IMPACT OF FDI ON INDIAN STOCK MARKET

An Internship report for

Course code and course title :- MGF-651 Internship & Summer Training

Credit :- 16

Submitted in partial fulfillment of the master's degree

MBA (FINANCIAL SERVICES)

by

Durgesh Kumar Tiwari

29

698-453-769-816

2018153

Under The Guidance Of

DR. PINKY PAWASKAR

Assistant Professor

GOA BUSINESS SCHOOL

MBA in Financial Services

GOA UNIVERSITY/GOA BUSINESS SCHOOL

Date:- APRIL 2024

Dept. school/dept. stamp

DECLARATION BY STUDENT

I hereby declare that the data presented in this Internship report entitled, "IMPACT OF FDI ON INDIAN STOCK MARKET" is based on the results of investigations carried Out by me in the (MBA) in Financial Services at the Goa Business School, Goa University under the Supervision of Dr. PINKY PAWASKAR and the same has Not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities/College will be not be Responsible for the correctness of observations/experimental or other findings Given the Internship Report.

I hereby authorize the University/college authorities to upload this Internship Report on the repository or anywhere else as the UGC regulations demand and Make it available to any one as needed.

Durgesh Kumar Tiwari

Seat no: 29

Date: April 2024

Place: Goa Business School/Goa University

COMPLETION CERTIFICATE

This is to certify that Internship report "IMPACT OF FDI ON INDIAN STOCK MARKET" is a bonafide work carried out by Mr. Durgesh Kumar Tiwari under my supervision in partial fulfilment of the requirements for the award of the degree of Masters in Business Administration in the Discipline Financial Services at the Goa Business School, Goa University

Dr. Pinky Pawaskar
Assistant Professor
Date: 29/03/2024

Goa Business School ★ Goa University ★

School Stamp

Signature of Dean of the School/HoD
Date: 29/03/2024
Place: Goa University

CERTIFICATE GIVEN BY THE ORGANIZATION

PN21_lll Consultancy Services Pvt. Ltd.

INTERNSHIP CERTIFICATE

This is to certify that, Mast. Durgesh Rajendra Tiwari, student of Goa Business School, Goa University, Taleigao, Goa, undergoing MBA (Financial Services) has successfully completed internship between 15th February 2024 to 12th April 2024 at PN21_lll Consultancy Services Pvt. Ltd. He actively participated in the activities during the period of internship and learned the skills for various activities such as Demat account opening, customer relations, Stock Analysis, Data feeding, Client Visits.

PN21_lll CONSULTANCY SERVICES PVT. LTD. PANAJI GOA

Pritesh Naik
Associate Director
PN21_lll Consultancy Services Pvt. Ltd

Place : Panaji
Date : 28/04/2024

Head Office: - F 6, Krishna Prabhu Society, Khadpaband, Ponda Goa-403 401
(CIN no.U74999GA2020PTC014277)
Corporate Office: - - Office No. 501, 5th floor, Geras Imperium Star, Patto Plaza, Panaji, Goa 403 001
Mob.No.91 8956133858/91 8956133863 Website: www.pn21lll.in

CORPORATE INTERNSHIP

2. PROFILE OF THE ORGANIZATION

Pn21_iii Consultancy Services Private Limited is a Private incorporated on 23 June 2020. It is classified as Non-govt company and is registered at Registrar of Companies, Goa. Its authorized share capital is Rs. 500,000 and its paid up capital is Rs. 100,000. It is involved in Business activities N.E.C.

Pn21_iii Consultancy Services Private Limited's Annual General Meeting (AGM) was last held on N/A and as per records from Ministry of Corporate Affairs (MCA), its balance sheet was last filed on 31 March 2022.

Directors of Pn21_iii Consultancy Services Private Limited are Prakash Yeshwant Naik and Pradeep Prakash Naik.

Pn21_iii Consultancy Services Private Limited's Corporate Identification Number is (CIN) U74999GA2020PTC014377 and its registration number is 14377.

2.1 SERVICES PROVIDED BY THE COMPANY

Credit related financial consulting, Risk management, wealth management Investment advising, Financial Planning, Business Consulting, Insurance Purchase Consulting, Insurance – related financial advertisement, Mutual and index fund consulting, Financial coaching, Corporate finance consulting, App Development, Company Analysis, Financial Consultancy, Loan Insurance, Option Trading, Personal Loan Portfolio Management, Property Insurance, Risk Management, Stock market & Stock market classes, Technical Analysis, Trading Loan, Trading Strategies, Vehicle Insurance

2.2 WORK ASSIGNED

My task involved getting 15 Demat accounts for the firm. While creating Demat account customers were required to follow the process which involved documentation, verification and approval.

2.3 THE ACCOUNT REGISTRATION PROCESS:

- Documentation

Firstly I had to collect the necessary documents from clients, such as identity proofs, address proofs, PAN card, bank account details, Photograph and signatures for the demat creation.

- Approval

In case if there was a problem in creation of the demat account I had to submit the documents to the in charge assigned for demat creation and coordinate with them for verification and approval.

