# Economic growth and foreign tourists' arrival: A case study of India

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**Abstract:** Tourism is capable to change the environmental, socio-cultural, political, and economic aspects of the world. It is among the leading industries with fastest growth in the world and has the potential to influence the standard of living of the communities. The comprehensive nature of this industry makes it a channel to economic development and helps balanced regional development. In many countries, it has been seen that tourism is responsible for a major share of GDP and provides employment to a considerably large section of the working population. Added to this, the worldwide earnings generated from tourism sector helps in funding the current account deficit. This study empirically examines the long run association of factors such as economic growth, exchange rate, terrorism and damage from natural disasters with the foreign tourists' arrival in India using yearly data covering period 1980-2017.  To examine the long run relationship this study uses autoregressive distributed lag model. We find that economic growth, exchange rate and damage from floods/heavy rains significantly affect the number of foreigners visiting India in the long run. However, terrorism cases are insignificant and do not affect inbound tourism in the long run.

***Keywords:*** Economic Growth, GDP, ARDL, Tourism

## 1. Introduction

Tourism is capable to change the environmental, socio-cultural, political, and economic aspects of the world. It is among the leading industries with fastest growth in the world and has the potential to influence the standard of living of the communities. The comprehensive nature of this industry makes it a channel to economic development and helps balanced regional development. In many countries, it has been seen that tourism is responsible for a major share of GDP and provides employment to a considerably large section of the working population. Added to this, the worldwide earnings generated from tourism sector helps in funding the current account deficit. Apart from these direct benefits of employment generation and contribution towards GDP, tourism also benefits the nation from various spread out effects which may be direct or indirect. It fuels and provides support to different sectors of the society such as transport, construction, commerce, housing and stay, food and beverage industries etc.

Many developing as well as developed nations have been considering tourism as a means for their development in such a way that the requirements of the future are met, a trend seen over past years. The significance of tourism industry as an engine to economic growth is extensively acknowledged and can be seen from the fact that each year all over the globe a large amount of investment is made in this sector.

India is considered as a famous tourist destination among modern travelers nowadays due to favorable factors such as vibrant culture, its rich history, beautiful scenic beauty and spectacular architecture. However, this hadn't been the case always and the country wasn't always an admired tourist destination.

Until 2003, the absolute number of tourists visiting India from overseas was less than 3 million each year, but the numbers have increased significantly thereafter. Foreign tourist arrival numbers have been continuously increasing, making the country a famous tourist site. In 2017 over 10 million international tourists visited India and analysts expect this number to rise by more than 15 million by the year 2025. The statistics on tourism confirm that India's tourism sector has been rapidly growing. Not only that, tourism of a nation contributes significantly in creating millions of jobs and producing large amount of revenue each year. The Ministry of Tourism in India has introduced an advertisement campaign 'Incredible India' to promote India's culture and make India a popular tourist attraction in a new and remarkable way.

The World Travel & Tourism Council (WTTC), an international agency on the social and economic contribution of tourism said in its report that tourism sector of India has positioned seventh all over the globe considering its total contribution to the nation's GDP.

India's tourism sector's contribution to its GDP was calculated to be around 15239.6 billion rupees, which accounts for 9.4percent of the total GDP in 2017. In addition, its total contribution to job creation, which includes jobs that are not directly maintained by the industry, was 8 percent of total employment. Tourist exports produced 1777.1 billion rupees, i.e. 5.8percent of the total exports value in the year 2017. Also, tourism's share in investment in 2017 was 2706.1billion rupees, 6.3percent of total investment.

The government of India has been investing largely in the tourism sector, in the spirit to catch the attention of worldwide hotel chains and raise foreign expenditure in India. Moreover, the 2018-19 budgets for the nation allocate nearly 200 million dollars for the improvement of tourist channels.

Tourism impacts the environment, economy and society of the nation greatly. Various researchers have studied the end results of tourism, but very few of them have analyzed the opposite side of the model, i.e., what are the different socio-economic, cultural and environmental factors that affect tourism. This paper tries to study this reverse side by examining some of the factors that might influence inbound tourism in the country and tries to establish a long run interaction between them.

