

ECONOMIC AND NONECONOMIC DETERMINANTS ON INDIAN INBOUND TOURISM

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Abstract

This study was intended to study and analyze the impact of economic and non-economic determinants on Indian inbound tourism using time series data from 2011 to 2020. The data was collected encompassing 20 top FTA receiving countries to India. The study focuses on 18 possible determinants instrumental in Indian Inbound tourism. Initially, these 18 determinants were identified on the basis of opinion propounded by experts from industry and academia. Then the content analysis was done from 126 empirical research papers to arrive at its inclusion. Having explored these determinants for Indian Inbound tourism, an analysis was done by pooled and fixed-effects models of multiple regression. A Country-wise data set was used to find country-specific determinants of foreign tourists' arrival to India. The results shows that the Consumer Price Index (CPI), Gross Domestic Products (GDP), Purchasing Power Parity (PPP) are economic determinants having a positive impact on the Number of Foreign Tourist Arrivals while Climate, Culture, Common Language and Religion as noneconomic determinants which also have positive impact on the dependent variable and are statistically significant whereas, the factors like Bilateral Trade, Exchange rate, Relative price, and Safety and Security at destination sites have found no statistically significant impact on Indian inbound tourism.

Keywords: India; Regression models; Inbound tourism; Determinants.

DETERMINANTES ECONÔMICOS E NÃO ECONÔMICOS DO TURISMO RECEPTIVO INDIANO**Resumo**

Este estudo teve como objetivo estudar e analisar o impacto dos determinantes econômicos e não econômicos no turismo receptivo indiano usando dados de séries temporais entre 2009 e 2019. Os dados foram coletados abrangendo os 20 principais países receptores de TLCs para a Índia. O estudo se concentra em 18 possíveis determinantes instrumentais no turismo receptivo indiano. Inicialmente, esses 18 determinantes foram identificados com base na opinião de especialistas da indústria e do meio acadêmico. Em seguida, a análise do conteúdo foi feita a partir de 126 trabalhos de pesquisa empírica para chegar à sua inclusão. Depois de explorar estes determinantes para o turismo receptivo indiano, foi feita uma análise através de modelos de efeitos conjuntos e fixos de regressão múltipla. Um conjunto de dados por país foi usado para encontrar determinantes específicos do país da chegada de turistas estrangeiros à Índia. Os resultados mostram que o Índice de Preços ao Consumidor (IPC), Produtos Internos Brutos (PIB), Paridade de Poder de Compra (PPC) são determinantes econômicos que têm um impacto positivo no Número de Chegadas de Turistas Estrangeiros, enquanto que o Clima, Cultura, Língua Comum e Religião como não econômicos têm um impacto positivo na variável dependente e são estatisticamente significativos, enquanto que fatores como Comércio Bilateral, Taxa de Câmbio, Preço Relativo e Segurança nos locais de destino não encontraram nenhum impacto estatisticamente significativo no turismo receptivo indiano.

Palavras-chave: Índia; Modelos de regressão; Turismo receptivo; Determinantes.

DETERMINANTES ECONÓMICOS Y NO ECONÓMICOS DEL TURISMO RECEPTOR INDIO**Resumen**

Este estudio se propuso estudiar y analizar el impacto de los determinantes económicos y no económicos en el turismo receptivo indio utilizando datos de series temporales entre 2009 y 2019. Los datos se recopilaron abarcando los 20 principales países receptores de TLC a la India. El estudio se centra en 18 posibles determinantes instrumentales en el turismo receptivo indio. Inicialmente, estos 18 determinantes se identificaron sobre la base de la opinión de expertos de la industria y el mundo académico. A continuación, se realizó un análisis de contenido a partir de 126 artículos de investigación empírica para llegar a su inclusión. Una vez explorados estos determinantes para el turismo receptor indio, se realizó un análisis mediante modelos de regresión múltiple de efectos fijos y combinados. Se utilizó un conjunto de datos por países para encontrar los determinantes específicos de la llegada de turistas extranjeros a la India. Los resultados muestran que el Índice de Precios al Consumo (IPC), el Producto Interior Bruto (PIB) y la Paridad de Poder Adquisitivo (PPA) son determinantes económicos que tienen un impacto positivo en el número de llegadas de turistas extranjeros, mientras que el clima, la cultura, la lengua común y la religión, como factores no económicos, tienen un impacto positivo en la variable dependiente y son estadísticamente significativos, mientras que factores como el comercio bilateral, el tipo de cambio, el precio relativo y la seguridad en los lugares de destino no tienen un impacto estadísticamente significativo en el turismo receptor indio.

