

ANALYZING TOURIST PREFERENCES IN INDIA TO CRIME AND THREAT OF TERRORISM

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Abstract

Tourism sector contributes around 208.9 billion U.S. dollars to GDP in India as per 2016 statistics. India is the second highest contributor of tourism sector in GDP in Asia-pacific after China. Thus, it is important to focus on tourism sector as a part of economic growth. In this paper, the focus is laid on identifying various social factors that affects foreign tourist preferences to visit India. It was found that natural calamities, crime rate and infrastructure of airways are the major factor that affect foreign tourist preferences. This paper majorly focusses on the types of criminal activities and terrorism as the factor affecting tourist preferences to visit a country. It was found that violent crimes like murder and theft have major influence on tourist preferences. This paper also laid various terrorist cases and identifies the decline in tourist arrival by majorly focusing on the incidence of 26/11 in Mumbai. At last, the paper suggests various policy measures that the government should take in order to control crime which will help to attract foreign tourist arrival in the country.

Keywords:

Tourism,
Crime,
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Terrorism,
Tourist preferences

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1. Introduction

Tourism is the movement of people from their native place of residence to another environment for the purpose of leisure or business without any remuneration generating activity for less than a consecutive year. This industry has substantial contribution towards the economic growth and development of country over the past decades. However, growth and development of this sector poses a challenge in the form of political, economic and security factors. As these factors directly or indirectly affects the tourist preferences to visit a particular area.

Changing oil prices affect airline fees, traveler income and majorly the choice of their destination. Various natural calamities and climate changes also destroy sceneries, holiday destination and create fear among people to plan their trips in that area. Crime and terrorism also act as a threat for tourist to visit that area.

From 2002 to 2015, India has got the highest ranked highest globally ranging from second to sixth position in terms of terrorist attacks and increasing crime. With respect to increasing crime against women, India has become the most insecure place for women tourist to visit. India's total foreign tourist arrivals jumped over years but the number of foreign women travelling to the country slipped during the same period amid concerns about safety of women following the increasing rapes and crime against women in the country.

Female foreign tourists from countries like Germany, Bangladesh and the Russian Federation decline. It fell from 41.2% to 40.8%. Thus, the country's global image as a safe destination is suffering a lot following a series of sexual attacks on foreign women in recent years.

According to various empirical studies, development of infrastructure and heritage sites leads to an increase in inflow of foreign tourist in India while on other hand crime activities adversely affect the inflow of tourist in short run while terror attacks have a long run impact on inflow of tourist from other countries.

This paper identifies various factors that affect the tourist preferences to enter India and then linked crime and terrorist attacks with tourist decision to visit India as a matter of security issue.

In this paper the major focus is to identify the major type of crime that influence the decision of tourist and to suggest some policy measures that will help in controlling crime and thus increasing the inflow of tourist. Thus, contributing to growth and development of the country.

1.1 Evolution of tourism industry

1.2

Modern technology has helped in evolution of tourism industry. Over the past 20 years, number of tourists globally have almost doubled from 540 million to 1.1 billion. This growth in tourism industry has benefitted few countries which include Eastern Europe, Asia, Middle East. While countries like France, Italy, U.S. are struggling to come to the similar position in terms of growth rate.

Historically, people used to travel for leisure and travelling was reserved for royalty and upper section of the society. During the middle ages, religious pilgrimage came into practice. In 1758, with introduction of first travelling agency named “Cox & Kings” tourism became business with travelling through rails. However, with introduction airways in 1952 modern tourism industry emerged. As more and more travel companies joined the market for tourism was created with increasing competition for customer and introduction of new destination. Internet act as medium to revolutionized travel services by introducing online travel bookings.

