# Chapter 2

# Literature Review and Research Methodology

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## 2.1 Introduction:

This chapter presents the plan of the research and details of the present researcher like, problem statement, population, sample, nature, scope, type and research design of the study. It also contains the most important part of every research that is literature review. By the help of literature the researcher had found the gap in the existing knowledge and to fulfill this gap the how researcher had selected the present study.

## 2.2 Review of Literature

The process of reviewing the literature helps the researcher to understand the subject area better and thus helps him to conceptualize his research problem clearly and precisely. It also helps to understand the relationship between their research problem and the body of knowledge in the area.

How does answers to researcher's research questions compare with what others have found? What contribution have researcher been able to make in to the existing body of knowledge? How are researcher's findings different from those of others? For researcher to be able to answer these questions, he needs to go back to literature review. It is important to place the researcher's findings in the context of what is already known in his field of enquiry.[1]

The researcher has focused to review the literature related to performances of Bombay Stock Exchange and National Stock Exchange. Moreover the comparative studies of worldwide stock exchanges were also studied. Some studies conducted nationwide and internationally in context with the financial performance, efficiency, comparative studies of stock exchanges are being reviewed as follows.

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[1] Ranjit Kumar, **Research Methodology-A Step-by-Step Guide for Beginners, (2nd.ed.).** Singapore: Pearson Education, 2005, pp.55.

**Cohen, Ness, Okuda, Schwartz and Whitcomb (1976)**[2] worked on The Determinants of Common Stock Returns Volatility: An International Comparison" They studied the issue of thinness is of interest for a number of reasons. They found that the most obvious re changes in the fundamental determinants of share price and of a firms business and financial risk. They attempted to account for this by distinguishing between random traders included demand shifts and demand shifts induced by the receipt of new and generally available information concerning a stock's value. They also studied the differences in trading arrangements might explain some of the volatility differences especially internationally.

In a unique work of its kind, **L.C. Gupta (1980)**[3] examined the characteristics of the rates of return on equities in the Indian capital market for a fairly large sample of 276 companies over a sixteen year period from 1961-76. He concluded that the rates of return provided by equities are unsatisfactory because: a) about 20% of returns for various holding periods are negative, b) the returns provide only a partial hedge against inflation. While the study is an important milestone in research in Indian capital market, given the equity cult that started after forced dilution by MNCs because of FERA in the late seventies and the rise in the equity returns since the second half of eighties, the conclusions of the study are unlikely to be valid now for the Indian market. A comprehensive study of that kind for the more recent period is called for.

**Pandey (1981)** [4] examined the impact of leverage on equity prices and concludes that Modigliani-Miller hypothesis is not supported. However, the risk proxy used in the paper, namely, coefficient of variation of net operating income, is highly questionable. He found that the dividend per share to be the most important

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[2] Kalman Cohen et al., **The Determinants of Common Stock Returns Volatility: An International Comparison.** The Journal of Finance Volume XXXI, No. 2 The Journal of Finance, American Finance Association, 1976.

[3] L. C. Gupta, **Long Term Rates of Return on Industrial Equities in India.** *Economic & Political Weekly*, Review of Management, 1980, p. M85-92.

[4] I. M. Pandey, **Capital Structure and the Cost of Capital,** New Delhi: Vikas, 1981.

variable affecting the share price, followed by dividend yield, book value per share, dividend coverage and the return on investment, in that order. Balakrishnan (1984) also finds that the current dividend and book value per share are more important determinants of market price as compared to earnings per share and dividend coverage.

**Varma Venkiteswaran (1990)**[5] explored the relationship of the Indian stock markets as reflected by the Bombay Stock Exchange Index, vis-a-vis other prominent international stock markets. Twenty three international stock indices are used over the period 1983-87. He concluded that there was practically no meaningful relationship between the BSE index and other international stock market indices, though the British and South Korean indices are inversely related to BSE.

**Barua and Srinivasan (1991)**[6] worked on the investment decision making process of individuals has been explored through experiments. They conclude that the risk perception of individuals is significantly influenced by the skewness of the return distribution. This implies that while taking investment decisions, investors are concerned about the possibility of maximum losses in addition to the variability of returns. Thus the mean variance framework does not fully explain the investment decision making process of individuals.

**Gupta (1991)**[7] argues that designing a portfolio for a client is much more than merely picking up securities for investment. The portfolio manager needs to understand the psyche of his client while designing his portfolio. According to Gupta, investors in India regard equity debentures and company deposits as being in more or less the same risk category, and consider mutual funds, including all equity funds, almost as safe as bank deposits. He argued on the basis of a study of 25 large

[5] J. R. Varma and N. Venkiteswaran, **Guidelines on Share Valuation: How Fair is Fair Value?**, Vikalpa, Vol.15, No.4 (Oct-Dec), 1990, p.3-10.

[6] S. K. Barua and G. Srinivasan, **Experiment on Individual Investment Decision Making Process**, Sankhya, Vol. 53, Series B, 1991, p. 74-88.

[7] L. C. Gupta, **Indian Shareholders: A Survey.** Society for Capital Market Research and Development, Delhi, 1991, p. 174.

companies over a ten year period that bonus policy of companies is characterized by low bonus, irregular intervals and inconsistent policy. This is an area which needs further study as his sample is too small to arrive at any definitive conclusions. In fact, he knew too little about how companies decide on bonus issues; certainly, he knew less about bonus policy than about dividend policy.

