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AN EMPIRICAL STUDY ON FOREIGN INSTITUTIONAL INVESTORS' INVESTMENT TRENDS AND ITS IMPACT ON BSE SENSEX

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Abstract

Foreign institutional Investors are the investors who brings investment fund which are from or registered in a country outside of the one in which it is currently investing. In this research study, it is an attempt made to describe or moreover explain the impact and extent of foreign institutional investors in Indian Stock Market. In General meaning of foreign institutional investors are referred to outside companies or firms investing in the financial or capital market of India. Foreign Institutional Investors must register themselves with the Securities and Exchange Board of India (SEBI) to make participation in the capital market. One of the major market regulations pertaining to Foreign Institutional Investors involves placing limits on Foreign Institutional Investors ownership in Indian Companies. They can make investment in a portfolio of shares and deposits. Foreign Institutional Investors invest their major source of money in the issue of Participatory Notes (P-Notes), or which is sometimes called Offshore Derivatives.

There are nearly 1484 Foreign Institutional Investors and more than 38 Foreign Brokers registered to Securities and Exchange Board of India (SEBI). In this present paper we probe into relationship between capital market movement and these investors, we often hear that whenever there is a rise in stock market, it is due to Foreign Institutional Investors' investment and there is a decline in stock market, it is due to withdrawal of money by Foreign Institutional Investors. Foreign Institutional Investors had faced severe liquidity problems or crunch at the time of sub-prime crisis and other financial or economical crisis at a global level, so they are forced to withdraw their money from Indian Capital Market, so as to repay loans and advances they had taken, and due to these withdraws of investment, it had created panic in the capital market and even domestic investors were sell their shares. But we should agree on one aspect that increased role of foreign Institutional Investors had changed the look of Indian Stock Market. It has brought both the type of changes i.e., qualitative and quantative. The role of Foreign Institutional Investors had also increased the breadth and depth of Indian Capital Market.

Keywords: FIIs, P-Notes, Portfolio, Stock-Market/Capital Market, SEBI etc.

INTRODUCTION OF BOMBAY STOCK EXCHANGE

The Bombay Stock Exchange, which is situated at Mumbai, was originally established in 1875 under the name of "The Native Share and Stockbrokers Association" as voluntary non-profit organisation. It is acclaimed as a premier stock exchange in the country. It is the oldest stock exchange in Asia; it is much older than the Tokyo Stock Exchange, which was established in 1878. Bombay Stock Exchange providing an effective and efficient market trade mechanism and also keen to see the interest of investors and ensure redressal of their grievances, whether against the companies or its own member-brokers. It also strives to educate and enlighten the investors by making available necessary information inputs . A Governing Board, comprising of 9 elected directors (one third of then retire every year by rotation), an Executive Director, 3 Government nominees, a Reserve Bank of India nominee and 5 public representatives, is the apex body, which regulates the Exchange and decide its policies. A president, Vice-President and Honorary Treasure are annually elected from among the elected directors by the Governing Board following the election of directors. However, as per SEBI Orders issued in March 2001, the elected directors have been restrained from acting as directors and the Governing Board presently comprises of only 10 directors, viz., 3 government nominees, a RBI nominee, 5 public representatives and an Executive Director. The Executive Director, as the Chief Executive Officer, is responsible for the day-to-day administration of the Exchange.

DEFINITION OF FOREIGN INSTITUTIONAL INVESTORS

SEBI has defined the term Foreign Institutional Investors as follows;

"Means an institution established or incorporated outside India which proposes to make investment in India in securities. Provided that a domestic asset management company or domestic portfolio manager who manages funds raised or collected or brought from outside India for investment in India on behalf of a sub-account, shall be deemed to be a Foreign Institutional Investor."

Foreign Investment refers to investments made by residents of a country in financial assets and production process of another country.

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OVERVIEW OF FOREIGN INSTITUTIONAL INVESTORS

In September 1992, India has made some stock market reforms and invited foreign institutional investors in India to invest in Indian stock market. In 1993, Indian has received Portfolio Investment from Foreign Institutional Investors in equities. It has become the route of foreign institutional Investors in Indian for Foreigners. At the beginning there were terms and conditions which restricted many FII to invest in India.But in the course of time, in order to attract more investors, SEBI has simplified many terms such as:-

- The ceiling for overall investment of FII was increased 24% of the paid up capital of Indian company.
- Allowed foreign individuals and hedge funds to directly register as FII.
- Investment in government securities was increased to US$5 billion.
- Simplified registration norms.

