

Performances of stock exchanges in India

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Abstract— After the invention of money, people started their business not only by their own money but also by the borrowed money. So the financial markets – capital market, money markets came into existence. Financial markets played a vital role in raising funds from public for the companies and it helped the investors to get profits from the trading on the shares and other financial assets of these companies. For this purpose, a special part of the financial market called 'Stock Exchange' evolved.

There are two most prominent stock exchanges out of 23 stock exchanges in India. One of them is Bombay Stock Exchange (BSE Limited), ruling on Indian economy over a century. The second prominent stock exchange is National Stock Exchange of India Limited which has just completed two decades but gives really very tough competition to BSE. Both are world ranker in terms of number transactions, trading volume, market capitalisation, number of listed companies.

In the present study researcher has tried to study the financial performances of BSE and NSE over the last one decade. The present study is to find out that out of these two stock exchanges which one is performing better financially on various basis. Stock exchanges are the mirrors of economy. Through the present study the condition and soundness of Indian economy will also be revealed.

Keywords- Stock Exchanges, Performance, India

I. INTRODUCTION

The history witnessed that after the invention of money, people started their business not only by their own money but also by the borrowed money. So the financial markets having segments like capital market, money markets came into existence. Financial markets played a vital role in raising funds from public for the companies and it helped the investors to get profits from the trading on the shares and other financial assets of these companies. For this purpose there, a special part of the financial market called 'Stock Exchange' evolved.

India Financial market comprises of money market and capital market. Further capital market comprises: the primary market, secondary market (stock market), FDIs, alternative investment options, banking and insurance and the pension sectors, asset management segment as well. With all these elements in the Indian Financial market, it happens to be one of the oldest across the globe and is definitely the fastest growing and best among all the financial markets of the emerging economies.

The history of Indian capital markets spans back 200 years, around the end of the 18th century. It was at this time that India was under the rule of the East India Company. The capital market of India initially developed around Mumbai; with around 200 to 250 securities brokers participating in active trade during the second half of the 19th century.

II. LITERATURE REVIEW

Mukherjee (2007) researched on Comparative Analysis of Indian Stock Market with International Markets. According to his findings the stock market is witnessing heightened activities and is increasingly gaining importance. In the current context of globalization and the subsequent integration of the global markets this paper captures the trends, similarities and patterns in the activities and movements of the Indian Stock Market in comparison to its international counterparts. This study covers New York Stock Exchange (NYSE), Hong Kong Stock exchange (HSE),

Tokyo Stock Exchange (TSE), Russian Stock exchange (RSE), Korean Stock exchange (KSE) from various socio-politico-economic backgrounds. Both the Bombay Stock exchange (BSE) and the National Stock Exchange of Indian Limited (NSE) have been used in the study as a part of Indian Stock Market. The time period has been divided into various eras to test the correlation between the various exchanges to prove that the Indian markets have become more integrated with its global counterparts and its reaction are in tandem with that are seen globally.

Sinha and Pan (2006) have studied on The Power (Law) of Indian Markets: Analyzing NSE and BSE trading statistics. They analyzed the nature of fluctuations in the Indian financial market. They have looked at the price returns of individual stocks, with tick-by-tick data from the National Stock Exchange (NSE) and daily closing price data from both NSE and the Bombay Stock Exchange (BSE), the two largest exchanges in India. They found that the price returns in Indian markets follow a fatter-tailed cumulative distribution, consistent with a power law having exponent -3 , similar to that observed in developed markets. However, the distributions of trading volume and the number of trades had a different nature than that seen in the New York Stock Exchange (NYSE). Further, the price movements of different stocks are highly correlated in Indian markets.

