IMPACT OF FDI ON INDIAN STOCK MARKETS NSE AND BSE – AN EMPIRICAL STUDY

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Abstract

FDI has had a significant impact on the growth and volatility of the Indian stock markets. Consequently, the aim of this paper is to investigate the impact of FDI inflows on Indian stock markets such as the “Bombay Stock Exchange” (BSE) and the “National Stock Exchange” (NSE) during this research. The current research spans a seven-year duration of secondary data. The methods used to analyse data using statistical packages for social sciences include Simple Linear regression, Karl Person's coefficient correlation, and Trend percentage (SPSS). With correlation coefficients, FDI was found to be significantly associated with both markets. With regression analysis, FDI has also been found to have an impact on both BSE and NSE.

Keywords: Foreign Direct Investment, Bombay Stock Exchange, National Stock Exchange, Correlation, Regression.

1. INTRODUCTION

Foreign Direct Investment was presented in 1991 as in this year India had introduced its frameworks on Liberalization, Privatization, and Globalisation which is popularly known as the LPG model. With the introduction of these models, liberalization, and privatization had shown the way for Globalisation which had started the change in the scenario of Indian stock markets. By this Indian stock markets have been attracting foreign investments into India. With this change, as the year passed India has become a popular destination for global investors to invest in. To understand the concept of FDI you have to know the history of how is it actually started in India and when the Government of India had taken it seriously by liberalizing the rule and restrictions on Foreign Direct Investment. When Vasco da Gama arrived in Calicut in early 1498, he saw the riches and prosperity of the Indians. He was the one who first introduced India to the rest of the world. People began to travel to India after that. The Portuguese, Dutch, French, and British then formed empires in India and began trading with the Indian people and rulers of the time. But first FDI came to India in the form of “East India Company” by the ambassador of British Empire Sir Tomas Roe with the permission of Mughal India. Later, under adjustments in response to global financial conditions, and it became known as Foreign Direct Investment. At the time of Independence, our attitude towards FDI had changed due to the bad experience with “East India Company”. This is natural because of the damage that happened with East India Company in the form of FDI. The fear and suspicion can be witnessed in the “Industrial Policy of 1948”. Regulations had been imposed on FDI which made dissatisfaction. The year 1991 is the turning point in India's economic history. In response to a major financial crisis, India's government received a 1.8-billion-dollar bailout loan from the IMF (International Monetary Fund). A balance of payment crisis was caused by the breakup of the Soviet Union (USSR), India's key trading partner at the time, and a rise in oil prices due to the Gulf War. (Sachan, 2015).

Due to economic conditions in India are much worse compared to economic conditions around the globe and India’s Foreign currency reserve had dipped drastically with that currency reserve India can sustain only for the next 3 weeks. After seeing this alarming situation and also considering IMF advice on the Indian Economy the Government of India has come up with the Model called the “LPG Model” the expansion for this is Liberalisation Privatisation and Globalization. By lifting the restriction on FDI and allowing globalization India had come out of that tough situation and after that, whenever need the Indian Government started increasing the share of FDI and privatization on a particular industry. (H. Gupta, 2017).
Foreign direct investment (FDI) occurs when foreign investors buy shares in a company that is listed in India or bonds issued by an Indian company. According to a recent study done by Bank of America Merrill Lynch (BoFA-ML) in which 50 investors took part, India was the most popular equities market for global investors in 2015, with 43%, followed by China with 26%. According to the global investment bank, India is still in a structural bull market. Economies such as India, which have a greater growth rate than industrialized economies, have garnered popularity among investors as attractive investment locations for Foreign Direct Investment (FDI). Following the government's introduction of several reform measures in recent years, investors are bullish about India. FDI has accounted for the majority of investment in India to date. The government is attempting to take several crucial initiatives to encourage investors to invest more in FDI. Foreign capital will expand the market's depth and breadth. It is critical to the growth of the securities industry. The policy of foreign investors focused on the fundamentals of the stock has resulted in effective stock pricing. The Indian stock market became more appealing to FDIs as a result of these effects. (Mrs. Pooja Nagpal, 2016).

