

Trend analysis of Foreign Direct Investment in Tourism Industry in India: An Empirical Study

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Abstract

This study attempts to investigate trends of foreign investment in India's tourism industry on the basis of data on past trends and pattern of FDI flows in this sector. Research adopts both qualitative and quantitative approach on the basis of different secondary sources such as reports, articles, tourism and travel reports, tourism ministries publications to study trends in tourism industry. Then, Granger Causality test is used to study the causal relationship between India's economic growth and FDI in tourism sector. Time series analysis techniques and Linear regression model are used to establish relation between FDI flows in Indian tourism and identify independent factors. For time series analysis, stationarity is tested by applying ADF unit root test. Regression assumptions are also tested and appropriate regression model was fitted using Eviews statistical software. Factors impacting FDI inflows in tourism industry are studied by using regression analysis on the basis of identified independent variables. Results reveal that the Government individual spending and inflation have a key role in impacting FDI inflows positively. While other factors like total tourist visits, exchange rate, GDP contribution of Tourism and Per Capita GDP have an insignificant impact but cannot be altogether ignored and are of significance when taken together. The existing trend and inflows in tourism sector are not encouraging enough thus require much needed effort in direction of promoting India as an investment destination for foreign investors. Authors findings are interesting as they indicates the Govt's spending are important contributors among other factors and hence, to encourage tourism should support through infrastructural development and strategic planning.

Keywords: FDI, Trend analysis, Stationarity, Heteroskedasticity

Introduction

The role of FDI is very much observable in the tourism sector also. Tourism is a sector which has not only importance from leisure and fun activity point of views but it also has some economic significance. A sector which has a significant contribution in economic output and which also holds a vital place in generating foreign exchange earnings to many countries like Switzerland, Indonesia, India as well. Over a period of time, considering the role of tourism in economic

development, a number of steps have been taken to promote this sector. Promoting and increasing FDI in tourism sector is one such step that has been taken by many policy makers of the countries. It has been believed that opening and increasing the Foreign Direct Investment in Tourism sector will generate multiple of benefits like foreign exchange earnings which have significant impact on Balance of Payments position of a country, infrastructural development, enhancing goodwill and rapport of a foreign tourist, etc. There are many countries in the world which are purely dependent upon their tourist activities as their main source of earnings. In India also, Government has taken various steps to promote FDI in tourism sector. India has been emerged as a hub of various kinds of tourism like

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eco-tourism, medical tourism, spiritual tourism, adventure tourism, etc. The share of FDI in tourism sector in India has been increased enormously over the past few years. The initiatives taken by Shri Narendra Modi over the past years further speed up the growth of tourism sector. In India, the tourism growth has been found to be enormous. Permitting 100% FDI in tourism sector in India is one such initiative which helps a lot in transforming India in one of the attractive tourist destinations. The present paper will discuss the status and trend of FDI in tourism sector highlighting the initiatives taken by the policy makers at large, the significance of various factors on FDI in tourism sector and the suggestions to promote the same in one of the most important sectors of economy. The study will help the various stakeholders at large. The study will help the academicians to focus their attention on this niche sector, highlighting the FDI role and importance in this sector. The paper will also help in drawing attention of policymakers as this research will help in framing suitable policies for the same. The paper will serve as a benchmark for further studies in this area.

Review of Literature

The study realizes the potential of allowing potential FDI in tourism sector. The north eastern region requires special attention, consistent government support with flexible policies and suitable incentives. Sharma et.al., (2012) assessed the role of FDI in tourism industry on economic growth accompanied with suggestions to remove congestion and boosting FDI. Analysis is based on data collected from secondary sources. Highlighting the increased potential of tourism, greater role of FDI in tourism sector, its influence on economic growth and development of nation. Researchers point out the need for appropriate policy interventions and building tourist venues could attract huge amount of FDI. Concessions, reforms in taxation,