1.2 Evolution of tourism in Canada

Major development in tourism sector in Canada is followed by development in transportation sector. The first railway was launched in Canada in 1836. However, by the end of World War I in 1914 four more railway system were built in Canada. In 1923, these railway systems merged with National Railways and dominated the travel and tourism until car travelling became popular. Cars were earlier treated as nuisance but with opening of highways it became more popular. In 1970, Trans-Canada highway was built which was the longest highway in the world. In 1937, Trans-Canada Airline was launched. In 1950s and 60s, reduced fare of airways led to attraction of large number of tourist. During 2000, airways in Canada faced financial constraints and was forced to restructure. Thus, it can be said that as transportation sector grew Canadian communities framed their marketing strategies. However, events like Great depression and

World wars have major impact on tourism sector of Canada. This has led to fall in tourist arrival from all over the world to 694 million in 2003.

In Canada, tourism sector has provided employment to 603,400 people and is the major factor leading to growth of the country. However, its historic reliance on U.S. market for tourist that is about 75% is creating a lots of trouble. As American visitors have declined due to strict border regulations and passport procedure. However, there are large number of visitors from United Kingdom, France, Germany, Australia and China to Canada. 80 % of the revenue of tourism sector in Canada is from domestic travelers and by focusing on rebounding U.S. visitors this industry will grew even faster.

1.3 India and tourism sector

India has large market for travel and tourism offering variety of services such as adventure, medical, eco-tourism, religious etc. This sector's contribution to India's GDP is expected to increase from Rs 15.24 trillion in 2017 to Rs 32.05 trillion in 2028.

Compared to China, which is ranked first in terms of number of foreign tourist arrival all over the world that is 60.7 million in 2017. India ranked seventh among Asian countries with number of foreign tourist arrival to be 15.5 million in 2017. The government of India has set a target of achieving 20 million foreign tourist arrival by 2020.

Prices of hotel accommodation is declining in India with lowest price at 85 U.S. dollar in 2016 while the occupancy rates are stable. There is also increase in number of hotel chains with expected share to be 50 percent by 2022.

When seen the total contribution of travel and tourism to GDP across India (in billion U.S. dollars). It is found that the contribution is increasing overtime from 113.2 in 2013 to around 234 in 2017. With the similar growth rate if continued it is expected to double its contribution till 2028 which is around 492.2 billion U.S. dollars.

2. Research Method

The study deals with both quantitative and qualitative method of analyzing the secondary data and concluding them to valuable findings. The quantitative approach is used to analyze and interpret the collected data of identified using multiple regression analysis. The data for dependent variable that is number of foreign tourist arrival in India is collected from Indian Tourism Statistics 2017. While that of independent variables are collected from various sites such as the data on crime from National crime record bureau ministry of home affairs.

On the basis of available data from 2010-16, the relationship of foreign tourist arrival with various criminal activities is determined using multiple regression analysis. Since the effect of crime is always seen with respect to a lag of one year. So the lag of the variables will be taken and the model will be converted into distributed lag model.

While the qualitative include enlisting various suggestive policy measures to control crime and contribute towards comprehensive development of tourism sector of India.

3. Result and Analysis

3.1 Factors Affecting tourist preferences to visit India

Tourism industry is the one of the fastest growing industry in India. Due to its cultural diversity, it is one of the most preferred destination of tourists of international origin. However, there are many social as well as economic factors that affect tourist decision to visit a particular destination. In this paper the major focus is on various social factors that affect the tourist arrival decision in a country.

In India, infrastructure act as a major bottleneck to the growth of this sector and government should invest in infrastructure like transport, communication, health and sanitation for growth of this sector. The trends of expenditure of government in these sector from 2007 to 2011 can be shown with the help following graph: -

On x axis - The amount of expenditure incurred by government (in crores).

On y axis – Years (2007-2011)