**Varma (1991)**[8] compares the BSE National Index (Natex) which comprises 100 scrips with the Sensitive Index (Sensex) comprising 30 scrips and concludes that the Natex is a sluggish index which responds too slowly to market conditions. Changes which are reflected in the Sensex on any day are completely reflected in the Natex only by the next day. He finds that Sensex is more volatile than Natex. He concludes for this and other reasons that those who follow the Natex because of its greater comprehensiveness and theoretical appeal may be mistaken. The Sensex needs to be taken more seriously as a sound market index. The observed deficiencies of the Natex raise several disturbing questions for finance theorists and researchers.

**Mayya (1991)**[9] made an overview of the Indian capital market. He examined various aspects of Indian Capital Market. The study emphasized the need for modernization and computerization for providing liquid and efficient market. His study reveals that though Indian stock market has attained a remarkable degree of growth in last one decade, but has still to go a long way.

**Venkateshwar (1991)**[10] explored the relationships of the Indian stock markets as reflected by the Bombay Stock Exchange Index, vis-a-vis other prominent international stock markets. 23 international Stock indices are used over the period

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[8] J. R. Varma, **Is the BSE Sensitive Index Better than the National Index?** Working Paper No. 988, (Oct-Dec), Indian Institute of Management, Ahmedabad, 1991.

[9] M. R. Mayya, **Investor Protection.** Lecture delivered at Sydenham College of Commerce and Economics, Bombay, 14th March, 1991.

[10] Sankaran Venkateshwar, **The Relationship of Indian Stock Market to Other Stock Markets.** Indian Economic Journal, Vol. 39, No. 2 (Oct-Dec), 1991, p. 105-109.

1983-87. He concludes that there is practically no meaningful relationship between the BSE index and other international stock market indices, though the British and South Korean indices are inversely related to BSE.

**Raghunathan and Varma (1992)**[11] point out that any comparison of the Indian stock market with that elsewhere must be carried out on a common currency base. They find that in dollar terms, the SENSEX return over the 1960-92 period is only about 0.5%, while during the same period the returns in the U.S. (based on the S & P Index) and the Japanese (based on the NIKEI index) are 6.1% and 11.4% per year respectively. Over the twelve year period 1980-92, the dollar returns for SENSEX, S & P and NIKEI indices turn out to be 6.5%, 10.65% and 13.6% respectively. For a shorter span of seven years, namely 1985-92, the returns for the three indices turn out to be quite comparable at 15%, 13% and 14% respectively.

**Gupta (1992)**[12] in his book concluded that an Indian stock market is highly speculative. Indian investors are dissatisfied with the service provided to them by the brokers. Margins levied by the stock exchanges are inadequate and liquidity in a large number of stocks in Indian markets is very low. While evidently a careful work, the conclusion except about margin system by the stock exchanges are adequate and other two options built on wrong or questionable arguments. concluded that, a) Indian stock market is highly speculative; b) Indian investors are dissatisfied with the service provided to them by the brokers; c) margins levied by the stock exchanges are inadequate and d) liquidity in a large number of stocks in the Indian markets is very low. While evidently a painstaking work, the conclusions except 'c' above seem to be built on wrong or questionable arguments.

**Dhillon (1993)**[13] in his doctoral dissertation studied the regulatory policies of Bombay Stock Exchange (BSE) over a four year period (July 1986 - June 1990). His

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[11] V. Raghunathan and Varma, J. R., **Why the Dollars do not Flow into India?**, Unpublished Paper, 1992, Indian Institute of Management, Ahmedabad.

[12] L. C. Gupta, **Stock Exchange Trading in India: Agenda for Reform.** Society for Capital Market Research and Development, Delhi, 1992, p.23

[13] N. Dhillon, **Market Regulations and Stock Market Activity.** Indian Institute of Management, Ahmedabad, 1993.

findings show that regulatory authorities decide changes in their margin policy on the basis of market activity. He found that the margins were prompted by changes in settlement returns, price volatility, trading volume and open positions. Granger causality results show that there is limited causality in the reverse direction: margin changes do not affect returns, and have only a limited impact on price volatility, trading volume and open positions.

**Chaplinsky and Hansen (1993)**[14] suggest that the indifferent stock market reaction is partly on account of market expectation of debt issues. They find significant negative stock price reaction to debt issue announcement after controlling for market expectations. However, the fall in price in case of debt issue announcements has been found to be lower than that of fall in the case of stock issue offerings.

**Handa (1995)**[15] made a comparison of practices in developed markets and developing markets. According to him it is in the developed markets of the west that business trends, trade cycles and a host of other factors are taken care of by computers and forecasting models. This information was backed by decades of diligently stored data. He also found that the situation back home was materially different and the company reports are available six months after the year ends which lose relevance by the time they are analyzed.

**Prabhu (1995)**[16] participating in a seminar organized by the Cochin Stock Exchange on 'Stock-broking in the changed scenario', pointed out , "In order to become successful in share broking business, the changed scenario looks for professional standards, functional strength backed by corporate right, ethical behavior

[14] Susan Chaplinsky and Robert Hansen, **Partial Anticipation, the Flow of Information and the Economic Impact of Corporate Debt Sales.** Review of Financial Studies, Oxford University Press for Society for Financial Studies, vol. 6(3), 1993, pages 709-32.)

[15] Rajiv Handa, **Getting to Grips with Equity Research.** Economic Times – Investors Guide. Mumbai, February 20, 1995, p.16.

[16] Suresh Prabhu, **Seminar on Stock Broking in the Changed Scenario.** The Stock Journal, Kochi, June 1995, p.51.

and a comprehensive and total approach to business from the part of stockbrokers." He recommended that with corporatization of memberships, the members should provide multiple services to investors. In his opinion, the brokerage charged has to be responsive to the cost. He concludes his presentation with the remark the there is tremendous opportunity in the state of Kerala for development of capital market activities.