tax holidays were among few recommendations brought into light by the researcher to improve the FDI statistics. Khan, (2015) researched into possible reasons for low FDI into tourism sector by drawing attention towards the present situation and the Government initiatives in this regard. At the same time, reiterate the significance of FDI flows into tourism sector and the potential of tourism industry in its contribution to foreign exchange earnings of nation. Ivanovic, Baresa, & Bogdan, (2011) assessed the influence of FDI on tourism in Croatia by studying the relationship between FDI and its influence on GDP via adopting descriptive research approach. Results depicted positive relationship between FDI and GDP but majority of investment flows into brownfield investment thereby does not account for noticeable expansion in markets and employment; thus FDI cannot be accounted as a factor contributing to economic growth of Croatia. Senkuku & Gharleghi, (2015) explore the variables predicting inflow of foreign investment in Tanzania and how likely the factors are going to influence the level of FDI. Variables are identified from Tanzanian investment website and relationship is drawn by conducting primary data analysis and applying correlation, regression and ANOVA statistical test. Technology and abundance of natural resources were identified key variables in influencing FDI in Tanzania. Djordjevic, Ivanovic, & Bogda, (2015) identify whether direct FDI has direct impact on economic growth of Croatia or not and for the said purpose uses model of linear regression thereby assessing the impact of Direct FDI on unemployment rate, GDP per capita and exports. The study finds partially weak relationship among two components to the structure if FDI comprising majorly of brownfield investment. Thus, a change in policy outlook with respect to attracting more Greenfield investment can ripe huge benefits for Croatia. Huyen (2014) has research findings based on the primary data collected from major foreign

companies in order to identify the main factors that back the foreign direct investments in Thanh Hoa province in Vietnam. Findings suggest that better availability of resources, infrastructure and financial condition in the economy can significantly attract investment in nation; in addition social and cultural factors are found to be insignificant but cannot be altogether ignored. Boora & Dhankar, (2017) in order to examine the impact of FDI upon the Indian hospitality industry study the role, significance and status of FDI in context of Indian hotel industry. Researcher by recognizing the significance of foreign direct investment by its direct and indirect contribution to the economy through creation of employment, spill-over effect and different induced benefit, suggests promotion of FDI in the concerned area.

Research Objectives

FDI has consistently been portrayed as a driver of economic growth of a nation's tourism industry. Literature reviewed above have stressed upon increasing role of FDI in tourism industry and its significance by investigating its relationship with economic growth. In light of economic significance of tourism, the current research attempts to foresee the past and present trend in FDI in tourism. The study aims at attaining the following specific objectives-

1. To study the trend and pattern of FDI in tourism and hotel industry.
2. To determine whether any causal relationship exists between economic growth in India and FDI in India's tourism & hotel industry
3. To determine factors impacting FDI inflows in tourism sector in India and its impact on attracting FDI inflow.

Research Methodology

This research is based on qualitative and quantitative research approach. The secondary

sources including various reports, articles, tourism and travel reports of tourism ministries publications are referred to study the trends in tourism industry and to identify the independent factors influencing FDI inflows. Time series analysis techniques such as Granger causality test and Linear regression model are used. Granger causality test has been applied to determine whether India's economic growth drives FDI in tourism sector or vice versa. Linear multiple regression model is used to establish relation between tourism FDI flows and identified independent factors based on data drawn for year 2000 to year 2016 subjected to availability of data. For time series analysis, the stationarity is tested by applying ADF unit root test. Non stationary series are transformed into stationary series by appropriately transforming the series and again tested for stationarity. To avoid spurious regression, followed by stationarity testing, multiple assumptions underlying regression are tested involving test for multicollinearity to ensure that the model does not contain irrelevant independent variables having linear relationship with that of another independent variable. After fulfilment of above assumption of no multicollinearity, residual terms are tested for normality, autocorrelation, heteroskedasticity and stationarity. For the said purpose, Jarque Bera test along with histogram, Breusch Godfrey serial correlation LM test, Breusch Pagan Godfrey heteroskedasticity test and correlogram are tested respectively. Error terms fulfill condition of the presence of normal distribution, no autocorrelation among themselves, presence of homoscedasticity and stationarity ensure goodness of model thereby giving reliable results. These tests are run using Eviews statistical software.

Status and Trends of FDI in Tourism Sector

Tourism sector is known to be the new driver of economic growth of nation supporting every one tenth of employment. The sector is third largest

service industry and contributing 9.6 % to India's current GDP while records only 2.93% share of total FDI among all other sectors. As shown in Figure 1 (in Appendix) investments in tourism sector has shown both upward and downward movement surely not having consistent growth over the years.

