

Growth and Development of Bombay Stock Exchange in India: An Empirical Study

G. Satyanarayanamma¹, Dr. K. V Ramana Reddy²

¹Research Scholar, Department of Commerce, Sri Krishnadevaraya University, Anantapuram, Andhra Pradesh, India
1420arun[at]gmail.com

²Rtd Professor, Department of Commerce, Sri Krishnadevaraya University, Anantapuram, Andhra Pradesh, India

Abstract: *Stock market emerged as investment platform to earn potential returns since 2000 in India. This momentum is caused for significant growth in BSE in India. Therefore, present study focused on the analysis of growth and development of BSE for the study period of 2001-20. The study revealed that, BSE has shown significant growth in term of investor participation, equity market turnovers and market capitalization. The study also found overvaluation of market through variable of P/B Ratio and P/E ratios. The study observed poor returns of dividend yield during the study period. Overall, the BSE has reported significant growth since 2000.*

1. Introduction

Bombay stock exchange is Asia's first and oldest stock exchange established in 1875 in Dalal Street of Bombay, which now emerged as one of the fastest stock exchanges in world and India with the speed of 6 micro seconds in transaction execution. Since inception, BSE mould itself as an efficient capital raising platform which facilitated corporate sector growth in India. Now Bombay stock exchange is providing an efficient and transparent platform for trading in wide variety of products or instruments such as equity shares, currencies, debt products, derivatives, mutual funds. In 2012, Bombay stock exchange started a new platform especially for small and medium enterprises known as BSE SME indeed which is now became large index with 343 listed SME companies and continues to grow at a stable pace. BSE StAR MF is India's largest online mutual fund platform which process over 27 lakh transactions per month and adds almost 2 lakh new SIPs ever month, this platform has 82 percent in the similarly platforms. BSE Bond market is the transparent and efficient electronic book mechanism process for private placement of debt securities, is the market leader with more than Rs 2.09 lakh crore of fund raising from 530 issuances (F. Y.2017-2018). In 2017 BSE become the 1st listed stock exchange of India.

The BSE currency derivative index has 29.59 percent market share, similarly, BSE has 30.25 percent of market share in interest rate derivatives, BSE has 61 percent of market share in SME platform, BSE has 34 percent share in debt market segment, market share of 60 percent in SLR securities, BSE has 100 percent market share in startups platform. BSE international exchange (INX) was largest exchange in India with 88.21 percent market share in terms of turnover for derivatives.

Bombay stock exchange is governed by SECC Regulations issued by SEBI, SEBI Act, various regulations/ circulars/ guidelines etc. issued there under, RBI directives on foreign exchange trading, interest rate futures trading, debt securities trading, Prevention of Money Laundering Act and several other statutes that govern any employer/ corporate body in the country.

2. Review of Literature

Pravin Kumar Agrawal (2021) ¹ investigated casual and associative periodical relationships between Indian stock markets and other seven selected Asian stock markets for the period of eighteen years (2000 to 2018). The selected seven Asian markets comprises Hong kong, Japan, Indonesia, Singapore, China, Taiwan and South Korea which have significant contribution in foreign portfolio investment in extensive India. The study examined the interdependency among stock markets through analyzing the data by aggressive time series model techniques such as Dicky fuller test, Phillips and Perron test, granger causality test and Johansson co-integration test. The study found the unit root relationship among the all selected stock market which means follows a systematic pattern but unpredictable. The study also found that, Indian NIFTY 50 has unidirectional relationship with Indonesia and Japanese stock markets where bi-directional relationship with Hong Kong and Singapore markets. The study found that, due to existence of long term equilibrium relationship between Indian stock market with China, Singapore, Hong Kong, Japan, and South Korea, portfolio diversification these countries would not benefit them well.