**Menon (1996)**[17] a member of the Cochin Stock Exchange spoke about market making. In his opinion, good market making is essential not only for inactive securities, but also for moderately active and daily traded securities. Such an activity will need the support of banking system and also co-operation from listed companies. He further pointed out that because of varying market sentiments and changing investor perceptions there will always be mis-match between buying and selling orders of investors in respect of any security on any given day in the market terms of timing and quantity. This leads to buying orders remaining unexecuted on the one hand and poor liquidity for those who wish to disinvest on the other hand.

**Ahmed (1996)** [18] worked on the development of stock exchanges in developing countries with special reference to the working and performance of Kuwait Stock Exchange. He found that Kuwait Stock Exchange enjoys an independent judicial personality. The Stock Exchange within its activity act to direct and rationalize dealing in stocks and securities, within the scope of its powers in order to develop and stabilize dealing in securities in a manner securing safe, easy and accurate transactions so as to avoid any confusion in dealings. The Stock Exchange staff is developing the systems and the methods of dealing in securities, besides introducing modern techniques such as those applied in advanced stock markets for the purpose of achieving a sound financial position for the KSE on both, regional and international levels.

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[17] T. N. Menon, **The Importance of Market Making in the Securities Market.** The Stock journal, Kochi, August 1996, p.41.

[18] Gad-El-Halk Magdi Ahmed, **A study of the development of stock exchanges in developing countries with special reference to the working and performance of Kuwait Stock Exchange.** Doctoral, University of Pune, Pune, 1996.

**McLaughlin, Safieddine and Vasudevan (1996)**[19] analyze the operating performance of seasoned equity offerings of a large sample of 1,296 firms listed on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and NASDAQ that raised capital through subsequent offerings during the period 1980 - 1991. They also analyzed the determinants of subsequent performance and the factors influencing the decision to issue equity. The study revealed that the SEO firms had a significant increase in operating performance prior to the issue and that they register a considerable decline in profitability in post-offering period. This research is the examination of the long-run operating performance of a large sample of straight-debt-issuing firms, which complements previous large-sample studies of firms making seasoned equity offerings (SEOs). Moreover they compared the information effects for debt and equity issuers after controlling for other factors associated with changes in issuer operating performance.

**Singh (1997)** [20] Financial Liberalisation, Stock markets and Economic Development. He concentrated on the role of the stock markets in the liberalisation process in developing countries (DCs) in the 1980 and 1990 and explored among other things, their effects on the financing of corporate growth. In addition to financial de-repression at that time, there had been a major new element in the development of DC financial system in recent years – the establishment and fast expansion of stock markets. At the macro-economic level, the paper considered foreign portfolio flows, the interaction between the stock and the currency markets and their implications for the stability of the real economy and its long term growth.

[19] Robyn McLaughlin et al., **The information content of corporate offerings of seasoned securities: an empirical analysis.** Doctoral Thesis, 1993.

[20] Ajit Singh, **Financial Liberalisation, Stock markets and Economic Development.** The Economic Journal, Vol. 107, No. 442, Published by: Blackwell Publishing for the Royal Economic Society Stable, 1997, pp. 771-782.

**Masih and Masih (1997)**[21] examined the dynamic linkage patterns among national stock exchange prices of four Asian newly industrializing countries - Taiwan, South Korea, Singapore and Hong Kong. The sample used comprised end-of-the-month closing share price indices of the four NIC stock markets from January 1982 to June 1994. They concluded that the study of these markets is not mutually exclusive of each other and significant short run linkages appear to run among them. The patterns of dynamic linkages are examined among national stock prices of four Asian Newly Industrializing Countries stock markets - Taiwan, South Korea, Singapore and Hong Kong - in models incorporating the established markets of Japan, USA, UK and Germany had been studied.

**Madhusoodanan and M. Thiripalraju (1998)**[22] A study on Indian market**,** analyze the Indian IPO market for the short-term as well as long-term under pricing prior to 1997. This study indicates that, in general, the under pricing in the Indian IPOs in the short-run was higher than the experiences of other countries. In the long-run too, Indian offerings have given high returns compared to negative returns reported from other countries.

**Eckbo, Masulis and Norli (2000)**[23] 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.

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[21] Abul M. M. Masih and Masih Rumi, **A comparative analysis of the propagation of stock market fluctuations in alternative models of dynamic causal linkages.** Applied Financial Economics, Taylor and Francis Journals, vol. 7(1), 1997, pp 59-74.

[22] T. P. Madhusoodanan and Thiripalraju M., **Investment Horizon and Volatility: An Analysis of the Indian Market.** The ICFAI Journal of Applied Finance, Vol. 4 (1), 1998.

[23] Eckbo et al., **Seasoned Public Offerings: Resolution of the 'New Issues Puzzle'.** Journal of Financial Economics, Tuck School of Business, Working Paper, Vol. 56, 251-291, 2000.

**Krishnamurti (2000)**[24] worked on a paper titled "Competition, Liquidity and Volatility- A Comparative Study of Bombay Stock Exchange and National Stock Exchange." He stated that India has to major stock exchanges: BSE and NSE. There are important differences in ownership structure, geographical reach, internal control systems and institutionalized risk management facilities between the BSE and NSE. For examining if these significant structural differences between these stock exchanges contribute to variations in observed measures of quality of markets. He used a paired comparison approach and document significant differences in liquidity and price volatility between the two markets. He found that NSE is superior in his department on many counts. The reputation of surveillance system in NSE is better too. NSE adopts a completely order driven system while BSE has a system that is part order driven and part quote driven. Both exchanges have price stabilization features.