Meaning of Foreign Institutional Investor (FII), in layman language refers to the non local or foreign investors when invest in the capital market of a country. In other words, the term FII is most commonly used in India when a foreign entity i.e. an entity which is established or registered outside India proposes to make investment in the capital market of India. Foreign Institutional investors are also known as International institutional investors required to register themselves with the Security and Exchange Board of India (SEBI) for the sake of making participating in the Indian capital market.

Following entities and funds are eligible to get registered as Foreign Institutional Investors in Indian Capital Market.

- Pension Funds
- Mutual Fund
- Insurance Companies
- Investment Trusts
- Banks
- University Funds
- Endowments
- Foundations
- Charitable Trusts / Charitable Societies

Further, Following entities proposing to invest on behalf of broad based funds are also to get registered as Foreign Institutional Investors.

- Asset Management Companies
- Institutional Portfolio Managers
- Trustees
- Power of Attorney Holders

The Registration Fee for FII Applicants is 5000 US Dollar. The Validity period of FII Registration is for 5 years. After expiry of 5 years, the registration needs to be renewed.

INVESTMENTS PATTERN OF FIIS IN INDIAN STOCK MARKET

(i)A FII could invest in the primary and secondary markets including shares, debentures and warrants of the companies unlisted, listed or to be listed on a recognized stock exchange in India. These could also invest in units of mutual fund whether listed or unlisted; dated government securities; listed derivatives; commercial paper and security receipts.

(ii)Total investments in equity, convertible debentures (CDs) and tradable warrants on its own account or on behalf of sub-account shall not be less than 70% of the aggregate of total investment by the FIIs. A foreign corporate or individual shall not be eligible to invest through the 100% debt route.

(iii)FIIs can't invest in security receipts on behalf of its sub-account. FIIs could invest or transact in the Indian securities market only on the basis of taking and giving delivery of securities purchased or sold. They could enter into short selling transaction as specified by SEBI. RBI shall grant permission to make transactions in government securities like commercial paper (CP) and T-Bill.

(iv) FII investment in equity shares of a company on behalf of its sub-accounts shall not exceed 10% of the total issued capital provided further that foreign corporate or individuals, each of such sub-account shall not more than 5% of the issued capital.

*(v)*FII could lend or borrow securities on behalf of sub account. No FII could issue or deal in off-shore derivative instruments, directly or indirectly, unless such off-shore derivative instruments are issued only to persons who are

regulated by an appropriate foreign regulatory authority and know your customer (KYC) norms have been fulfilled. No sub-account shall issue off-shore derivative instruments. Off-shore derivative instruments are issued by FIIs against securities held by it that are listed or proposed to be listed on any recognized stock exchange in India.
(vi)FIIs shall disclose information regarding the terms of and parties to off-shore derivative instruments such as Participatory Notes (PNs), Equity Linked Notes or any other such instruments enter into by it or its sub-account units or affiliates relating to any securities listed or proposed to be listed in Indian Stock Exchange. (Securities and Exchange Board of India (Foreign Institutional Investors) Regulations, 1995).

LITERATURE REVIEW

In India, the purchase of domestic securities by FIIs first allowed in September 1992 as part of the liberalisation process that followed the balance of payment crisis in 1990-91. Now days, a significant portion of Indian corporate sector's securities are held by Foreign Institutional Investors, such as pension funds, mutual funds and insurance companies.

Chakrabarti (2001) made Granger Causality tests pair wise between FII inflows and returns on the BSE National Index. He has examined that portfolio investment from FIIs was more an influence than a cause of market returns in India. Furthermore, using the same monthly data, Chakrabati (2001) regressed FII flows on stock returns and the other relevant variables identified in the literature, and showed that market returns became the sole driving force behind FII flows into India following the Asian financial crisis.

Mukherjee, Paramita, Suchismita Bose, and Dipankor Coondoo, (2002) supplemented and developed the empirical research by Chakrabati (2001) using extended daily data for the period of 1 January 1999 to 31 May 2002. They first run a pair wise Granger-causality test, and confirmed the result of Chakrabati (2001) that there was a unit-directional causality from Indian stock returns to FII flows during their sample period. Then they estimated the impacts of lagged stock returns & other relevant variables such as industrial production, call money rate and exchange rate on FII flows, and found that market returns are perhaps the single most important factor determining FII flows.