ABSTRACT

- Purpose:- The study aims to understand the impact of FDI on Indian stock market in India. From 2011 to 2022 for an period of 11 year.
- Design/approach/methodology:- The study is based on the secondary data from the year 2011 to 2022. The has been collected from BSE website and Prowess IQ respectively. Different kinds of test and analysis have been conducted which includes line chart to check the original data and Returns data, descriptive Statistics , unit root test, Regression model to check the relationship between FDI and stock market and Diagnostic analysis to check and ensure the validity of regression model.
- Findings:- There is no statically significant relationship between FDI and Stock market returns in India.
- Originality/value:- Regression Model showed an insignificant relationship between FDI and stock market.

- Keywords:- FDI, stock market, BSE Sensex, regression model.
- Paper type:- Research

IMPACT OF FDI ON INDIAN STOCK MARKET

3. INTRODUCTION OF THE RESEARCH AREA

If any country wishes to develop, their primary objectives are reduction of poverty and improve the living of their people and that is possible through investment. This makes developing countries to look out for foreign aid, basically foreign aid is helpful in reducing poverty of a country by bringing in better technologies and many more facilities. (Khatri Chettri et al., 2023) Foreign Direct Investment (FDI) is one of the main sources of financing to developing countries. (Khatri Chettri et al., 2023)

Many countries try to make their economy better by attracting foreign Direct Investment (FDI). This helps in creating new jobs, improvement of technologies (Azolibe, 2021) . Economy growth of any country depends upon several factors which includes technological innovation as well, technological innovation plays an important role in the growth of an economy (Asunka et al., 2022). Economy is responsible that the country should produce new technologies through small businesses as they are the main drivers of economy growth.(Asunka et al., 2022). Foreign Direct Investment inflow volatility affect the profit of multinational companies as well as the profit of domestic firms, through backward and forward linkage (Gnangnon, 2020). Since the second world war Foreign Direct Investment has played an important role in the internationalization of the economic (Bajo-Rubio, 2022). In the past studies it is found out that innovation is the key factor in economy growth. Many researchers have found a positive and large effect of innovation on economy (Asunka et al., 2022).

Innovation is the major strategy that the developing countries should focus upon if they want to grow and catch up the already developed countries (Asunka et al., 2022) . Better interest rates and exchange rates can attract Foreign Direct Investment (FDI), many countries offer competitive interest rate to attract Foreign Direct Investment (FDI), and also offers good incentives to the foreign investors such as tax holidays, subsidies to the investors, it comes with a belief that the Foreign Direct Investment (FDI) can lead the economy growth of a country (Alawi, 2019) . FDI uses capital widening and capital deepening to boost the growth of an economy, with increase in capital widening, FDI brings more factories and infrastructure and with increase in capital deepening FDI brings advance technologies and knowledge in host countries (Joo & Shawl, 2023) . Many studies have shown a positive impact of foreign direct investment on the growth of an economy; however, others have also found out a negative impact of foreign direct inWvestment on growth of an economy in the host countries (Joo et al., 2022) . FDI have achieved great importance globally, mostly in the countries that are facing investment of capital deficiency, studies have shown that FDI can fill the gap between desired investment and domestically mobilized capital by boosting up development and coming up with solution for under-developed countries (Joo & Shawl, 2023).

Foreign Direct Investment provides money, market access, operation of technology. Sectors where there is high competition FDI can benefit them by providing more comparative advantage (Malik & Amjad, 2013). Capital market to foreign investor was opened up for various of reasons which includes inflation pressure, increased in debt from various of foreign investors, exchange depreciation (Gupta et al., n.d.). Many developments and economy growth theory point out to capital accumulation, technological advancement and natural resources are the main contribution for the development of an economy. Among this capital accumulation is considered as the main catalyst for the growth and it is possible because of FDI (Joo & Shawl, 2023). FDI is considered as game changer because it brings development in the country and also better than the other forms of capital inflow and it is also less volatile (Joo et al., 2022). In today's FDI is one of the important aspects with higher growth rates than world trade and output (Bajo-Rubio, 2022)

The investor has to own at-least 10% of firms voting power of the enterprise in which investment is made, to be able to participate in companies important decision-making process. (oecd 2008) (Otchere et al., 2016) . FDI allows the foreign owners to gets direct control over the firm's behaviour and management over the firm in which the investment is made. One out of many roles of FDI is to globalize production and competition. Developing countries have to depend upon FDI for rapid and sustained economy growth, as it gets technology, external financing, networking, expertise and so on. To attract more FDI inflows, many countries have ease restriction on FDI, strengthened economy, and managing and improving their financial system (Olasunkanmi oseni & Sunday Enilolobo, 2011). Trade liberalization aim to make trades easier and border less by opening domestic market to other countries and getting access to international market. Good trade relation between different countries attracts FDI to invest so that they can benefit (Asunka et al., 2022).

Entrance of FDI improves not only countries economy but also show a positive result on stock market (Alawi, 2019) . Stock market is random in market, which means makes market harder for the investor to gain excess of profit and beat the market. Research done in the past shows that it is impossible to make profit always in the efficient market. The market is mostly dominated by informed and rational agents, which means the decision is made by rational and logical thinking and by having all the related information about the stock or assets (Elangovan et al., 2022).

Research done in the past saw a good impact of FDI, exchange rate and domestic saving on the development of stock market in Pakistan. Balanced macroeconomic environment boost stock market and attract foreign investment (Malik & Amjad, 2013) . Over the last two decades stock market have become important tool for developing countries, as it helps them to raise capital and utilize them for long term, which leads to development of overall economy (Khatri Chettri et al., 2023).