An appropriate knowledge of the relationships between tourism, the fundamental market, and the geographical atmosphere is necessary so that we can formulate tourism policies that are effective. The idea of this study is mainly to establish a long run relationship between India's foreign tourist arrivals and different economic and noneconomic factors, from year 1980 to year 2017. We consider factors like economic growth, exchange rate, terrorism and, natural disasters and study their relationship with foreign tourists' arrival in India. In this research, we aim to conclude that whether the above factors will bring any impact to the foreign tourists' arrivals to the India in the long run or not
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## 2. Literature Review

Various studies in the past have considered how tourism in a nation affects its economic growth and similarly, how economic growth of a nation affects its tourism. These studies have made use of a variety of models, methodologies and data sets in making their conclusions. However, these findings remain open ended for further discussion. Pablo-Romero & Molina (2013), Castro-Nuno, Molina-Toucedo, Pablo-Romero (2013),Kumar, Logan than, Patel, and Kumar (2015), Brida, Cortes-Jimenez, Pulina (2016), Tang & Abosedra (2016) are a few of the researchers to have worked in this area. They have compiled a wide-ranging literature examining the influence of tourism on economic growth.

Studies by Brida, Carrera &Risso (2008),Belloumi (2010),Katircioglu (2011), Al-mulali, Fereidouni, Lee & Mohammed (2014), Jalil, Mahmood & Idrees (2013), Brida, Lanzilotta, Pereyra, &Pizzolo´n (2015), Ertugrul&Mangir (2015),Bassil, Hamadeh & Samara (2015), Tang & Tan (2015) have shown that tourism impacts economic growth of a nation.

However, in various other studies byOh (2005), Parrilla, Font & Nadal (2007), Payne&Matarrita-Cascante (2010), Mervar (2010), Ivanov & Webster (2012), Lee (2012), Bouzahzah&Menyari (2013), it has been shown that the better a nation performs in terms of high rates of economic growth, the more tourists prefer to travel to that country, but the reverse is not true. Thus, their findings are in contrast to the tourism led growth hypothesis.

Some findings such as those by Lanza, Pigliaru (2000) &Singh (2008) argue that country size matters in understanding the link between tourism demand and economic growth, with smaller countries benefitting more from tourism. However, findings by Sequeira& Nunes (2008) deny any such conclusion.

Ghosh (2011) studied the long run relationship between number of foreign visitors and economic prosperity, for the phase 1980-2006 and he used an autoregressive distributed lag model. He stated the absence of any long-run association amid the two variables, thus making tourism led growth hypothesis (TLGH) invalid for India.

Oh (2005) stated that tourism is impacted by economic growth of the nation. However, tourism did not impact economic growth, in a study of South Korea.

## 2.1 TOURISM AND TERRORISM

The earliest research to have studied the influence of terror related activities on tourist demand include that by Ender & Sandler (1991), & Enders et al. (1992). Their studies provided little evidence on how terrorism could affect nation's inbound tourism, airline facilities and hospitality. Enders and Sandler (1991) showed that a noteworthy link existed between terror activities and tourism demand in Spain by applying a Vector Auto-regression model. Their findings indicated that terrorism impacted tourist demand but not vice versa. Pizam and Fleischer (2002) have shown in their studies that terrorism has a severe adverse effect on the tourism sector of the nation. Study by Goodrich (2002) showed that the US attack of 11 September 2001 adversely impacted tourist arrivals in US as can be seen by huge losses being incurred by the US airline industry. Yaya (2008) has shown that terrorism impacted tourism negatively, in his study of Turkey, covering a period from 1985 to 2006. However, the impact was short lived for one year and there had been a small reduction in the volume of foreign tourist arrivals.

Thompson & Thompson (2010) applied an error correction model to examine the effect of exchange rate on earnings generated from tourism in Greece. The period of their study was from 1974-2006. It was concluded that appreciation of exchange rate caused an increase in incomes of workers in tourism. A negative linkage between exchange rate and tourist arrivals was shown by various researchers (Wang, Chen, Lu, Hwang & Tseng, 2008; Agiomirgianakis, Serenis&Tsounis, 2015; Corgel, Lane & Walls, 2013; Ruane, 2014).