Gordon and Gupta, (2003) on the portfolio flows in India and the influence of domestic fundamental factors; it was found that there exists a strong impact of the domestic fundamentals on the investment flows into India. They used the data from September 1992 till October 2001 and applied regression model and unit root test. It was concluded that the portfolio flows to India are small, compared to other emerging markets and also less volatile. The combination of domestic, regional and global variables are important in the determination of the portfolio flows into India.

Batra Amita (2003), in his research work has analyzed the trading behaviour of FIIs and their impact of trading biases upon stock market volatility. It was found that there is a strong evidence for the fact that FIIs on daily basis have been positive investors and trend chasers at the aggregate level. But there seem to exist no evidence of positive feedback trading on monthly basis. The research work also indicates that the foreign investors have a tendency to herd together in their trading activity in India. The trading behaviour/biases of the FIIs do not appear to have a destabilizing impact on the equity market.

Rakshi, Mihir (2006), has argued that, far from being healthy for the economy, FIIs inflows have actually imposed certain burdens on the Indian economy. Sudden fall and sudden increase in FIIs in India has raised several issues before the policy makers regarding the real implications of FIIs. Impact of FIIs can largely be observed at: (1) stock market (2) exchange rate and (3) forex reserve.

Makwana, Chetna R. (2009) analyzed prime facia that the FIIs influence market. It may be concluded that the FII has positive relation with the volatility of Indian stock market. Both move in the same direction. Now to measure or estimation of volatility and return of Indian stock market it is require to measure the volatility pattern of FII flows, which is critical in terms as it does not follows the pattern.

Dhwani Mehta (2009), in her research work titled 'A Study: FII Flows in India' the Indian stock markets have been experiencing humungous amount of FII flows. This has affected small investors thinking that markets are rigged. For the good news to Indian investors it has been established that out of all the factors, it is basically the performance of Indian stock markets vis-à-vis other emerging and developed markets that probably may cause returns and not the other way round.

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SCOPE OF THE STUDY

FII has made steady growth from 1st generation economic reform i.e. since liberalisation. Foreign capital funds have got an acknowledgement as it is an important source of funds for meeting country's economic development, and it has made integration with global financial markets. India is being considered as pioneer destination for foreign investment so in order to encourage foreign funds in India, stock markets of India have made attempt to attract FII Investment, leading Stock market of India BSE has saw largest ever fall in record in January 2008, it has made everyone in anxiety whether FII would put india in miserable condition.

Foreign portfolio inflows through FIIs, in India, are important from the policy determination, especially when India is one of the leading capital market in Asia.The present research study focuses on FII investment pattern in the Indian capital market especially BSE Sensex 2005-'06 to 2014-'15**. It examines the factors affected to investment decisions of FIIs. The Foreign Institutional Investors (FIIs) have emerged as important players in the Indian equity market in the recent past. This research paper makes an attempt to understand whether there exists a relationship between FII and Equity Market.

OBJECTIVES OF THE STUDY

- To study the trends and patterns of foreign institutional investors' investment in India.
- To find relation between FIIs & Sensex.
- To examine and evaluate whether FIIs have any impact on Sensex.

HYPOTHESIS

Null Hypothesis (Ho):

a. There would be no significant difference in FII investment flow in India during the period of study.
b. There would be no significant relationship between BSE sensex indices and FII investment flow during the period of study.

Alternate Hypothesis (H1):

a. There would be significant difference in FII investment flow in India during the period of study.
b. There would be significant relationship between BSE sensex indices and FII investment flow during the period of study.

DATA COLLECTION AND RESEARCH ANALYSIS

Secondary Data is collected through published sources like Government publication, reports on projects, research papers of educational Institutions, organizations and various government official websites. In this research data is collected from official website of BSE and SEBI. Last 10 year data is being used for research.

Tools Used for Research

Correlation analysis

Relationship between FII and Sensex is calculated with the help of MS- Excel for two different data type in which first data includes the value of year 2008-09 and in second analysis value of 2008-09 is excluded for the accuracy of result.

The **correlation** coefficient (a value between -1 and +1) tells you how strongly two variables are related to each other.

- A correlation coefficient of +1 indicates a perfect positive correlation. As variable X increases, variable Y increases.
- A correlation coefficient of -1 indicates a perfect negative correlation. As variable X increases, variable Y decreases.
- A correlation coefficient near 0 indicates no correlation.

