International Research Journal of Education and Technology
Peer Reviewed Journal
ISSN 2581-7795

A Study on the Impact of Foreign Institutional Investments on the NSE

Anusha R and Karpagam B

M.O.P. Vaishnav College for Women, Chennai – 34

Abstract:

The foreign capital in the country is made up mostly of the Foreign Institutional Investors (FII). FII proposes investments in India on behalf of foreign corporates, foreign individuals and institutions, funds or portfolios established outside India. The NSE offers capital raising capabilities for corporations and a trading platform for equities, debt, and derivatives, including currencies and mutual fund units. The capital inflow helps in developing the economy of the nation. This study focused on the impact FIIs have on the National Stock Exchange of India. The study has been done for the past ten years (2012-13 to 2021-22) of data, which were available on the NSE website, the SEBI website, and other websites. To find the impact of FII on NSE, the cointegration and causality between FII net investment and Nifty 50 were found, which shows that FII has an influence on NSE.

Keywords: FII, NSE, investment, causality, Nifty 50.

1. Introduction:

Economic reforms and liberalisation with the aim of achieving rapid and profound economic growth were made by the Indian government to move towards globalisation. Recent initiatives by the Indian government have attracted more foreign capital to the country. The term "FII" refers to foreign players who invest funds in the Indian financial market. Foreign Institutional Investors (FII) were permitted to invest in all the securities traded on the primary and secondary markets, including shares, debentures, and warrants. They involve mostly in hedge funds, mutual funds, pension funds, insurance bonds, high-value debentures, investment banks, etc. The NSE, being one of the top exchanges in the country, has a huge role in the development of the country's economy. The performance of the NSE is influenced by various market factors and other economic reforms made by the government, one of which is the development of FII investments. Thus, the impact of FII on NSE becomes crucial to be studied.

2. Objectives:

- To gain knowledge about foreign institutional investors in India.
- To study the relationship between FIIs and the NSE.

3. Need:

The investment made by foreign institutional investors has helped the country develop in many sectors of the economy. The government has also made changes to its regulations to promote the inflow of foreign capital. Thus, the impact of FIIs on the NSE was studied and analysed to determine how it influenced the country's capital market. The study would also be beneficial to gain knowledge about the rules and regulations of FII and its registration process.

4. Scope:

The scope of the study was limited to the availability of public data. This study was done for a period of three months using 10-year secondary data collected from various websites. The study will present a fair picture of the impact of foreign institutional investors on the national stock exchange.

5. Research Methodology:

This study employed a descriptive research design. In order to attain the main objective of the study, data was collected from various sources available online, such as the NSE website, the SEBI website, the CDSL website, and the regulatory handbooks of SEBI and RBI. The secondary data was used since the study was empirical in nature.

The tools or methods of analysis used in this study are as follows:

i. Unit Root Test - Augmented – Dickey Fuller Test
ii. Johansen Cointegration Test
iii. Granger Causality Test

International Research Journal of Education and Technology
Peer Reviewed Journal
ISSN 2581-7795

6. Analysis and Interpretation:

6.1 Unit Root Test - Augmented – Dickey Fuller Test:

To determine the stationarity of the time-series data, the unit root test was applied. The Augmented Dickey Fuller (ADF) test was done for the net investment of FII over the last ten financial years (2012-13 to 2021-22) and for the Nifty 50 prices. The existence of unit roots makes the data unfit for further study, and it may affect the results of the research.

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic:		-3.234446	0.0049
Test critical values:	1% level	-2.84725	
	5% level	-1.988198	
	10% level	-1.60014	

*MacKinnon (1996) one-sided p-values

Table 1 ADF test for Net FII investment

The table 1 output shows that the data is significant as the probability value is less than 0.05 (5%). Hence, the net FII investment data is stationary.