In India, there has been a large increase in foreign direct investment. As a result, India is now one of the world's most successful investment destinations. Many studies have found that several macroeconomic variables have a direct effect on the Indian stock market's growth and volatility (e.g., GDP, inflation and exchange rates, etc.). The inflow of “foreign direct investment” is one of them (FDI). According to a large number of empirical reports, FDI has had a significant impact on the host country's overall economic growth and development. The effect of FDI on the Indian stock markets, such as the BSE and NSE, is necessary to investigate because economic growth encourages stock market growth. “Foreign Direct Investment” (FDI) is a long-term investment made by a foreign investor in the development and management of a corporation in another country, either by the acquisition of an organisation in that country or the expansion of the activities of an established enterprise in that country, with the aim of retaining a long-term interest in the management of the latter entity. It includes involvement in management, joint ventures, technology transfer, and knowledge transfer, in addition to the inflow of funds. (H. Gupta, 2017).

Apart from the individual investment or instutional investment Stock market been playing an a significant role in financing the Indian corporate sector as part of the economic liberalization process. The stock markets' main tasks include mobilizing capital for investment directly from investors, providing liquidity for investors, and monitoring and disciplining firm management. The major attractiveness of stock markets is that they allow companies and governments to raise funds directly from investors, while also providing liquidity to investors. Liquid markets have also been offered as a way to improve resource allocation and long-term economic growth prospects. Stock markets are also likely to play a significant role in reining firm executives. Since the worst phase of liberalization in the early 1980s, equity market development has been a priority in India. Following the deepening and widening of the liberalization process in 1991, the development of capital markets was deemed an integral aspect of the restructuring agenda. In terms of structure as well as operational efficiency, Indian markets now meet international norms. (YADAV, 2017).

So we can say that FDI has played a critical role in economic growth and stock market creation in recent decades. Following India's liberalization, FDI has become critical indicators of the country's economic growth and capital flows, indicating the country's sound financial position. Emerging markets have become the world's pioneers and have seen rapid growth (S. Baranidharan, 2019).

As we have seen the history of the FDI investments in India, now let us go through the history of Stock Exchanges in India.

2. **HISTORY OF STOCK EXCHANGE IN INDIA**

When the Bombay Stock Exchange (BSE) was founded in 1875 as 'The Native Share and Stockbrokers Association,' a voluntary non-profit organization, the notion of stock markets was introduced to India. We all know that your neighborhood's Bhaji (Sabji) market is a location where vegetables are bought and sold. A stock market, like the Bhaji (Sabji) market, is a place where equities are bought and traded. Through a process of bid and offer, the stock market establishes the price of a stock for the day. You have the right to bid on and purchase stock shares, as well as offer to sell them for a profit. Buyers fight for the best bid and receive the highest price quoted to purchase a specific stock market share. Sellers fight for the lowest price given to sell the stock similarly. A trade is completed when the best bid and the best offer are matched. High-speed computers handle the entire process in automated exchanges. On stock markets, numerous companies' stocks are listed. In India, there are now 21 stock exchanges. The three major stock exchanges are the Bombay Stock Exchange (BSE), the National Stock Exchange (NSE), and the Calcutta Stock Exchange (CSE). In-state capitals and other large cities, there are numerous tiny regional exchanges. (YADAV, 2017)

3. **EVOLUTION OF INDIAN STOCK MARKETS**

Now coming to the evolution part of the Indian stock markets, as previously noted, played a crucial part in India's early attempts at industrialization in the late nineteenth and early twentieth centuries. The stock market was used to fund the first textile mills and steel facilities. In comparison to the size of the financial sector at the time, several of these capital raising efforts were significant. Beginning in the late 1950s, the government adopted an inward-looking
socialistic development strategy that intended to place the economy’s commanding heights in the hands of the public sector. As banks and insurance businesses were nationalized and development financial organizations increased insignificance, the government assumed control of the distribution of resources in the economy.

A financial repression regime was established, and the stock market remained stagnant. In some ways, the period from 1984 to 1992 was the pinnacle of Indian capital markets. The stock market surged through the roof as markets reacted positively to the first smell of reforms in the mid-1980s and the main reform drive of 1991. From October 1984 to September 1992, the stock market index increased by more than tenfold, yielding a 34 percent annual compound return. (YADAV, 2017). From 1992 to 2021 till date Indian Stock Markets had gone way far comparing with the initial days we can understand from these is that Indian economy had also started moving in the same direction. As of now we can see NSE had touched 16,000 level which is all time high and BSE had touched 54,000 level. The aim of this research is to find out how “foreign direct investment” affects the Indian stock market.

