

A Study on Impaction Indian Stock Market Due to Inflows of FIIs

Dr.Natika Poddar and Ms. Sanyukta Joshi

St. Francis Institute of Management and Research Borivili , Mumbai-400 103

Email: natika @sfimar.org,

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Abstract:

Foreign Institutional Investors (FIIs) are an investment fund or a gathering of investors They play a big role in the development of our economy. The amount of funds they invest is very considerable huge. Present paper studies correlation between FIIs and its Impact , significance on Indian stock market. The study emphasis on analysing positive or negative correlation between them.

Keywords: Foreign Institutional Investors(FIIs), Stock Market, NIFTY, SENSEX

I. Introduction To Indian Stock Market

Stock Exchanges are the exclusive centres for trading of securities. Listing of companies on local exchange is mandatory to provide an opportunity to investors to invest in securities of local companies. The Bombay stock Exchanges (BSE) and National Stock Exchange of India Ltd (NSE) are the two primary exchanges in India. The BSE has over 6000 stocks listed and NSE has around 1500 shares listed. Both the exchanges have switched over from the open outcry trading system to a fully automated computerized mode of trading known as BOLT (BSE on line Trading) and NEAT (National Exchange Automated Trading) system. It facilitates more efficient processing, automatic order matching, faster execution of trades and transparency. In addition, there are 22 Regional stock Exchanges. However, the BSE and NSE have established themselves as the two leading exchanges and account for about 80 percent of equity volume traded in India. Total 24 stock Exchanges in India which NSE &BSE are the nation wise exchanges having national wide operation⁽⁶⁾

II. Foreign Institutional Investors (Fii)

Foreign Institutional Investor (FII) means an institution established or incorporated outside India which proposes to make investment in securities in India. These investment proposals by the FIIs are made on behalf of sub accounts, which may include foreign corporate, individuals, funds etc. In order to act as a banker to the FIIs, the RBI has designated banks that are authorized to deal with them.

FII's are regulated by the Securities and Exchange Board of India (Foreign Institutional Investors) Regulations 1995. As per Section 15 (1) (a) of the SEBI, FII Regulations, 1995, a Foreign Institutional Investor (FII) may invest in the securities in the primary and secondary markets including shares, debentures and warrants of companies unlisted, listed or to be listed on a recognized stock exchange in India⁽⁵⁾

III. Following foreign entities / funds are eligible to get registered as FII:

- Pension Funds
- Mutual Funds
- Investment Trusts
- Banks
- Insurance Companies / Reinsurance Company

- Foreign Central Banks
- Foreign Governmental Agencies
- Sovereign Wealth Funds
- International/ Multilateral organization/ agency
- University Funds (Serving public interests)
- Endowments (Serving public interests)
- Foundations (Serving public interests)
- Charitable Trusts / Charitable Societies (Serving public interests)

All FIIs must register themselves with SEBI and should also comply with the exchange control regulations of the central bank. Apart from being allowed to invest in securities in primary and secondary markets, FIIs can also invest in mutual funds, dated government securities, derivatives traded on a recognized stock exchange and commercial papers.

IV. Regulations Relating To FII's⁽⁷⁾

- No person shall buy, sell or otherwise deal in securities as a Foreign Institutional Investor unless he holds a certificate granted by SEBI.
- The FII registration is valid for 5 years. After expiry of 5 years, the registration needs to be renewed.
- A Foreign Institutional Investor shall appoint a branch of a bank approved by the Reserve Bank of India for opening of foreign currency denominated accounts and special non-resident rupee accounts.
- SEBI released regulations for FII investment in Indian debt markets. The debt limit was kept at \$1-1.5 bn. FIIs were allowed to invest in debt markets via the 70: 30 route. In this FII investment will be in the 70:30 ratio out of which equity investments shall not be less than 70% of total funds and maximum 30% of investment was allowed in debt.