Palabras clave: India; Modelos de regresión; Turismo receptor; Determinantes.



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1 INTRODUCTION

India is experiencing a significant increase in foreign tourist arrivals over the past 11 years which offers diverse portfolio of niche tourism, including religious, spiritual, and eco-tourism (IBEF,2020).

The requisite is to meet the challenges that are being incurred due to this flow of tourists in the country. According to WTTC Economic Impact 2019 report, India's Travel and Tourism GDP contribution grew by 4.9%, which was the third highest after China and the Philippines, with the most substantial growth of 6.36 million jobs created between 2014-19. India's tourism industry's contribution to GDP was US\$ 121.9 billion; with an expected annual growth rate of 10.35% between 2019 and 2028 (IBEF, 2020).

During 2019, foreign tourists arrivals (FTA) in India stood at 10.89 million, achieving a growth rate of 3.2% y-o-y. The total contribution of Travel and Tourism to GDP in India is 6.8% of the real economy, along with 8% of the full employment. (WTO, 2020). Because of globalization, the tourism industry is continually getting more challenging and competitive (Wang, 2016).

India ranked 34th in the Travel and Tourism Competitiveness Report 2019, published by World Economic Forum. To deal with the next challenge of growing tourist influx and sustenance of economic pace, it is pertinent to explore or identify the underlying determinants, may be economic or noneconomic or both, which could impact India's inbound tourism.

These determinants make an utmost value in order to attract more and more tourists to the country. Researchers and Expert academia of the tourism industry who regularly keep on identifying the determinants that influence the number of tourist arrivals in the country has a significant role to play (Deese, 2013).

The characteristics of the determinants were studied by classifying them as economic and noneconomic (Zhang, 2012). The economic determinants are directly related to the country's economic growth, indicated by GDP growth and revenue collection.

In contrast, non-economic determinants like climate, culture, common language, religion etc., have an indirect impact on creating a conducive tourist environment adding to tourist arrivals.

In Suresh's study, other important determinants like infrastructure, transportation, number of tour operators, literacy rate, etc, were identified. (Suresh et al., 2015).

Our study probes into factors that mainly determine the origin country of inbound tourism to India every year. We collected the relevant data from a chunk of empirical studies available in the public domain, and opinions from the expert academia of tourism sectors

in India. In this present study we intended to analyze the economicannon-economic determinants of tourist arrivals in India between the duration of 2011and 2019 and tried to infer the ensuing impact of these identified determinants on the foreign tourist arrivals.

This study can be helpful to usher and accelerate the avenues of inbound tourism and strengthen India's economic growth.

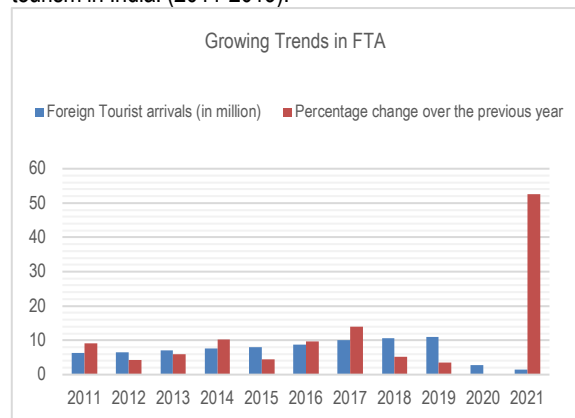
Table 1. Foreign Tourists arrival in India, 2011-2019.