4. REVIEW OF LITERATURE

H. Gupta, 2017., explains that the FDI regime has undergone radical liberalisation. Since Indian capital markets have been able to attract significant foreign investment and there has been an increase in foreign investment in India, this article answers the following issue. To investigate the effect of FDI inflows on the movement of the BSE and NSE over the study period. And to analyse, these questions the article had come up with the conclusion that there is a direct linear relationship between FDI and NSE, BSE. It means an increase in FDI and the BSE, NSE will also move in the same direction. Between them, there is a moderately positive correlation. As a result, we can infer that foreign direct investment has a huge effect on Indian stock markets.

According to S. Baranidharan, 2019., the inflow of FDI and FII has been a clear impression of economic growth in both developing and developed countries and studied the impact that exclaimed that there is a unidirectional relationship between FDI and the NSE and to he had come up with a conclusion that the FDI flow in India had a positive behaviour and parallel pattern in the Indian stock markets, and there is a long-term link between the two FII and FDI on BSE and NSE.

A study by Mrs. Pooja Nagpal, 2016., concluded that International investment has been a prominent indicator of economic growth in both emerging and developed economies. In 1991, the Foreign Investment Management Act (FEMA) was enacted (Foreign Exchange Management Act). Because of the growth and convergence of global equity markets, developing countries like India are seeing changes in their capital markets, and his research focused on how the influx of foreign capital is influencing the development of Indian stock markets. According to results shown in his paper, FDI and FII on the Indian stock exchange have a good relationship with stock market indices and it can be inferred that FDI and FII flows have a huge effect on the stock exchange of India. In practice, stock market movements are not solely determined by FDI or FII there are several other variables that influence whether the stock market is bullish or bearish.

Sachan, 2015., suggested that Foreign Investment was established in 1991 under the “Foreign Exchange Management Act” (FEMA). These steps will help developing countries like India to accumulate the capital formation required where other developing countries put this act in practice already. “Foreign Direct Investment” (FDI) and “Foreign Institutional Investment” (FII) have become instruments of international economic stimulus and integration. FDI and FII, as well as certain external variables including global economic cues and exchange rates. Demand and supply, market capitalization, and other internal factors all play a role and earnings per share (EPS) drive and commit the Indian stock market, and he continued his research to investigate the effect of FDI and FII on the Indian stock market and the relationship between them. The outcome from his research says that International capital is playing an increasingly important role in the growth of Indian equity markets. FDI and the Sensex and FDI and the Nifty have a weak positive correlation, while FII and the Sensex and FII and the Nifty have a high positive correlation.

Mir, 2014., was focused on the issue of whether there is a strong connection between “foreign institutional investment” (FII) capital flows and stock market volatility and he shared his thoughts on how FII investment has become a dynamic force in the growth of Indian stock markets and is increasingly seen as an important cause of stock market volatility. The findings reveal that the volatility of the NSE and BSE has increased over time, but that volatility peaked during the financial crisis and then declined. As a result of the findings, it appears that the Indian stock market is volatile and FIIs has risen during the analysis, with the highest levels of volatility occurring during a financial crisis and then being normalised to zero.

Shah, 2013., reveals that in any economy, interpreted capital is considered to be very important development. In the case of developing countries such as India, domestic capital is insufficient to meet the country’s needs. Global capital enters the country in two ways: FDI and FII. In addition, the trends and patterns of FII flow in India will be examined. And results concluded that FII flows in term had increased from the year 2001 - 2013. NSE had an increase over 13 years. FII had a positive correlation with the NSE index. FII also explained there is a 26% variation of the dependent variable NSE.
According to Chauhan, 2013., India has become one of the most popular investment destinations in the world. This is expressed in the FDI and FII investments made in India. The financial markets have shown their true dynamism in the twenty-first century. The role of FDI, or foreign institutional investors, in the capital market of India has grown in recent years, as evidenced by a rise in their net cumulative investments, and they have a major effect on India's stock market. It is an effort to determine the effect of FDI, FII, and FPI inflows on the BSE's movement. The movement of the BSE and NSE was significantly influenced by the flow of FDI, FII, and FPI. Where FDI had affected both BSE & NSE compare to FII which has less effect on BSE comparatively high effect on NSE. The FPI has the least significant Impact on NSE & BSE.