V. Investment Opportunities for FIIS

The following instruments are available for FII investments.

- a) Securities in primary and secondary markets including shares, debentures and warrants of

- companies, unlisted, listed or to be listed on a recognized stock exchange in India;
- b) Units of mutual funds;
- c) Dated Government Securities;
- d) Derivatives traded on a recognized stock exchange;
- e) Commercial papers.

Investment limit on equity investments –

- a) FII, on its own behalf, shall not invest in equity more than 10% of total issued capital of an Indian company.
- b) Investment on behalf of each sub-account shall not exceed 10% of total issued capital of an India company.
- c) For the sub-account registered under Foreign Companies/Individual category, the investment limit is fixed at 5% of issued capital. These limits are within overall limit of 24% / 49 % / or the sectorial caps as prescribed by Government of India / Reserve Bank of India.

VI. Investment Limit For Debt Investments

The FII investments in debt securities are governed by the policy of the government of India. Currently following limits are in the effect:

For FII investments in government debt, currently following limits are applicable:

100 % Debt Route	US \$ 1.55 billion
70 : 30 Route	US \$ 200 million
Total Limit	US \$ 1.75 billion

For corporate debt the investment limit is fixed at the US\$ 500 million.

VII. Prohibition on Investments

FIIs are not permitted to invest in equity issued by an Asset Reconstruction Company. They are also not allowed to invest in any company which is engaged or proposes to engage in the following activities:

- 1) Business of chit fund

- 2) Nidhi Company
- 3) Agricultural or plantation activities
- 4) Real estate business or construction of farm houses (real estate business does not include development of townships, construction of residential/commercial premises, roads or bridges).
- 5) Trading in Transferable Development Rights (TDRs).

VIII. Taxation of FII

The taxation norms available to FIIs are shown in the table below:

Nature of Income	Tax rate
Long-term capital gains	10%
Short-term capital gains	30%
Dividend income	Nil
Interest income	20%
Dividend	Nil

IX. Literature Review

JATINDER LOOMBA (2012) studied the impact volatility of Indian stock market, with a time period of 01st Jan 2001 to 31st Dec 2011 in which the objective was to find a correlation between BSE SENSEX and FIIs & to discover the number of FIIs in India and their investments at BSE. Methodology used was Pearson correlation which founded that FIIs are strong forces driving the Indian Stock Market which is evident from top twenty five crashes at BSE SENSEX as FIIs were the net sellers in all the leading market crashes. This study further gives the scope for identifying the role of FIIs in India in overall market volatility

Walia, Karan et al (2012) attempted to examine the trends of FII during the period of 2001 to 2010 and examine volatility of BSE Sensex due to FII. Pearson correlation coefficient values indicated positive correlation between Foreign Institutional investments and movement of Sensex. Further the

study indicated that Sensex increases where there were positive inflows of FIIs and vice versa.

Johri, Amar et al (2012) in a study analyzed the trends and investments made by FII in Indian stock markets from 2000 to 2010. T-test was used to find out whether the Nifty and non Nifty companies have any differences in their investments by FIIs. The study concluded that there is no significant difference between Nifty and non Nifty companies in their FII investment. The study concluded that FII inflows or outflows significantly affect both NSE and BSE markets.

Anubha (2013) in his research studied the influence of FIIs investment on Indian stock market by utilizing daily FIIs investment data and daily reruns of Sensex and Nifty for the period from 2001 to 2010. The study used correlation and regression techniques and observed that FIIs investment have significant positive impact on stock market and on major stock indices. The findings also show that the degree of impact of FIIs varies among various sectors of the economy.

Saurabh Singh, Dr. L. K. Tripathi And Anupama Pardesi “FII Flow and Indian Stock Market: A Causal Study” {Jan. 2014}- This paper tries to Examine the relationship of FIIs with the performance of Indian stock market and its impact on the performance of Indian stock market after 2007. It finds out that there is by-directional causality between FII and Nifty as well as FII movement and SENSEX. P value is 0 which shows Nifty and Sensex returns do not cause FII purchase and FII sales. P value is .001 which is less than 0.05 suggest that FII movements cause changes in the values of Nifty and Sensex.