Inflows in this sector initially showed an upward trend and substantial rise in quantum of investment wherein year 2006 accounts for significant growth of 173 percent followed by another hike of investment inflow in the year 2007. The significant upsurge in the inflow can be as a result of previous initiatives of the Government in the area of tourism involving launch of 'Incredible India campaign' and announcement of national tourism policy in 2002 that aimed at promotion and branding of India as a tourist hotspot destination.

Figure 1: FDI in tourism industry in Appendix

Continuing with the upward trend for sometime, inflows fell sharply by 59% in the year 2010 but subsequently showed tremendous growth of more than 200% in year 2011 and 2012. Then again the trend fell and remain sub-standard in the following year. Hotel & Tourism sector had received cumulative FDI inflows of US\$ 11.28 billion between April 2000 and March 2018 (IBEF, 2018).

FDI in tourism industry and Total FDI in India

A comparison of FDI inflows in the tourism sector with overall FDI tends explains some of the movement and highlights the nature of FDI inflow in tourism sector. The year 2006 witnessing a huge jump in tourism investment alongwith total FDI inflows. Also, the year itself marked highest growth for India's total FDI. But the period of decline in inflow in the tourism sector in 2010 can be noticed with decline in total FDI inflows after 2008. Thus, FDI in this sector is found to be closely associated with the overall slowdown of economy due to global financial crisis. The trend in foreign

investment flows in tourism sector to some extent can be justified with the overall trend in total FDI but not vice versa has been observed. However, as observed, in year 2011 total FDI inflow in the tourism has increased as compared to percentage rise in total FDI inflows. In 2013 also, tourism sector certainly has been a preferred destination for foreign investors as despite of decline in total FDI, tourism sector have positive growth.

Figure 2 Comparison of FDI in tourism and Total FDI inflows in India in Appendix

Though in the recent years, the share of FDI in tourism sector has not been favourable yet tourism industry is steadily emerging as one of the most promising sector for India. India has shown improved performance on various parameters e.g. India ranked 3rd on travel and tourism power performance ranking, moved straight 13 position up on Travel and Tourism competitive Index (World Economic Forum).

Economic growth and FDI in tourism industry

Tourism industry has definitely contributed to the gross domestic product (GDP) of India (IBEF, 2018). Capability of tourism industry to pull economic growth down and corresponding dwindling investment in the sector is a matter of concern. Investments in this sector is supposed to create better infrastructure, employment opportunity, thereby increased income generation and positive economic growth. On the other hand, good economic condition or encouraging growth rate is believed to further stimulate investment. A close nexus between economic growth and FDI has always been observed and quoted in different available literature. In the case of India, though the investments in tourism sector have not been huge and consistent, it is interesting to study the causal relationship between India's economic growth and Foreign direct investment in tourism sector.

Granger Causality test

Granger Causality test assumes no granger causality between two variable and then test for the null hypothesis. Granger causality test helps in identifying whether one time series causes, other time series or not and thus helps in forecasting. To study the relationship between economic growth and FDI in tourism sector, per capita GDP is taken as a proxy of India's economic growth and Foreign direct investment in tourism and hospitality sector has been taken from period 2000 to 2016. Following two null hypotheses are formulated for testing the causality

H01: FDI in tourism sector does not granger cause Per capita GDP.

H02: Per capita GDP does not granger cause FDI in tourism sector.

Table 1: Granger causality test in Appendix

After running granger causality test with two lags, there is no statistical evidence to reject H01 with P value 0.7453 (>0.05) thereby accepting null hypothesis of FDI in tourism sector does not granger causes per capita GDP. On the other hand, there is statistical evidence to reject H02 with P value 0.0258 (<0.05) thereby accepting alternate hypothesis of per capita GDP granger causes FDI in tourism sector.

Results in Table 1 indicated that there exists one-way causality between India's economic growth and India's foreign direct investment in tourism sector wherein the test statistically validates India's economic growth has been a factor causing foreign direct investment in tourism sector. Thus, India's strong performance on economic front can positively attract more investments in tourism sector

Analysis of Foreign Direct Investment in Tourism Industry

FDI in tourism sector has shown various developments over the period of time as elaborated above. Though allowance of 100% direct FDI in the sector hasn't accentuated FDI inflow on broader canvas various other factors seem to play roles in determining the flow of foreign investment. These factors seem to differ in their order of significance for different industries. Tourism is the third largest sub segment in service industry. For example economic factors like exchange rate and inflation rate are found to implicitly impact inflow of FDI also industry specific factors determine its attractiveness. The industry specific factors are taken care by incorporating factors like quantum of government spending in order to boost tourism growth, tourism contribution to production and India as a destination choice for tourists. Following factors were identified for the purpose of analysis.

$$FDI_t = f(EXG, GDP_p, GOVT SPNDG, INF, PCGDP, TRST VST)$$

Variables used in study have been listed in Table 2.