Sunain and Deepali (2021) ² emphasized on the durable competitive advantaged (DCA) stocks during crashes in Indian stock market during 2001-2018. The study observed 10 market crashes during the study period. The study considered stocks as durable competitive advantaged which survived with high CAGR during market crash period. The study found that pharmacy and healthcare, consumer goods and financial sector shares are durable competitive advantaged sectors compared to other sectors. The study also found indicators for identification of DCA shares.

Rajesh Babu (2021) ³ opined that SEBI plays remarkable role in protection of investor interests, promoting and regulating the Indian securities markets in India. The study highlighted some valid points on investor protection policies and current trends in the capital market over last twenty years. The study observed that, SEBI introduced many reforms regarding regional investors, traders and disclosures by listed companies etc. In this way, the SEBI has increased

the application limit for retail investors from 1 lakhs to rupees 2 lakhs.

Sivthaasan Nadarajah et al (2021) ⁴ have examined the negative impact of stock liquidity of default risk of the stock in 46 countries stock markets in world. The study found that impact of stock liquidity on default risk is higher in countries where investor protection information infrastructure is poor. In contrast, stock liquidity effect strengthened the efficiency of firms with greater information efficiency. The study recognized the regulatory settings importance in shaping the impact of stock liquidity on default risk in global markets.

Sathish (2020) ⁵ has made an attempt on emerging behavior of domestic and foreign institutional investors in Indian equity market during recent period. The study opined that institutional investors emerged as most strong players in influencing stock markets for short term and long term. The study observed 2440 daily observations for most ten years i. e. from 2007 to 2017. The study adopted feedback trading and causality tools such as granger and vector aggressive models. The study found that, foreign institutional investors are positive feedback traders, in contrast, DII are negative feedback traders. However, the study observed absence of feedback trading in long run.

Significance of the Study

It is revealed from the above literature that, some studies have focused on the periodical relationship among global stock exchanges, behavior of FIIs, liquidity effect on stock market and role of SEBI. No study has focused on the growth and development of BSE in recent period. Therefore, present study gains significance.

Objectives of the study

- To study the present status of State wise Retail investor participation in BSE.
- To study the equity turnover of the BSE during 2001-2021.
- To analyze the historical performance of BSE.
- To evaluate the IPOs and FPOs in BSE.

Research Methodology

Present study is purely based on the secondary data collected from the website, Fact sheet and annual reports of Bombay stock exchange in Indi. The study period is from 2001 to 2021. The study employed the statistical tool such as average, percentage, growth, and financial tools such as P/E Ratio, P/B Ratio and Dividend Yield. The study is focused on the growth and development parameters of BSE for targeted period.

3. Data Analysis and Interpretation

3.1 Investor Participation in Bombay Stock Exchange

An investor may be an individual or institution who invests their funds in stock market with in an intension of earning something more in return in future. Individual investors further classified as Retail investor and Highly Net worth Individual (HNI) on the basis of application for IPOs. An investor who applied for share less than Rs 2 Lakh in stock

market known as Retail investors where as investors applied for more than Rs 2 Lakh known as HNI. The institutional investors comprises of banks, insurance companies, mutual funds, investment bank and pension funds etc who make huge amounts in stock market as their regulatory norms. The institutional investors are further categorized as Foreign Portfolio Investors and Domestic Institutional Investors. Institutional investors are also categorized as Qualified Institutional Buyers and Anchor Investors. In the present study the number of registered individual investor in BSE is presented in the below table.

Table 1.1: State Wise Retail Investor Participation In Bombay Stock Exchange As 09-10-2021

S. No	State	Total Registered Investors	Share in total Investors (%)	Growth over Previous Year (%)
01	Maharashtra	1, 72, 74, 3350	21.08	43.08
02	Gujarat	95, 79, 825	11.69	29.12
03	Uttar Pradesh	64, 70, 391	7.89	65.52
04	Karnataka	48, 85, 398	5.96	45.57
05	Tamilnadu	47, 36, 949	5.78	31.93
06	West Bengal	44, 40, 834	5.42	31.43
07	Rajasthan	43, 52, 022	5.31	69.89
08	Delhi	41, 97, 199	5.12	32.53
09	Andhra Pradesh	40, 88, 142	4.98	109.78
10	Madhya Pradesh	33, 44, 110	4.08	87.73
11	Haryana	25, 43, 111	3.10	53.38
12	Telangana	25, 06, 618	3.05	81.47
13	Bihar	21, 93, 841	2.67	94.01
14	Kerala	21, 89, 725	2.67	34.96
	Total Top 14 States	7, 28, 02, 500	88.86	57.88
15	All Other States	91, 26, 018	11.13	77.00
	Total Investors	8, 19, 28, 518	100	47.92