Dr.Manjinder Kaur, Dr.Sharanjit S. Dhillon, (2015) found that the study found that a bi-directional causality exists between stock prices (Sensex) and net investment of Foreign Institutional Investors (FIIs). The study also concluded that FIIs investment is a major factor behind both financial and macroeconomic instability in India.

Vishal Kumar, Dr. Rameshwar Singh & Vipin Kumar, (2017) concluded that Foreign Institutional Investors as key determinants of Indian stock market which is supported by examining the empirical relation between stock market return and FIIs flows. Results of the study shows the linkages between the FIIs inflows and the performance of SENSEX are robust and significant.

Shilpa Maggo, (2018) analysed the trend of FII flows in India for the period 1993-94 to 2011-12 by observing the annual data. She also examined the growth rate of Gross FII flows as well as FII flows in equity and debt market in India using Multiple Regression analysis. The Results of trend analysis revealed that since 1993 FII flows have always been positive in India except for the years 1998-99 and 2008-09. Growth rate analysis shows that growth rate of FII flows in equity market is more than that of debt market.

X. Need for Study

This study is done to measure the significant impact of FII in Indian stock market. This study is done to measure the relationship between FII and the stock index of Indian market.

XI. Objectives

- To find out the relationship between the FIIs investment and SENSEX
- To find out the relationship between the FIIs investment and NIFTY
- To examine whether FIIs have any influence on SENSEX and NIFTY

5. Hypothesis

To achieve the objective of the study following hypothesis has been developed:

H0: There is effect of FII on Indian Stock Market

H1: There is no effect of FII on Indian Stock Market.

The study is based on regression and correlation model representing relationship between Indian stock Market (Dependent variable) and FII (Independent Variable).

XII. Research Methodology

Research Type

Descriptive

The exploration embraced in this undertaking is chronicled inquire about. As it is an account venture the information utilized for investigation will be founded on past years yet which shapes the current condition. Chronicled research is an endeavour to depict and gain from past. In that capacity it tends to be simply enlightening, recording the succession of occasions and exhibiting the fullest conceivable image of the advancement of a marvel. The expectation is to record and depict.

Variables Used For the Study

Dependent Variable

The dependent variable used for the study is Indian stock Market

Independent Variable

The independent variables used are FII's.

Methods of Data Collection

The data is collected from secondary source.

Secondary Data

The data has been collected from internet by exploring the secondary sources available on the websites. The data related to FII flows has been collected from the moneycontrol website while the data related to Monthly closing value of SENSEX and NIFTY have been taken from the BSE and NSE website respectively. Yearly closing index values are taken so that they represent the real economic conditions of that period. Individual BSE SENSEX and NIFTY data and FII investment act as sample elements. Average closing values for each day of both the indices, SENSEX & NIFTY, for the period

under study were expressed in MS excel and the average closing values of the indices have been calculated for further analysis. The data has been collected for the past 20 years from the above sources that are from 1999-2018 and the following test has been performed to find out the impact of FII in Indian stock market.

Tools Used For Analysis of Data

The tools used for analysing the financial position of the company are

Correlation

Regression

XIII. Data Analysis

Objective 1 : To find out the relationship between the FIIs investment and SENSEX

The following table gives the net purchases by FII in the Indian stock market from the year 1999-2018.