LOOMBA, 2014., says that the FII has emerged as a significant player in Indian stock markets, and their increasing contribution is a key feature of the country's stock market growth. Developing countries demanded that their stock markets be improved in order to encourage FII, and as a result, Indian stock markets have risen to new heights and become more volatile. The position of foreign institutional investors (FIIs) in Indian capital markets, as well as their trading activity in Indian equity markets. The study clearly shows that FIIs are powerful forces driving the Indian stock market, as shown by the top twenty-five BSE crises, in which FIIs were net sellers in all of the major market crashes. This research also allows for the identification of FIIs' position in overall market volatility in India.

As has been previously reported in the literature, even Mr. K.S.Venkateswara Kumar, 2012., suggested that “Foreign institutional investment” (FII) and Foreign direct investment” (FDI) have developed into tools for international economic integration and stimulation. Since FDI started, fast-growing economies like Singapore, China, Korea, and others have seen incredible growth. And developing countries like India continue to account for the majority of FDI and FII development. FDI offers access to foreign capital as well as cutting-edge technology, innovation capabilities, desired skill sets, and other complementary skills that domestic companies lack. It is the process of examining the relationship between FDI and FII and their effect on the Indian stock market. FDI and FII inflows accelerated the Indian economy while also enabling Indian industry to upgrade its technology, gain access to global managerial skills and practises, better exploit human and natural resources, and gain a global competitive edge through improved performance. As a result, “foreign direct investment” (FDI) and “foreign institutional investment” (FII) are thought to have a major effect on the Indian stock market.

Anshita Bihari, 2020., recent study has indicated that The term “foreign direct investment” (FDI) was first used in the Foreign Exchange Management Act of 1991 (FEMA). A decision was made to inject a few new sources of capital into Indian markets. After the growth and convergence of the global stock market, developing countries have seen shifts in the composition of capital flows in their economies. To look into the effect of FDI inflows on India's NSE and BSE stock exchanges. FDI provides companies with opportunities for creative up-grading, access to global management skills and practices, and a global competitive advantage through increased productivity. FDI inflows have a huge impact on the growth of the Indian stock market.

Roy, 2019., explains that Capital market is the buzzword in the first decade of the twenty-first century. The growth of markets in the last decade has been a huge factor because of the investment coming from across the world. NSE & BSE had gone through one of the best times in its history but it was in the latter half of the year 2008 the downfall. To study the impact of FII as well as DII on the Indian Stock market (NSE & BSE), Indian stock markets experienced unprecedented growth in the first half of the new millennium. Business growth was phenomenal until the first quarter of 2008, and everyone expected the market to expand even faster. It had also been found that in the early stages of research there is a large investment flowing from the FII to the NSE & BSE. As large funds entered and left the market, FII was deemed to have brought volatility to the markets.

According to Gautam, 2017., Foreign Direct Investment (FDI) has played an important role in India's economy over the last two decades as a non-debt financial power. In India, FDI has become a significant source of funding. FDI is a critical conduit for the movement of capital and technology, and it is viewed as a critical factor in developing countries such as India. The effect of FDI on the Indian stock market is the subject of this research. It is clear that FDI has a major effect on the Indian stock market. Without a doubt, FDI is critical for the country's economic growth and development, but the Indian stock market is also influenced by other factors such as government policies, budgets, the gold market, inflation, economic and political conditions, and so on.

P. Gupta, 2017., aim is to see if there is a connection between FDI inflows and India's stock market results. The NSE index is widely regarded as a reliable measure of the Indian stock market's results. The study claims that there is no short-run causality in India between FDI and Nifty or Nifty and FDI. FDI inflows have no significant impact on the performance of the Indian stock market, according to the findings of this study, it is the stock market's good performance that attracts foreign players to invest in the form of FDI.