Hanafiah and Harun (2010) studied the impact of exchange rate on tourism demand in Malaysia and showed that exchange rate was as postulated, negatively related with the tourist flow.

## 2.2 TOURISM AND NATURAL DISASTER

The global tourism industry has been facing many bizarre crises, hazards and disasters in the recent times (Pyett 2011, Ritchie 2004, Faulkner 2001, Hall 2010,), such as floods, heavy rains etc. Disaster can add to the trauma, anxiety as well as insecurity among the visitors, as a result of which they tend to shift their travel planning away from the affected zone (Coombes & Jones 2010, Chongfu Huang & Hiroshi 2007, Nicholis 2004).

Empirical findings prove that the numbers of tourists visiting Japan during the first three months of tsunami 11March 2011 were 70 percent lower as compared to number of visitors in parallel period of 2010. We find that literature on impact of natural calamities such as floods on inbound tourism is inadequate and extremely low. It is however crucial for the tourism sector to recollect and consider the past tragic occurrences of natural hazards and manage them effectively to ensure the industry's sustainability.

Studies by Changnon (1998), Zahed et al. (2014), Kyriakidis& Partner (2008), show that very few tourism industries are ready to deal with adversities of natural disaster such as floods. There is no denying that incidents of floods have impacted the geography, landscape activities and attractiveness of the tourism industry (Wyss et al., 2014, Berrittella et al., 2006, Brown, 2006, Yu et al., 2009, Becken, 2013).

It has been found that floods in Prague, in 2002 led to reduction in the volume of visitor arrivals by 1/3rd with a cancellation of thirty thousand bookings for national airline flights. Hurricane Katrina hit the American state of New Orleans in 2005 resulting in tourism sector suffering largely (Walters et al., 2014, Ritchie, 2008, Goodess, 2012).Reports of Sharma and Franks, 2013, Cioccio& Michael, 2007, Hadwen et al., 2011, Windle and Rolfe, 2013 show that Australian tourism industry is in threat because of floods. Similarly, Mumbai in India is vulnerable to frequent floods causing serious disturbances yearly to its travel industry (Henderson, 2005, Ranger et al., 2011). Study by Shahid, 2012, shows that Bangladesh floods have caused an obstruction to its travel performance and growth.

## 3. DATA COLLECTION AND SOURCE

The paper has used secondary data covering the period from 1980 – 2017. We use yearly data for each time series variable. The variables in our model include number of foreign tourists' arrivals in India (FTA), GDP per capita (GDP), number of terrorism cases (TERR) and damage due to floods and heavy rains (DAM).

GDP per capita is measured in current US dollars and is taken as a proxy for economic growth. We collect data for yearly damages from floods and heavy rains as a proxy for natural disaster. This damage is defined as total damage of houses, crops and public utilities in rupees crores.

## 3.1 VARIABLE DESCRIPTION

DEPENDENT VARIABLE: FOREIGN TOURISTS' ARRIVAL (FTA)

