Developing economies like India and Russia are growing gradually and efficiently benefiting from Foreign Direct Investments. These nations received FDI of $34 and 40 Billion annually last five years. They received FDI of $44 and 11 Billion respectively in the year 2015. Their FDIs and GDPs are equal i.e. $2050 Billion during 2014 and 2015. This paper analyzes, understands and compares the factors determining the flow of FDI in India and Russia. The empirical analysis is based on database for the period 1991-2015. Data was tested using OLS and found that FDI attracts to India due to trade openness and availability of natural resources whereas large market size, trade openness and low labor cost are major factors for Russia. Thus, globalization policy is the only common factor for FDI inflow.

Keywords: FDI Determinants, India, Russia, OLS Model.

1. Introduction:

Developing economies need foreign capital along with domestic capital for their growth and development. Foreign Direct Investment (FDI) is one of the major sources of foreign capital for these countries. FDI is an investment made by an investor into a company located in a country outside the investors’ country. IMF defines “FDI as a category of International Investment that reflects the objectives of a resident in one economy i.e Direct Investor, obtaining a lasting interest in an enterprise resident in another economy i.e. Direct Investment Enterprise.” It involves direct acquisition of a foreign company, participation in enterprise management, Joint Ventures, Strategic alliance as well as transfer of technology and enterprise. Thus FDI is an investment made by foreign countries in other countries. The relationship between FDI and Macroeconomic variables and other variables has been an interesting area of study. FDI has been considered to be a key driver of any economy which provides financial stability, promote economic development and improve social well being. On the other hand various factors can influence FDI in developing countries.

FDI is especially important for developing economies like India. Since adoption of LPG policy in 1991, India could attract FDI and ranks fourth after China, Brazil and Russia, among the developing nations $34 Billion annually (2011-2015). India is Asia’s third largest economy but its FDI inflow was less than 0.1% of GDP before 1991 and 1.5 to 2% within 2013-2015. According to UNCTAD’s World Investment Report (WIP), India’s FDI inflow was less than $1 Billion in 1991, highest $47 Billion in 2008 which reduced to $44 Billion in 2015. The 2017 A.T. Kearney FDI Confidence Index ranked India at 11th, 9th and 8th for the years 2015, 2016 and 2017. Russia attracted FDI over last 25 years and grown from $1 Billion (1992) to $53 Billion economy (2013). Russia received FDI of $368 Billion during 2001-2011 securing 8th place among world top FDI recipients. In 2008, FDI was highest i.e. $75 Billion. According to UNCTAD’s WIP, FDI fell by 70% to $11 Billion in the year 2015 due to economic slowdown.

2. Literature Review:

The literature has considered different factors of FDI at country level. In India Market Size, Infrastructure and Industrialization are the important FDI determinants. Political Risk and Economic instability hinder FDI. The evidence on Trade Openness, Transport costs, Tax Rate is mixed (Lim, 2001). As expected, political risks in developing nations are found to be significantly negative for FDI (Lecraw, 1991). Market size, financial market development, risk, human capital affects FDI in India (Dreher, 2011). India attracted more FDI than Nigeria due to its larger GDP, higher real interest rate, trade openness and currency depreciation (Efe, Zelda, & Sekar, 2012). Market size, trade openness, infrastructure development and reserves are the significant determinants during the period 1991-2012 (Bandekar & K.G., 2014)

Natural resource endowments, human capital and labor force and market size were rather high in Russia (Fabry & Zeghni, 2002). Iwasaki and Suganuma (2005) and Broadman and Recantini (2001) focus on market factors, resource endowments factors and social development factor. Natural resources and market seeking factors are important (Gonchar & Marek, 2013). GDP, average wage, labor force and electricity
production are the most important determinants (Kotenkova, Davletshin, & Volkova, 2015). GDP of investor, GDP per capita of recipient, openness, economic situation, innovative capacity and FDI of the previous period identified as factors (Mariev, Drapkin, Chukavina, & Rachinger, 2016)

3. Objectives of the study:
The basic objective of this study is to identify and compare the determinants influencing flow of FDI in India and Russia.

4. Research Methodology:
4.1 Hypothesis: Ho: There is no significant relationship between FDI inflows and independent variables.

4.2 Data Collection: The data consists of yearly observations for the period 1991-2015 i.e. 25 years. The secondary data has been obtained from UNCTAD’s WIP and World Bank's World Development Indicators (WDI) and World Governance Indicators (WGI).

4.3 Research Design: Econometric Equation/Model is estimated with FDI inflow as dependent variable and 12 independent variables.

\[ y = a + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + \beta_{11} x_{11} + \beta_{12} x_{12} + u \]

y = FDI inflow (Dependent Variable), a = Constant, b = Regression Coefficients of variables, X_1 to X_12 = Independent Variables \ u = error term \ X_1 = GDP, X_2 = GDP Growth, X_3 = Inflation Rate (CPI), X_4 = Trade openness (Import Export % of GDP), X_5 = Exchange Rate, X_6 = Electric Power Consumption,(EPC) X_7 = Natural Resources, X_8 = Labor Cost, (Compensation of Employees) X_9 = Research and Development, (R&D)

X_10 = Political Stability, X_11 = Export, X_12 = External Debt

The time series data is analyzed applying Stepwise Multiple Regression Analysis (Ordinary Least Square (OLS) using Gretl software. The trend of FDI inflows is shown in graphical form. (Diagram 1)

5. Analysis and Discussion:
5.1 FDI Determinants in India:
The result of OLS regression is summarized in Table No.1. Stepwise regression provides a fit model (Model 7) (Annexure 1) which offers the best predictors as the R square value is 0.92. This model explains 92% of total variation in FDI inflows. Moreover, Inflation rate, Trade openness, Exchange Rate, EPC, Natural Resources and Exports are the six significant variables. Availability of natural resources is significant as expected at 1% level and Trade openness at 5% level. F statistics is 35.87. Since the model shows the significant P value 0.00 which is less than 0.01, we fail to accept null hypothesis. Thus, with 99% confidence it is concluded that these significant factors can be used to predict India's FDI Inflow.