Krishnamurti (2006) studied on Competition, Liquidity and Volatility – A comparative study of BSE & NSE at National University of Singapore. He found that during the time period taken by him the NSE showed more efficiency than BSE. He also found that before founding of NSE, BSE had accounted for about 90% of equity trade volume in India. Market Efficiency Coefficient (MEC) was used to measure liquidity. He took 26 paired issues from the exchanges as a sample. As per the findings the trading frequency is higher on NSE as compared to BSE, while the average size per trade is higher on the BSE. Overall NSE provides a more liquid market than BSE as evidenced by lower execution costs and higher MEC Eckbo, Masulis and Norli (2000) analyze over 7000 firms that issued seasoned equity and debt issues during the period 1963 to 1995. They document under performance of these firms as a reflection of their lower systematic risk as compared to their non-issuer counterparts. According to them, seasoned equity issues strengthen the capital base of companies there by reducing the leverage. The consequence of lower levels of leverage is that the exposure of firms to unexpected inflation and default decreases, leading to a lower required rate of return relative to matched firms.

The study also identifies the positive liquidity impact of seasoned equity offerings which further reduces expected returns relative to non-issuers Gupta (2002) studied the Performance Evaluation of National Stock Exchange of India. Despite the ample scope for research work on various aspects of National Stock Exchange, no study has been performed examining data-based performance of National Stock Exchange and its contribution to the Indian securities market. In view of the significance of National Stock Exchange in Indian securities market, this stock exchange has been selected for making a research study which focuses on policy issues and performance. She found that National Stock Exchange (NSE) has played the catalytic role in bringing about these transformations. The processes and procedures set by National Stock Exchange marked a paradigm shift in the securities market. The relative importance of various stock exchanges in the market has undergone dramatic change during last decade (1990's). National Stock Exchange in October 1995, within the first year of its operations became the largest exchange in terms of volume transacted.

This study fills the gap in the literature by focusing on the performances of the Indian stock markets. Through the literature review the researcher found that the studies related to comparison of financial performance of stock exchanges were not conducted nationwide or internationally. And the study related to the comparison of financial performances of NSE and BSE was not made in the past. To fill the gap in the literature the researcher has focused to compare the financial performance of two major stock exchanges of India: BSE and NSE. The need felt by the researcher to focus on the latest development and performance till the year 2010 and finalized the topic as under:

“The Performances of Stock Exchanges in India: A Comparative Study of Bombay Stock Exchange and National Stock Exchange”

III. OBJECTIVE OF THE STUDY

The broader objective of the study is to analyse the performance of NSE and BSE.

IV. METHODOLOGY OF THE STUDY

This study is based on census of all stock exchanges of India for the period of ten years from 2000-'01 to 2009-'10. It covers the evaluation and comparison of financial performance (profitability) of NSE and BSE for ten years. This study is limited for only financial performance covering averages of profits, listing income, brokerage income, operating expenses, Return on Capital Employed, total revenue income, etc. The tool for appraisal of financial performance is mean, standard deviation, co-efficient of variance and trend analysis.

V. FINDINGS OF THE STUDY

1. The Mean Score of Total Assets Turnover Ratio of National Stock Exchange was higher than the mean score of Total Assets Turnover Ratio of Bombay Stock Exchange over the period of time. This showed the revenue generation capacity of total assets was higher in NSE than BSE. Comparatively the total assets had not been employed much efficiently and effectively in BSE over the period of time. It was found that there is high level of blockage of funds in terms of total fixed assets which fetches quite lower growth in returns in BSE over the period of time. In this matter NSE is leading over the period of time.
2. The t-test revealed that there was no significant difference between the Mean Scores of Gross Fixed Assets Turnover Ratios of Bombay Stock Exchange and National Stock Exchange over the period of time. It was found that the revenue generation capacity of BSE and NSE were same as per t-test. Both the stock exchanges have utilized their gross fixed assets equally effectively and efficiently.
3. The t-test revealed that the Mean Score of Net Fixed Assets Turnover Ratios of Bombay Stock Exchange was higher than the mean score of Net Assets Turnover Ratios of National Stock Exchange over the period of time. This indicates that the revenue generation capacity of net fixed assets of BSE was more than that of NSE over the period of time. Opposite to total assets BSE performed very well and efficiently in case of utilization of net fixed assets and leaving behind NSE. In this case BSE is leading over the period of time.
4. As per t-test there is no significant difference between the Mean Scores of Depreciation to Total Revenue Ratios of Bombay Stock Exchange and National Stock Exchange over the period of time. It suggested that over the period of time both the stock exchanges charged the depreciation on fixed in the equal ratio of their total revenues.
5. There is no significant difference between the Mean Scores of Operating Expenses Ratios of Bombay Stock Exchange and National Stock Exchange over the period of time. It indicated that BSE and NSE both had spent equally on operating expenses in the ratio of their total revenues over the period of time. Both the stock exchanges had controlled this expense ratio equally.