In the last few years, good and strong financial system is considered as main determinants for economy growth and development. Development of stock market and countries financial system are inter-connected in several ways to the economy condition of a nation. Stock market is considered as important part of nations financial system, playing a crucial role in allocating investment in systematic way and creating a pool of money for the investors. Great functioning of stock market in a country offers benefits like Transmission on information, reduced transaction cost which helps the investors to put their money in profitable area that helps them to make more money (Raza et al., 2015) .

FDI can impact stock market performance both positively and negatively, positively by getting in more funds and technology, marketing and managerial skills, but it can also affect in negative way for domestic companies if they can't fight with foreign companies. Stock market of Pakistan have shown a good growth regardless of less attention from political environment. Success of Stock Market Development in Pakistan includes low interest rates, better and improved rules and regulation, supervision of market and a strong financial atmosphere (Raza et al., 2015).

The inflow of FDI on stock market development has been one of the important and interesting aspect in the countries worldwide mainly in developing countries. Chenery & Strout in 1996 highlighted the important of foreign capital, mainly FDI in filling the "Saving investment and "Trade gap in growing countries, pointing out the important of FDI in such nations (Van Bon, n.d.). The Stock Market is a critical channel for providing capital for local enterprises, improving capital efficiency and assist economic growth and development (Van Bon, n.d.) . Hausmann & Fernandez-Arias (2000) say that FDI seems to flow mostly to countries that are financially underdeveloped, riskier and institutionally weak. Local enterprises use FDI as alternative to poor financial market for both debt and equity, therefore FDI may be negatively associated with stock market development (Van Bon, n.d.).

In year 1991 Indian government took a very important step, where they initiated LPG [Liberalization, privatization, Globalization] reform started by Narasimhan's government. Between 2014 and 2017 there was significant Foreign Direct Investment [FDI] inflows into India from $ 2 billion in 1991 to $ 209 billion illustrating a move toward more open economy. The make in India campaign and more FDI inflows in the sectors like e-commerce, railways and defence are the initiative taken by MODI government to further liberalize the economy and attract more investments (Saraswat et al., 2019).

The study aims to determine the relationship between Foreign Direct Investment (FDI) And Stock market in India. It studies to at which levels does Foreign Direct Investment (FDI) affect the stock market of India with reference to BSE Sensex .

4. LITERATURE REVIEW

(I.K. Acheampong & E. A. Wiafe, 2013) studied with the objective to examine the complementary hypothesis via the substitutability hypothesis that causes impact of Foreign Direct Investment (FDI) on stock market development. By using ARDL model and quarterly time series the data was collected from International Financial Statistics and Bank of Ghana and found out that the complementary hypothesis was vindicated.

The study by (A. Tsagkanos & C. Siriopoulos, 2018) stated that the objective of the study was to examine the two novels theories that concern the relationship between the stock market development (SMD) and foreign direct investment (FDI). By using the Markov switching regression model they studied the relationship between SMD and FDI whether it is positive and negative and on other hand if it is long run or short run.

(Ali Raza *et.al.,* 2012) studied with the objective to analyze the role of foreign direct investment in the developing host country's stock market to determine if they arerelated or not and to investigate the effect of FDI along with domestic savings, exchange rate along with developing Pakistan stock market using Ordinary Least Square (OLS) method of regression through annual time series data. The study found that using OLS had positive significant impact of FDI on stock market development in Pakistan.

This study was performed with the objective to know the impact of Foreign Direct Investment (FDI) and Stock Market development on growth in Nigeria by (Isiaq Olasunkanmi & Oluwafemi Sunday, 2011). To determine the trends of FDI along with stock market development and to understand the relationship that exists among FDI, stock market development and economic growth in Nigeria. By using techniques such as Unit Root Test, Cointegration and Error Correction Mechanisms. It was reported that both FDI and lagged stock market had small and statistical significant effect on economic growth.

Keshab, Jeevan & Ramji Gautam, 2022) studied with the objective to examine the role of FDI in stock market in Nepal. The long run relationship among FDI, stock market development and exchange rate were examined by using two techniques such as Johansen Cointegration test with three macroeconomic variables: inflation rate, interest rate and banking sector development. That determined the long run relationship between FDI and stock market. Whereas, the other technique used was Granger Causality test that confirmed unidirectional causality running from FDI to stock market development. The variables such as exchange rate, inflation rate, interest rate and banking sector development caused stock market development in thelong run and short run.

(K. Tsauri, 2014) studied the causality relationship between stock market and foreign direct investment in Zimbabwe using data from 1988 to 2012. By using the three theoretical rationales, three views of the relationship between two variables were extensively discussed. Using the bi-variate causality test frame work, they discovered that there exists a long run relationship between stock market development and foreign direct investment net inflows in Zimbabwe. The direct causality relationship from either stock market development to FDI or from FDI to stock market development was not found.

The study conducted by (J. Nyambura, 2016) examined the effect of foreign direct investment on the development of stock market in Kenya for the period 1962 to 2016 using annual secondary data. By employing secondary data, 35 years of information of development of stock market, FDI, inflation rate, real interest rate and GNP per capital was obtained and analysis was carried out using SPSS version 21 software. The correlation analysis findings were the existence of a weak positive correlation between FDI and Kenya's development on stock market. The control variables interest rate and GNP per capita posited a weak positive relationship to stock market development while inflation rate showed a negative correlation to stock market development.