		At level		At 1st difference		At 2nd difference	
		t-Statistic	Prob.*	t-Statistic	Prob.*	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		2.954839	0.9958	-0.347437	0.5271	-2.355285	0.0271
Test critical values:	1% level	-2.847250		-2.886101		-2.937216	
	5% level	-1.988198		-1.995865		-2.006292	
	10% level	-1.600140		-1.599088		-1.598068	

*MacKinnon (1996) one-sided p-values

Table 2 ADF test for Nifty 50 prices

The table 2 output shows that the data is not significant as the probability value is more than 0.05 (5%) at level and at 1st difference. However, the data becomes significant at 2nd difference where the probability value is less than 0.05 (5%). Thus, the Nifty 50 data is at stationarity at 2nd difference.

6.2 Johansen Cointegration Test:

The cointegration test is done to determine whether there is a long run relationship between several time series data. The Johansen's test comes in two main forms, i.e., Trace tests and Maximum Eigenvalue tests. The data of net FII investment and the Nifty 50 at stationarity were used for this test.

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	**Eigenvalue**	**Trace Statistic**	**0.05 Critical Value**	**Prob.****
None *	0.858948	15.70762	15.49471	0.0464
At most 1	0.004814	0.038605	3.841465	0.8442

* Denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No. of CE(s)	**Eigenvalue**	**Max-Eigen Statistic**	**0.05 Critical Value**	**Prob.****
None *	0.858948	15.66902	14.2646	0.0298
At most 1	0.004814	0.038605	3.841465	0.8442

* Denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Table 3 Johansen's cointegration test for FII and Nifty 50 series.

The table 3 output shows that both FII and Nifty 50 have a long run relationship as the probability value is less than 0.05 (5%). The trace test results of the cointegration test show that the trace statistic is greater than the critical value, and also the maximum eigenvalue test shows that the Max-Eigen Statistic is greater than the critical value, which implies that there is cointegration between these two time series.

6.3 Granger Causality Test:

The Granger causality test is used to determine whether one time series is a cause or a factor and offer useful information in forecasting the other time series. The causality may be either bidirectional or unidirectional, or there may be no causal relationship between the two time series. The data of net FII investment and the Nifty 50 at stationarity were used for this test with one lag.

Null Hypothesis:	Obs	F-Statistic	Prob.
H_o: FII does not Granger Cause D(NIFTY 50)	8	10.2047	0.0241
H_o: D(NIFTY_50) does not Granger Cause FII		0.01355	0.9119

Table 4 Granger Causality test for FII and Nifty 50 series.

The table 4 output shows that the probability value for the hypothesis 'FII does not granger cause Nifty 50' is less than 0.05 (5%). It implies that there is a causal relationship. The probability value for the hypothesis 'Nifty 50 does not granger cause FII' is more than 0.05 (5%). It implies that there is no causal relationship. Thus, there is a unidirectional causality between the FII and the Nifty 50.

7. Findings:

It can be concluded from the study that Foreign Institutional Investors (FII) have an impact on the performance of the National Stock Exchange (NSE) through their investments. The data were found to be stationary, and both data sets have a long-term relationship between them.

8. Conclusion:

The dynamics of institutional investments and stock market movements for the Indian equity market are empirically examined in this paper with the help of Granger causality. Foreign Institutional Investors plays an important role in increasing the foreign inflow of capital to the country, which influences the Indian stock market.

References:

Inoue, T. (2009). The causal relationships in mean and variance between stock returns and foreign institutional investment in India. Margin: The Journal of Applied Economic Research, 3(4), 319-337.

Paliwal,M.,& Vashishtha, S. D. (2011). FIIs and Indian Stock Market: a causality investigation. Comparative Economic Research. Central and Eastern Europe, 14(4), 5-24.

Karthikeyan, P., & Mohanasundaram, T. (2012). FII flows and Indian equity market performance. Asian Journal of Managerial Science, 1(1), 12-16.

Ahmad, F., Yang, S. C., & Draz, M. U. (2015). Causality between foreign portfolio inflows and economic growth: Evidence from China and India. International journal of economics and finance, 7(10), 163-172.

Salar, S. A., & Shamim, M. (2017). Trading behavior of domestic institutional investors and volatility of Indian stock market. Amity Journal of Finance, 2(1), 47-55.

https://www.sebi.gov.in

https://www.nseindia.com

https://www.cdslindia.com/Publications/ForeignPortInvestor.html

https://www.eviews.com/home.html