, while the other stock exchanges only contribute 1%. To determine which of these two major Indian stock exchanges performs better, the researcher intends to assess them using several metrics.

Keywords: NSE, BSE, Sensex, Stock Market, India

1. Introduction:

A stock exchange is an exchange where financial items are traded between buyers and sellers. Stocks, bonds, and other tradable financial instruments are examples of these financial instruments. Individuals, investors, companies, financial institutions, governments, and other entities could be the buyers and sellers. The oversight of the country's capital market falls under the responsibility of the Securities and Exchange Board of India (SEBI), which closely monitors all transactions. The equities that are traded on the stock market need to be listed there. The "Bombay Stock Exchange" (BSE), established in Mumbai (then known as Bombay) in 1875, was the country's first organised stock exchange. Being the most ancient stock exchange in Asia, the institution takes pride in its long-standing history.

The "National Stock Exchange" (NSE) and the "Over-the-Counter Exchange of India" (OICEI) were formed in 1992 and 1990, respectively, to guarantee secure stock trading throughout the country. In Mumbai are the NSE and OICEI. India now has twenty-three stock exchanges. Out of the complete set of stock exchanges, the BSE and NSE represent the two national ones, while the remaining twenty-one are categorized as regional stock exchanges.

The current study presents a comparison of the financial performances of India's two most well-known stock exchanges. Financial statement analysis serves as an approximate gauge of a company's profitability in its primary business. This can be applied to aggregate industry or sector comparisons, or to compare similar enterprises within the same industry.

1.1 National Stock Exchange (NSE)

In India, the biggest stock exchange is the National Stock Exchange (NSE). It ranks as the eleventh largest stock exchange globally in terms of market capitalization. At the NSE, trading is available in seven capital market segments. These include stock lending and borrowing, mutual funds, currency futures, equities, futures and options (F&O), and the debt market (both wholesale and retail). Based in Mumbai, it was established in November of 1992. However, trading began in 1994 following SEBI's recognition of the exchange as a stock exchange. It is also the first Indian stock exchange to offer fully computerized electronic trading facilities to its traders.

1.2 Bombay Stock Exchange (BSE)

The Bombay Stock Exchange (BSE), with its headquarters positioned in Mumbai, was established in July 1875 and is the first stock exchange in Asia. But in August 1957, the Securities Contracts Regulation Act gave the Indian government formal recognition as a stock exchange. It also became a part of the UN Sustainable Stock Exchange initiative in 2012.

With an average trading speed of 6 microseconds, Currently, it's the world's fastest exchange. Roughly 5,000 stocks are listed overall on the BSE. The Sensex is this stock exchange's most significant index. Several other significant indices include the Reality Index, Bankex, BSE 100, and BSE 200.

2. Review of Literature

2.1 Raghavan, R. S. (2000) offered little insight regarding risk perceptions and risk measure parameters. According to his opinion, return measurements and risk measurements are connected. There's no denying that taking certain risks is necessary to achieve sufficient rewards, even while hazards can only be limited and cannot be eliminated. Increasing operating and financial risk can boost returns or accelerate them. However, environmental risks usually act as barriers to return and risk decisions rather than increasing profits. He concluded that maintaining risk levels within acceptable bounds requires regular application in business operations.

2.2 Ekta Arora (2008) made an effort to assess the NSE and BSE's performance in India as well as recommendations on how to do better. The study's goals were to evaluate the services offered by depositories, examine the NSE and BSE's financial results, and make recommendations for enhancing their performance in India. The information was gathered from India Infoline and the NSE website. Secondary sources, such as books, journals, and newspapers, provided the study's data. The sample was chosen using an easy sampling technique. S&P CNX Nifty index and 100 firms from NSE indices were chosen for the sample size.

2.3 N. Sethi & S. Gupta (2012) The study's objective was to ascertain the nature of the link between the Sensex and Nifty. It sought to explore the correlation between the movement trends of Nifty and Sensex, employing a causal research design. Data were collected from various publications, websites, and periodicals for this investigation.

2.4 Bansi Rajikant Shah (2012) Conducted a study to assess the performance of the two prominent Indian stock exchanges and identify the superior one. The main goal of the study was to analyze and contrast the financial results and profitability of the Bombay Stock Exchange and the National Stock Exchange over a specific period. The research employed an empirical approach. The study's findings indicated that the BSE and NSE's financial standing from 2000–01 to 2009–10 was generally favourable.