Table 2: List of variables in Appendix

The factors considered above in the context of India have shown different trends over the observed period of time. The government expenditure and tourist visit have consistently shown an upward trend despite the fact that the contribution of tourism to GDP has relatively been less significant. In addition, figure 3 in Appendix, graphically represents different factors for the period under study.

Figure 3: Graphical representation of trends of variable in Appendix

After having observed above factors, the same have been tested for stationarity in order to proceed for analyse their relationship with FDI in tourism.

Testing for stationarity is assumed that properties of distribution do not change with time because time series generally carries some type of momentum effect. For this, weak form of stationarity has been tested for each factor and ADF unit root test has been applied at level wherein following P value was found as represented in Table 3.

Unit Root testing of various variables

Table 3: Unit root test in Appendix

The results indicate that all independent factors are non-stationary at first level since p value for each factor is more than 0.05 thus; thereby there is no sufficient evidence to reject the null hypothesis. While dependent factor is found to be stationary at first level thereby satisfying weak condition for stationarity i.e constant mean, constant variance and covariance are constant between different lags. Thus, the next step involves transforming non stationary time series into stationary time series.

For the purpose of conversion, each series are classified as following stochastic trend or deterministic trend. Conversion is done by taking first difference for stochastic series and detrending deterministic series. After log differencing and detrending the non-stationary series, ADF unit root test is applied that gives the following results in Table 4.

Converting non stationary data into stationary data

Table 4: Unit root test after converting into stationary series in Appendix

Since, the P values for above variables are less than 0.05 of significance, thereby rejecting the null hypothesis thus, terming each time series data as stationary. Figure 4 shows the graphical representation of the factors after transforming into stationary.

Figure 4: Graphical representation of stationary variables in Appendix

To establish the relationship of FDI in tourism with identified independent factors, assumptions underlying regression are tested.

Multicollinearity test among explanatory variables

This tests the presence of Multicollinearity among independent factors. Ideally there should not be perfect or imperfect linear relationship among explanatory variables because existence of the same violates basic assumption of regression i.e. explanatory factors must be unrelated. This essentially questions the existence of explanatory variable in the model as it does not independently influence the dependent variable.

Table 5: Multicollinearity test (VIF) with 6 Independent variables in Appendix

Result of Variance Inflation Factors (VIF) test of multicollinearity. Total tourist visits are presented as VIF value greater than 10 thereby indicating existence of multicollinearity. Thus, to avoid multicollinearity, the respective factor was dropped from the function thus giving final model consisting of 5 variables explaining the average rate of growth in FDI. Again, the assumption was tested giving corresponding VIF values of less than 10 for each explanatory variable (Table 6) thereby satisfying the condition of existence of no multicollinearity among explanatory variables.

Table 6: Multicollinearity test (VIF) with 5 Independent variables in Appendix

Normality of errors

First assumption underlines the normality of errors. The error term or the residuals of regression equation (€) must be normally distributed having skewness zero and kurtosis three. To test the normality of error Jarque Bera test was applied depicting the following

results as shown in figure 5. Jarque Bera (JB) test is considered to be better measure from skewness and kurtosis especially in case of time series data as it considers both skewness and kurtosis coefficients to test for normality of error. JB test assumes the error terms to be normally distributed with JB value equal to zero.

The test put forward the following key indicators for normality. Error terms depicted skewness of -0.11 with kurtosis close to value 2 and JB p-statistic equal to 0.62 therefore no sufficient evidence to reject the null hypothesis thereby accepting alternate hypothesis.