**Gupta (2002)** [25] studied the Performance Evaluation of National Stock Exchange of India. 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.

**Poshakwale (2002)**[26] examined the random walk hypothesis in the emerging Indian stock market, by testing for the nonlinear dependence using a large disaggregated daily data from the Indian stock market. The sample used was 38

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[24] Candrasekhar Krishnamurti, **Competition, Liquidity and Volatility- A Comparative Study of Bombay Stock Exchange and National Stock Exchange.** Eugene Lim, National University of Singapore, Singapore, 2000.

[25] Renu Gupta, **Performance Evaluation of National Stock Exchange of India.** Doctoral thesis, Jamia Millia Islamia University, New Delhi, 2002.

[26] Sunil Poshakwale, **The Random Walk Hypothesis in the Emerging Indian Stock Market.** Journal of Business Finance and Accounting, 29 (9) & (10), Nov./Dec. 2002, pp.1275-1299.

actively traded stocks in the BSE National Index. He found that the daily returns from the Indian market do not conform to a random walk. Daily returns from most individual stocks and the equally weighted portfolio exhibit significant non-linear dependence. This is largely consistent with previous research that has shown evidence of non-linear dependence in returns from the stock market indexes.

**Javaid (2002)**[27] studied on operations of stock exchanges with special reference to Delhi Stock Exchange. He worked on the operation and functioning a stock exchange. He analyzed working, management and performance of Delhi stock exchange. The study covered wide ranging issues concerning the operations of trading in stock exchanges. It covered both the brokers and the investors of primary and secondary market in Delhi. His study is confined to 100 investors from a large family of investors. He found that the problems been faced by all the investors were similar in nature. The sample of brokers was 25% of total brokers at Delhi stock exchange. One of his conclusions was that there should be a specific act for protecting small investors. The act should be codify, amend and consolidate laws and practice for the purpose of protecting investor's interest in DSE.

**Shah and Thomas (2002)**[28] elucidate the critical developments in Indian securities markets during the 1990s performance between issuers and non-issuers. They also find evidence that the market correctly analyzes earnings management and reacts positively to net income and negatively to discretionary accruals. He reviewed the changes which took place on India's equity and government bond markets in the decade of the 1990s. They focused on four interesting questions: (a) Why did NSE succeed? (b) Why did the equity market lurch from crisis to crisis? (c) Why did reforms on the GOI bond market falter? (d) How important are crises as a mechanism for obtaining reforms? They tried to address questions of human capital and organisational design at SEBI and RBI.

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[27] Mohd Javaid, **A study of operations of stock exchanges with special reference to Delhi stock exchange.** Doctoral thesis, Jamia Millia Islamia, New Delhi, 2000.

[28] Ajay Shah and Susan Thomas, **The Evolution of the Securities Markets in India in the 1990s.** Indian Council For Research On International Economic Relations, New Delhi, 2002.

**Agrawal and Singh (2002)**[29] examined the stock price effects and trading volume patterns for the possible existence of informed trading prior to merger announcement. Event study analysis of forty companies suggested the evidence of insider trading. Event studies are used in tests of EMH to ask whether prices incorporate information fully on the day that the information is revealed. If EMH holds, the information about the event should be incorporated into prices before or on the day of the event itself. There should be no impact on returns after the event. Typical event studies analyze the impact of a specific event on returns behaviour. Sometimes it is a macro-economic or institutional event at fixed periods or at a given point in time for which we want to understand the impact on returns e.g. the start of electronic trading in India, or the depository; the introduction of derivatives etc. The study and analysis of how financial asset prices adjust to information have long been a focus of attention in the academic literature.

**Shamsuddin and Kim (2003)** [30] researched on Integration and interdependence of stock and foreign exchange markets: an Australian perspective. They studied the integration of the Australian stock market with its two leading trading partners, the US and Japan. In investigating the extent of integration, the study considered the interdependence between foreign exchange rates and stock prices, since exchange rates influence international competitiveness of firms, and, via interest rates, the cost of capital. The results indicated that there was a stable long-run relationship among the Australian, US and Japanese markets prior to the Asian crisis but that this relationship disappeared in the post-Asian crisis period.

[29] Agarwal and Singh, **Merger Announcements and Insider trading Activity in India: An empirical Investigation.** NSE research Initiatives, Paper No.8, 2002.

[30] Abul F.M. Shamsuddin and Jae H. Kim, **Integration and interdependence of stock and foreign exchange markets: an Australian perspective.** Journal of International Financial Markets, Institutions and Money, Volume 13, Issue 3, July 2003, Pages 237-254.

**Bavaria (2004)**[31] compared the **profitability** of cement industry. According to him the increase in the proportion of profit is in the same proportion as increase in average interval profit. So here also there is a direct relation between Net Profit and Interval Measure. He concluded that the maximum return on net capital employed is in the Eastern Region, whereas negative result is seen in the Rest of the Regions. According to him the best way to tide over the liquidity problems of the undertakings is to improve their profitability. Companies should revise the ways, besides, managing the working capital effectively, of maximizing overall return on investment. This is considered essential because, the cash flows of any concern rest, primarily, on the profitability and the amounts set a part for depreciation and other non- cash charges.