6. The Mean Score of Computer Technology and IT Related Expenses to Total Revenue Ratio of Bombay Stock Exchange is higher than the mean score of Computer Technology and IT Related Expenses to Total Revenue Ratio of National Stock Exchange over the period of time. BSE spent higher amount on computer technology and IT related expenses in proportion of its total revenue than NSE. It can be said that NSE had controlled this expense effectively than BSE which is a favourable condition for NSE over the period of time.
7. The Mean Score of Payments and Provisions for Employees to Total Revenue Ratios of Bombay Stock Exchange is higher than the mean score of Payments and Provisions for Employees to Total Revenue Ratios of National Stock Exchange over the period of time. NSE again beats BSE in case of controlling of payments and provisions for employees. BSE had spent more proportion of total revenue on payments and provisions for employee than NSE over the period of time.
8. The Mean Score of Current Assets Turnover Ratio of National Stock Exchange is higher than the mean score of Current Assets Turnover Ratio of Bombay Stock Exchange over the period of time. The t-test revealed that the revenue generation capacity of NSE is higher than BSE. In the matter of efficient, effective and economical utilization of current assets BSE performed comparatively poor and NSE is leading this time during the ten years of the study.
9. The Mean Score of Clearing and Settlement Charges/Expenses to Total Revenue Ratios of National Stock Exchange is higher than the mean score of Clearing and Settlement Charges/Expenses to Total Revenue Ratios of Bombay Stock Exchange over the period of time. The t-test revealed that NSE is spending more on clearing and settlement charges while in this case BSE is economical and controlling this expense effectively comparing to NSE. So, BSE is better in this matter.
10. The Mean Score of Taxes to Total Revenue Ratio of National Stock Exchange is higher than the mean score of Taxes to Total Revenue Ratio of Bombay Stock Exchange over the period of time. NSE had paid higher taxes than BSE with proportion to their total revenues.
11. There is no significant difference between the Mean Scores of Advertising, Publicity and Marketing Expenses to Total Revenue Ratio of Bombay Stock Exchange and National Stock Exchange over the period of time. Both the stock exchanges are having same management in case of advertising, publicity and marketing expenses and spent equal average proportions from their total revenue.
12. The Mean Score of Listing Income to Total Revenue Ratios of Bombay Stock Exchange is higher than the mean score of Listing Income to Total Revenue Ratios of National Stock Exchange over the period of time. The t-test revealed that in case of listing income NSE performed comparatively poor. The reason behind this can be lower number of listed companies in NSE than BSE. As BSE is ruling on Indian financial market more than a century, it has more than 5000 companies listed, setting a high target for NSE. In this case BSE is leading.
13. The Mean Score of Transaction Charges/Brokerage Income/(Income from Data dissemination to Total Revenue Ratio of National Stock Exchange is higher than the mean score of Transaction Charges/Brokerage Income/(Income from Data dissemination) to Total Revenue Ratios of Bombay Stock Exchange over the period of time. Surprisingly, though the number of listed companies in NSE is very lower than BSE, the income from transaction charges, brokerage income and data dissemination is higher in it. This indicates a better business by NSE in this case over the period of time.
14. The Mean Score of Return on Capital Employed of National Stock Exchange is higher than the mean score of Return on Capital Employed of Bombay Stock Exchange over the period of time. The t-test reveals that the management efficiency of the NSE is better. It shows that in case of earning capacity of the capital BSE performed comparatively poor. In the matter of ROCE NSE is leading.
15. The Mean Score of Return on Owner's/ Shareholder's Equity Ratio of National Stock Exchange is higher than the mean score of Return on Owner's/ Shareholder's Equity Ratio of Bombay Stock Exchange over the period of time. Return on Owner's Equity Ratio is a single most important ratio for judging the profitability of an organization in terms of return to the owners. In this case BSE showed comparatively poor performance. It can be said that NSE in case of profitability, return to the owners NSE is ahead.
16. There is no significant difference between the Mean Scores of PBIT to Total Income Ratios of Bombay Stock Exchange and National Stock Exchange over the period of time. The t-test indicated that both the stock exchanges under study were been equal in case of this profitability ratio.
17. There is no significant difference between the Mean Scores of PBT to Total Income Ratios of Bombay Stock Exchange and National Stock Exchange. On the basis of this ratios both BSE and NSE are same in terms of profitability.
18. There is no significant difference between the Mean Scores of PAT to Total Income Ratios of Bombay Stock Exchange and National Stock Exchange over the period of time. One more time, in this case of profitability both the companies had equal proportions of profit after tax to its total revenue.
19. Share capital/member's funds in NSE remained constant while it increased in BSE up to middle year then it suddenly registered a noticeable decrease. In the year of incorporatization 2004-05 BSE transferred the member's funds to reserves and surplus and some of this amount was converted in share capital.
20. Both the stock exchanges had registered upward trend in case of reserve and surplus over the period of time. But the reserve and surplus trend line of BSE was flatter and