Regression Analysis

Regression analysis is a statistical tool for the investigation of relationships between variables. Usually, the investigator seeks to ascertain the causal effect of one variable upon another—the effect of a price increase upon demand, for example, or the effect of changes in the money supply upon the inflation rate. To explore such issues, the investigator assembles data on the underlying variables of interest and employs regression to estimate the quantitative effect of the causal variables upon the variable that they influence.

The investigator also typically assesses the "statistical significance" of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship.

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In this research article impact of FII is on the Sensex is done on the yearly data of last 10 years. In which FII is **independent variable** and Sensex is **dependent variable**. Regression analysis is done with the help of MS-Excel.

Statistical tools t-test

t-test is also one important statistical tool which tests significance of correlation. It helps us to determine whether the observed correlation coefficient indicate significant correlation in population or not. t statistic is calculated by including 2008-'09 and excluding 2008-'09. Following formula is used to find out significance relationship between two variables.

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r2}}$$

DATA INTERPRETATION

Table:1 FPI Investments - Financial Year

Financial Year	Equity	Debt	Total
2005-06	48,801	-7,334	41,467
2006-07	25,236	5,605	30,840
2007-08	53,404	12,775	66,179
2008-09	-47,706	1,895	-45,811
2009-10	1,10,221	32,438	1,42,658
2010-11	1,10,121	36,317	1,46,438
2011-12	43,738	49,988	93,726
2012-13	1,40,033	28,334	1,68,367
2013-14	79,709	-28,060	51,649
2014-15 **	1,11,333	1,66,127	54,794
TOTAL	**6,74,890**	**1,31,958**	**7,50,307**

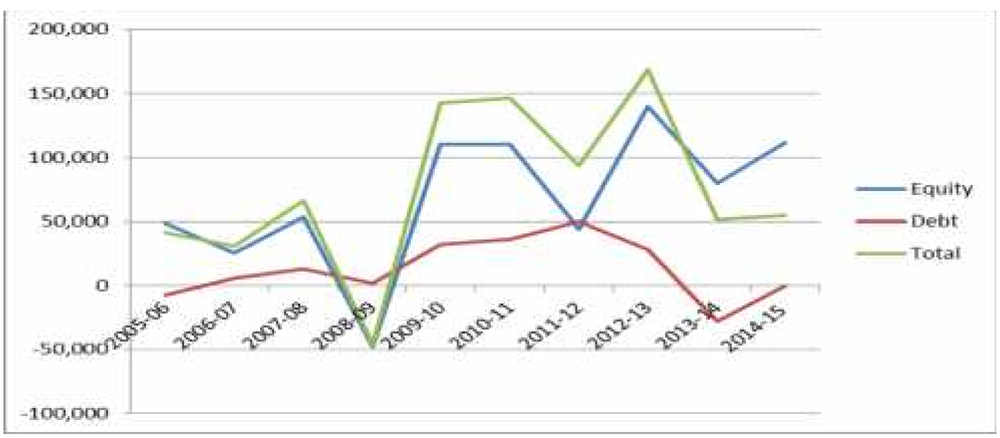
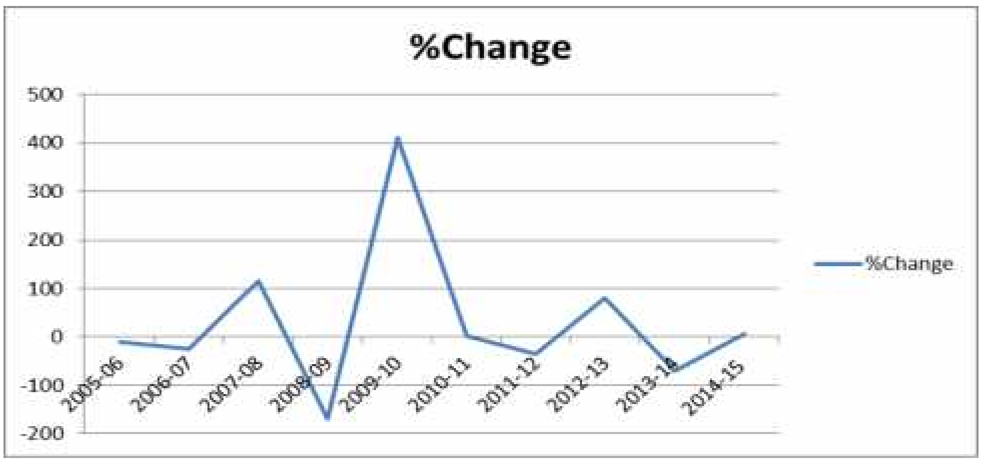