Singh, 2019., conveys that Foreign Direct Investment plays a very significant job in the development, advancement, and success of an economy. This research is to analyze the patterns and trends of FDI in India. The total foreign direct investment amounted to 1,800,660.27 crores from 2000 to 2018. Mauritius was one of the tops to invested amount to 688,442 crores from April 2000 to March 2018 around 33.85 percent of total FDI. Total FDI entered in India from FY 2006-07 to 2016-17 amounted to 1695997 crores. Inflows of foreign direct investment into the country increased by...

Kumar, 2014., describes that India, as a developing country, attracts a large amount of foreign direct investment (FDI) each year. These FII had a huge impact on India’s economy. The FII influenced the Indian stock market, which is one of the most important indicators of financial health. The stock market is affected by inflows of foreign institutional capital into India. The null hypothesis was verified, and a connection between FII and the Indian stock market index was discovered. As a result, foreign institutional investors (FIIs) have been discovered to have a major effect on the Indian stock market.

SHAVETA GUPTA, 2012 demonstrates that the liberalization and globalization have revolutionized the Indian economy by permitted investments from abroad either in the form of FDI in an Indian company or investment by FII in the capital market. Expanded Foreign inflows have an enormous bearing on the vacillations caused in the securities exchange. The study's aim is to figure out what the long-term relationship is between foreign investment and the Sensex, a stock market barometer index. The study showed a substantial and fairly strong positive association between FDI and FPI and BSE, with an increase in FDI and FPI resulting in a corresponding rise in BSE, and it was discovered that an increase in FDI has a significant impact on the stock market fluctuations in India.

Conforming to MATHUR, 2012., India's financial markets, foreign institutional investors (FIIs) have taken on a significant role. The genuine dynamism of securities exchanges, as well as the various benchmarking of BSE in terms of its most notable pinnacles and sudden falls, was evident at the dawn of the twenty-first century. The aim of this research is to look into the role of FII in BSE. The FIIs are having a greater impact on the Sensex's movement. Furthermore, it is clear that when FII inflows are positive, the BSE increases, and when FII inflows are negative, the BSE falls. The Pearson correlation values indicate that the Sensex and foreign institutional investments have a positive relationship.

Goudarzi & Ramanarayanan, 2011., discloses Capital inflows play a major role in developing countries. It is used to increase the amount of money invested and the rate at which it is invested in order to promote faster economic development. Capital inflows have a wide range of macroeconomic effects, such as domestic monetary conditions, saving, and expenditure, and are thus critical for macroeconomic stability. The aim of the study is to see if the BSE stock index and the FII are cointegrated and if there is a bilateral causal relationship between them. FII makes a major contribution to the Indian economy without a doubt. As the global financial crisis of 2008 illustrated, it is also a potential risk, one that happens infrequently but has a large impact and is classified as a catastrophic risk in the literature. This is a hypothetical hazard that cannot be insured. As a result, in order to avoid a future potential crisis, it is important to cover this risk.

Kaur, 2015., illustrates that Stock markets can be described as a mirage when it comes to assessing the state of economies. To put it another way, the stability of the financial markets can be used to assess the health of the economy. The aim of this research is to investigate the relationship between “foreign institutional investors” (FII) and the Indian stock market. It has been discovered that FII granger induces BSE, or that the flow of FII in India influences BSE movements.

The author Rakesh Shahani, 2015., expounds that The effect of stock market returns, market volatility, and changes in the rupee exchange rate on FII in India was investigated. The study also looked at whether there was a negative relationship between the variables, such as whether FII investment had an effect on stock returns and market volatility. To investigate the effect of stock market returns, market volatility, and changes in the rupee exchange rate on foreign direct investment in India. The study's findings revealed that FII investment was unaffected by volatility or even return on index, but it was influenced by the rupee-dollar exchange rate. Volatility was determined by the Index’s performance.