**Yakob, Beal and Delpachitra (2005)** [32] examined seasonal effects in ten Asian Pacific stock markets, including the Indian stock market, for the period January 2000 to March 2005. They state that this is a period of stability and is therefore ideal for examining seasonality as it was not influenced by the Asian financial crisis of the late nineties. Yakob, et al., concluded that the Indian stock market exhibited a month-of-the-year effect in that statistically significant negative returns were found in March and April whereas statistically significant positive returns were found in May, November and December.

**Somaiya (2005)**[33] researched on Scientific Management of Small Investors Protection in the New Millennium with Reference to India; Challenges and Opportunities (1991-2011). He has done a tremendous work in the field of Indian stock exchanges. This doctoral thesis is divided into two volumes. He included the study of history of stock exchanges, fluctuations in stock market, investors' risk and protection means, investors' complaints and their solutions, stock market scams, role

[31] Rasik N. Bavaria, **A Comparative Analysis of Profitability Vis-à-vis Liquidity Performance in Cement Industry of India.** Doctoral Thesis Saurashtra University, Rajkot, 2004.

[32] Noor Azuddin Yakob et al., **Seasonality in the Asia Pacific Stock Markets.** Journal of Asset Management, Volume 6, Number 4, 2005, pp. 298-318.

[33] Kirit Jayantilal Somaiya, **Scientific Management of Small Investors Protection in the New Millennium with Reference to India; Challenges and Opportunities (1991-2011).** Doctoral Thesis, University of Mumbai, Mumbai, 2005.

of banks, regulatory frame work and much more. **Ex-prime minister of India Atal Bihari Bajpai and Prime Minister Manmohan Singh have appreciated this work.**

**Noor, Yakob, Beal and Sarath (2006)**[34] studied the stock market seasonality in terms of day-of-the-week, month-of-the-year, month and holiday effects in ten Asian stock markets, namely, Australia, China, Hong Kong, Japan, India, Indonesia, Malaysia, Singapore, South Korea and Taiwan. He concluded that the existence of seasonality in stock markets and also suggested that this is a global phenomenon.

**Krishanamurti (2006)**[35] studied on Competition, Liquidity and Volatility – A comparative study of BSE & NSE. 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.

**Sinha and Pan (2006)**[36] 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-bytick 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 distributions of trading volume and the number of trades had a different nature than that seen in the New York Stock

[34] Noor Azuddin et al., **Seasonality in the Asia Pacific stock markets.** Journal of Asset Management, 6 (4). 2005, pp. 298-318.

[35] Krishanamurti, **Competition, Liquidity and Volatility – A comparative study of BSE & NSE.** National University of Singapore, Singapore, 2006.

[36] Sitabhra Sinha and Raj Kumar Pan, **The Power (Law) of Indian Markets: Analyzing NSE and BSE trading statistics.** The Institute of Mathematical Sciences, C. I. T. Campus, Taramani, Chennai, 2006.

Exchange (NYSE). Further, the price movement of different stocks are highly correlated in Indian markets.

**Mukherjee (2007)**[37] 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.

**Osami & Abdullah (2007)**[38] researched on topic Towards an Islamic Stock Market: A Review of Classical and Modern Literatures. In their investigation of half-year seasonality, they found returns from Novfound that ember to April were greater than returns for the six months May through October. This half-year effect was somewhat consistent for different sub-samples of their study. They study reviewed the classical and modern literature on Islamic laws which are related to transactions to find out Shariah principles and then follows the analytical method to examine every aspect of stock market based on these principles. They tried to furnish some concrete suggestions and recommendations towards the development of a full-fledged Islamic stock market.

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[37] Debjiban Mukherjee, **Comparative Analysis of Indian Stock Market with International Markets.** Great Lakes Herald – April 2007, Volume 1, Issue 1 by Great Lakes Institute of Management, Chennai, 2007.

[38] Noor Mohammad Osmani and Md. Faruk Abdullah, **Towards an Islamic Stock Market: A review of Classical and Modern Literatures.** Department of Qur'an and Sunnah Studies, IRKHS, International Islamic University, Malaysia, 2007.

**Diebold and Yilmaz (2007)**[39] worked on Macroeconomic Volatility and Stock Market Volatility, World-Wide. They analyzed the resulting 46 pairs of stock market and fundamental volatilities in two ways. The first follows Schwert and exploits only time-series variation, estimating a separate VAR model for each country and testing causality. The results, which are not reported here, mirror Schwert's, failing to identify causality in either direction in the vast majority of countries. In this paper a broader movement focusing on the macro-finance interface. Much recent work focuses on high-frequency data, and some of that work focuses on the high frequency relationships among returns, return volatilities and fundamentals. He focused on international cross sections obtained by averaging over time. He added that interpretation is not only in general as a "call to action" for more exploration of the fundamental volatility / return volatility interface, but also in particular as a call for more exploration of volatility at medium (e.g., business cycle) frequencies.

**Chukwuogor (2007)**[40] studied on "Stock Markets Returns and Volatilities: A Global Comparison". He examined the general patterns of recent global stock market returns and the volatility of such returns using 40 global stock indexes of countries classified into developed and emerging markets as barometers for the period 1997-2004. This classification was based on the classification suggested by Standard and Poor's Credit Ratings Report by Hessel (2006). He investigated the presence of the day-of-the-week return in these countries and the correlation of the returns of these global stock indexes to the US market. A set of parametric and non-parametric tests was used to test the significance of the standard deviations and further determine the correlation of the returns of these global stock indexes to the US market. There was evidence of negative and low correlation of returns between the US stock markets and many global stock markets. These findings presented interesting opportunities and dynamics for enhanced return through diversification in global portfolio investments.