Figure 5: Jarque Bera normality test in Appendix

Correlation LM Test (correlation between error term not equals to zero)

Another assumption of regression calls for testing the correlation between the error terms. Error terms are said to be auto correlated when ϵ_{t-1} and ϵ_t are related to each other. Presence of serial correlation among residuals shows inadequacy of the regression model thus to test the same Breusch Godfrey Serial Correlation LM test has been run using Eviews software. LM test assumes the series to have no correlation. Since, the Prob F statistic is more than significance level ($0.2851 > 0.05$ (p value) therefore there is no significant evidence to reject the null hypothesis and thereby the residuals can be stated as serially uncorrelated.

Table 7: Breusch Godfrey Serial Correlation LM Test in Appendix

1. Heteroskedasticity test for residual

Third assumption deals with testing for homoscedasticity of residuals referring that residual variance remains equal across the explanatory variable. Testing for this assumption is necessary to check whether residuals show any pattern with increase in the explanatory variable. To test the

same Breusch Pagan Godfrey test has been done which sets the null hypothesis as the error terms have equal variance. They are homoscedastic. The result of the test is given in table 8. Since, the P value is .4379 (greater than 0.05) there is no sufficient evidence to reject the null hypothesis therefore the residuals can be said as homoscedastic.

Table 8: Breusch Pagan Godfrey Test in Appendix

2. Correlogram of residuals (for stationary)

Last assumption relates to testing for stationarity of residuals. The same has been tested by drawing correlogram of residuals. As shown in Figure 6 the autocorrelation factor and partial correlation factor do not carry any memory and are within the limits therefore residuals come out to be stationary satisfying assumption of regression.

Figure 6: Correlogram of Residuals in Appendix

As the fitted regression model satisfies the test underlying it, the regression equation so calculated can be called as free of bias estimate. The regression results obtained so is presented both in equation form and tabular form along with other statistical values.

$$\begin{aligned} \text{LOG_FDI_TOURISM} = & 0.3784898585 + \\ & 2.12561640089 * \text{LOG_GDP_CONTRIBUTION} \\ & - 1.09205504584 * \text{LOG_EXCHANGE} \\ & + 3.83066358601 * \text{LOG_INFLATION} + \\ & 0.00459355419846 * \text{DETREND_GDP} + \\ & 0.383157023746 * \text{DETREND_GOVERNMENT_} \\ & \text{INDIVIDUALSPENDING} \end{aligned}$$

Herein India's GDP, the Government individual spending in tourism, rate of growth in tourism contribution to GDP and rate of growth in inflation are found to have positive influence on the average rate of growth of FDI in tourism Industry while rate of growth in the exchange rate has negative impact on average rate of growth of FDI in tourism.

Table 9: Regression output table in Appendix

From the above table it can be seen that factors like Government individual spending on tourism and inflation rate are the two significant factors among all independent factors impacting the inflow of FDI in tourism sector in India as the respective P values are less than 0.05. The Government individual spending has positive significant impact on the rate of growth of FDI thus increased spending will result in 0.38 increases in the average rate of growth in FDI in tourism. Similarly, log inflation impacts log FDI inflows significantly by accelerating the average growth in FDI by 3.8 times with an increase in rate of growth in Inflation. The possible reason for inflation positively impacting FDI inflows for India can be accounted to the fact of India not having situation of hyperinflation in the period studies. In India low to moderate inflation serves to be an attractive investment destination for foreign investors. Government spending on infrastructure and promotion of tourism is helpful in attracting foreign investment in India. The other explanatory factors also have an impact on FDI inflows on tourism industry but cannot be as much significant. Though only two factors among six explanatory factors are found to be significant but all explanatory factor taken together forms a good fit as explained by F statistic value of 8.11 depicting more variance in FDI in tourism examined by factors together than that of variance explained by residuals (i.e. approximately 8 times). The same is indicated by P value for F statistic i.e. $0.001 < 0.05$ thereby, rejecting the null hypothesis of explanatory factors jointly having no impact on average rate of growth in FDI inflow. The model explains 78% of the variation in average rate of growth in FDI inflows in tourism sector with R squared value of 0.786 thus depicting goodness of fitted model. Statistic of interest is Durbin Watson tests for the presence of autocorrelation in the residuals is close

to value 2 indicating non presence of autocorrelation among residuals as verified earlier through Breusch Godfrey Serial Correlation LM test. Based on the above parameter the fitted model can be termed as sound model depicting how given factors impact FDI inflow in tourism industry in India.