NSE had steeper. This indicates that in NSE reserve and surplus registered higher growth.

21. The trend of deposits and loans (liability) had positive trend in both the stock exchanges over the period of time. In BSE it is steeper which indicates that this liability is increasing with higher intensity than NSE over the period of time.
22. As per trend analysis BSE and NSE both had positive trends lines for fixed assets. But it is steeper in BSE which showed higher level of fluctuations over the period of time.
23. The investment trend line of NSE is below that of BSE. This indicates that BSE had engaged higher amounts in investments than NSE. The steeper trend line in BSE indicates that the growth is much intensive and higher as well. So BSE is leading in this case over the period of time.
24. As per trend analysis NSE had a very high and comparative very steep current assets indices trend line than that of BSE. It is found that NSE holds current assets with higher amount than that of BSE.
25. The trend of loans and advances indices in BSE is downward while it was upward in NSE over the period of time. The trend line of BSE is below that of NSE. It is found that NSE had comparatively higher, more intensive and almost positive fluctuations over the period of time.
26. In case of working capital (net current assets) management NSE is performing really very well while BSE performed poor due to mismanagement of working capital over the period of time. Because in the middle years of the study BSE had negative balances of working capital which showed inability of BSE to pay its short-term debts.
27. The trend of total income/total revenue in both BSE and NSE was positive over the period of time. It was found that BSE had comparatively flatter trend line which indicates the consistent and constant growth in total revenue over the period of time. In case of NSE the trend line is steeper and above that of BSE which indicates the higher growth of total revenue in NSE. This time NSE is leading.
28. As per trend analysis both the stock exchanges had positive trend lines of total expenditure over the period of time. It was found that BSE had comparatively flatter trend line indicating lower growth in total expenditure while in NSE trend line is sharper indicating intense and higher growth in total expenditure. In the case of controlling total expenditure BSE is leading.
29. In case of PBT BSE and NSE both are performing good as both had positive slopped trend lines. But NSE trend line is above the trend line of BSE. It was found that PBT in NSE is growing comparatively higher and sharper over the period of time. So, NSE is leading in this matter.
30. In case of PAT BSE and NSE both are performing good as both had positive slopped trend lines. But NSE trend line is above the trend line of BSE. It was found that PAT in NSE is growing comparatively higher and sharper over the period of time. So, NSE is leading in this matter.

VI. CONCLUSION

Finally it can be concluded that BSE and NSE are the icons of Indian capital market. BSE is the icon of stability, consistent and constant growth in terms of financial performance while NSE is the icon of rapid growth and taking a lead in implementing innovations. NSE was incorporated only before twenty years and today it has overtaken the BSE which ruled monopolistically on Indian capital market over a century. This shows the efficiency and effectiveness of the performance of the management of NSE. BSE and NSE are not rivals, both of them are the pillars of Indian economy. Both must be try to be complimentary to each other. If both will go hand in hand than it will result in rapid growth and upliftment of the nation.