The total number of international tourist arrival is a more preferred and frequently exercised indicator as compared to the tourism receipts or tourists' expenditure. Therefore, in our study, the overall number of tourist arrivals per year to India will be used as a dependent variable in order to review the tourism demand to India. Tourism data has been collected from several dimensions of Tourism Statistics of India, as provided by Ministry of Tourism, Government of India. Figure 1 shows the trend of FTA over the period.
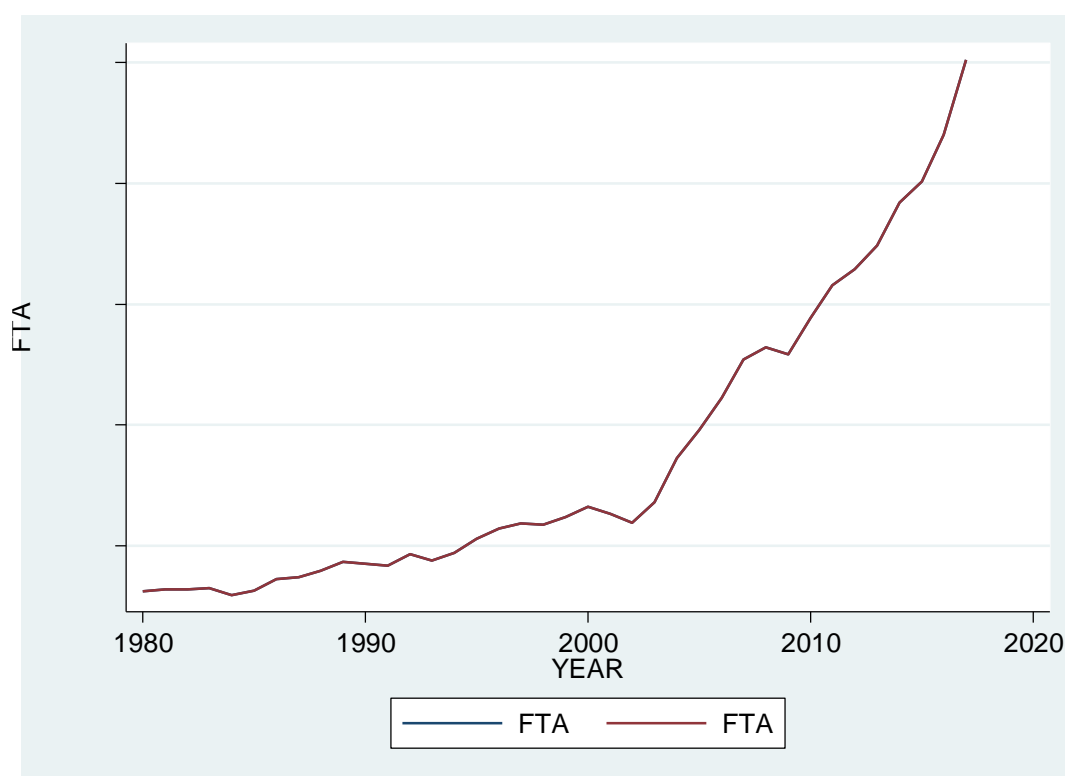


Figure 1-

ECONOMIC GROWTH (GDP per capita): The economic growth of a country impacts largely the number of foreign visitors it attracts. GDP per capita is measured in terms of international currency, US$ and is used to indicate country's economic growth. We obtain the annual data for same from the World Bank.

EXCHANGE RATE: In this research, the exchange rate between Indian rupee and American dollar (INR/USD) has been used in order to inspect the relationship of foreign tourist arrival and exchange rate. The exchange rate has a major impact on the country's economic performance. The exchange rates usually keep fluctuating over time and this influences the volume of tourists visiting a particular nation. The disparity in exchange rates can

manipulate the traveler's choices in various opposing ways and these changes can be either adverse or approving. Countries that depend on a huge fraction of travelers coming from one particular nation are vulnerable to alterations in the exchange rate between these two countries' currencies.

TERRORISM (TERR): Safety and risk-free travel has been the prime concerns of visitors while planning their travel. In common, the safer the country would be, the more the tourists would be willing to travel to that country.Terrorism cases can negatively affect the tourism sector by making visitors to shift their travel planning to some other place. Therefore, we find annual data on number of incidents of terrorism in India and study its impact on tourists' arrival.

NATURAL DISASTERS (DAMAGE FROM FLOODS/HEAVY RAINS) (DAM): The occurrence of natural disaster events affects various sector including the tourism sector, thereby resulting in reduction of the number of foreign tourists visiting the affected country. We use data of damage arising from floods and heavy rains as a proxy for natural disaster. Hence, in this research study, the yearly damage (in rupees crore) arising due to floods and heavy rains in the country is used as the independent variable.

## 4. MODEL SPECIFICATION:

All the variables have been standardized and converted into logarithm form due to the dissimilarity in the unit of measurement in every dependent and independent variable. This would make sure the accurateness of our results. The log-linear model is represented as:

$lnFTA = \beta0 + \beta1lnGDP + \beta2lnEXR + \beta3lnTERR + \beta4lnDAM + \varepsilon\ t…(1)$

Where,

lnFTA = Natural logarithm of number of Foreign tourist arrivals in India.

lnGDP = Natural logarithm of India's per capita GDP

lnEXR = Natural logarithm of the India's exchange rate.

lnTERR = Natural logarithm of terrorism cases in India.

lnDAM = Natural logarithm of damage from floods/heavy rains.