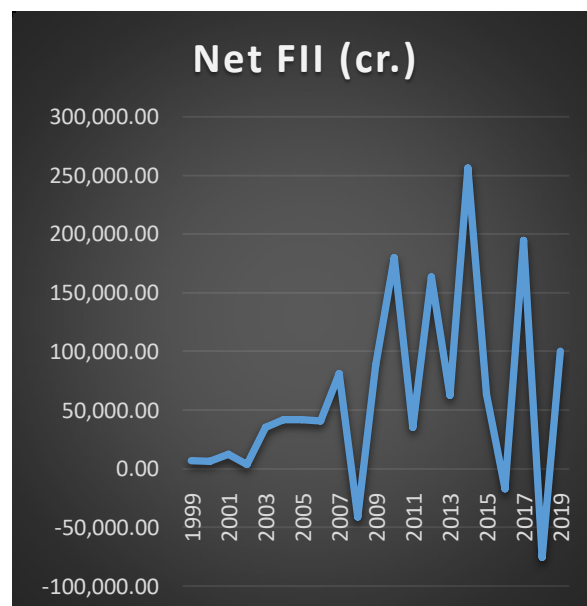
TABLE 1: Flow of FII

Year	Net FII (cr.)
1999	6,697.30
2000	6,510.90
2001	12,494.80
2002	3,677.90
2003	35,153.80
2004	42,049.10
2005	41,663.50
2006	40,589.20
2007	80,914.80
2008	-41,215.50
2009	87,987.60
2010	1,79,674.60
2011	35,392.80

2012	1,63,350.10
2013	62,287.90
2014	2,56,211.85
2015	63,662.21
2016	-17308.85
2017	194630.76
2018	-75489.85
2019	1,00,000

Source: [https://www.moneycontrol.com/\(1\)](https://www.moneycontrol.com/(1))

Chart 1: Foreign Investment Flows



Interpretation

From the above table and graph it can be concluded that Net flow of FII has considerably increased from year 1999 to year 2019 with certain declining values in the years 2008 on account of sudden increases in sales which exceeded purchases. In year 2008 total FII flow slumped to negative 41,215.5 due to the Housing market crash in 2008 in the USA. Several reforms were introduced by SEBI in the financial 2002-03. Trading, clearing and settlement in equity shares were contracted to T+3 which further contracted to T+2. In order to make the markets more efficient and provide more opportunities to the

investors, trading in government securities in stock exchanges were permitted. Since then FII investment has continued to increase coupled with macroeconomic conditions and one of the fastest growth rates amongst the developing countries. In 2018 the Indian rupee has plunged over 7 per cent to 68.26 against the dollar as of May 25 from 63.67 on January 1 this year, Reserve Bank of India (RBI) data showed. On the other hand, crude oil topped \$80 a barrel level recently for the first time since late 2014.

The following table gives average value of closing value of BSE SENSEX from 1999 to 2018.

Table 2: BSE Sensex Closing Values

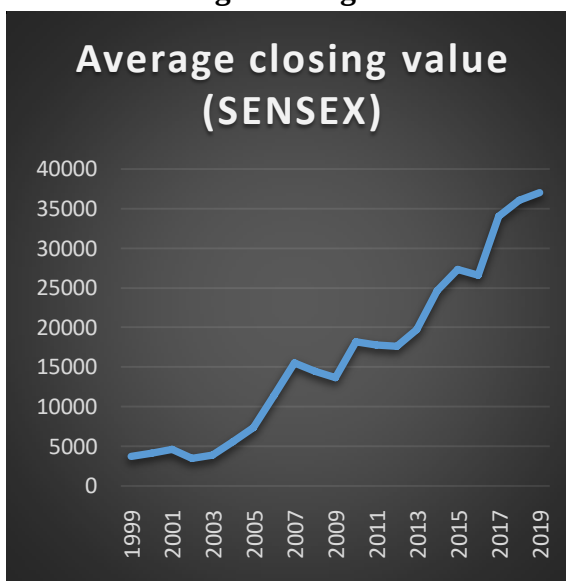
Year	Average closing value (SENSEX)
1999	3753.86
2000	4167.02
2001	4605.91
2002	3486.99
2003	3872.96
2004	5563.08
2005	7392.89
2006	11440.04
2007	15563.59
2008	14492.67
2009	13,700.82
2010	18,206.91
2011	17,777.76
2012	17,617.03
2013	19,722.42
2014	24,638.95
2015	27,352.17
2016	26,626.46
2017	34,056.83

2018	36,068.33
2019	37,012.68

Source: <https://www.bseindia.com/>⁽²⁾

BSE SENSEX has grown considerably from 1999 to 2019 showing a 900% increase.