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[39] Francis X. Diebold and Kamil Yilmaz, **Macroeconomic Volatility and Stock Market Volatility, World-Wide.** University of Pennsylvania and NBER, Pennsylvania, 2007.

[40] Chiaku Chukwuogor, **Stock Markets Returns and Volatilities: A Global Comparison, Global Journal of Finance and Banking.** Issues, Vol. 1., No. 1., 2007.

**Yinxia Guo (2008)**[41] studied The Efficiency of the Chinese Stock Market with Respect to Monetary Policy. According to him due to the bull stock market in China, the efficiency of the Chinese stock market has been one of the hot topics. Because monetary policy plays an important role in Chinese economy and there is a close relationship between stock returns and monetary policy, he tested the efficient market hypothesis (EMH) for the Chinese stock market with respect to monetary policy. The vector auto regression (VAR) models are used to estimate the relations among stock returns and relative macroeconomic variables related to monetary policy.

**Daan Struyven (2008)**[42] studied on the battle between the Bombay Stock Exchange and the National Stock Exchange. He compared BSE and NSE on various aspects like, Impact of technology on transaction costs and access, Governance & Management, Product scope, Geographical reach. He found that NSE surpassed BSE on the equity segment in only 12 months because of 4 main raisons. First of all, non-Gujarati traders and/or investors with low needs to be part of the Gujarati financial community were predominantly attracted by the fee structure and customer oriented clearing-, settlement- and dematerialization processes of NSE. Secondly, traders, investors and public policy makers with an important long-run financial and/or political interest to transform the Indian equity market into a competitive and attractive market were attracted by this potential to reshape the market and by the fee structure and the customer oriented clearing-, settlement- and dematerialization processes of NSE. Thirdly, traders and/or investors -who originally used brokers - become member of NSE because of the possibility to trade electronically outside Bombay. Fourthly, price differences attracted arbitrage traders who supported liquidity at both exchanges.

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[41] Yinxia Guo, **The Efficiency of the Chinese Stock Market with Respect to Monetary Policy.** Doctoral thesis, School of Economics and Management, Lund University, Spring, 2008.

[42] Daan Struyven, **The battle between the Bombay Stock Exchange and the National Stock Exchange.** Indian Institute of Management (IIM) Bangalore, 2008.

**Jayen B. Patel (2008)**[43] studied on Calendar Effects in the Indian Stock Market. He found two distinct calendar effects in returns for the Indian stock market. Specifically a November-December effect in which, they documented that mean returns for November and December were significantly greater than those of the other ten months. They found that the highest mean returns for each index were generated during the month of November. December and August also generated relatively high returns. The month of March generated negative mean returns, the lowest for each index, and April and May also generated substantially lower returns for each index. They seek to identify a series of consecutive months during which the Indian stock market generates extraordinarily high (or low) returns. Identification of such a pattern may enable the investors to enhance investment returns. More specifically, an investor should be invested during the consecutive months when the Indian stock market generates high positive returns, and, alternately, an investor should invest out of the Indian stock market in consecutive months when stocks generate substantially negative returns.

**Novak (2008)**[44] worked on the Importance of Accounting Information for Stock Market Efficiency. This thesis contributes to the discussion on the importance of accounting information for stock market efficiency. As any analysis of market efficiency depends on the use of adequate risk proxies, the thesis first investigates the ability of commonly used risk factors to explain the cross-sectional variation of Swedish stock returns. The relative bid-ask spread is found to be the strongest of all the analyzed factors; nevertheless it does not seem to be related to momentum in the manner predicted in the conceptual argument presented earlier in the paper. He concluded that, contrary to this proposition, the structure of accounting does matter for equity valuation and that changes in representation do impact on stock prices.

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[43] Jayen B. Patel, **Calendar Effects in the Indian Stock Market.** International Business & Economics Research Journal – March, Volume 7, Adelphi University, Garden City, Nassau County, New York, 2008.

[44] Jiri Novak, **Importance of Accounting Information for Stock Market Efficiency.** Uppsala University, Uppsala, Sweden, Europe, 2008.

**Pandian (2009)** [45] studied on Stock Market Volatility in Indian Stock Exchanges. She collected the data from BSE Sensex and NSE Nifty for calculating return and volatility. Sensex is a basket of 30 constituent stocks representing a sample of large, liquid and representative companies. Due to its wide acceptance amongst the Indian investors, sensex is regarded the pulse of the Indian stock market. Nifty is a well diversified 50 stock index accounting for 24 sectors of the economy. Hence these two indices were taken for the study. Data were taken from 1998 to 2008. Bank, corporate and personal balance sheets are strong. Corporations are experiencing high profits. The stock market is at a record high. Commodity markets are at their strongest. Lead manufacturing sectors such as software, textiles and steel have yielded dividends. Spices exports have reached beyond the targets. SEBI's clarification on FIIs investment through Participatory Notes strengthened the market. Rupee value appreciation flourished the Indian stock market. The bull phases earned decent returns and the bear phases incurred loss. In the bull phases volatilities were lower than bear phases.

**Sah (2010)**[46] worked on the topic "Stock Market Seasonality: A Study of the Indian Stock Market". In this study, he tried to examine the seasonality of stock market in India. He considered the S&P CNX Nifty as the representative of stock market in India and tested whether seasonality is present in Nifty and Nifty Junior returns using daily and monthly data sets. The study found that daily and monthly seasonality are present in Nifty and Nifty Junior returns. The analysis of stock market seasonality using daily data, he found Friday Effect in Nifty returns while Nifty Junior returns were statistically significant on Friday, Monday and Wednesday. In case of monthly analysis of returns, the study found that Nifty returns were statistically significant in July, September, December and January. In case of Nifty Junior, June and December months were statistically significant. The results established that the

[45] Punithavathy Pandian, **Stock Market Volatility in Indian Stock Exchanges.** Dept of Commerce M.K. University, Madurai, indiastat.com May–June, 2009**.**

[46] Ash Narayan Sah, **Stock Market Seasonality: A Study of the Indian Stock Market.** University of Petroleum & Energy Studies, 2010.