2.5 Rajikant Shah (2013) performed a study to determine which of these two major Indian stock exchanges is superior, Bansi. The primary aim of the research was to conduct a comparative evaluation of the financial achievements and profitability of the 'Bombay Stock Exchange' and 'National Stock Exchange' within a given timeframe. It was also quantitative research because the financial data was analysed using statistical tools. Every Indian stock exchange served as the census for this study. The analysis concluded that the BSE and NSE's financial standing from 2000–01 to 2009–10 was generally satisfactory.

2.6 Dr K. Kanaka Raju (2014) The study aimed to examine the correlation between the market capitalisation and GDP of the 'Bombay Stock Exchange' (BSE) compared to the 'National Stock Exchange' (NSE). In addition to evaluating the turnover ratio and traded value ratio between the two exchanges. The objective was to provide recommendations for strengthening the Indian securities market system. Additionally, the research investigated the relationship between the turnover ratio with traded value ratio, and market capitalization to GDP ratios of BSE and NSE to identify significant differences. The data for the study were sourced from the SEBI Handbook of 2015 through secondary channels, with the study period limited to 2010–11 and 2014–15.

2.7 Dr Kaustubh Jain and Girbal Singh Lodhi (2015) In a study conducted from 2001 to 2013, the National Stock Exchange (NSE) was compared with the Bombay Stock Exchange (BSE). The research methodology involved reviewing publications related to capital markets, BSE and NSE, and other relevant topics, including articles, reports, and surveys. The study's primary goal was to perform a comparative analysis of the financial performances of BSE and NSE over the specified period. It also aimed to assess the profitability of the two stock exchanges using various general approaches.

2.8 Ruchi Nithyanad Prabhu (2018) In this study, the researcher looked at the risk and return of Indian Nifty stocks. They wanted to see how well the NSE 50 stocks performed in terms of risk and return. What they discovered was that some stocks followed the market closely, while others did the opposite. The results also showed that individual stocks had varying levels of volatility, which means they didn't all move the same way as the overall NSE index.

3. Hypothesis

H01: Over the years, there hasn't been a notable distinction in the average scores of Net Current Assets between the National Stock Exchange and the Bombay Stock Exchange.

H02: Over the years, the average Net Income scores of the National Stock Exchange and the Bombay Stock Exchange have shown no significant difference.

H03: Over time, there has been no substantial distinction in the average Net Expenditure scores between the National Stock Exchange and the Bombay Stock Exchange.

H04: Over the years, there has been no notable distinction in the average Net Profit after tax scores between the National Stock Exchange and the Bombay Stock Exchange.

4. Research Methodology:

The present study's methodology is delineated as follows-

4.1 Study goals: The research seeks to achieve the subsequent objectives –

- To conduct a comparative study of the historical financial results of the 'National Stock Exchange' and the 'Bombay Stock Exchange'.
- The completion of a comparison study comparing the long-term profitability of the 'National Stock Exchange' with the 'Bombay Stock Exchange'.

4.2 Universe of the study: Every Indian stock exchange serves as the study's census in this investigation. The participants in this study are all 23 of India's stock exchanges.

4.3 Sample of the study: The researcher selected two stock exchanges as their sample out of a total of 23 stock exchanges. The NSE and the BSE are these two stock exchanges.

4.4 Type of the study: Empirical research was conducted. It is also quantitative research because statistical tools were utilised to analyse the financial data. It concentrates on the operational facets of stock exchanges.

4.5 Time frame for the study: The research period spans five years, from 2018 to 2022.

4.6 Tools and techniques of the study: Several tools, like the mean, standard deviation, and others, have been used because the study is empirical and quantitative. The t-test was used to analyze the hypothesis, and a 95% level of confidence was used to make findings.

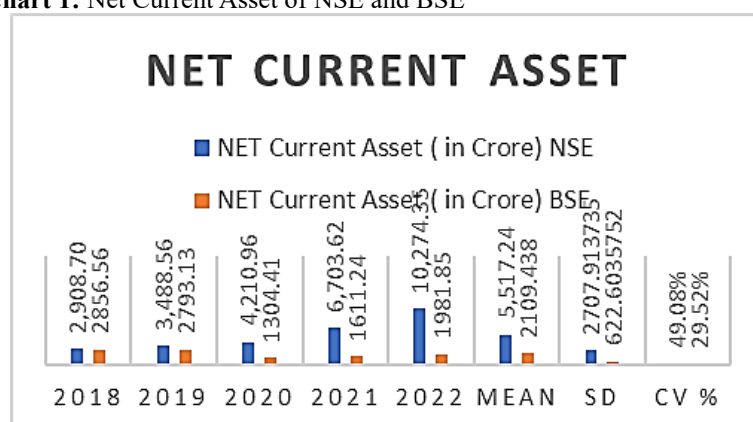
4.7 Data Collection: The researcher utilized secondary data for this inquiry, examining books, newspapers, journals, articles, studies, and surveys related to capital markets.