The study makes use of the Autoregressive Distributed Lag (ARDL) bounds testing co integration procedure to study the long run relationship and vigorous association amongst our variables. Pesaran et al. (2001) has projected the ARDL Bounds Testing methodology to explore the presence of long term relationship between variables. The ARDL model is nothing but an OLS based model and can be applied to time series that are not stationary. It is even applicable to times series with diverse order of integration, making it more attractive to use.

An ARDL representation of equation (1) is formulated as follows:

$\Delta lnFTA = \beta0 + \beta1\ lnGDP(-1) + \beta2\ lnEXR(-1) + \beta3\ lnTERR(-1) + \beta4\ lnDAM(-1) + \sum\beta5\Delta lnFTA(-1) + \sum\beta6\Delta lnGDP(-1) + \sum\ \beta7\Delta lnEXR(-1) + \sum\beta8\Delta lnTERR(-1) + \sum\beta9\Delta lnDAM(-1) + \varepsilon\ t$

The presence of any connection between our variables would be examined by co integration test. Before performing this test, it is important to test stationarity of the variables included in our model.

In case of non-stationary data, if the regression is performed using the usual methodology, it will generate spurious results. Hence, it is important to perform the unit root test. In this paper, the Augmented Dickey-Fuller (ADF) unit root test and the Phillips Perron (PP) test have been used. The decision criteria of ADF test would be to reject H0 if t-statistic is higher than critical value. Else, H0 is not rejected.

Another test that has been applied in our study to test for stationarity of the data is the Phillips-Perron (PP) test. It is argued that the PP test is used to find out serial correlation and heteroscedasticity in the errors unlike the ADF test.

## 4.1 COINTEGRATION

Variables are said to be co integrated if there exists a linear combination of them which is stagnant. If the variables in the model are non-stationary, but are of the same order, then the long run relationship amongst them can be examined by the Engle Granger (1987) method, the Johansen-Juselius (1992) procedure, or the ARDL approach. But since the small sample size of our study is small, the ARDL methodology was used.

## 4.2 ARDL APPROACH TO COINTEGRATION

In this method, we first check for the presence of any long-run relationship amongst the variables. For this, we calculate the F-statistic and then compare it with the critical value set out by Pesaran et al. (2001). If the calculated F-statistic is higher than the upper bound, we would reject the null hypothesis of absence of a co integrating relationship. Also, the computed F statistic must not be below the lower bound; otherwise we would not reject the null hypothesis. Lastly, the result would be inconclusive if it lies between the lower and the upper bound. After establishing long run association, we would then estimate the long-run coefficients of the ARDL model.

## 4.3 APPROPRIATE LAG SELECTION

We need to consider various factors in order to correctly specify the ARDL model. These include test criteria, adjusted R2 and various diagnostic tests for econometric problems.

Our model is selected on the basis of Schwarz Bayesian Criterion (SBC) because, asymptotically, SBIC would pick the model with great explanatory predictive power than AIC might suggest. Since our data size is small, it added reinforces this point.

After choosing appropriate lag length, the ARDL model can then be specified and estimated. The null hypothesis is H0: the explanatory variables (per capita GDP, exchange rate, terrorism and damage from floods/heavy rains) do not have long-run relationship with explained variable (foreign tourist arrival to India).

Lastly, the cumulative sum of recursive residuals (CUSUM) test has been used to test for parameter constancy and model stability.

**Table1:  Descriptive statistics**

| Variable | Observations | Mean | Standard Deviation | Minimum | Maximum |
|----------|-------------|------|-------------------|---------|---------|
| LnFTA | 38 | 14.84462 | .6530662 | 13.99261 | 16.12167 |
| LnGDP | 38 | 6.310359 | .6597571 | 5.575346 | 7.571524 |
| LnEXR | 38 | 3.397521 | .6555809 | 2.065191 | 4.207036 |
| LnTERR | 37 | 5.27063 | 1.174968 | 2.302585 | 6.932448 |
| LnDAM | 37 | 8.529584 | 1.024087 | 6.734002 | 10.9559 |

## 4.4 ESTIMATION OF MODEL

ARDL has been performed to estimate the long run coefficients for economic growth, exchange rate in IND/USD, terrorism and natural disaster.