Chart 2: Average Closing Values of BSE Sensex



Interpretation

From the above graph it can be ascertained that the value of BSE SENSEX has continued to increase driven by strong economic growth experienced by the country during this period.

Objective 2 : To find out the relationship between the FIIs investment and NIFTY

The following table gives the average closing value of NSE NIFTY from year 1999 to year 2018.

Table 3: NSE Nifty Closing Values

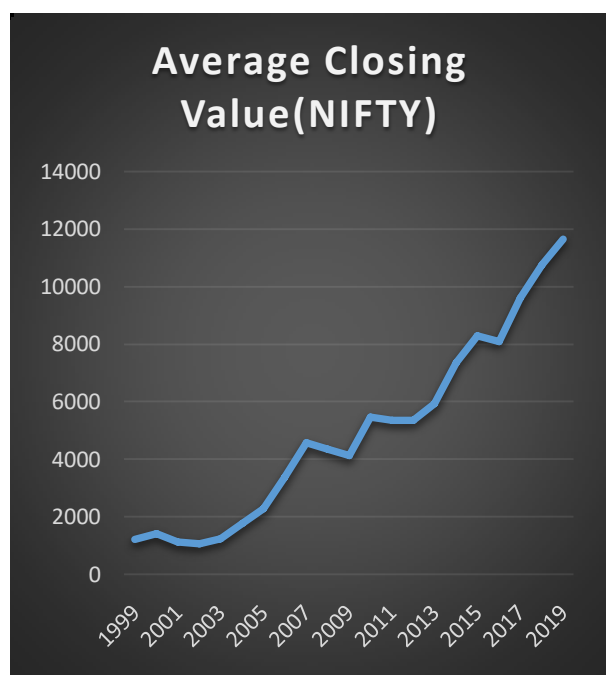
Year	Average Closing Value(NIFTY)
1999	1211.34
2000	1417.61
2001	1121.55
2002	1056.02
2003	1233.7
2004	1754.58
2005	2268.91

2006	3357.09
2007	4571.29
2008	4344.74
2009	4113.96
2010	5461.12
2011	5335.91
2012	5341.52
2013	5915.90
2014	7360.30
2015	8285.91
2016	8092.19
2017	9590.72
2018	10749.39
2019	11654.12

Source: <https://www1.nseindia.com/>⁽³⁾

NSE NIFTY has grown from 1211.34 to 11654.12 showing an increase of 887% over the years.

Chart 3: Average Closing Value of NSE Nifty



Interpretation

Correlation between FII and SENSEX

From the above graph, it can be concluded that NSE NIFTY has shown similar trends which were exhibited by BSE SENSEX as well. Also, in 2008 the graph shows a little slump which can be attributed to the outflows by FII due to housing bubble crash in USA.