Conclusion of the Study

As of today, the Government of India has considerably enhanced its efforts for development of tourism industry and evidently to promote it at multiple organised national and international platforms but has not reaped fruitful benefits in terms of attracting foreign investment into this sector. The existing trend and inflows in tourism sector are not encouraging enough thus requires much needed effort in direction of promoting India as an investment destination for foreign investors. Granger causality test validates that the current investment in the sector is caused by economic growth of India this is not individually significant as found in regression results. Recognizing importance of investment in this sector, paper studied the factors impacting FDI inflows in tourism industry by using regression analysis. The results reveals that Government individual spending and inflation has a key role in impacting FDI inflows positively. While other factors like total tourist visit, exchange rate, GDP contribution of Tourism and Per Capita GDP has an insignificant impact but cannot be altogether ignored and are of significance when taken together. Thus, by putting thrust on Government individual spending in development of required infrastructure, effective promotion and marketing of tourism industries, strategic planning and allocation of expenditure combined with maintaining the inflation rate in the economy can rejuvenate the investment bank of FDI in tourism sector.

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APPENDIX

Table 1: Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
FDI_AMOUNT does not Granger Cause PER_CAPITA_GDP	16	0.30190	0.7453
PER_CAPITA_GDP does not Granger Cause FDI_AMOUNT		5.19566	0.0258

Source: Author's Calculation

Table 2: List of variables

FDI _t	FDI in tourism industry in India (in US \$)
EXG	Exchange rate
GDP _t	Contribution of tourism industry to India's GDP
GOVT SPNDG	Government individual spending on tourism (in INR)
INF	Inflation rate
PCGDP	Per Capita GDP of India
TRST VST	Total tourist visits in India (in million)

Source: Author's Calculation

Table 3: Unit root test

Variables	P value (ADF Test)
Exchange Rate	.9072
FDI amount	.0710
GDP Contribution To Tourism	.2765
Government Individual spending	.9967
Inflation	.2663
Per Capita GDP	.1029
Total tourist visits in a country	.8173

Source: Author's Calculation

Table 4: Unit root test after converting into stationary series

Variables	P value (ADF Test)
Exchange Rate (log difference)	.0223
FDI in Tourism (log difference)	.0031
GDP Contribution in Tourism (log difference)	.0005
Government Individual spending (detrending)	.0083
Inflation (log difference)	.0193
Per Capita GDP (detrending)	.0422
Total tourist visits in a country (log difference)	.0041

Source: Author's Calculation

Table 5: Multicollinearity test (VIF) with 6 Independent variables

Variance Inflation Factors			
Date: 04/01/19 Time: 19:29			
Sample: 1 19			
Included observations: 17			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.144324	11.12319	NA
LOG_GDP_CONTR...	1.631289	2.443513	1.742735
LOG_INFLATION	0.442859	2.482658	2.455561
LOG_TOTAL_TOUR...	11.91298	14.52453	1.647015
LOGEXCHANGE	9.203585	2.810757	2.473062
DETREND_GDP	7.24E-06	1.574725	1.544489
DETREND_GOVER...	0.012700	2.731002	2.696667

Source: Author's Calculation

Table 6: Multicollinearity test (VIF) with 5 Independent variables

Variance Inflation Factors			
Date: 04/01/19 Time: 20:36			
Sample: 1 19			
Included observations: 17			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.029771	2.519755	NA
LOG_GDP_CONTR...	1.287109	2.117230	1.510027
LOGEXCHANGE	6.801060	2.280930	2.006891
LOG_INFLATION	0.402311	2.476749	2.449716
DETREND_GDP	6.51E-06	1.554651	1.524800
DETREND_GOVER...	0.009938	2.346809	2.317304

Source: Author's Calculation

Table 7: Breusch Godfrey Serial Correlation LM Test

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

F-statistic	1.447561	Prob. F(2,9)	0.2851
Obs*R-squared	4.137584	Prob. Chi-Square(2)	0.1263

Source: Author's Calculation

Table 8: Breusch Pagan Godfrey Test

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

F-statistic	0.871238	Prob. F(5,11)	0.5304
Obs*R-squared	4.822500	Prob. Chi-Square(5)	0.4379
Scaled explained SS	0.873244	Prob. Chi-Square(5)	0.9721