5.2 FDI Determinants in Russia:
The result of OLS regression is summarized in Table No.1. A final regression model (Model 8) (Annexure 2) recommends the best predictors as R square value is 0.91. This model explains 91% of total variation in FDI Inflows. GDP, Trade openness, Labor cost, R&D and Exports are the five significant variables. GDP and labor cost are significant as expected at 1% level and Trade openness at 5% level. R&D and Exports are significant but express unexpectedly inverse relation. F statistics is 38.69. Since the model shows P value 0.00 which is less than 0.01, we fail to accept the null hypothesis at 1% level of significance. Thus, it is concluded that this model is a Good Fit and there is significant relationship between FDI and explanatory variables.

5.3 Comparison between FDI Determinants in India and Russia:
The comparison of FDI flow in India and Russia (Diagram 1) depicts that in 2008 they had historical highest inflow i.e. India $ 47 Billion (3.65% of GDP) and Russia $ 75 Billion (4.5% of GDP). From 2011, India is progressing in terms of FDI inflows and crossed $ 44 Billion (2.1% of GDP) whereas Russia's FDI is drastically reduced to $ 11 Billion (0.48% of GDP) in 2015.

The statistical analysis reflect that there exists significant relationship between India's FDI inflow and its determinants i.e. Inflation rate, Trade openness, Exchange Rate, EPC, Natural Resources and Exports. But only Trade openness and Natural Resources results expected positive relation.

The statistical analysis proves that there exists significant relationship between Russia's FDI inflows and its determinants i.e. GDP, Trade openness, Labor cost, Exchange Rate, R&D and Exports. But only GDP and Trade openness results expected positive relation and Labor cost shows expected negative relation.

The comparison of FDI determinants in India and Russia reflects the result that trade openness and availability of natural resources has a significant effect on flow of FDI in India whereas Market size, trade openness and low cost of labor has a significant effect on flow of FDI in Russia. Thus, trade openness is evident as the only common factor.
6. Conclusion:
The study infers that growth of FDI in India is due to globalization policy and availability of natural resources. Russia's FDI is determined by its large market size, globalization policy and low labor cost. Thus, globalization policy or openness is the most important and only common factor for flow of FDI in India and Russia.

References:

<table>
<thead>
<tr>
<th>Model</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>S.E. of Regression</th>
<th>F value</th>
<th>P value</th>
</tr>
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<tbody>
<tr>
<td>India Model 7</td>
<td>0.92</td>
<td>0.897</td>
<td>4973.14</td>
<td>35.87</td>
<td>4.63E-09</td>
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<td>Russia Model 8</td>
<td>0.91</td>
<td>0.89</td>
<td>7801.193</td>
<td>38.69</td>
<td>2.55E-09</td>
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</table>

a. Dependent Variable: IFDIINF, RFDIIF
b. Predictors: (Constant), IINFL, IIMPEXP, IEXCHR, IEPC, INATR, IEXP.
   Predictors: (Constant), RGDP, RIMPEXP, RCOMPE, RR&D, REXP.
Source: Authors compilation from regression models.

Source: UNCTAD
Annexure 1: Model 7: OLS, using observations 1991-2015

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>const</td>
<td>-68178.2</td>
<td>13606.2</td>
<td>-5.011</td>
<td>&lt;0.0001 ***</td>
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<tr>
<td>IINFL</td>
<td>976.027</td>
<td>406.192</td>
<td>2.403</td>
<td>0.0273 **</td>
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<tr>
<td>IIMPEXP</td>
<td>6637.49</td>
<td>2407.21</td>
<td>2.757</td>
<td>0.0130 **</td>
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<tr>
<td>IEXCHR</td>
<td>1209.24</td>
<td>252.454</td>
<td>4.790</td>
<td>0.0001 ***</td>
</tr>
<tr>
<td>IEPC</td>
<td>-52.1003</td>
<td>24.3255</td>
<td>-2.142</td>
<td>0.0461 **</td>
</tr>
<tr>
<td>INATR</td>
<td>10610.1</td>
<td>2764.44</td>
<td>3.838</td>
<td>0.0012 ***</td>
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<tr>
<td>IEXP</td>
<td>-6315.38</td>
<td>2752.55</td>
<td>-2.294</td>
<td>0.0340 **</td>
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</table>

Annexure 2: Model 8: OLS, using observations 1991-2015

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-ratio</th>
<th>p-value</th>
</tr>
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<tbody>
<tr>
<td>const</td>
<td>51532.5</td>
<td>23672.2</td>
<td>2.177</td>
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<td>RGDP</td>
<td>5.14508e-08</td>
<td>4.71220e-09</td>
<td>10.92</td>
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<td>RIMPEXP</td>
<td>3396.13</td>
<td>1528.46</td>
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<td>RCOMPE</td>
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<tr>
<td>RR&amp;D</td>
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<td>20281.7</td>
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<td>0.0546 *</td>
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<td>REXP</td>
<td>-2938.32</td>
<td>1274.77</td>
<td>-2.305</td>
<td>0.0326 **</td>
</tr>
</tbody>
</table>

*** Significant at 1% level   ** Significant at 5% level   * Significant at 10% level

Note: I denotes India, R denotes Russia.