(Gopal Saraswat *et.al.,* 2019) studied with the objective were to examine the effect of FDI inflow on SMD and to analyze the relationship among FDI inflow, SMD, exchange rate and trade. The test results of Grager Causality and Variation Decomposition showed that there is bidirectional causality between FDI and SMD and both influence each other in long run. The study concludes that FDI, SMD, exchange rate and terms of trade plays an important role in shaping up the policy framework in a country like India.

This study was performed with the objective to examine the performance of ETFs and index funds that tracked the underlying index, either the S&P BSE SENSEX index or the Nifty 50 index for the period of three years from 1 April 2014 to 31 March 2017 by (S. Gupta and A, Sethi, 2017). This study analysis the expense ratio to be concluded that all ETFs have expense ratios which are lower than their Index Fund counter parts except the Kotak Sensex ETF. The UTI Nifty emerged as the most efficient Index fund. Among the S&P BSE Sensex, the SBI Sensex ETF provided the highest risk-adjusted returns.

4.1 RESEARCH GAP

- Past studies were done by using old data, that is from 2001 to 2011, but there is a gap as thereafter no studies were conducted since 2011
- Correlation coefficient and multiple regression analysis were used in past studies, but in our research will use only one regression model and check the result.
- While many studies have been done in the past on impact of FDI on SMD, but there is a gap in understating the main mechanism through which FDI affects stock market.

4.2 RESEARCH QUESTION

- What are the main mechanism by which FDI influence Stock market development in India?
- What is the nature of relationship between FDI ans stock market performance in India, with special reference to BSE SENSEX?
- How does FDI Inflow impact the performance and dynamics of Indian stock market over the period of time?

5. RESEARCH OBJECTIVE

I) To study the impact of FDI on Indian stock market .

II) To analyse the relationship between FDI and Stock Market.

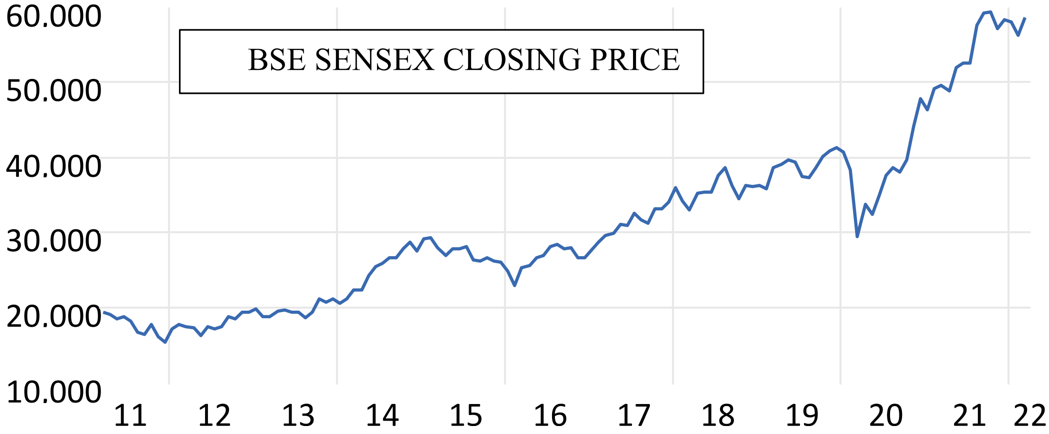
6. RESEARCH METHODOLOGY

The study is based on the secondary data. The data has been collected from BSE Website and Prowess IQ website respectively. The present study covers a period of 11 years starting from the year 2011 to 2022. We have run different types of tests to find whether there is a relationship between FDI and Stock market in India. To find the relationship between both the variables we have followed the following procedure.

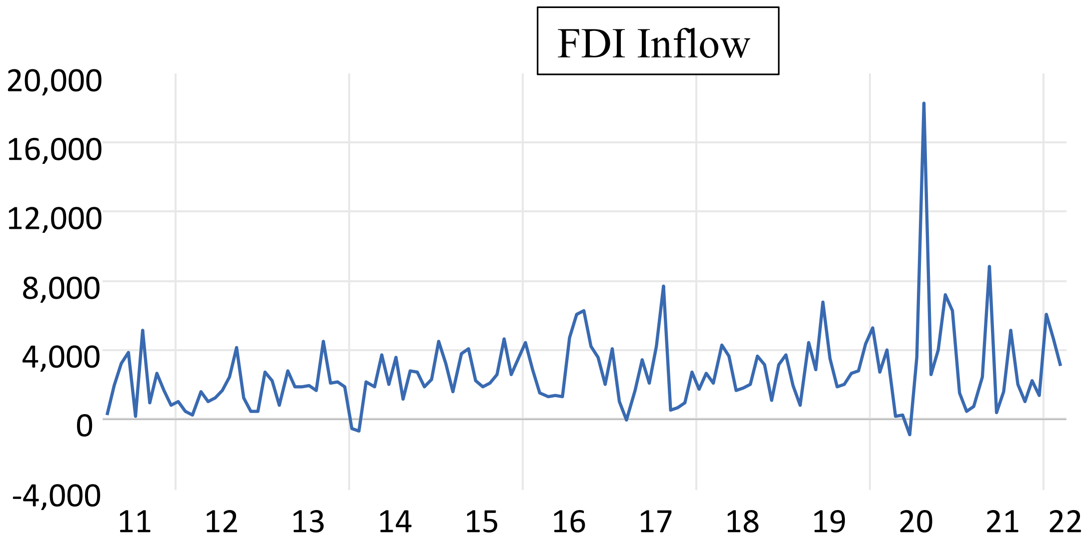
- Line chart:- Original Data
- Line chart:- Returns Data
- Summery Statistic:- Returns Data
- Unit Root Test
- Regression Model
- Model Diagnostic :-
  1) Serial Correlation
  2) Heteroskedasticity