We used general-to-specific modeling approach directed by the short sample size and SBIC respectively to choose a maximum lag order of 2 for ARDL. The model thus obtained is ARDL (2,0,0,0,2).This means that the explained variable (lnFTA) has a lag of two. All explanatory variables except lnDAM have a lag of zero, while lnDAM has a lag of two. The long-run estimates of our coefficients using the ARDL methodology are presented in Table 2. Dependent Variable: lnFTA

**Table 2: ARDL (2 0 0 0 2) model long run results**

| Regressor | Coefficient | Standard Error | T Ratio(p value) |
|-----------|-------------|----------------|------------------|
| Constant | 6.2814*** | 1.026019 | 6.12(0.000) |

| LnGDP | .868784*** | .0612696 | 14.18(0.000) |
| LnEXR | .2602915*** | .0294047 | 8.85(0.000) |
| LnTERR | .0044092 | .0178846 | 0.25(0.807) |

*** indicates significance at 1% level
* indicates significance at 10% level

INTERPRETATION OF LONG RUN ELASTICITY

Our model shows that there exists a positive relationship between per capita GDP and foreign tourists' visiting India. The estimated coefficient of economic growth is positive and highly statistically significant at 1% level. It indicates that 1 percent increase in per capita GDP (proxy for economic growth) raises foreign tourists' arrival in India by 0.868784%, holding other variables constant. In other words, in India, economic growth has a significant impact of making the country an attractive tourism destination. In other words, we can say that better a country performs in terms of higher per capita GDP, the more people are willing to visit it.

The estimated coefficient of lnEXR shows that there exists a positive as well as highly significant (at 1 percent level) relationship between exchange rate INR/USD and foreign tourist arrival in India. The result indicates that 1 percent rise in exchange rate leads to increase in the inbound tourist by 0.2602915 percent in India, holding other variables constant. This means that weaker the destination country's currency gets (Indian rupee), or stronger the origin country's currency gets (US dollar), the more attractive the destination country becomes as a tourism spot as can be seen by a rise in the number of foreign tourists' arrival in the country.

Thus, per capita GDP and exchange rate have a significant as well as positive long run effect.

The estimated coefficient of lnTERR is positive and statistically insignificant. It suggests that 1 percent increase in terrorism cases raises foreign tourists' arrival in India by 0.0044092 percent, holding other variables constant.

The estimated coefficient of lnDAM is negative and statistically significant at 10 percent level (p value less than 0.1). It suggests that 1 percent increase in damage from floods/heavy rains leads to a fall in foreign tourists' arrival in India by The estimated coefficient for the 0.0788059 percent, holding other variables constant. This further implies that more the occurrence of natural events such as floods and heavy rains which lead to widespread damage of life and property, the less people intend to visit such a country. Constant term is positive and statistically significant. It suggests that a minimum of 6.2814% of the foreign tourist arrivals to India will not be influenced by all the independent variables included in the study.

The error correction term (ECM(-1)) represents the rate at which equilibrium is restored. This coefficient must be statistically significant with a negative sign, which would indicate convergence in the long run. Bannerjee et al(1998) states that a highly significant error correction term is a supplementary confirmation of the presence of a steady long-term relationship.

The error correction coefficient is estimated at -0.6892049 and is highly statistically significant at 1% level. It has a negative sign and suggests a rather high pace of convergence to equilibrium. It indicates that approximately 69% of disequilibria from the last year's distress adjust back to the long run equilibrium in the present period. Hence a large value of error correction coefficient in absolute terms would indicate faster convergence of the economy to its equilibrium level.