Year	Foreign Tourist arrivals (in million)	Percentage change over the previous year
2011	6.31	9.2
2012	6.58	4.3
2013	6.97	5.9
2014	7.68	10.2
2015	8.03	4.5
2016	8.80	9.7
2017	10.04	14.0
2018	10.56	5.2
2019	10.93	3.5
2020	2.74	-48.6*
2021	1.52	52.6

Source: India Tourism Statistics at a Glance-2020

*Due to COVID-19 restrictions.

Figure 1. Showing increasing trend and growth of inbound tourism in India. (2011-2019).



Source: India Tourism Statistics at a Glance-2020.

2 THEORETICAL REVIEW

The determinants of 'inbound tourism' (visitors from overseas coming into the country) are largely from the perspective of the economy, and available amenities at the destination sites.

These determinants are conveniently classified as- economic or noneconomic which are considered to impart a definite influence over Inbound tourism and thereby economic growth, adding to that country. Encouraging research work and an analysis on the impact of determinants of inbound tourism is important to sustain requisite economic pace. To accomplish it, authors reviewed the concerned literature. Onder et al.

(2009) conducted an Empirical analysis of the determinants of international tourism demand using model I Adjusted R Square value and found that the price and the Income elasticities have significant impact.

Wang and Xi (2015) worked on the determinants of China's inbound tourism, and found that the common border, language and religion have a positive impact on inbound tourist arrivals in China, besides temperature. (Gormus & Gocer, 2010) attempts to focus on the socio-economic factors, like- real income, trade values of both origin and destination countries and accommodation capacity at destination sites, all have a positive impact on tourism demand.

Phakdisoth and Kim (2007) says that destination-specific variables like communication and transportation infrastructure and stability of destination are significant determinants of tourists flow. (Komonrat et al.,2011) Having applied a 'gravity analysis' inferred that the GDP, exchange rate, even' political crisis' prevailing thereto, affect the number of inbound tourists.

Deese (2013) showed empirical evidence about the significance of income, relative prices, cultural and geographical factors and government policies on inbound tourism. In a research conducted by (Chabari, 2014) used 'Ordinary Least Square' (OLS), found a significant effect of relative prices, population and advertisement costs on inbound tourism demand.

Demir et al. (2019) analyzed the impact of 'geopolitical risks' using a new index of geopolitical risks and found that these negatively affect inbound tourism. Dou et al. (2018) studied and analyzed the determinants of inbound tourism such as infrastructure, construction and quality of tourism offered at destination sites, found to be significant for the tourists coming from the developed regions, i.e., European continent. Besides this, per capita income of both the countries from origin to destination does have a positive impact on inbound tourism demand.

Zhang (2012) identifies the factors that contribute more to the inbound tourism demand by using

'regression models' which clearly suggests that the level of income of the origin country, changes in prices in the destination countries and the price of substitute destinations are some of the important determinants of inbound tourism demand.

Mayo and Ziramba (2013) focussed on the impact of various types of crimes occurring on tourists, by using 'ARDL bounds test' approach and found that crime has a negative impact on inbound tourism. Pujiharini, Ichihashi (2016) suggest that the 'visa free entry' policy has a positive impact on the number of foreign tourist arrivals.

Various other important determinants of inbound tourism like real GDP per capita, CPI, trade values, population levels, language, distance, geographical characteristics, natural and economic crisis, accommodation capacity and number of heritage sites were identified by using 'panel data analysis' which covers 25 years data from 1990 to 2014 for a group of 20 countries.

Habibi (2017) studied factors related to political stability, income, tourists liking habits, persistent hotel accommodation, which were found to have positive impact on inbound tourism demand, while 'substitute tourism prices', have negative impact.

Algieri (2006), Barman and Nath (2019), and Viljoen et al. (2018) in their study using 'static and dynamic panel data estimators' tries to identify and analyze both economic and noneconomic determinants which influence inbound tourism demand.

They found that income, relative prices, relative cost of living, GDP per capita, real exchange rates, airfare, trade value, world GDP as major economic determinants, whereas past experiences, level of infrastructure, telecommunication utility, bilateral trade agreements, language, accommodation capacity, geographical factors, conservation efforts and distance, perception (Mir, 2021) and attitude, (Harril, 2004) are the major noneconomic determinants which have a very strong impact on inbound tourism.