Table 1 and graph reveal that investors are investing more in equity in comparison to debts. So following point can be concluded by analyzing above data, In 2005-06, investment in Equity were 48801 crones which is more compare to previous year but net invest which was 41467 crores which is less than previous year due to withdraw of 7334 crores from debts. In 2006-07, Net Investment was also low compare to previous year i.e. 30840 cr. In 2007-08, more than 50% of growth is observed in net investment i.e. 66179 cr. But in 2008-09, net inflow of foreign capital in form of FIIs was negative, previous researcher joined this Incidence with Global Financial Crises in this period, recession in UK and Real State falls in USA. In 2009-10, starting year of UPA –second term, highest ever net investment is observed in FIIs i.e. 142658 cr. In 2010-11, highest investment in equities observed and which is considered as landmark of the great years for investors with partial growth in net investment i.e. 146438. In 2011-12, highest investment in debts 49988 cr. but decrease in net investment of

136836 cr. In 2012-13, Investment in equity achieved new millstone with 140033 cr. As well as in net investment i.e. 168367 cr. In 2013-14, net investment was decreased approx. to 1/3 of previous year's i.e. 51649 cr. But In 2014-15, again it increases 54,794 cr. For new hope is arising as NDA first time come in power with full majority. They are Try to provide good environment to foreign institutional investors which is good sign for shareholders as well as Indian Economy. Trend of FII investment is weak positive.

Table:2 Percentage changes in FII

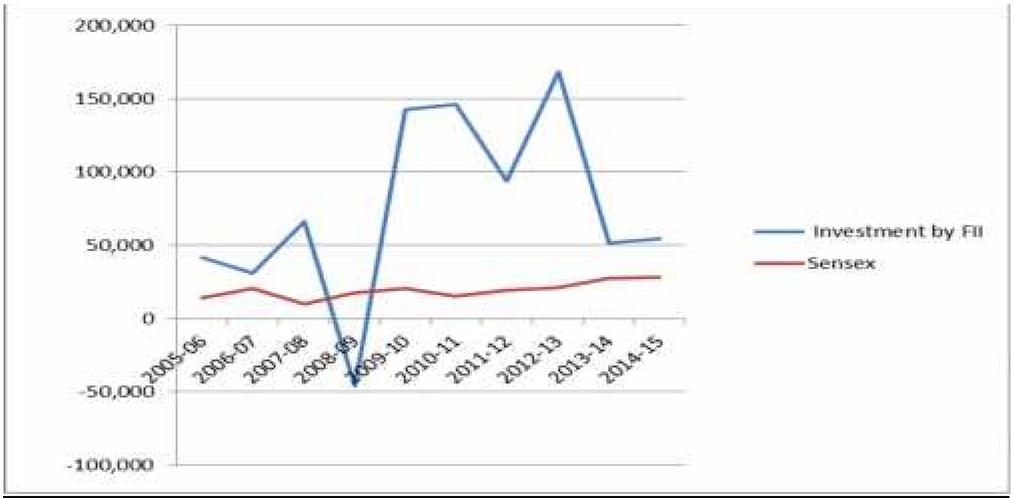
Financial Year	Net Investment	Absolute Change	%Change
2005-06	41,467	-4,414	-9.62
2006-07	30,840	-10,627	-25.62
2007-08	66,179	35,339	114.58
2008-09	-45,811	-1,11,990	-169.22
2009-10	1,42,658	1,88,469	411.405
2010-11	1,46,438	3,780	2.64
2011-12	93,726	-52,712	-35.99
2012-13	1,68,367	74,641	79.63
2013-14	51,649	-1,16,718	-69.32
2014-15 **	54,794	3,145	6.089
TOTAL	**7,50,307**	8,913	304.574



The above table shows the percentage change in FIIs between years 2004-'05 to 2014-'15. Diagram showed that there is very high degree of fluctuation in FII between these periods. Highest positive percentage change was observed in financial year 2009-10 i.e. 411.405%. After the global financial crises of 2008-09 foreign investors shown to invest money in Indian economy.