CUSUM TEST

Finally, the figure 2 below shows the result of CUSUM test. The results indicate that our coefficients are stable during the entire period of our study since the plot of the CUSUM test is restricted within the 5% critical, hence reflecting parameter stability. If the curved line representing the residuals had fallen beyond the critical regions, we would say that the residuals are unstable.
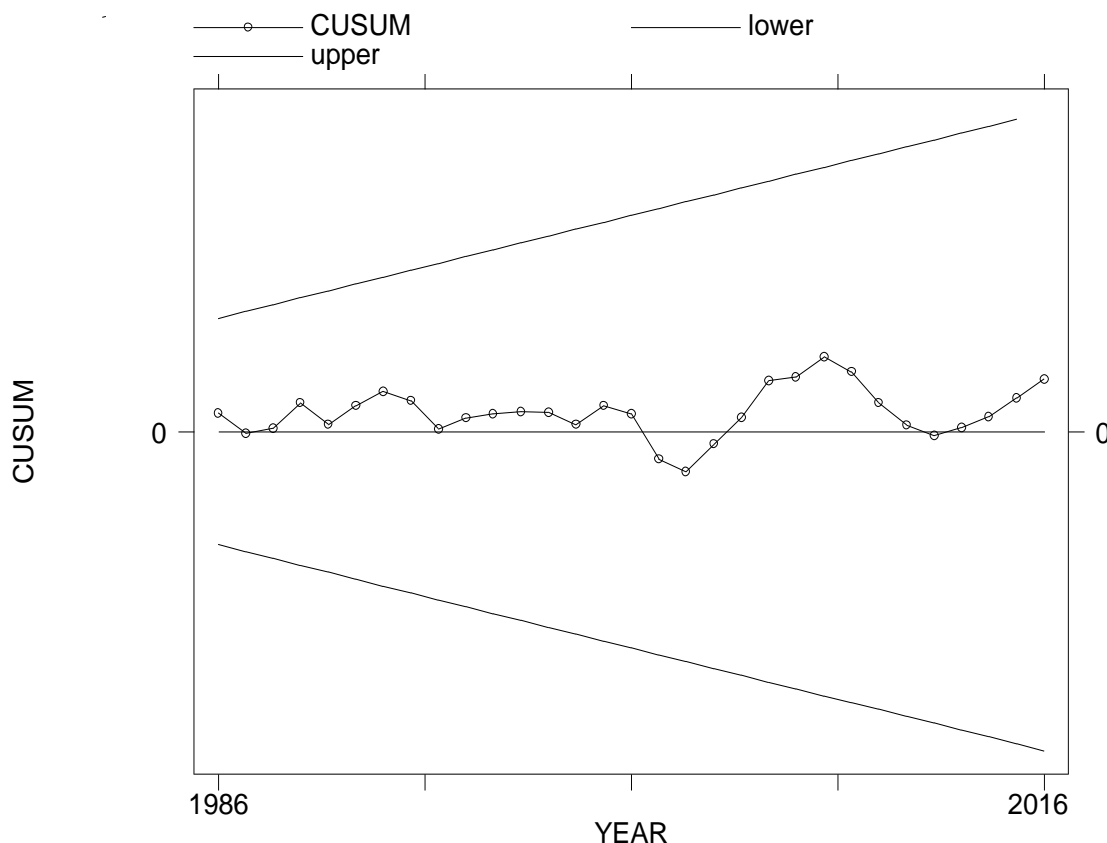


Figure 2

DIAGNOSTIC TETS

The R-square value of the ARDL model was 0.6970, which shows that 69 percent (approx) of the total variation in foreign tourists' arrival in India is explained by the independent variables in the long run. This shows that the model fits reasonably well. The Cumulative Sum (CUSUM) plot shown in Figure 2 indicates the absence of any significant breaks in the model. That is the estimated parameters are stable and consistent. Thus, our regression coefficients are stable over the investigated period.

In order to ensure that the model does not suffer from econometric problems, various diagnostic checking have been performed. To test on the heteroscedasticity, Breusch-Pagan / Cook-Weisberg test has been done; to test on the autocorrelation, Breusch-Godfrey Serial Correlation LM Test as well as Durbin Watson test have been carried out; and finally to test on the normality, Jarque-Bera test have been applied.