Indian stock market is not efficient and investors can improve their returns by timing their investment.

**Gupta (2011)**[47] studied on Comparative Study of Distribution of Indian Stock Market with Other Asian Markets. She studied whether Indian stock market returns were correlated to the stock market returns of other selected Asian Economies or not and compared the distribution of the stock market returns of India with other selected Asian economies. She included BSE(India), Heng Seng(Hong Kong), JKS(Indonesia), KLSE(Malaysia), Nikkie(Japan), KS11(Korea) in her study. She used the descriptive statistics of the six Asian markets for the period between 2005 and 2009. She found that the mean of the weekly returns of India and the Indonesian markets were observed to be the highest around 23%. Japanese markets were flat during the study period. Volatility as measured by standard deviation and its square, the variance was the least observed in the Malaysian markets. The other five Asian markets generated variance in the range of 11%-15%. Indian markets showed maximum variance. Kurtosis, as referred to as the volatility of the volatility, measures the peakedness of the distribution. The weekly returns of Hong Kong and Malaysian markets were more near to their respective means, as their kurtosis were nearing 3. Weekly returns of Indian stock markets indicate a low peak with a fat mid range on either side. The kurtosis of India is platykurtic which signifies the normal distribution of stock returns in Indian stock market; however, the high kurtosis of other markets exhibits heavier tail than the standard normal distribution implying that returns are concentrated on one level. The study uses Jarque-Bera test to examine the normal distribution.

### 2.3 Gap and Research Problem Statement

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

[47] Nupur Gupta, **Comparative Study of Distribution of Indian Stock Market with Other Asian Markets.** International Journal of Enterprise Computing and Business Systems, ISSN (Online): 2230-8849, Vol. 1 Issue 2 July 2011.

major stock exchanges of India: BSE and NSE. The need felt by the researcher to focus on the latest development and performance from the year 2001 to 2010 and finalize the topic as under:

**"Performances Of Stock Exchanges In India: A Comparative Study Of Bombay Stock Exchange And National Stock Exchange"**

## 2.4 Research Methodology

The research methodology of the selected topic follows in these dimensions:

### 2.4.1 Population of the Study

In this study, all Indian stock exchanges are the census for the study. All the 23 stock exchanges in India are as the population for this study.

### 2.4.2 The Period of the Study

The study is covered for ten years from the year 2000-2001 to 2009-2010. This period is selected by the researcher for the study because she wanted to study the current scenario of the performances of Indian stock exchanges. This period covers the major fluctuations in the Indian capital and financial markets as well as Indian economics.

### 2.4.3 Type of study

The study done is Empirical in nature. It provides basis for external validation. Empirical study relies on experience or observation alone i.e. data based research. It is capable of being verified by observation or experiment. An attempt has been made to answer the questions raised quantitative investigation. So it is Quantitative and Analytical Research. It is a functional study by nature and it focuses on the functional aspects of the stock exchanges.

### 2.4.4 Scope of the Study

This study is based on census of all stock exchanges of India for the period of ten years from 2000-2001 to 2009-2010. 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.

So, the scope of the study is still very wide. This study encompassed data on annually profitability of NSE & BSE. In the case of NSE & BSE both, the study has been conducted for a period of ten years from 2000-2001 to 2009-2010. This study is aimed at an evaluation of financial performances of selected stock exchanges. The overall study seeks to answer the following questions as the scope of the study.

(1) To know about financial performance of selected stock exchanges in India.

(2) Which stock exchange is more efficient with respect to annual reports?

(3) Which companies effect more to the profitability of BSE & NSE?

### 2.4.5 Investigative question

This study focuses the functional aspects of the stock exchanges as well as it clears the financial consideration for efficiency measurement. Through this study, operational efficiency and commercial viability is considered by the researcher. The researcher would like to address the following questions:

(1) Which is more efficient between these two stock exchanges?

(2) What are the driving forces to improve efficiency?

(3) Do these stock exchanges differ significantly?

### 2.4.6 Objectives of the study

The broader objectives of the study are:

(i) To make a comparative analysis of annual reports of National Stock Exchange with Bombay Stock Exchange in India over the period of time. .

(ii) To make comparative trend analysis of financial performances of Bombay Stock Exchange and National Stock Exchange over the period of time.

(iii) To make comparative ratio analysis of financial performance of Bombay Stock Exchange and National Stock Exchange over the period of time.

(iv) To make comparative ratio analysis of profitability of Bombay Stock Exchange and National Stock Exchange over the period of time.

(v) To make suggestions with regard to the working of stock markets in India.

### 2.4.7 Hypothesis

The broader hypotheses of this study are as follows:

**(1)** There is no significant difference between the Mean Scores of **Total Assets Turnover Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(2)** There is 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.