Table:3 Relation between sensex and FII

Financial Year	Investment by FII	Sensex
2005-06	41,467	13786.91
2006-07	30,840	20286.99
2007-08	66,179	9647.31
2008-09	-45,811	17464.81
2009-10	1,42,658	20509.09
2010-11	1,46,438	15454.92
2011-12	93,726	19426.71
2012-13	1,68,367	21170.68
2013-14	51,649	27499.42
2014-15**	54,794	27957



Correlation Analysis

Table: 3 **including value of year 2008-09**

	Column 1	Column 2
Column 1	1	0.0200
Column 2	0.0200	1

Table: 3 **excluding value of year 2008-'09**

	Column 1	Column 2
Column 1	1	0.0377
Column 2	0.0377	1

Regression Analysis:

Table: 3 including value of year 2008-09

Regression Statistics	
Multiple R	0.020002326
R Square	0.000400093
Adjusted R Square	-0.124549895
Standard Error	6017.959718
Observations	10

Table: 3 excluding value of year 2008-09

Regression Statistics	
Multiple R	0.037764
R Square	0.001426
Adjusted R Square	-0.14123
Standard Error	6122.86
Observations	9

t- test analysis

Including value of year 2008-09

t value	0.05657
Degree 0f freedom	n-2,
Observation	10

Excluding value of year 2008-'09

t value	0.1000
Degree of freedom	n-2
Observation	9

FINDINGS

(1) Table 3 and graph related it show that FII and Sensex have moderate positive or almost negligible correlation. Correlation coefficient: 0.0200 if 2008-'09 year excluded from table then it shows that FII and sensex even have negligible correlation 0.0377. Correlations have been applied on the above data set. Table 3 shows investment and Sensex point of 2008-2009 and in the same table value of 2008-'09 has excluded that value due to Global financial crisis between this period. Therefore the correlation from table 3 is less i.e. 0.0200 and by excluding 2008-'09 is 0.0377. And these both values show very low or moderate correlation between FII and Sensex.

(2) Regression analysis also exhibits weak or absent relation between FII and Sensex. Including the data of 2008-09 we can say that if one unit of FII increases, 0.04 changes occur in Sensex. There is comparatively more low relation between FII and Sensex. Excluding the data of 2008-09 we can say that if one unit of FII increases, 0.14 change in the Sensex.
(3)There is not significance relation between FII and sensex. t–test provides perfect measurement FII and sensex correlation coefficient. By including 2008-'-09 t value is 0.05657 which suggest no significance relation exist between FII Investment and sensex, same even if excluding 2008-'09, there would not be changed in result, t value nearly 0.1000, even it neglect to have relation between FII and BSE sensex. So by this research article it has been observed that

- Sensex is 0.56% dependent on FIIs.
- By excluding 2008-'09 we can conclude that Sensex is 0.10% dependent on FIIs.

Such Findings of the study show that BSE sensex not solely being affected by FII Investment, but some other macro-economic factors are also affecting. Maximun FII investment is made from USA only. FII Investment makes market efficiency. FII investments also guide to economic growth of country since they bring the much needed capital.

CONCLUSION

From the above study, it can be concluded that FIIs has not significant impact on Sensex. The null hypothesis of research article is accepted here that there would be no significant difference in FII flow in India during the period of study. There would be no significant relationship in capital market indices and FII flow during the period of study.The correlation coefficient between FII and Sensex for both analyses is not positively correlated. Same points are included by regression analysis that there is no significant relationship exist between FII Investment and sensex. By using t-test even we have appropriate idea whether FII investment makes effect on sensex points, which shows low or weak it means that there is no significance relationship between FII investment and BSE sensex.

Such result would more proper if the data is taken for week basis which gives clear picture regarding FII Investment and sensex relation. There are many other factors are affecting BSE sensex other than FII Investment. No doubt inflow of foreign capital brings foreign currency ($) into the country which contributes towards increase in wealth of shareholder but large portion of capital in stock market comes through domestic route. Thus it is important for the country to encourage the investment with in the country along with the foreign investment because FII look for income if the economy grows they entered into the stock market of the concerned economy but exit from the market in the same speed as they entered. Also global and domestic activities are responsible for change in the FII investment pattern.

Though the Trends of FII is positive as per the trend analysis i.e. foreign investors are looking forward to invest in India. NDA come up in the power with full majority in General Election (Loksabha Election) – 2014, which provides stable govt. It is healthier and beneficial for the investors as well as economy. But newly elected NDA Govt is proposed to levy MAT on book profit earned by the FII, so it may put negative impact on the investment of FII in India, but still this matter is before Shah Committee. Shah Committee will submit its report soon govt whether to impose MAT on FII profit or not.

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