Objective 3: To examine whether FIIs have any influence on SENSEX and NIFTY

Table 4: Flow of FII and Average Closing Values of Sensex and Nifty

Year	Net FII (cr.)	Average closing value (SENSEX)	Average Closing Value (NIFTY)
1999	6,697.30	3753.86	1211.34
2000	6,510.90	4167.02	1417.61
2001	12,494.80	4605.91	1121.55
2002	3,677.90	3486.99	1056.02
2003	35,153.80	3872.96	1233.7
2004	42,049.10	5563.08	1754.58
2005	41,663.50	7392.89	2268.91
2006	40,589.20	11440.04	3357.09
2007	80,914.80	15563.59	4571.29
2008	-41,215.50	14492.67	4344.74
2009	87,987.60	13,700.82	4113.96
2010	1,79,674.60	18,206.91	5461.12
2011	35,392.80	17,777.76	5335.91
2012	1,63,350.10	17,617.03	5341.52
2013	62,287.90	19,722.42	5915.90
2014	2,56,211.85	24,638.95	7360.30
2015	63,662.21	27,352.17	8285.91
2016	-17308.85	26,626.46	8092.19
2017	194630.76	34,056.83	9590.72
2018	-75489.85	36,068.33	10749.39
2019	1,00,000	37,012.68	11654.12

Source: <https://www.slideshare.net/jaykumarkalariya/impact-of-fii-and-indian-stock-market>⁽⁴⁾

Table 5 : Correlation has been used to determine the statistical relationship between variables under study FII and BSE SENSEX.

	Year	Net FII (cr.)	Average closing value (SENSEX)
Year	1		
Net FII (cr.)	0.312769077	1	
Average closing value (SENSEX)	0.966398152	0.269470932	1

Interpretation

From the above table, it is analysed that the correlation between Net FIIs investment and BSE SENSEX is 0.269. This shows that there is strong relationship between net FIIs investment and BSE SENSEX. It shows that there is a strong impact of FIIs investment on stock market index. This positive correlation reveals the fact that the FIIs investment is an important factor in enhancing the market capitalization of Bombay stock exchange. In other words it can be said that due to FIIs activity in the

Indian stock market the SENSEX value may go up or down by 26.9%.

Regression analysis between FII and SENSEX

Regression has been used to determine the dependency between FII and BSE SENSEX. Here, Independent variable is FII investment and dependent variable is BSE SENSEX.

Table 6 :SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.269470932
R Square	0.072614583
Adjusted R Square	0.021093171
Standard Error	10150.56164
Observations	21

Table 7 :ANOVA

	df	SS	MS	F	Significance F
Regression	1	145216590.6	145216590.6	1.409405916	0.250586769
Residual	19	1854610230	103033901.7		
Total	20	1999826820			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	13541.3298	2808.653096	4.821289544	0.000136889	7640.568612	19442.091	7640.568612	19442.091
Net FII (cr.)	0.033318289	0.028064974	1.187184028	0.250586769	-0.025644033	0.092280611	-0.025644033	0.092280611

Interpretation

It can be observed from table that all explanatory variables, taken together establish a relationship

nearly 7.2 percent ($R^2=0.072$) of total variables in the BSE SENSEX of Indian stock market in each year. This means whatever changes in the market capitalization of BSE for period under study the FII

investments are responsible upto 7.2%. From this it can be deduced that there are other factors which have indirectly affected the BSE.

Also, it can be observed from the table that the value of t statistics is 4.8212 which is significant at 5% level of significance and hence this shows that there is a significant impact of FIIs on the BSE SENSEX thereby accepting that FII investment has a positive impact on the Indian stock market.

Thus, it can be concluded that the behaviour of FIIs matched the behaviour of SENSEX during this period.

Table 8 : Correlation between FII and NIFTY

Correlation has been used to determine the statistical relationship between variables under study FII and

	Year	Net FII (cr.)	Average Closing Value (NIFTY)
Year	1		
Net FII (cr.)	0.312769	1	
Average Closing Value (NIFTY)	0.970076	0.256288453	1

NIFTY.

Interpretation

From the above table, it is found that the correlation between Net FIIs investment and NIFTY is 0.256. This shows that there is a strong relationship between net FIIs investment and NIFTY. It shows that there is a strong impact of FIIs investment on the stock market index. This positive correlation reveals the fact that the FIIs investment is an important factor in enhancing the market capitalization of the National stock exchange.

Regression analysis between FII and NIFTY

Regression has been used to determine the dependency between FII and NIFTY. Here, Independent variable is FII investment and dependent variable is NIFTY.