5. Data analysis and Interpretation:

5.1 Net Current Asset

Table & Chart 1: Net Current Asset of NSE and BSE

| NET Current Asset (in Crore) | | |
|------------------------------|-----------|----------|
| Year | NSE | BSE |
| 2018 | 2,908.70 | 2856.56 |
| 2019 | 3,488.56 | 2793.13 |
| 2020 | 4,210.96 | 1304.41 |
| 2021 | 6,703.62 | 1611.24 |
| 2022 | 10,274.35 | 1981.85 |
| Mean | 5,517.24 | 2109.438 |
| SD | 2707.914 | 622.6036 |
| CV % | 49.08% | 29.52% |



Source- Official Annual reports of BSE and NSE.

Table 1 demonstrates the stark discrepancy between the BSE and NSE's net current asset means. The mean score of the BSE is extremely low, while the NSE is extremely high. This is because BSE's net current assets are now lower. The mean value has decreased due to these small amounts. Even so, the BSE's data standard deviation is smaller than the NSE's, and its coefficient of variation is relatively low, indicating greater consistency in net current assets.

5.1.1 T-test

Table 2- T-test

| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
|-------------------|-------|----|-----------------|-----------------|---|-----------|
| | | | | | Lower | Upper |
| NET Current Asset | 4.399 | 9 | .002 | 3813.33800 | 1852.2956 | 5774.3804 |

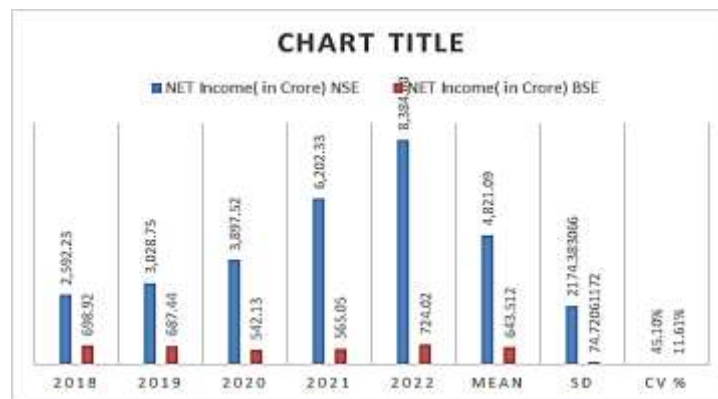
It is evident from Table 2 above that the first hypothesis was proven using the t-test at the 5% significant level. In the preceding table, the p-value is 0.002, which is less than the 5% threshold of 0.05. Thus, we can assert that a notable distinction exists in the current asset values between the NSE and the BSE. As a result, we reject the null hypothesis and embrace the alternative.

Therefore, H01 =Rejected & H1=Accepted

5.2 Net Income

Table and Chart 3

| NET Income (in Crore) | | |
|-----------------------|----------|----------|
| Year | NSE | BSE |
| 2018 | 2,592.23 | 698.92 |
| 2019 | 3,028.75 | 687.44 |
| 2020 | 3,897.52 | 542.13 |
| 2021 | 6,202.33 | 565.05 |
| 2022 | 8,384.60 | 724.02 |
| Mean | 4,821.09 | 643.512 |
| SD | 2174.383 | 74.72061 |
| CV % | 45.10% | 11.61% |



Source- Official Annual reports of BSE and NSE.

Table 3 shows how the net income means of the BSE and NSE differ significantly. The NSE has an exceptionally high mean score, whereas the BSE has an unusually low mean score. This is a result of a decrease in BSE's net income. These tiny amounts have resulted in a drop in the mean value. Still, the BSE's data has a lower standard deviation and a lower coefficient of variation than the NSE, suggesting that net income are more consistently reported.