Table 2. Identified variables with authors' work.

Year	Authors	Identified Economic determinants	Impact	Identified Non Economic determinants	Impact	Others
2009	A. Ozlem Onder, Aykan, Candemir et al.	Income, price	Positive	-	-	Policies related to local factors
2010	Gormus, Gocer	Real income, Trade values	Positive	Accommodation capacity	Positive	Socioeconomic factors
2011	Komonrat	GDP, Exchange rate	-	Political crisis	-	Influence either way
2012	Zhang	Level of income at origin country, Price changes at destination, and price of the substitute destination	Positive	-	-	-
2013	Deese	Income, relative prices	Positive	Culture, Geographical factors Crimes on tourists.	positive	Government policies -

	Mayo, Ziramba	-			Negative	
2014	Chabari	Relative prices	Positive	Population	positive	Advertisement costs
	Wang,Xi		-	Common border	positive	-
				Religion		
2015	Suresh	CPI -	Positive	Numbers of tourist operators, Infrastructure and Transportation	Positive	Literacy rate
2016	Pujiharini, Ichihashi	GDP, Trade values, CPI	Positive	Language , distance, Population, level, accomodation capacity, Heritage sites	Positive	Visa free entry policy, Natural crisis.
2017	Habibi.	Income	Positive	Political stability, Persistent hotel accomodation.	Positive	
				Substitute tourism price	Negative	Habits
2018	Dou et. al.	Per capita income	Positive	Infrastructure, construction, Quality of tourism	Positive.	
2019	Demir et al.			Geopolitical risks	Negative	

Source: own elaboration.

Gormus and Gocer (2010) found that real income, trade value and accomodation capacity have a positive impact whereas travel distance is negatively associated with inbound tourism demand. (Suresh et al., 2015) also identified some of the determinants indicating literacy rate, CPI, Number of tourist operators, infrastructure and transportation all influence the inbound tourist demand.

According to the 2018 forecast of the World Travel and Tourism Council (WTTTC) Tourism is one of the largest service industries by the year 2028 with India's total contribution to world GDP will rise by 6.9%. According to the Travel and Tourism Economic Impact 2020 World, this sector is shown to account for 10.3% of global GDP and 330 million jobs in the year 2019.

According to Travel and Tourism Competitiveness Report (2017) available trends show that the industry continues to be a force for good, providing great and unique opportunities for developing and emerging nations to move up the value chain.

3 METHODOLOGY

3.1 Data and Sources

The data for this study was collected from various research report and database of government and non-government organizations, Annual Reports of the Ministry of Tourism, UNWTO and WTTTC and from UNWTO databank for the years 2009 to 2019 pertaining to the included variables.

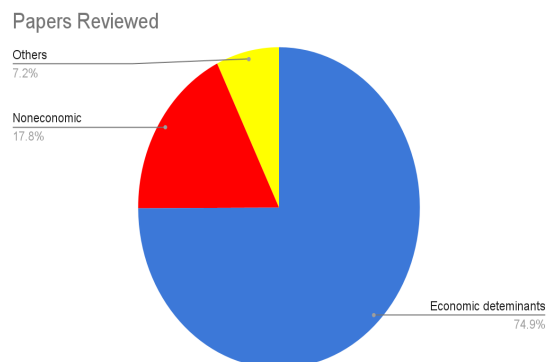
Data from 2009 to 2019, on Foreign Tourist Arrivals, was obtained from the India Tourism Statistics and Annual Report of the Ministry of Tourism, Government of India. On the basis of the number of foreign tourist arrivals, top 20 destinations were included in the sample for the study.

Table 3. Determinants of Indian Inbound tourism and research papers reviewed.

S. No	Determinants Variables	Papers Reviewed
1	Income	85
2	Relative Price	46
3	Transportation costs	36
4	Exchange Rates	25
5	GDP per capita	20
6	CPI	19
7	PPP	16
8	Price of substitute destinations	12
9	Airfare	10
10	Distance	13
11	Infrastructure	10
12	Migration	10
13	Economic Activity	10
14	Government policies	9
15	Business Travel/Trade	7
16	Safety and security	5
17	Population	22
18	Religion	4

Source: own elaboration.