7. DATA ANALYSIS AND INTERPRETATION

7.1 LINE CHART: ORIGINAL DATA

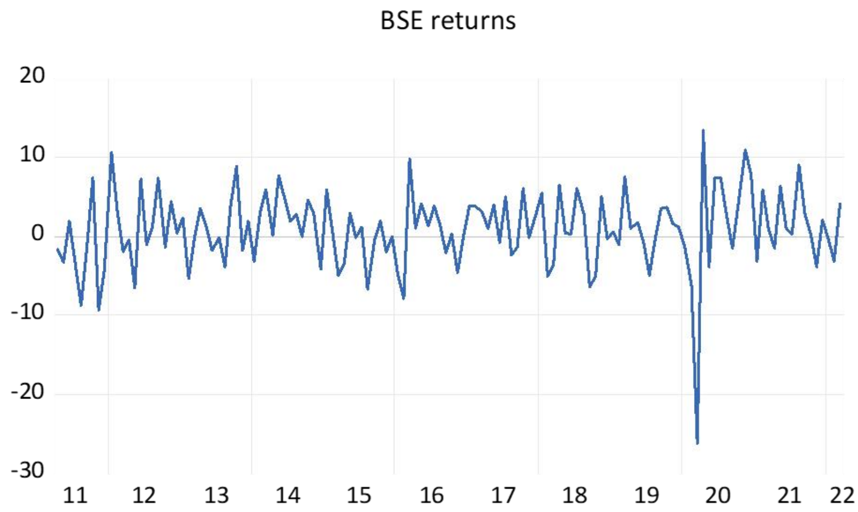


This is original data of BSE SENSEX which is downloaded from BSE website, which is monthly data from 2011 to 2022. The data shows that sensex have moved upward from the period 2011 to 2022. Fluctuation can be seen in the data but overall result is positive.

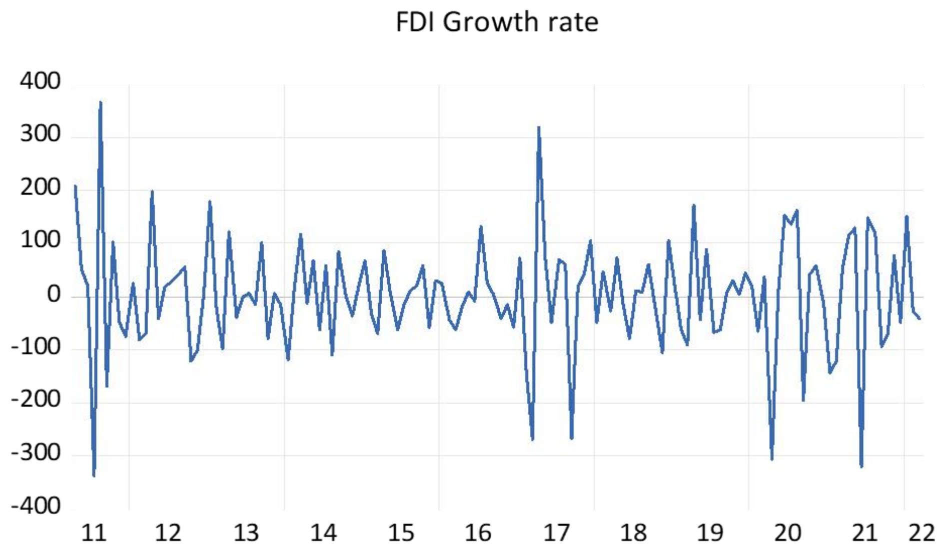


This is graph of FDI inflow data in India from the period 2011 to 2022, FDI inflow in India has increased drastically from the year 2011 to 2022. Some fluctuation can be seen in the data but overall tread seems to be positive.

7.2 LINE CHART: RETURN DATA



This graph shows the returns of BSE SENSEX from the year 2011 to 2022. The overall trend seems to be positive, with the BSE SENSEX experiencing good positive returns in most number of years. In 2019-2020 a big downfall can be observed but overall trends seems to be positive.



This graph is of FDI growth rate in India from the year 2011 to 2022. Looking at the graph it can be analyzed that FDI growth seems to be volatile, the highest FDI growth rate was about 370% in the year 2011 – 2012, and after that the FDI growth remained negative for the next year.