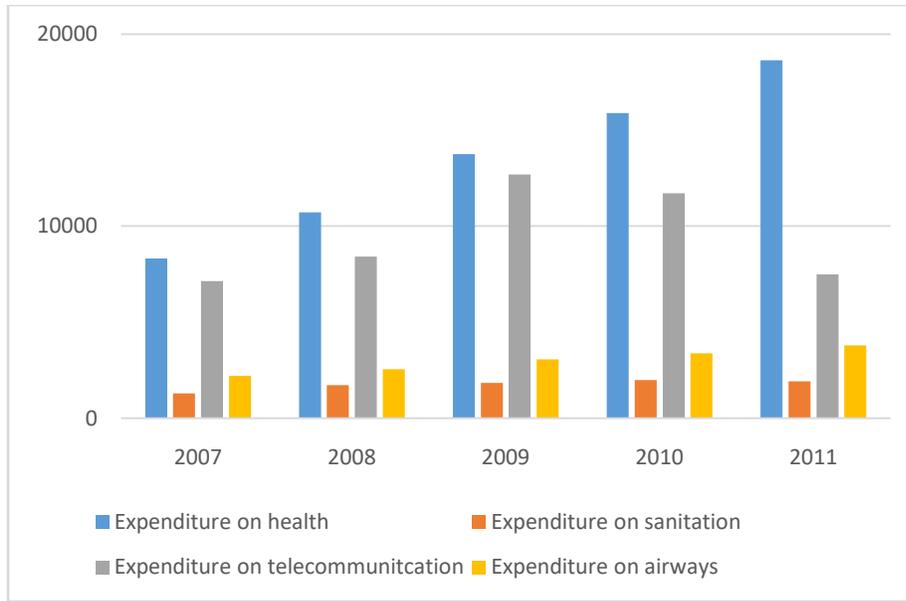


Figure 1- *Trends of government expenditure on Infrastructural development*

The above figure is in reference to the table 1 in appendix (A.1), it is to find out the trend of government expenditure on various variable that affect foreign tourist arrival in a country. The expenditure on health is found to have major contribution in the government budget and this expenditure is facing an increasing trend from 2007 to 2011. The expenditure in telecommunication sector is the second dominating expenditure in government budget in India which faced an increasing trend till 2009 and then a decreasing trend. The reason for such a trend is that infrastructure in the form of telephone lines have been setup and shift has moved towards internet. The expenditure by government on airways is increasing over time but the amount is less as the private sector expenditure is also contributing towards this sector. The expenditure on sanitation by government is also increasing. However, the pace is low. The reason is that government should spend less on building toilets and focus should be on educating people and building their capacity for effective implementation of Swachh Bharat Mission.

Apart from infrastructure; factors such as natural calamities, crime and terrorism also affect the tourist decision to visit a country. Natural disasters lead to the damage in terms of physical as well as monetary damage. However, it also affects the tourist decision to visit that particular area. According to Peters and Pikkemaat (2005) the occurrence of natural disasters leads to a decrease in tourists' arrivals. For example, earthquake that occurred in Taiwan in 1999 has led

fall in international tourist arrival by about 15%. It was also found that tsunami that came in Indian ocean in 2004 has led to death of many tourists. Tourist are more exposed to death due to these natural disasters as they are unaware or less aware about the destination and their natural forces.

Studies revealed that female tourist have greater influence of natural calamities compared to male. One of the possible reason is that they believe that they are unable to escape quickly from the destination quickly. They also have greater influence of crime and terrorism than male, possible reason may be the anxiety towards these risk is more among female than male. Thus, decision may vary depending on the gender.

Security is the most important factor influencing the tourist decision. The visitors are generally unaware or less aware about many things such as culture, language of the area. Thus, they are the easiest target of crime such as, drug taking, murders, theft etc. In most of the cases the tourists are not able to report to the police about the crime. It is found that tourism creates a lot of opportunities to commit crime as they become anonymous in different environment.

3.2 Relationship of foreign tourist arrival with identified factors

In order to determine the relationship between the number of foreign tourist arrival and the above determine factors that have influence on tourist's decision making to visit India, regression analysis is conducted. The regression equation is –

$$\text{Tourist} = \beta_0 + \beta_1 \text{airway} + \beta_2 \text{calamities} + \beta_3 \text{sanitation} + \beta_4 \text{communication} + \beta_5 \text{crime} + u_i$$

Where,

- Airway = Available seats in international flights (in millions)
- Calamities = Number of deaths due to natural calamities
- Sanitation = Rural household covered by on site sanitation system
- Communication = Wireless connection (in lakh)
- Crime = Crime rate
- Tourist = Foreign tourist arrival in India (in million)