Figure 2. Economic and Non-economic variables research Papers reviewed.



Source: own elaboration.

3.2 Model Specification and Estimation Procedures

For identifying the variables' content analysis' of 126 research papers was done along with the Delphi technique for seeking the experts' opinion. Experts for this method were selected randomly from industry and academia.

The next step was to determine a functional form of tourism demand equation. (Lee et al., 1996) used econometric models to state that income, relative prices and real exchange rates are the major economic determinants that influence the decision of inbound tourists.

Gormus and Gocer (2010) used Two-way random effect models for annual time series from 2000-2006 for 32 countries to make the estimations about the impact of determinants on inbound tourism.

In this study Ordinary Least Square (OLS) of multiple regression models is used along with Fixed Effect Panel data regression models were used to analysed the data. The results received by using the models shows that the data is of statistical significance. In this regard, the following model, which estimated the inbound tourism demand for India is specified as:

$$\text{FTA} = C(1) + C(2) * \text{BORDER} + C(3) * \text{BT} + C(4) * \text{CLIMATE} + C(5) * \text{CPI} + C(6) * \text{CULTURE} + C(7) * \text{DISTANCE} + C(8) * \text{EX_RATE} + C(9) * \text{INC} + C(10) * \text{LANGUAGE} + C(11) * \text{POL_STABILITY} + C(12) * \text{POPULATION} + C(13) * \text{PPP} + C(14) * \text{RP} + C(15) * \text{RELIGION} + C(16) * \text{RH} + C(17) * \text{SS} + [\text{PER}=\text{F}]$$

Where,

FTA = Foreign Tourist Arrivals

C (1) = Constant

C (2) *BORDER = Common Border

C (3) *BT = Bilateral Trade

C (4) *CLIMATE = Climate

C (5) *CPI = Consumer Price Index

C (6) *CULTURE = Culture

C (7) *DISTANCE = Distance

C (8) *EX_RATE = Real Exchange Rate

C (9) *INC = Income

C (10) *LANGUAGE = Common Language

C (11) *POL_STABILITY = Political Stability

C (12) *POPULATION = Population

C (13) *PPP = Purchasing Power Parity

C (14) *RP = Relative Price

C (15) *RELIGION = Religion

C (16) *RH = Rich Heritage

C (17) *SS = Safety and Security

4 ANALYSIS AND DISCUSSION

The study includes data of top 20 Indian Inbound tourism countries for 18 identified determinants of inbound tourism out of which: metric/ratio scale data is

collected for 8 determinants (of which 5 are economic factors/determinants and 3 are demographic determinants), and non-parametric (dichotomous) data is collected for 10 determinants; this data is collected for last 11 years, i.e., year 2009 to 2019.

The data could not be collected for some determinants for the year 2019 as it was not available on public domain. The data could not be compiled because of the worldwide CORONA (COVID-19) problem for the year 2019-20 and 20-21. The data which could not be collected (for the selected period and for the selected variables) because of its unavailability is estimated by interpolation and extrapolation techniques.

These 18 determinants of Indian Inbound tourism are identified initially through experts (experts from industry and academia) opinion and then content analysis is done from 126 empirical research papers to identify how many papers have studied those specific determinants.

After exploring the determinants for Indian Inbound tourism, considering data (2009-2019) from top 20 countries, this research study identified 18 such determinants.

To arrive at an outcome, an statistical analysis was done in two steps: firstly pooled effect in multiple regression is studied for the selected determinants of Indian Inbound tourism for all 20 countries under study for 11 recent years data, secondly fixed effect in multiple regression is studied for country-wise data set to find out country specific determinants of foreign tourists arrival to India.

Two determinants (Political Stability of host country and direct mode of transport from India to host country) are dropped in panel least squares method because metric data was available for 'Political Stability of host country' and the other variable had all same observation values on all points.

So, in the first step under pooled effect in multiple regressions 16 determinants are collectively regressed against the Number of foreign tourists' arrival (Inbound) tourists under Panel data analysis by using E-views 9 softwares which was specifically used for panel data regression analysis.