7.3 DESCRIPTIVE STATISTICS

	BSE_RET...	FDI_GRO...
Mean	0.835300	1.913927
Median	0.876480	6.390344
Maximum	13.46990	365.4323
Minimum	-26.20576	-337.2468
Std. Dev.	4.916272	106.7156
Skewness	-1.082378	-0.225640
Kurtosis	8.792079	5.088891
Jarque-Bera	210.2890	25.11916
Probability	0.000000	0.000004
Sum	110.2596	252.6384
Sum Sq. Dev.	3166.235	1491857.
Observations	132	132

7.4 UNIT ROOT TEST AT 1st DIFFERENCE

Null Hypothesis: D(BSE_RETURNS) has a unit root
Exogenous: Constant
Lag Length: 5 (Automatic - based on SIC, maxlag=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.515716	0.0000
Test critical values:	1% level	-3.483312	
	5% level	-2.884665	
	10% level	-2.579180	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(BSE_RETURNS,2)
Method: Least Squares
Date: 04/23/24 Time: 16:01
Sample (adjusted): 2011M11 2022M03
Included observations: 125 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BSE_RETURNS(-1))	-4.497535	0.528145	-8.515716	0.0000
D(BSE_RETURNS(-1),2)	2.562168	0.477801	5.362414	0.0000
D(BSE_RETURNS(-2),2)	1.735119	0.396124	4.380247	0.0000
D(BSE_RETURNS(-3),2)	1.127830	0.295828	3.812447	0.0002
D(BSE_RETURNS(-4),2)	0.603436	0.187770	3.213702	0.0017
D(BSE_RETURNS(-5),2)	0.216324	0.088342	2.448708	0.0158
C	0.037619	0.475903	0.079048	0.9371

R-squared	0.833534	Mean dependent var	-0.012309
Adjusted R-squared	0.825069	S.D. dependent var	12.71792
S.E. of regression	5.319231	Akaike info criterion	6.234906
Sum squared resid	3338.718	Schwarz criterion	6.393291
Log likelihood	-382.6816	Hannan-Quinn criter.	6.299249
F-statistic	98.47548	Durbin-Watson stat	2.023206
Prob(F-statistic)	0.000000		

This (ADF) Augmented Dickey Fuller test is done to check if a time series has a unit root. When comparing T-statistic with critical values at 1%, 2% and 3% level, we come to know that test statistic is lower then all critical values, which indicates Strong evidence against null hypothesis .

Hence we reject the null hypothesis and comes to conclusion that BSE Return are stationary, which means it does not have unit root.

Null Hypothesis: D(FDI_GROWTH_RATE) has a unit root
Exogenous: Constant
Lag Length: 8 (Automatic - based on SIC, maxlag=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.091663	0.0000
Test critical values:	1% level	-3.484653	
	5% level	-2.885249	
	10% level	-2.579491	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI_GROWTH_RATE,2)
Method: Least Squares
Date: 04/23/24 Time: 16:02
Sample (adjusted): 2012M02 2022M03
Included observations: 122 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FDI_GROWTH_RATE(-1))	-10.71702	1.178775	-9.091663	0.0000
D(FDI_GROWTH_RATE(-1),2)	8.472917	1.119982	7.565229	0.0000
D(FDI_GROWTH_RATE(-2),2)	7.006890	1.016564	6.892721	0.0000
D(FDI_GROWTH_RATE(-3),2)	5.562639	0.877687	6.337840	0.0000
D(FDI_GROWTH_RATE(-4),2)	4.190145	0.714020	5.868383	0.0000
D(FDI_GROWTH_RATE(-5),2)	2.931099	0.539832	5.429650	0.0000
D(FDI_GROWTH_RATE(-6),2)	1.815852	0.365127	4.973201	0.0000
D(FDI_GROWTH_RATE(-7),2)	0.855557	0.211027	4.054246	0.0001
D(FDI_GROWTH_RATE(-8),2)	0.233991	0.086546	2.703642	0.0079
C	1.319308	8.489131	0.155411	0.8768

R-squared	0.879622	Mean dependent var	-0.948378
Adjusted R-squared	0.869948	S.D. dependent var	259.8130
S.E. of regression	93.69550	Akaike info criterion	11.99639
Sum squared resid	983230.8	Schwarz criterion	12.22623
Log likelihood	-721.7798	Hannan-Quinn criter.	12.08974
F-statistic	90.93329	Durbin-Watson stat	2.085304
Prob(F-statistic)	0.000000		

Similar to previous case, after comparing T-statistic with 1%, 2%, 3% level, we come evidence against null hypothesis.
Hence we reject the null hypothesis and come to conclusion that FDI Growth rate is stationary which means It does not have unit root.

7.5 REGRESSION

Dependent Variable: BSE_RETURNS
Method: Least Squares
Date: 04/23/24 Time: 16:07
Sample (adjusted): 2011M04 2022M03
Included observations: 132 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.834082	0.429578	1.941632	0.0543
FDI_GROWTH_RATE	0.000636	0.004040	0.157474	0.8751

R-squared	0.000191	Mean dependent var	0.835300
Adjusted R-squared	-0.007500	S.D. dependent var	4.916272
S.E. of regression	4.934674	Akaike info criterion	6.045486
Sum squared resid	3165.631	Schwarz criterion	6.089165
Log likelihood	-397.0021	Hannan-Quinn criter.	6.063235
F-statistic	0.024798	Durbin-Watson stat	2.154130
Prob(F-statistic)	0.875115		

In the regression analysis, we can see that the P-value for FDI Growth Rate is higher than 0.05, this indicates that the relationship between BSE Return and FDI Growth rate is statically insignificant.