Source: BSE Company Website

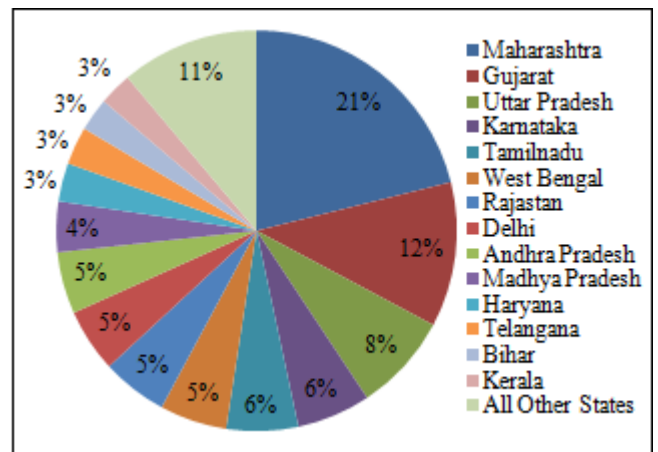


Figure 1.1: State Wise Investor Participation In Bombay Stock Exchange As On 09-10-2021 (%)

Table No1.1: exhibits the state wise registered investors in Bombay Stock Exchange as on 09-10-2021.

The study found that, around 21 percent of retail investors registered from the State of Maharashtra, consequently, it occupies top position in India. Thereafter, Gujarat occupied 2nd position with share of 12 percent in total registered investors. Similarly, largest population of State in India, i. e. Uttar Pradesh stood in third position with share of 7.89

percent investors. Thereafter, fourth position occupied by south Indian State of Karnataka with share of 5.96 percent, similarly, another 5.78 percent of accounts registered from Tamilnadu State. These five states together hold more than half of share (around 53 percent) in total registered investors of BSE. Thereafter West Bengal, Rajasthan and Delhi States occupied sixth, seventh and eighth positions with holding of 5.42 percent, 5.31 percent 5.12 percent share in total registered investors in the BSE. Thereafter, Andhra Pradesh and Madhya Pradesh occupied 9th and 10th position by holding 4.98 percent and 4.08 percent in the total investors. These ten States together account around three fourth of shares in total investors of the country. In overall, the fourteen States account to 88.86 percent of share in total investors, while rest of all other states account to 11.13 percent in total investors of the BSE. This study revealed geographical concentration of investor participation in the country and is gives wider scope for future participation from lagged states. .9 EQUITY TURNOVER IN BSE MARKET: The equity turnover in the stock market is an indication of better liquidity of the market during a particular period. This is calculated by dividing total traded shares with average number of shares outstanding. High turnover indicates high liquidity and low turnover indicates low liquidity in the market. In the present study, year wise Market turnover of BSE is disclosed below table.

Table 1.2: Equity Turnover in BSE Market for The Period 2001-2021

Year	No. of Working days	Market Turnover Per Year (Lakh Crore)
2020-21	249	10.45
2019-20	247	6.6
2018-19	248	7.75
2017-18	246	10.82
2016-17	248	9.98
2015-16	247	7.4
2014-15	243	8.54
2013-14	251	5.21
2012-13	250	5.48
2011-12	249	6.67
2010-11	255	11.05
2009-10	244	13.78
2008-09	243	11
2007-08	251	15.78
2006-07	249	9.56
2005-06	251	8.16
2004-05	253	5.18
2003-04	254	5.02
2002-03	251	3.14
2001-02	247	3.07
2000-01	251	10.0
AVG		