5.2.1 T-test

Table 4 T-test

| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
|------------|-------|----|-----------------|-----------------|---|-----------|
| | | | | | Lower | Upper |
| NET Income | 3.160 | 9 | .012 | 2732.29900 | 776.1479 | 4688.4501 |

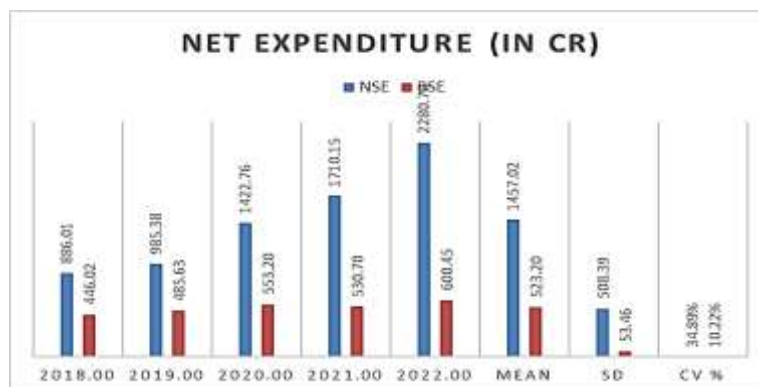
Table 4 above makes it clear that the t-test was used to prove the hypothesis at the 5% significant level. The p-value of 0.012 in the previous table is higher than the 0.05 5% cutoff. We can therefore conclude that there is no discernible difference between the Net Income of the BSE and the NSE, leading us to reject the alternative and accept the null hypothesis.

Therefore, H02 =Accepted & H2=Rejected

5.3 Net Expenditure

Table & Chart 5

| Year | NSE | BSE |
|-------------|---------|--------|
| 2018.00 | 886.01 | 446.02 |
| 2019.00 | 985.38 | 485.63 |
| 2020.00 | 1422.76 | 553.20 |
| 2021.00 | 1710.15 | 530.70 |
| 2022.00 | 2280.78 | 600.45 |
| Mean | 1457.02 | 523.20 |
| SD | 508.39 | 53.46 |
| CV % | 34.89% | 10.22% |



The substantial differences between the BSE and NSE's net expenditure means are displayed in Table 5. In contrast to the BSE, which has an abnormally low mean score, the NSE has an exceedingly high mean score. This is the outcome of BSE's net expenditure declining. It goes without saying that low income and current assets translate into reduced spending. Even yet, the BSE's data appears to be more regularly reported in terms of net expenditure, as indicated by a smaller coefficient of variation and standard deviation compared to the NSE.

5.3.1 T-test

Table 6- T-test

| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
|-----------------|-------|----|-----------------|-----------------|---|-----------|
| | | | | | Lower | Upper |
| NET Expenditure | 4.664 | 9 | .001 | 957.26700 | 492.9705 | 1421.5635 |

Table 6 above makes clear that the t-test at the 5% significant level was used to prove the hypothesis. The p-value in the above table is 0.001, which is less than the significance level of 5% (0.05). We can therefore conclude that the Net expenditure of the NSE and the BSE differs significantly, leading us to reject the null hypothesis and embrace the alternative.

Therefore, H03 =Rejected & H3=Accepted

5.4 Net Profit After Taxes

| NET Profit after Taxes (in Crore) | | |
|-----------------------------------|----------|-------------|
| Year | NSE | BSE |
| 2018 | 1,161.81 | 563.95 |
| 2019 | 1,389.87 | 201.05 |
| 2020 | 1,884.78 | 173.67 |
| 2021 | 3,573.42 | 97.26 |
| 2022 | 4,621.11 | 195.12 |
| Mean | 2,526.20 | 246.21 |
| SD | 1345.328 | 163.1296879 |
| CV % | 53.26% | 66.26% |

Table 7- Net Profit After Tax

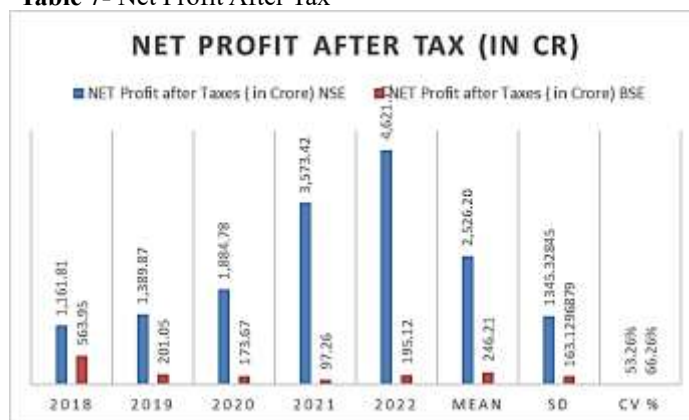


Table 7 shows the significant variations in the profit after tax means of the BSE and NSE. The NSE has an exceptionally high mean score in comparison to the significantly lower mean score of the BSE. This is the result of the NSE's high income, assets, and expenses. Reduced spending and income are also a result of BSE's low profit and low current assets. Even yet, a lower coefficient of fluctuation than that of the BSE suggests that the NSE reports profit after taxes on a more regular basis.