7.6 MODEL DIAGNOSTIC

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	0.852029	Prob. F(2,128)	0.4290
Obs*R-squared	1.734221	Prob. Chi-Square(2)	0.4202

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 04/23/24 Time: 16:08
Sample: 2011M04 2022M03
Included observations: 132
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002685	0.430078	-0.006243	0.9950
FDI GROWTH RATE	0.000503	0.004067	0.123719	0.9017
RESID(-1)	-0.087378	0.088667	-0.985460	0.3263
RESID(-2)	-0.082429	0.088479	-0.931626	0.3533

R-squared	0.013138	Mean dependent var	-1.68E-16
Adjusted R-squared	-0.009992	S.D. dependent var	4.915803
S.E. of regression	4.940301	Akaike info criterion	6.062564
Sum squared resid	3124.041	Schwarz criterion	6.149921
Log likelihood	-396.1292	Hannan-Quinn criter.	6.098062
F-statistic	0.568019	Durbin-Watson stat	1.986397
Prob(F-statistic)	0.637068		

The above test is used to check if there is a presence of serial Correlation in residual of regression model, and here the null hypothesis is that there is no serial Correlation at up to 2 lags. The F-statistic is 0.8520 along with P value of 0.4290. Hence P value is higher than the 0.05 level, we fail to reject null hypothesis, this means that there is no significant serial Correlation in the residuals up to 2 lags.

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.025620	Prob. F(1,130)	0.8731
Obs*R-squared	0.026009	Prob. Chi-Square(1)	0.8719
Scaled explained SS	0.098880	Prob. Chi-Square(1)	0.7532

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/23/24 Time: 16:09
Sample: 2011M04 2022M03
Included observations: 132

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.96509	5.889504	4.069117	0.0001
FDI_GROWTH_RATE	0.008866	0.055390	0.160063	0.8731

R-squared	0.000197	Mean dependent var	23.98205
Adjusted R-squared	-0.007494	S.D. dependent var	67.40222
S.E. of regression	67.65429	Akaike info criterion	11.28173
Sum squared resid	595023.4	Schwarz criterion	11.32541
Log likelihood	-742.5945	Hannan-Quinn criter.	11.29948
F-statistic	0.025620	Durbin-Watson stat	1.560704
Prob(F-statistic)	0.873080		

This Breusch Pagan Godfrey test is done to know whether there is Heteroskedasticity in the residual of a regression model.

And as we can see that the P-value is greater than the common level of 0.05, we fail to reject the null hypothesis. This shows that there is no significant evidence of Heteroskedasticity in the residuals

8. RESEARCH FINDINGS

- The study found that there is no statically significant relationship between FDI inflow and BSE Sensex Returns

- Both BSE Sensex and FDI inflow have demonstrated a positive result over the years from 2011 to 2022, with some fluctuation but there have been overall upward movement.

- ADF test shows that BSE Return and FDI Growth Rate both are stationary.

- The Regression analysis shows that there is a insignificant relationship between BSE Sensex and FDI Growth Rate As the P-value of FDI Growth Rate is higher than the common significant level of 0.05.

- There is no significant serial correlation in residuals up to 2 lags as shown by the F-statistics and p-values.

- FDI growth rate in India shows a strong volatility, with a jump of 370% in the year 2011 and 2012 and later on followed by a negative growth rate. Finding out the reason behind these fluctuations could give insight into the factors influencing FDI inflow into the country.

- As FDI inflow and BSE SENSEX demonstrate a healthy trend over the years between 2011 to 2022, it would be effective to conduct further studies to check and identify if any individual factors or may be events that may have affected these trends over period of time.

- Breusch pagan Godfrey test indicates that there is no significance signs of Heteroskedasticity in the residuals.

9. CONCLUSION AND SUGGESTIONS

9.1 CONCLUSION

The relationship between FDI and Indian stock market is a good and interesting topic to debate upon. Through Literature review, empirical analysis, this study aims to put a light on the Relation between Foreign direct investment inflows and stock market performance of India from the period 2011-2022.

The study is run in depth to find out the relationship between FDI and Indian stock market, with reference to BSE SENSEX. Different methodologies like Summery statistics, line chart, regression analysis, unit root test, model Diagnostic and various other findings explaining the dynamics between Foreign direct investment inflows and stock market performance in Indian country.

In the first place, it was found that there is no statically significant relationship between FDI and BSE SENSEX Return. This shows that while FDI is an significant factor in the development of an economic, it's effect on stock market returns may not be clearly seen during the period of our study.

Further, the augmented Dickey Fuller test indicates that the BSE SENSEX Return and FDI Growth Rate are stationary, suggesting that both do not Have a unit root and exhibit stable behaviour over period.

Furthermore, the regression model revealed a insignificant relationship between BSE Sensex and FDI Growth Rate, as the value of P is higher than the common level of 0.05

The study also showed the volatility in FDI Growth Rate of India, with a jump of 370% in the year 2011 and 2012 and later on followed by a negative growth rate.

Overall in conclusion, the study did not found a direct relationship between FDI inflow and stock market returns in India, this indicates the importance of further research to understand why exactly is this happening and how does it affect the overall India's economy growth and development strategies. Investing the impact of specific variables such as Interest rate, inflation, exchange rate could give a comprehensive idea of dynamic at play.