Table 9 : SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.256288
R Square	0.065684
Adjusted R Square	0.013777
Standard Error	2993.6
Observations	21

Table 10 : ANOVA

	df	SS	MS	F	Significance F
Regression	1	11340292.55	11340293	1.265425816	0.275403786
Residual	19	161309547.6	8961642		
Total	20	172649840.1			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	408.32	828.699	4.92	0.00089	234.00	582.64	234.00	582.64
Net FII (cr.)	0.0093	0.0082	1.12	0.2754	-0.0080	0.0266	-0.0080	0.0266
	0.10794	0.076912	1.41	0.1686	-0.078354	0.299941	-0.078354	0.299941

Interpretation

It can be observed from table that all explanatory variables, taken together establish a relationship nearly 6.56 percent ($R^2=0.656$) of total variables in the NIFTY of Indian stock market in each year. This means whatever changes in the market capitalization of BSE for period under study the FII investments are responsible upto 6.56%. From this it can be deduced that there are other factors which have indirectly affected the NSE.

Also, it can be observed table that the value of t statistics is 4.92 which is significant at 5% level of significance and hence thus shows that there is significant impact of FIIs on the NSE NIFTY thereby accepting that FII investment has the positive impact on Indian stock market.

Thus, it can be concluded that the behaviour of FIIs matched the behaviour of NIFTY during this period.

XIV. Hypothesis Testing

Based on the above results correlation between Indian stock Market and FII are positive at 0.05 level of significance correlation between Net FIIs

investment and BSE SENSEX is 0.269 and correlation between Net FIIs investment and NIFTY is 0.256.

The correlation is more than significance level hence we accept H_0 i.e. there is effect of FII on Indian stock market and reject the H_1 .

Findings of The Study

- FII flows in terms of net purchases have shown increasing trend from the year 1999 to 2019. BSE SENSEX and NIFTY have increased over a period of 20 years from year 1999 to year 2018.
- FII is able to explain 7.2% & 6.56% variation on both the dependent variables SENSEX and NIFTY.
- R-square is also found to be very low means other factors might be contributing toward volatility of Indian stock market like interest rate, political situation in the country, reform policies etc.
- It is found that the major indices of the Indian stock market (NIFTY and SENSEX) which are also known as the barometer of Indian stock market are positively correlated with the FIIs investment. This shows that FIIs are among the major players behind the volatility of the Indian stock indices. The degree of correlation is very strong which explains the effect of foreign investment on them.
- R-square is also found to be moderate in both the indices which means other factors might be contributing toward volatility of Indian stock market like interest rate, political situation in the country, reform policies etc.

Conclusion

A number of developments have taken place in the Indian capital market with launching of financial reforms since summer 1991. With the advent of liberalization, Indian capital market has gone under tremendous changes. Today, it is one of the most attractive markets for the foreign institutional investors (FIIs). Since then the country has been receiving large amounts of portfolio investment.

With the ongoing globalization the role of institutional investors in foreign capital flows has increased to a great extent. They are being regarded as key player of financial globalization.

It can be observed that during the past 20 years there has been a gradual increase in the FII investment. This reflects an increase in the confidence of the FIIs. It can be stated that FIIs have significant influence on the movements of the stock market indexes in India. There is a steadily growing influence of FIIs in the domestic stock market if one looks at the total FII trade in equity.

FIIs and the movements of SENSEX are quite closely related in India and FIIs wield significant influence on the market sentiments and price trends. This is because other market participants perceive the FII flawless in their assessment of the market and tend to follow the decisions taken by FIIs.

FII investments have influenced the Indian stock market to a considerable extent. Analysis suggested a strong influence of FII investment on the SENSEX and NIFTY.

However, there may be other factors on which stock exchange may depend i.e. Government policies, budgets, bullion market, inflation, economic and political condition of the country, exchange rate etc.

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