5.4.1 T-test

Table 8- T-test

| NET Profit After Taxes | | | | | |
|------------------------|----|-----------------|-----------------|---|-----------|
| t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | Lower | Upper |
| 2.792 | 9 | .021 | 1386.20400 | 263.2364 | 2509.1716 |

It is evident from Table 8 above that the hypothesis was tested using the t-test at the 5% significance level. The preceding table's p-value of 0.021 exceeds the 0.05 5% threshold. Hence, we can conclude that there is no significant difference between the BSE and NSE's Net Profit after taxes, which leads us to accept the null hypothesis and reject the alternative. Therefore, H04 =Accepted & H4=Rejected.

6. Conclusion

It is clear that the BSE and NSE's financial standing from 2018 to 2022 is excellent. The majority of the time, BSE trends are more consistent than NSE trends. The majority of the balance sheet and profit and loss account components in both the BSE and NSE exhibit positive trends. If there was a bad indication, it was quickly resolved. While there are variations in Net Current Assets, Total Income, and Profit after Tax, most of these are positive for both the BSE and NSE. The most significant finding is that neither the BSE nor the NSE had a decrease in profit before taxes or profit after taxes during any study year.

Hypothesis testing yields the following results: there is no significant difference between the stock exchanges of NSE and BSE in terms of Income and Profitability; nevertheless, there is a substantial difference between NSE and BSE in terms of Net assets and Net Expenses.

References and Bibliography

1. Boobalan, C., & Ramanathan, S. (2009). Volatility in The Indian Stock Market-A Comparison between BSE and NSE. *SMART Journal of Business Management Studies*, 5(1), 70-77.
2. Dhanasekaran, M., & Kumar, V. N. (2016). A Study on Performance Evaluation of Indian Stock Market with special reference to NSE and BSE. *Asian Journal of Research in Social Sciences and Humanities*, 6(5), 1050-1060.
3. Debasish, S. S. (2002). Volatility Study and Test of Market Efficiency in Selected Indices of BSE & NSE. *Paradigm*, 6(2), 39-51.
4. Durga, S., & Podile, V. (2020). a Paper on a Review on Stock Futures and Stock Options With Reference To Nse and Bse. *European Journal of Molecular & Clinical Medicine*, 7(4), 2020
5. Gangadhar, V., & Reddy, G. N. (1992). A Comparative Analysis of NSE and BSE.
6. Gangadhar, V., & REDDY, G. N. (2009). Stock Market Volatility: A Comparative Analysis of NSE and BSE. *Finance India*, 23(4).
7. Goel, A., Tripathi, V., & Agarwal, M. (2021). Market microstructure: a comparative study of Bombay stock exchange and national stock exchange. *Journal of Advances in Management Research*, 18(3), 414-442.
8. Kalyani, H. R., & Fathima, Y. A. A Comparative Analysis of Bse and Nse With Special Refrence To Risk And Returns.
9. Lodhi, G. S., & Jain, K. (2014). A comparative study of BSE and NSE.
10. Raju, K. K. (2014). Equity Derivatives-Comparative and Critical analysis from Bse to Nse. *IOSR-Journal of Business and Mnagement*, 16, 11-19.
11. Sigo, M. O. (2017). Effect of temperature on stock market indices: A study on BSE and NSE in India. *International Journal of Economic Research*.
12. Thakur, V. S. (2016). BSE SME Exchange and NSE EMERGE Exchange Platforms in India and a Comparison between them. *IJLTEMAS*, 5(3), 82-90.
13. Tanty, G., & Patjoshi, P. K. (2016). A study on stock market volatility pattern of BSE and NSE in India. *Asian Journal of Management*, 7(3), 193-200.
14. <https://www.nseindia.com/>
15. <https://www.bseindia.com/>
16. <https://www.sebi.gov.in/>
17. <https://www.moneycontrol.com/>