9.2 SUGGESTIONS

- Considering the volatility seen in FDI growth rate, conducting more investigation into the factors that lead to such fluctuation could provide valuable insight into the pattern of FDI inflow in the nation.
- Conducting further research to check that if there are any specific factors or events that have affected the trend in BSE Sensex and FDI Inflow over the period could offer perfect insights for the investor and policymakers.

10. MANAGERIAL IMPLICATION

- In view of the significant fluctuations in FDI growth rates, it is important that decision-makers and investment organisations investigate the real reasons for such fluctuations. Finding the variables affecting foreign direct investment (FDI) inflow can help in developing effective plans to stabilise and possibly boost FDI in the nation.
- It's important to focus on other elements that support market stability and growth because there is no statistically significant relation between FDI inflow and BSE Sensex returns.
- Since the study found no relationship between FDI and Stock Market Returns, it's important to diversify investment beyond the Stock Market. Encouraging investment in infrastructure, manufacturing, technology, can help in contributing to economic growth and stability.

REFERENCES

Alawi, S. (2019). The effect of direct foreign investment on stock price volatility in the Saudi market. In *Asian Economic and Financial Review* (Vol. 9, Issue 8, pp. 875–887). Asian Economic and Social Society. https://doi.org/10.18488/journal.aefr.2019.98.875.887

Asunka, B. A., Ma, Z., Li, M., Amowine, N., Anaba, O. A., Xie, H., & Hu, W. (2022). Analysis of the causal effects of imports and foreign direct investments on indigenous innovation in developing countries. *International Journal of Emerging Markets*, *17*(5), 1315–1335. https://doi.org/10.1108/IJOEM-08-2019-0609

Azolibe, C. B. (2021). Does foreign direct investment influence manufacturing sector growth in Middle East and North African region? *International Trade, Politics and Development*, *5*(1), 71–85. https://doi.org/10.1108/itpd-04-2020-0010

Bajo-Rubio, O. (2022). The role of foreign direct investment in growth: Spain, 1964–2013. *Applied Economic Analysis*, *30*(90), 263–276. https://doi.org/10.1108/AEA-07-2021-0157

Elangovan, R., Irudayasamy, F. G., & Parayitam, S. (2022). Testing the market efficiency in Indian stock market: evidence from Bombay Stock Exchange broad market indices. *Journal of Economics, Finance and Administrative Science*, *27*(54), 313–327. https://doi.org/10.1108/JEFAS-04-2021-0040

Gnangnon, S. K. (2020). Effect of volatility of foreign direct investment inflows on corporate income tax revenue volatility. *Applied Economic Analysis*, *29*(86), 124–151. https://doi.org/10.1108/AEA-04-2020-0030

Gupta, S., Kalra, N., & Bagga, R. (n.d.). *Impact of Foreign Investments on Stock Market Volatility: An Evidence from Indian Stock Market*. http://www.thehindu.com/opinion/columns/

Joo, B. A., & Shawl, S. (2023). Understanding the Relationship Between Foreign Direct Investment and Economic Growth in BRICS: Panel ARDL Approach. *Vikalpa*, *48*(2), 100–113. https://doi.org/10.1177/02560909231180078

Joo, B. A., Shawl, S., & Makina, D. (2022). The interaction between FDI, host country characteristics and economic growth? A new panel evidence from BRICS. *Journal of Economics and Development*, *24*(3), 247–261. https://doi.org/10.1108/jed-03-2021-0035

Khatri Chettri, K., Bhattarai, J. K., & Gautam, R. (2023). Foreign direct investment and stock market development in Nepal. *Asian Journal of Economics and Banking*, *7*(2), 277–292. https://doi.org/10.1108/ajeb-02-2022-0018

Malik, I. A., & Amjad, S. (2013). Foreign direct investment and stock market development in Pakistan. *Journal of International Trade Law and Policy*, *12*(3), 226–242. https://doi.org/10.1108/JITLP-02-2013-0002

Olasunkanmi OSENI, I., & Sunday ENILOLOBO, O. (2011). Effect of Foreign Direct Investment and Stock Market Development on Economic Growth in Nigeria (1980-2009). In *European Journal of Business and Management www.iiste.org ISSN* (Vol. 3, Issue 12). Online. www.iiste.org

Otchere, I., Soumaré, I., & Yourougou, P. (2016). FDI and Financial Market Development in Africa. *World Economy*, *39*(5), 651–678. https://doi.org/10.1111/twec.12277

Raza, S. A., Jawaid, S. T., Afshan, S., & Karim, M. Z. A. (2015). Is stock market sensitive to foreign capital inflows and economic growth?: Evidence from

Pakistan. *Journal of Chinese Economic and Foreign Trade Studies*, *8*(3), 142–164. https://doi.org/10.1108/JCEFTS-03-2015-0012

Saraswat, G. B., Saraswat, M., & Chakraborty, A. (2019). The impact of second generation FDI reforms on the stock market development in India. *International Journal of Recent Technology and Engineering*, *8*(3), 8080–8087. https://doi.org/10.35940/ijrte.C6437.098319

Van Bon, N. (n.d.). *FDI and stock market development in developing countries: The role of governance environment*.