The data of above variable from 2007 to 2011 of India is collected and then regressed and it was found that communication and sanitation have insignificant effect on tourist arrival. Thus, the

regression analysis takes into account only three variables that is crime, calamities and air. The new regression equation is –

$$\text{Tourist} = \beta_0 + \beta_1 \text{ crime} + \beta_2 \text{ calamities} + \beta_3 \text{ airway} + u_i$$

Table 1- Regression Analysis of factors affecting tourist preferences in India

Model 1: OLS, using observations 1-5

Dependent variable: FTA in India (in million)

HAC standard errors, bandwidth 1 (Bartlett kernel)

	coefficient	std. error	t-ratio	p-value
const	11.7191	2.98296	3.929	0.0383**
Calamities	-0.000270103	0.000129514	-2.086	0.0754*
crime rate	-0.00377263	0.00215865	-1.748	0.0431 **
airway	2.81923e-05	1.00364e-05	2.809	0.0770*

***- 1% level of significance

** - 5% level of significance

*-10% level of significance

$R^2 = 0.913309$ Adjusted $R^2 = 0.653235$ F-value (3,1) = 69.97067 P-value(F) = 0.037602

So the regression equation is –

$$\text{Tourist} = 11.7191 - 0.000270103 \text{ calamities} - 0.00377263 \text{ crime rate} + 2.81923e-05 \text{ airway}$$

Interpretation of equation

It is found that other things remaining the constant, natural calamities have negative impact on number of foreign tourist visit to India that is an increase in number of deaths due to natural calamities by 1 person will decrease in the visit of tourist to India by 0.002 million given all other factors to be constant. The p value is 0.0754 which depict that the variable is significant at 10% level of significance. Deaths due to natural calamities will make the tourist feel insecure to

visit the particular area and thus discourage the number of tourist arrivals. The above relation of death due to natural calamities and foreign tourist arrival is therefore justified.

It is also found that other things remaining the constant crime has significant negative impact on number of foreign tourist visit to India that is an increase in crime rate by 1 percentage will lead to decrease in the visit of tourist to India by 0.003 million given all other factors to be constant. The p value is 0.0431 which depict that variable is significant at 5% level of significance. Crime imposes a burden on society. It is found that the countries that experience high level of crime are not develop in tourism sector. As they are perceived to carry high risk for potential to visit the country. The destination of tourist can easily be swapped when they visit for leisure activity than business or education. As the leisure based tourist visit has security to be the major priority. Thus, the above relation can be justified.

It is also found that other things remaining the constant airways have significant positive impact on number of foreign tourist visit to India that is an increase in number of seats in international flights by 1 million will lead to increase in the visit of tourist to India by 2.81923e-05 million given all other factors to be constant. The p value is 0.0770 which depict that variable is significant at 10% level of significance. This because with increase infrastructure for tourist arrival in terms of seats in International flights (in million) will enhance the tourist to visit India. The number of foreign tourist arrival saw 8.4 percent year on year jump. At the same time, the number of e-tourist visa has also experienced a growth of 58.5 percent.

The value of R^2 is 0.913309 which shows that 91% variation in tourism is explained by the independent variables or we can say that model is 91% fitted. However, it cannot determine the biasness of the coefficient estimates and is affected by increase in number of explanatory variable. Thus, we go for adjusted R^2 which is modified version of R^2 for number of predictors in model. The value of adjusted R^2 is 0.653235 which shows that 65% variation in tourism is explained by independent variables.

F – test that is used to test the overall significance that provide a better fit to the data than a model that contains no independent variables. For the test the hypothesis is as follow:

H_0 = model with no independent variable fits the data as well as model

H_a = models fit the data better than intercept only model

The p value of F test is 0.037602 which is less than alpha level 0.05, then we will reject the null hypothesis saying that the model fit the data better than intercept only model.

Thus, it can be concluded that crime has significant negative impact on number of foreign tourist arrival to India. Now, in order to determine the type of crime and its impact on number of foreign tourist arrival we will move to another objective.