Source: Author's Calculation

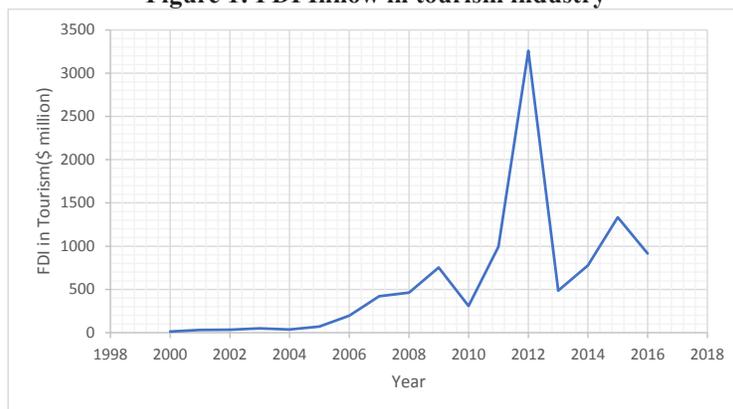
Table 9: Regression output table

Dependent Variable: LOG_FDI_AMOUNT
Method: Least Squares
Date: 04/01/19 Time: 20:35
Sample (adjusted): 2 18
Included observations: 17 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.378490	0.172544	2.193588	0.0507
LOG_GDP_CONTRIBUTION	2.125616	1.134508	1.873602	0.0878
LOGEXCHANGE	-1.092055	2.607884	-0.418751	0.6835
LOG_INFLATION	3.830664	0.634280	6.039394	0.0001
DETREND_GDP	0.004594	0.002551	1.800595	0.0992
DETREND_GOVERNMENT_IND	0.383157	0.099690	3.843470	0.0027
R-squared	0.786636	Mean dependent var		0.299847
Adjusted R-squared	0.689652	S.D. dependent var		0.804489
S.E. of regression	0.448172	Akaike info criterion		1.503284
Sum squared resid	2.209437	Schwarz criterion		1.797359
Log likelihood	-6.777912	Hannan-Quinn criter.		1.532515
F-statistic	8.111002	Durbin-Watson stat		1.865853
Prob(F-statistic)	0.001996			

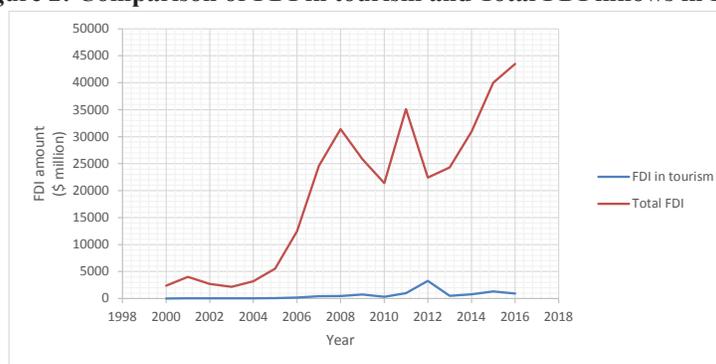
Source: Author's Calculation

Figure 1: FDI Inflow in tourism industry



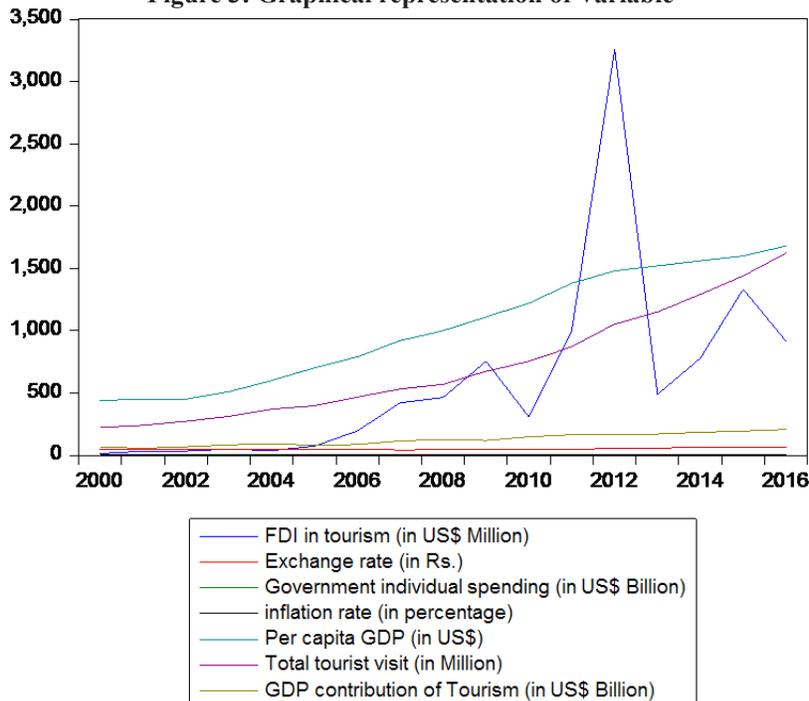
Source: (OGD, 2017)