REFERENCES

- [1] Agarwal and Singh. (2002). Merger Announcements and Insider trading Activity in India: An empirical Investigation. NSE research Initiatives, Paper No.8.
- [2] Agarwal, R.N. (2000). Financial Integration of Capital Markets in Developing Nations. Institute of Economic Growth, Delhi.
- [3] Albans, R. (1978). Managing towards Accountability for performance.
- [4] Banerjee, A. (2010). Financial Accounting a Managerial Emphasis (3rd Ed.). New Delhi: Excel Books.
- [5] Barua, S. K. and Srinivasan, G. (1991). Experiment on Individual Investment Decision Making Process, Sankhya, Vol. 53, Series B.
- [6] Brian, M. L. and Whelan, S. (2004). Monthly and semi-annual seasonality in the Irish equity market 1934-2000. Applied Financial Economics, Volume 14.
- [7] Chari, P.S. (1995). Emerging Role of Financial Services. The Hindu, Thiruvananthpuram, December.
- [8] Chukwuogor, C. (2007). Stock Markets Returns and Volatilities: A Global Comparison, Global Journal of Finance and Banking. Issues, Vol. 1.
- [9] Eckbo et al. (2000). Seasoned Public Offerings: Resolution of the 'New Issues Puzzle'. Journal of Financial Economics, Tuck School of Business, Working Paper, Vol. 56, 251-291.
- [10] Gupta, R. (2002). Performance evaluation of National Stock Exchange of India. Doctoral thesis, Jamia Millia Islamia University, New Delhi.
- [11] Krishnamurti, C. (2006). Competition, Liquidity and Volatility- A Comparative Study of Bombay Stock Exchange and National Stock Exchange. Eugene Lim, National University of Singapore, Singapore.
- [12] Mukherjee, D. (2007). Comparative Analysis of Indian Stock Market with International Markets. Chennai: Great Lakes Herald.
- [13] Poshakwale, S. (2002). The Random Walk Hypothesis in the Emerging Indian Stock Market. Journal of Business Finance and Accounting, 29 (9) & (10), Nov./Dec.
- [14] Prabhu, S. (1995). Seminar on Stock Broking in the Changed Scenario. The Stock Journal, Kochi, June.
- [15] Raghunathan, V and Varma, J. R. (1991). Market Valuation Model Under Differential Taxes, Inflation, Recurring Investments and Flotation Costs. Working Paper No. 956, (Jul-Sep). Indian Institute of Management, Ahmedabad.
- [16] Raghunathan, V. and Varma, J. R. (1992). Why the Dollars do not Flow into India?, Unpublished Paper, Indian Institute of Management, Ahmedabad.
- [17] Shah, A. and Thomas, S. (2002). The Evolution of the Securities Markets in India in the 1990s. Indian Council for Research on International Economic Relations, New Delhi.
- [18] Sinha, S. and Pan, R. K. (2006). The Power (Law) of Indian Markets: Analyzing NSE and BSE trading statistics. The Institute of Mathematical Sciences, C. I. T. Campus, Taramani, Chennai.

- [19] Tulsian, P. C. (2008). Financial Accounting. Dorling Kindersley (India) Pvt. Ltd, licensees of Pearson Education in South Asia, ISBN 978-81-7758-228-4.
- [20] Varma, J. R. (1991). Is the BSE Sensitive Index Better than the National Index? Working Paper No. 988, (Oct-Dec), Indian Institute of Management, Ahmedabad.
- [21] Venkateshwar, S. (1991). The Relationship of Indian Stock Market to Other Stock Markets. Indian Economic Journal, Vol. 39, No. 2 (Oct-Dec).
- [22] Yinxia, G. (2008). The Efficiency of the Chinese Stock Market with Respect to Monetary Policy. Doctoral thesis, School of Economics and Management, Lund University, Spring.
- [23] Zoltan, E. (2007). Fluctuation Phenomena on the Stock Market. Doctoral Thesis, Budapest University of Technology and Economics, Department of Theoretical Physics, Budapest