Source: BSE WEB SITE

Table no.1.2 shows the equity turnover in BSE market for the period 2000-21

The study reveals that market turnover of the BSE was 10 Lakh crore in 2001 which was fallen to 3.14 Lakh Crore in 2012-13. Thereafter, in the span of five years this turnover rose to 15.78 Lakh crore in 2007-08 which indicates fivefold increase in the turnover during the period. This is the higher market turnover in the history of Bombay Stock Market. This is mainly attributable to down stress in the market due

to sales pressure on the context of sub-prime crisis in USA which affected world economy badly. However, thereafter, turnover reached to normal level of less than 10 Lakh crore since 2011-12 to 2016-17. In the year 2017-18 market turnover rose to 10.82 Lakh Corrore which further fallen to 7.75 lakh core in 2018-19, 6.6 Lakh crore in 2019-20. Again in 2020-21 market turnover reached to 10.45 Lakh crore. The study found lowest liquidity in the years of 2001-2003 and higher liquidity during 2007-11 period.

Historical Performance BSE SENSEX: Historical performance of the BSE SENSEX is measured the parameters of high, low, close prices, P/E ratio, P/B Ratio and Dividend Yield.

Table 1.3: Historical Performance BSE SENSEX for the Period of 2001-21

Year	High	Low	Close	PE Ratio (%)	PB Ratio (%)	Dividend Yield
2020-21	52156	27500	49509	28.10	2.92	0.98
2019-20	42274	25638	29468	26.44	2.95	1.18
2018-19	38989	32972	38672	23.71	3.03	1.19
2017-18	36444	29241	32968	23.78	3.05	1.22
2016-17	29824	24523	29620	20.62	2.84	1.43
2015-16	29094	22494	25341	20.18	2.85	1.39
2014-15	30025	22197	27957	18.73	2.94	1.29
2013-14	22467	17448	22386	17.38	2.78	1.50
2012-13	20203	15748	18835	17.09	2.97	1.64
2011-12	19811	15135	17404	18.50	3.42	1.41
2010-11	21108	15960	19445	21.60	3.58	1.11
2009-10	17793	9546	17527	20.13	3.75	1.24
2008-09	17735	7697	9708	15.66	3.38	1.52
2007-08	21206	12425	15644	22.61	5.47	1.04
2006-07	14723	8799	13072	20.72	4.88	1.31
2005-06	11356	6118	11279	16.98	4.16	1.48
2004-05	6954	4227	6492	16.56	3.32	2.00
2003-04	6249	2904	5590	16.18	2.82	2.03
2002-03	3538	2828	3048	14.51	2.23	2.21
2001-02	3759	2594	3469	16.55	2.38	1.95
2000-01	5542	3436	3604	23.89	3.60	1.25

Source: BSE Website

Table no 1.3 shows the performance of BSE SENSEX for the period of 2001-21

The study revealed that BSE SENSEX reported highest value of 5542 points in 2000-01 which was reached to 11356 points in 2005-06. Thereafter, in the span of two years SENSEX reported highest value of 21206 points in 2010-11. However, thereafter, SENSEX crossed took seven year of long period to cross 30025 points due to negative effect of sub-prime crisis. Similarly, it crossed another 10000 points in the span of five years i. e.42274. But, only in the next year SENSEX reached to 52156 points. This indicates fastest growth in the BSE SENZEX in the history. Similarly, the lowest of SENSEX was 3436 points in 2000-01 which rose to 4227 points in 2004-05. This was further reported 12425 points in 2007-08 which was double in 2016-17 i. e.24523 points.

P/B Ratio refers to the Price to Book Ratio refers to the market's valuation of the company in relation to book value. This ratio is used by the investors to find out the potential investments. The PB ratio of one is good and up to three is acceptable and more than three is overvaluation and less

than one is undervaluation. The study revealed that, PB ratio of SENSEX was in the acceptable range of below three percent. The study observed over valuation of stock in the years of 2005-06 to 2007-08 crossed four percent.