Figure 2: Comparison of FDI in tourism and Total FDI inflows in India

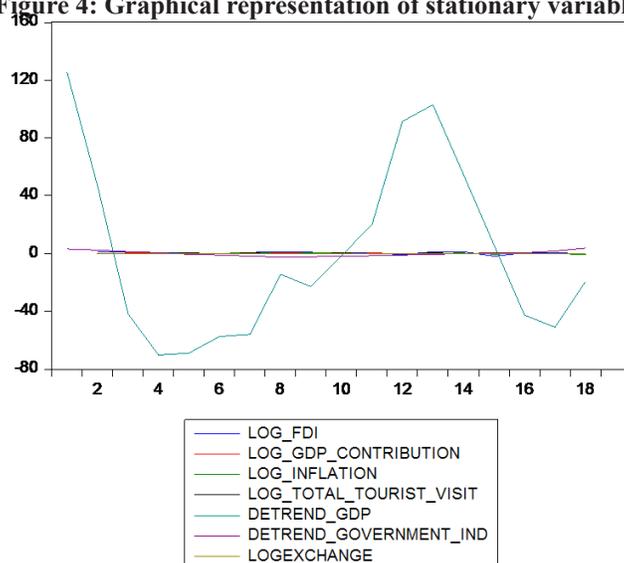


Source: (Ministry of Commerce and Industry, 2019)

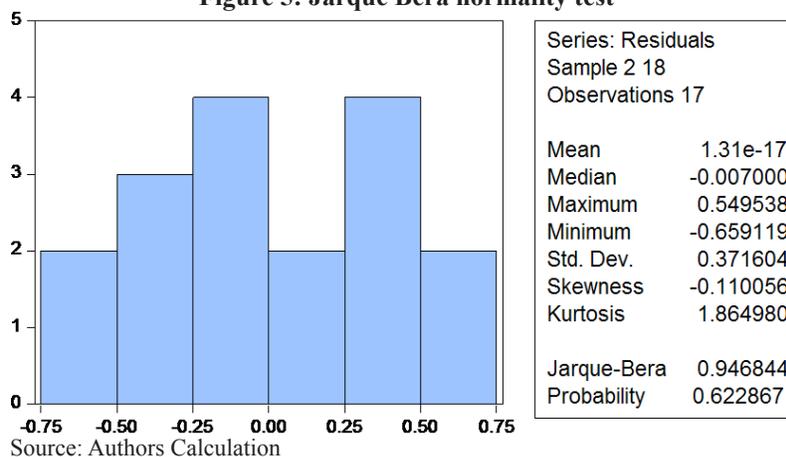
Figure 3: Graphical representation of Variable



Source: (World Travel and Tourism Council, 2017) (World Travel & Tourism Council, 2018)

Figure 4: Graphical representation of stationary variables

Source: Authors Calculation

Figure 5: Jarque Bera normality test

Source: Authors Calculation

Figure 6: Correlogram of Residuals

Date: 04/01/19 Time: 20:38

Sample: 1 19

Included observations: 17

	Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1			0.048	0.048	0.0471	0.828
2			-0.455	-0.458	4.5020	0.105
3			0.032	0.109	4.5257	0.210
4			0.121	-0.129	4.8878	0.299
5			-0.020	0.058	4.8981	0.428
6			-0.276	-0.365	7.1321	0.309
7			-0.143	-0.086	7.7928	0.351
8			0.323	0.103	11.531	0.173
9			0.175	0.078	12.771	0.173
10			-0.211	-0.054	14.828	0.138
11			0.062	0.206	15.032	0.181
12			0.149	-0.069	16.466	0.171

Source: Authors Calculation