For this analysis, data was collected for 220 observations (for 20 countries for 11 years) for all 16 determinants under study.

Ordinary Least Square (OLS) method was used for this multiple regression (Zhang, 2012). The null hypothesis in this case was that all 16 determinants collectively are not statistically significantly affects the Indian Inbound tourism" and then each individual determinant's gravity impact on dependent variable through its coefficient in the regression model was also measured. Level of confidence for this hypothesis testing is 95%, for a two tail test.

Firstly, the Hausman test was applied to find out whether the Random effect model or the Fixed effect model is appropriate for this Panel data regression. The Hypotheses for Hausman's Test would be:

- Ho: The Random Effect Model is appropriate;
H1: The Fixed Effect Model is appropriate.

4.1 Interpretation of Analysis Values

The above table shows that the probability of accepting the null hypothesis is 4.6% (.0466) which is below the threshold limit of 5%, (< .05) so, the null hypothesis is rejected and it is concluded that Fixed effect Model of Panel data regression is appropriate to study the impact of various economic and noneconomic variables (IDVs) on foreign tourists arrival in India (Inbound tourists) (DV) (Pujiharani & Ichihashi 2016).

The Null hypothesis (H₀) and Alternate Hypothesis (H₁) are explained as:

- H₀: The model is not statistically significant;
H₁: The model is statistically significant.

The output of the Fixed effect regression analysis of the same is given in Table 4.

Table 4 . Correlated Random Effects – Hausman Test.

Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7,866618	8	0,047

Source: own elaboration.

Estimation Equation:

$$FTA = C(1) + C(2)*BORDER + C(3)*BT + C(4)*CLIMATE + C(5)*CPI + C(6)*CULTURE + C(7)*DISTANCE + C(8)*EX_RATE + C(9)*INC + C(10)*LANGUAGE + C(11)*POL_STABILITY + C(12)*POPULATION + C(13)*PPP + C(14)*RP + C(15)*RELIGION + C(16)*RH + C(17)*SS+ [PER=F]$$

Substituted Coefficients:

$$FTA = -1132547.5117 - 312876.244716*BORDER - 111732.0745*BT + 304996.743739*CLIMATE + 8490.87720098*CPI + 788435.209773*CULTURE - 1135611.43032*DISTANCE + 593.373499053*EX_RATE + 18.3140367022*INC + 67134.9565418*LANGUAGE - 354708.939555*POL_STABILITY + 0.00142420006251*POPULATION + 847.28263377*PPP - 22399.2583475*RP + 329466.09082*RELIGION - 358523.939523*RH + 56055.9681225*SS+ [PER=F]$$

The analysis results shows that the overall model is statistically significant as the probability of accepting the null hypothesis is zero for the F-statistics with R-

square value 0.556 which means that the model is able to explain approximately 56% of the variance of the dependente variable i.e., Indian Inbound tourism (based on the Number of foreign tourists visiting India).

Table 5. summary & Analysis of Flxed Effect Panel Data Regression Model.

Dependent Variable: FTA				
Method: Panel Least Squares				
Date: 11/16/20 Time: 18:10				
Sample: 2009 -2019				
Periods included: 11				
Cross-sections included: 20				
Total panel (balanced) observations: 220				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C (Constant)	-1132548.	214015.9	5.291884	0.0000
BORDER (Common Border)	-312876.2	132313.7	2.364656	0.0190
BT (Bilateral Trade)	-111732.1	76445.87	1.461584	0.1455
CLIMATE (of host Country)	304996.7	146381.3	2.083578	0.0385
CPI (Consumer Price Index)	8490.877	1720.947	4.933841	0.0000
CULTURAL (Common Culture)	788435.2	120540.2	6.540851	0.0000
DISTANCE (Distance of Foreign Country from India)	-1135611.	136615.7	8.312449	0.0000
EX_RATE (Exchange Rate of host Country)	593.3735	847.8507	0.699856	0.4849
INCOME (GDP per Capita of host Country)	18.31404	2.684952	6.820991	0.0000
LANGUAGE (Common Language)	67134.96	64843.31	1.035341	0.3018
POLITICAL_STABILITY (of host Country)	-354708.9	50145.54	7.073589	0.0000
POPULATION (of that Country)	0.001424	0.000156	9.142970	0.0000
PPP (Purchasing Power Parity)	847.2826	220.8348	3.836727	0.0002
RELATIVE_PRICE (price of competitive products)	-22399.26	39533.00	0.566597	0.5716
RELIGION (Common Religion)	329466.1	112681.0	2.923884	0.0039
RICH_HERITAGE (Heritage sites)	-358523.9	70309.29	5.099240	0.0000
SAFETY_SECURITY (of Host Country)	56055.97	75051.85	0.746897	0.4560
Effects Specification				
Period fixed (dummy variables)				
R-squared	0.556035	Mean dependent var	311003.1	
Adjusted R-squared	0.496226	S.D. dependent var	368624.7	
S.E. of regression	261638.9	Akaike info criterion	27.90184	
Sum squared resid	1.32E+13	Schwarz criterion	28.31833	
Log likelihood	-3042.202	Hannan-Quinn criter	28.07003	
F-statistic	9.296872	Durbin-Watson stat	0.237726	
Prob(F-statistic)	0.000000			