P/E ratio refers to the Price to Earnings Ratio which is calculated as market price of the share by earning per share. This is an indication for identification of over/under/fair valuation of shares. The general, P/E ratio for Indian stock market around 20 is good lower to this indicates good investment opportunity. The study observed that SENSEX reported good investment opportunity period during 2002-06 and 2012-15. In the rest of the year SENSEX P/E ratio crossed 20 percent which is a sign of not timing of good investment.

Dividend yield is financial tool to measure the return generated by the company/index for investors during a particular period. In general dividend yield in the range of 2-4 indicates strong returns. However, BSE SENSEX delivered dividend yield above two percent only three years 2003 to 2005 which indicates good returns. In the remaining years dividend yield is less than two percent which indicates poor returns.

1.4 Year Wise Listing, Delisting and FPOs: In the present study listing, delisting and Further Public Offerings in BSE are observed in the present study.

Table: 1.4 Year wise Listing, Delisting and FPOs of BSE during 2001-21

Year	New Listings	Delisted	FPOs
2020-21	160	60	2606
2019-20	161	45	2028
2018-19	174	479	1464
2017-18	213	428	2266
2016-17	242	319	2241
2015-16	311	24	2120
2014-15	311	23	2141
2013-14	147	19	1699
2012-13	101	23	2255
2011-12	975	31	3076
2010-11	128	36	2506
2009-10	77	32	1806
2008-09	73	31	1860
2007-08	119	53	1974
2006-07	117	77	1709
2005-06	99	49	1367
2004-05	54	851	1489
2003-04	36	159	593
2002-03	25	157	412
2001-02	20	56	503
2000-01	98	32	489

Source: BSE Website

Analysis: The study found that, the highest number of companies is listed in BSE in 2011-12 i. e.975, on the contrary lowest companies are listed in 2001-02 i. e.20 companies and 25 companies in 2002-03 followed by 36 companies in 2003-04. In five years the listing range is 50-100 companies. In eight years listing range is 100-200 companies. In two years listing range of the companies is 200-300. In two years listing range is above 300 and below

400. Similarly, highest number of FPOs is issued in 2011-12 i. e.3076 and lowest was observed in 412 in 2002-03.

4. Findings of the study

- The average turnover the BSE market in equity segment is 8.7 Cr during the period of 2001-21. In total investors 21.08 percent of investors are registered from Maharashtra State only, while Gujarat 11.69, Uttar Pradesh 7.89 and Karnataka 5.96 percent.
- BSE started BSE SENSEX in 1986 with base points of 100 (base year of 1978-89) but crossed 55000 points in 2020.
- As on 2021, BSE P/E ratio was 28.10 percent, P/B ratio was 2.92 percent and dividend yield of 0.98 percent. The higher P/E ratio indicates high valuation of BSE.
- The status of total registered members in BSE improved from 708 in 2000-01 to 1394 in 2020-21. In this status members status of companies (1146) is higher than individual (209)
- The study observed the listed, delisted and FPOs of BSE during 2001-21. It found that the highest number of companies is listed in BSE in 2011-12 i. e.975, on the contrary lowest companies are listed in 2001-02 i. e.20 companies and 25 companies in 2002-03 followed by 36 companies in 2003-04. In five years the listing range is 50-100 companies. In eight years listing range is 100-200 companies. In two years listing range of the companies is 200-300. In two years listing range is above 300 and below 400. Similarly, highest number of FPOs is issued in 2011-12 i. e.3076 and lowest was observed in 412 in 2002-03.

5. Conclusion

The study concluded that, BSE has shown significant growth in term of investor participation, equity market turnovers and market capitalization. The study also found overvaluation of market through variable of P/B Ratio and P/E ratios. The study observed poor returns of dividend yield during the study period. Overall, the BSE has reported significant growth since 2000.

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