Since p values for all these tests are large enough, we donot reject the null hypothesis in all the cases.

## 5. OLS Results

The Ordinary Least Square model estimates are given in Table 3 below, to compare them with our results of ARDL as computed in earlier sections.

DEPENDENT VARIABLE: lnFTA

**Table 3: OLS regression results**

| Regressor | Coefficient | Standard Error | T Ratio |
|---|---|---|---|
| Constant | 9.007908*** | .110607 | 81.44 |
| LnGDP | .8342145*** | .0319004 | 26.15 |
| LnEXR | .2273934*** | .0255709 | 8.89 |
| LnTERR | -.0178056 | .012968 | -1.37 |
| LnDAM | -.0128117 | .016421 | -0.78 |

R SQUARED: 0.9925
*** indicates significance at 1% level

The OLS results also reveal that lnGDP and lnEXR have a significant positive impact on lnFTA while lnTERR and lnDAM have insignificant negative impact. Thus the results are similar to ARDL results, except for the damage variable (lnDAM) which was significant at 10% level in ARDL methodology.

We have economic growth and exchange rate to be significant indicators of inbound tourism in India in both the methods. Infact, on comparing the coefficients for these variables in OLS method with those in ARDL method, we see that both the models produce very similar coefficients for lnGDP and lnEXR.

Both the models show terrorism variable to be insignificant. The natural disaster variable is negatively signed in both the approaches and it is significant in ARDL. However, it is insignificant in OLS. Moreover, the OLS signs of all the variables are as predicted by theory and thus consistent. Economic growth and exchange rate have positive impact, while terrorism and natural disasters are having negative impact.

## 6. CONCLUSION

In this research work, we have used a bound testing approach to co integration, developed within an ARDL structure to examine the long run impact of various factors like per capita GDP, exchange rate, terrorism and natural disasters on India's foreign tourists' arrival over a period of 1980-2017. There are some of the appropriate tests which have been performed for the inspection purposes. A current single co integration approach anticipated by Pesaran et al. (2001) was engaged and it revealed the presence of a long-run relationship among the variables used included in our study. Apart from all this, four tests have been conducted for the diagnostic checking to ensure that our model is efficient and correctly specified. The tests for autocorrelation, heteroscedasticity and normality show that our model is free from any econometric problem.

The unit root stationarity test results (both ADF and PP tests) show that all variables except natural disaster are stationary at first difference. Natural disaster is stationary at level according to PP test while it is stationary at first difference according to the dickey fuller test results.

The long run relationship between India's foreign tourist arrivals and two of the independent variables which are economic growth and exchange rate is positive and highly significant at 1% levels. Natural disaster has a negative and significant relationship at 10% level with international tourist arrivals, while terrorism shows an insignificant

relationship in our ARDL results. Thus it means that economic growth, exchange rate and damage from floods/heavy rains significantly affect the number of foreigners visiting India in the long run. However, terrorism cases are insignificant and donot affect inbound tourism in the long run. The long-run estimates generated from the ARDL model show that economic growth, exchange rate and terrorism have a positive effect on foreign tourist arrival in India. On the other hand, natural disaster has an unfavorable effect on tourism demand in India. Comparison with OLS results show that overall both the methods produce quite similar results.

The empirical results suggest that, improving the economic performance of the country, measured in terms of per capita GDP has a positive effect on boosting foreign tourist arrival. Government should ease out its tourist visa rules and promote FDI in the sector, which would help to enhance visiting in the country.

In order to boost its tourism sector and revenues from tourism, the Government of India should aim at improving its per capita GDP and achieve higher levels of economic growth, employment and development.
Damage from adverse natural calamities such as floods and heavy rains should be minimized. Several measures including the implementation and enforcement of land-use planning practices and building codes must be strongly adopted if the trend of rising losses from natural disasters is to be upturned.

Going by local perspective, currency depreciation is almost never appreciated. One can always find that a downward trend in a country's currency value usually causes a rise in the cost of living, affects international trade and exchange, and a variety of other factors.

However, a local currency that is depreciating would make travel, stay, shopping and a range of related expenses more affordable for international tourists, thereby compensating in some way, for the damages of a downward trend.

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