**(3)** There is no significant difference between the Mean Scores of **Net Fixed Assets Turnover Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(4)** There is no significant difference between the Mean Scores of **Depreciation to Net Revenue Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(5)** There is no significant difference between the Mean Scores of **Operating Expenses Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(6)** There is no significant difference between the Mean Scores of **Computer Technology and IT Related Expenses to Net Revenue Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(7)** There is no significant difference between the Mean Scores of **Payments and Provisions for Employees to Net Revenue Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(8)** There is no significant difference between the Mean Scores of **Current Assets Turnover Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(9)** There is no significant difference between the Mean Scores of **Clearing and Settlement Charges/Expenses to Net Revenue Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(10)** There is no significant difference between the Mean Scores of **Taxes to Net Revenue Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(11)** There is no significant difference between the Mean Scores of **Advertising, Publicity and Marketing Expenses to Net Revenue Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(12)** There is no significant difference between the Mean Scores of **Listing Income to Net Revenue Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(13)** There is no significant difference between the Mean Scores of **Transaction Charges/ Brokerage Income/ (Income from Data dissemination to Net Revenue Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(14)** There is no significant difference between the Mean Scores of **Return on Capital Employed** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(15)** There is no significant difference between the Mean Scores of **Return on Owner's/ Shareholder's Equity Ratio** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(16)** There is no significant difference between the Mean Scores of **PBIT/Total Income Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(17)** There is no significant difference between the Mean Scores of **PBT/Total Income Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

**(18)** There is no significant difference between the Mean Scores of **PAT/Total Income Ratios** of Bombay Stock Exchange and National Stock Exchange over the period of time.

### 2.4.8 Data Collection

This study is based on secondary data. For this purpose, the researcher has used the data published on Capital Markets, the survey published in financial express

for stock exchanges, news channels like CNBC TV 18 and websites of BSE, NSE, CMIE and other related websites. **The researcher had also purchased the annual reports of NSE from BusinessBecon website monitored by Centre for Monitoring Indian Economy (CMIE).** Moreover, the books, newspapers, journals, articles, reports and surveys have been referred.

### 2.4.9 Data Analysis

For the comparison between the two major stock exchanges the researcher had used some statistical tests according to the nature and objectives of the study. The collected information are suitably classified and tabulated with the help of statistical tools. To study the financial performance of BSE over the period of time **Mean** – the ideal measure of central tendency, **Standard Deviation** – the ideal measure of dispersion and **Co-efficient of Variance (C.V.)** – the ideal measure of relative dispersion, **Graphical Analysis** and **Trend Percentage Analysis** – Analysis of **Simple Index** and **Chain Base Index** and **Compound Annual Growth Rate** have been used in the present study. **Ratio Analysis** has been used to find out viability of the company position. To know whether difference between two means is significant or not t-test had been applied. The conclusions of hypothesis have been drawn on the basis of 5% level of significance.

### 2.4.10 Chapter plan

I. Indian Capital Markets – An Overview

II. Literature Review and Research methodology

III. Sample Profile: BSE and NSE

IV. Financial Performance Analysis – A conceptual framework.

V. Financial Performance Analysis of Bombay Stock Exchange

VI. Financial Performance Analysis of National Stock Exchange

VII. Comparison of Financial Performances of Bombay Stock Exchange and National Stock Exchange

VIII. Summary, Findings, Suggestions, Recommendations and Conclusion

## 2.5 Contribution of the Study

The present study is significant from various points of view. The study would contribute to the government society, stock exchanges, companies, shareholders, investors, brokers, society, etc.

- **Contribution towards the Government:** The present study would reveal the financial condition and facts of BSE and NSE to the government. The aim is to throw the light on the fact that how much the stock exchanges are efficient. So that they can make the proper decisions regarding the fiscal policies and for controlling the present inflation rate.
- **Contribution towards the society:** The present study would disclose the performances of stock exchanges. The present study would be helpful to the different segments of society. People would get the idea about the economical condition of the country because the stock exchanges are the mirror of nation's economy. So, they can take the steps accordingly.
- **Contribution towards the stock exchange:** The present study would be helpful to the stock exchanges in continuing their efforts for being more efficient. The study would suggest how well or bad they are performing. It would boost the stock exchanges to move further in the direction of improved performances.
- **Contribution towards the knowledge / subject:** Every new research enriches the contents of the related subject. The present study would surely put an important brick in the build of the subject. Because through the literature review the researcher found that no one had contributed in the selected research problem.
- **Contribution towards companies:** With the help of the present research the existing companies and new companies would get the information about the performances of stock exchanges in India. The companies would get an idea that at which stock exchange they should get their company's shares enlisted.
- **Contribution towards Shareholders, investors:** As this research would highlight the financial performance of the stock exchange, the investors and the shareholders will get the idea about where they will be more benefited, they need not to do market research.

## 2.6 Limitations of the Study

The limitations of this study are as follows:

1. The evaluation was based on the secondary data collected through the respective websites of NSE & BSE, published literature, annual reports, etc., and so the findings of the study depended entirely on the accuracy of such data.
2. Different experts have got different views on evaluating approach and performance of stock exchange hence the view used in the study for the present purpose cannot be treated as the absolute and perfect.
3. Researcher being outsider, external analyst obviously have no access to the internal information. Therefore it is hard to characterize inside view of the stock exchange in the study.
4. The present study was mainly attributed to the financial performances of the BSE and NSE. Henceforth, the study would mainly be limited to the financial activity and performance of the said stock exchanges of India.
5. The researcher will use some of the statistical tools for analyzing the collected data. The analysis shall be affected by the natural limitations of the tools used.
6. This research is not a destination, it is a continuous journey. The basic purpose of research is to contribute to the existing pool of knowledge. The present study is based on only the data for the period of ten years.

## 2.7 Conclusion

Through the literature review of the researcher found the gap in the literature and chosen the present topic for the study. In the part of research methodology the plan of study and chapterization has been made. In the following part this plan has been implemented.