5. **Research Objective**

i. To investigate the trends and patterns of “Foreign Direct Investment” (FDI) in the Indian stock market.

ii. To investigate the effect of FDI on the BSE.

iii. To investigate the effect of FDI on the NSE.
6. RESEARCH HYPOTHESES
H₀₁: FDI has no impact on Indian stock markets
H₁₁: FDI has impact on Indian stock markets
H₀₂: FDI has no impact on BSE
H₁₂: FDI has impact on BSE
H₀₃: FDI has no impact on NSE
H₁₃: FDI has impact on NSE

7. RESEARCH METHODOLOGY
The following research methodology is followed in the present study:

I. PERIOD OF STUDY
The current research spans a seven-year duration, from 1st January 2014 to 31st December 2020.

II. TYPE OF DATA AND DATA SOURCE
The Present study is empirical and a descriptive research approach has been adopted. The emphasis of the study is on secondary data on FDI, the “Bombay Stock Exchange” (BSE), and the “National Stock Exchange” (NSE). The FDI inflow data was gathered from the DIPP Fact Sheets (Department of Industrial Policy and Promotion). The information for the BSE and NSE was gathered from the official websites “www.bseindia.com” and “www.nseindia.com”, respectively, and yearly BSE values were translated to yearly Sensex values. The daily closing values are taken for NSE and the average of this is considered as the index value for the year this is a process repeated for all the 7 years data for both NSE and BSE. To analysis, the information gathered from the website mentioned above we have used correlation and regression. Here FDI is an independent variable and NSE, BSE is too dependent variable and we have used SPSS Software that is (Statistical Package for Social Sciences).

8. ANALYSIS AND INTERPRETATION
The amount of FDI inflows into India in terms of US$ million, the BSE, and the NSE during the periods shown in table 1 are shown below.

The below table 1, clearly shows the funds that had come to India during 2014 was 28,784 US$ million and then it had increased to $39,300 million in the year 2015. And the rise in the FDI inflow to India had continued in the year 2016 with 46,400 US$ Million had entered into Indian markets. But there is a decrease in the FDI inflow in the years 2017 that is $ 43,575 million and there is a further decrease in the FDI in the year 2018 as well and the amount is $ 42,409 million. In the year 2019, there is a rise in FDI inflow when compared to the previous year which is considered to be in the declining stage the amount that had entered Indian stock markets is $ 47,634 million. This rising trend had increased further in the year 2020 where it had reached high compare to all other years that is $ 64,680 million had flooded into Indian markets. As we can observe that there is a fluctuating trend during the study period with shows a huge rise in the year 2020 as compared to 2014.

<table>
<thead>
<tr>
<th>YEARS</th>
<th>FDI IN RS</th>
<th>FDI IN US$</th>
<th>Trend %</th>
<th>BSE</th>
<th>NSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1,85,313</td>
<td>28,784</td>
<td>100</td>
<td>27,499.42</td>
<td>7,360.30</td>
</tr>
<tr>
<td>2015</td>
<td>2,52,562</td>
<td>39,300</td>
<td>136.53</td>
<td>26,117.54</td>
<td>8,285.92</td>
</tr>
<tr>
<td>2016</td>
<td>3,11,643</td>
<td>46,400</td>
<td>161.20</td>
<td>26,626.46</td>
<td>8,092.19</td>
</tr>
<tr>
<td>2017</td>
<td>3,02,768</td>
<td>43,575</td>
<td>151.39</td>
<td>34,056.83</td>
<td>9,590.72</td>
</tr>
<tr>
<td>2018</td>
<td>2,90,697</td>
<td>42,409</td>
<td>147.34</td>
<td>36,068.33</td>
<td>10,749.39</td>
</tr>
<tr>
<td>2019</td>
<td>3,54,614</td>
<td>47,634</td>
<td>165.49</td>
<td>41,253.74</td>
<td>11,432.63</td>
</tr>
<tr>
<td>2020</td>
<td>4,78,602</td>
<td>64,680</td>
<td>224.71</td>
<td>47,751.33</td>
<td>11,161.47</td>
</tr>
</tbody>
</table>

The beginning trend percentage of FDI has been 100% and it had increased and reached 224.71% in the year 2020 which is the highest among all the years.
Table 2. Model Summary

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSE</td>
<td>0.859</td>
<td>0.738</td>
</tr>
<tr>
<td>NSE</td>
<td>0.756</td>
<td>0.571</td>
</tr>
</tbody>
</table>

Table 2. is the Model Summary, which indicates the R, or Karl Person's Correlation Coefficient, intensity of the dependent and independent variables has a relationship. The relationship between FDI (Foreign Direct Investment) and the BSE is (0.859), and the NSE is (0.756), indicating a favourable relationship with a Significance value of 5%. R² the coefficient determination showed the percent of variants which was explained in the above table 2 indicates that 73% and 57% of the variation in BSE and NSE were explained by the model, FDI respectively.