Source: own elaboration.

Out of the 16 independent variables in this regression model, 11 independent variables, i.e., Common Border, Climate, CPI, Common Culture, Distance, Income, Political stability, Population, PPP, Common Religion, and Rich Heritage, are statistically significant on Indian Inbound Tourism and 5 independent variables, i.e., Common Language, Bilateral Trade, Exchange rate, Relative price, and Safety and Security are not statistically significant on Indian Inbound Tourism.

Table 6. Analysis Results.

S.No.	Determinants	Results
1	Constant	Statistically significant
2	Common Border	Statistically significant
3	Bilateral Trade	Statistically insignificant
4	Climate (of host Country)	Statistically significant
5	CPI	Statistically significant
6	Culture	Statistically significant
7	Distance	Statistically significant
8	Exchange Rate	Statistically insignificant
9	Income	Statistically significant
10	Common language	Statistically insignificant
11	Political Stability	Statistically significant
12	Population	Statistically significant
13	PPP	Statistically significant
14	Relative Price	Statistically insignificant
15	Religion	Statistically significant
16	Rich Heritage	Statistically significant
17	Safety and Security	Statistically insignificant

Source: own elaboration.

4.2 Discussion and Interpretation

In our study, the economic determinants like Income, Consumer Price Index (CPI) and Purchase Power Parity (PPP) were found to be statistically significant. In the studies by A (Ozlem et al., 2009), (Gormus et al., 2010), (Zhange, 2012), (Deese, 2013), (Habibi, 2017) and (Dou et al., 2018) also found GDP per capita shown as income of host country influenced positively to enhance foreign tourist arrivals. (table2). Suresh (2015) and Pujiharini et al. (2016) in their research studies showed that the Consumer price index (CPI) of the host country has a positive impact on inbound tourism. (table2).

Viljoen (2018) in his study found that the Exchange rate value also acts as a positive determinant for attracting tourists to visit the country. (table2). As for the noneconomic determinants like climate, culture, common religion and language, found to be having a positive impact on Indian inbound tourism, in our study. The similar results were reported by authors in their studies. (Deese et al., 2013) found culture as a positive determinant, Wang Xi (2015) found religion as a positive determinant, and Pujahirini et al.

(2016) found common language as a positive impact factor for attracting tourists (table2).

In our present study, certain economic and noneconomic determinants like Relative price of the competitive products, bilateral trades, common borders, distance from India to the country of origin were found to be showing a negative impact on inbound tourism. However, other studies conducted by authors- (Chabari, 2015) for Relative prices, (Wang Xi, 2015), for common borders, (Pujahirini et al., 2016) for distance of visiting country, their results may not be in conformity with this study. (table2).

Other noneconomic determinant like Safety and security at destination sites was found to have a positive impact on inbound tourism whereas Rich cultural heritage determinant showed negative effect. Other studies conducted by authors – (Mayo & Ziramba, 2013) found that crimes on tourists, (Demir et al., 2019) identified Geopolitical risks have negative impact on tourists influx, whereas determinants like Political stability (Habibi, 2017) and Infrastructure & Tourism quality at destinations (Dou et al., 2018) were found to have a positive impact on encouraging tourist arrivals (table2).