Table 3. ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>298598939.9</td>
<td>14.1</td>
<td>0.013</td>
</tr>
<tr>
<td>Residual</td>
<td>105888348.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>404487288.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>9187582.33</td>
<td>6.651</td>
<td>0.049</td>
</tr>
<tr>
<td>Residual</td>
<td>6907142.961</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16094725.29</td>
<td></td>
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</tbody>
</table>

Table 3 ANOVA depicts a test from a statistical standpoint, the model's acceptability. The Regression row shows the information variance accounted. The Residual values explain the unexpected variance in the model (that is variance unaccounted). Since the F statistic is important and the P-values for both BSE and NSE are less than 0.05, H01, H02, and H03 are rejected null hypotheses, while H11, H12, and H13 are accepted alternative hypotheses. Thus, we can say there exists a linear relationship between variables in the model. As a result, it has been determined that FDI inflows have a huge effect on Indian stock markets like the BSE and NSE.

Table 4. Coefficients of the Equation

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Standardized Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>10095.435</td>
<td>0.859</td>
<td>0.189</td>
</tr>
<tr>
<td>FDI</td>
<td>0.078</td>
<td></td>
<td>0.013</td>
</tr>
<tr>
<td>NSE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>5297.118</td>
<td>0.756</td>
<td>0.026</td>
</tr>
<tr>
<td>FDI</td>
<td>0.014</td>
<td></td>
<td>0.049</td>
</tr>
</tbody>
</table>

*Significant at 5% Significance level

The B is equal to the Beta value in Table 4 gives the slope value of the regression model and it also shows how much the dependent variable (BSE, NSE) is influenced by the dependent variable (FDI). Beta value is shown in the table is 0.078 it means that if FDI increases by 1 unit, BSE will increase by 0.859. Similarly for every 1 unit change or increase in FDI will result in a 0.756 change in NSE. The estimated regression equations are

BSE = 10095.435 + 0.859 FDI
NSE = 5297.118 + 0.756 FDI

The Normal P- Plot, Histogram was used to check the normality of the residual and homoscedasticity. The histogram indicates that the residual approximates a normal distribution. While Normal P- plot shows the present linear regression analysis that there is no tendency in the error terms.

9. Hypothesis Testing

The Null Hypothesis concerning BSE, NSE, and FDI can be expressed as follows.

- H₀₁: FDI has no impact on Indian stock markets.
- H₀₂: FDI has no impact on the BSE Sensex.
- H₀₃: FDI has no impact on the NSE.

FDI and BSE have a P-value of 0.013, which is less than 0.05. The alternative hypothesis is automatically accepted since P-values less than 0.05 strongly support the null hypothesis. Similarly, since the p-value for FDI and NSE is
0.049, which is less than 0.05, the null hypothesis is dismissed and the alternative hypothesis is accepted. As a result, FDI inflows into Indian stock markets have a major impact on the BSE and NSE.

10. Findings

Except for the years 2017 and 2018, the flow of FDI has been rising over the study period. There was a direct linear relationship between FDI and BSE and FDI and NSE, which means an increase in FDI will result in the increase of BSE and NSE as well. Between FDI and BSE and FDI and NSE, there has been a clear and positive association. The inflow of FDI has had a big effect on the Indian stock markets, specifically the BSE and NSE.

11. Conclusion

According to the study's results, there is a clear and optimistic correlation as well as a direct linear association between FDI and BSE and FDI and NSE. According to the findings of regression residual analysis, FDI has been an important indicator of bull and bear patterns in Indian financial markets. Since the p-value is less than 0.05, the null hypothesis is dismissed. FDI had an impact on the output of India's capital markets, it can be said. Since the coefficient of determination is not zero, FDI is one of the predictors of uncertainty in the Indian stock market. However, the stock market may be influenced by several other factors. In light of the study's findings, it can be suggested that the Indian government should pursue attracting more and more FDI for the country's development for the smooth and rapid growth of capital markets, as well as the overall economy.

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13. References