5 FINAL CONSIDERATIONS

Globalization era is an era of tourism, therefore the research focused on identifying the determinants which influence over tourist arrivals, are of immense value for economic and employment growth of any country.

The current research study examines the various determinants of Indian inbound tourism from top 20 countries of origin on the basis of the Number of foreign tourists received over an 11-year period from 2009 to 2019. Data was collected and analysed by performing content analysis and multiple regression models.

Thus, economic and noneconomic determinants were identified and their impact on inbound tourism in India was studied. The results shows that the consumer price index (CPI), exchange rate, GDP per capita and purchasing power parity (PPP) are some of the economic variables having positive impact of inbound tourism in India.

Some of the noneconomic factors like climate, culture, common language, population, common religion and safety and security at a destination show a positive impact on Indian inbound tourism. Common language, bilateral trade, relative price at a destination have no statistical significant impact on inbound tourism in India. Moreover, geopolitical instability and crimes on tourists have a negative impact on tourist influx to the country.

Furthermore, economic determinants like relative price and noneconomic determinants like common border, bilateral trade, distance, political stability and rich heritage were found to have a negative impact on Indian inbound tourism.

Findings of this study may prove worthy for its usage to develop new business models and strategies to compete with the other players in the world tourism market by focusing on the factors which have positive impact on Indian inbound market and by finding the new measures to overcome with the negative impacts of some of the identified determinants.

Based on the results of this study, Indian government and tourism enterprises may adopt the strategic plan to encourage inbound tourism. (Karim,2020) in his study suggests that Indian inbound tourism has a huge potential for its expansion. This study may also help to develop new market avenues and destination attractions. (Bayraktaroglu,2021) in his study said that building a high impression of a destination or a country is also necessary to monitor the development of any event.

Bilateral trade tie-ups and common language may also provide a conducive environment. This study may develop a better understanding about the tourism industry and 'new normal'. In the event of likely fall in inbound tourism demand, the tourism industry may target more on the factors that are found to have strong influence on tourism businesses, and can adopt new business models and strategies in tune with them, in order to prepare for a 'new normal' situation, in post-Covid, travel and tourism market. (Barkas et al.,2020). (Morozov,2022) also mentioned the importance of innovative solutions for growth and development of tourism in new normal.

The tourism industry continues to make a real difference to the lives of millions of people by driving growth, creating jobs, reducing poverty and contributing to the economic development of the country.

Our present study faced certain limitations in data collection and drawing some decisions thereof. Owing to the travel restrictions, during Covid19 pandemic, primary data on inbound tourists could not be collected as it was found that the data which was available in various secondary sources was also not updated, making it difficult to obtain updated data.

Due to this paucity of data, we could not use data on tourists spending or expenditure in estimating inbound tourism demand. Future studies on inbound tourism demand, including primary data based empirical studies on tourist expenditure, earnestly needed that would usher the ways to add growth in the tourism industry of India.

Further studies can also be performed with other important variables like purpose of visit, tourists'

attraction factors, seasonality and some more detailed studies can also be done by other researchers to know about the impact of perception (Leon & Delgado, 2021) and Attitude of Residents of host country (Haley et al., 2004).

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Table 7. CRediT author statement

Term	Definition	Author
Conceptualization	Ideas; formulation or evolution of overarching research goals and aims	Self
Methodology	Development or design of methodology; creation of models	Self
Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components	Self
Validation	Verification, whether as a part of the activity or separate, of the overall replication/ reproducibility of results/experiments and other research outputs	Self
Formal analysis	Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data	Self
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection	Self
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools	Self
Data Curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse	Self
Writing - Original Draft	Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)	Self
Writing - Review & Editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre-or postpublication stages	Self
Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/ data presentation	Self
Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team	Self
Project administration	Management and coordination responsibility for the research activity planning and execution	Self

Term	Definition	Author
Funding acquisition	Acquisition of the financial support for the project leading to this publication	Self

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