3.3 Relationship of various types of crime with tourist preferences to visit India

As prove above, the important factor that influence tourism demand is the safety of destination. An individual in order to decide the destination of its vacation take risk of victimization into account. Other things remaining the same an individual prefer to visit safer destination. Both terrorism and criminal activities in a country may stop a tourist to visit that area. Thus, these factors acts as an externality and reduces the number of foreign tourist arrival.

When taken together all criminal variables and its effect on foreign tourist arrival in India the model was found to be insignificant. Thus, through data mining process the significant model is identified and is as follow.

In order to identify the type of crime and its effect on number of foreign tourist arrival in India, the regression analysis is conducted by taking data from table 3 in appendix (A.3) which is as follow-

$$\text{Tourist} = \beta_0 + \beta_1 \text{ Murder} + \beta_2 \text{ Rape} + \beta_3 \text{ Theft} + u_i$$

Where,

- Murder = Rate of incidence of murders as per section 302 IPC
- Rape = Rate of incidence of rape as per section 376 IPC
- Theft = Rate of incidence of theft as per section 379-382 IPC
- Tourist = foreign tourist arrival in India (in million)

The data of above variable is collected from 2011-2016 from the National Crime Record Bureau Ministry of Home Affairs 2016 of crime. The data is regressed by taking foreign tourist arrival as the dependent variable.

Table 2- Regression analysis of types of crime affecting foreign tourist arrival in India

Model 2: OLS, using observations 1-7

Dependent variable: FTA in India (in million)

Heteroscedasticity-robust standard errors, variant HC1

	Coefficient	std. error	t-ratio	p-value
const	8.55423	2.03239	4.209	0.0245 **
murder	-2.24729	0.385296	-5.833	0.0100 **
rape	-0.265955	0.207347	1.283	0.2897
theft	-0.101589	0.0373285	2.721	0.0725 *

***- 1% level of significance

** - 5% level of significance

*-10% level of significance

$R^2 = 0.959766$ Adjusted $R^2 = 0.919533$ F-value (3,3) = 141.0831 P-value(F) = 0.001000

So the regression equation is –

$$\text{Tourist} = 8.55423 - 2.24729 \text{ Murder} - 0.265955 \text{ Rape} - 0.101589 \text{ Theft} + u_i$$

Interpretation of equation

It is found that other things remaining the constant murder has negative impact on number of foreign tourist visit to India that is an increase in rate of murders under section 302 IPC by 1 percentage will decrease in the visit of tourist to India by 2.24729 million given all other factors to be constant. The p value is 0.0100 which depict that the variable is significant at 5% level of significance. The reason for this is murder being a violent crime will make tourist feel insecure to visit India. Thus, discouraging tourist to visit the places that are more prone to murder crime.

It is also found that other things remaining the constant, rape has negative impact on number of foreign tourist visit to India that is an increase in rate of rape under section 376 IPC by 1 percentage will lead to decrease in the visit of tourist to India by 0.265955 million given all other factors to be constant. The p value is 0.2897 which depict that variable is not significant. The reason for insignificant impact is that rape cases are not revealed or taken to courts compared to

other crime like murder. Due to which these cases play an insignificant role in impacting the tourist preferences to visit India.

It is also found that other things remaining the constant, theft have significant negative impact on number of foreign tourist visit to India that is an increase in rate of theft under section 379-382 IPC will lead to decrease in the visit of tourist to India by 0.101589 million given all other factors to be constant. The p value is 0.0725 which depict that variable is significant at 10% level of significance. Theft in the form of robbery of jewelry, money, credit cards and pick pockets are common among tourist as they are unaware about the place and the people living in that area. Due to which it is found that sometime tourist remains with no funds to go back to their home places. These incidences discourage tourist to visit a country with large number of cases of theft. The value of R^2 is 0.959766 which shows that 95% variation in tourism is explained by the independent variables or we can say that model is 95% fitted. However, it cannot determine the biasness of the coefficient estimates and is affected by increase in number of explanatory variable. Thus, we go for adjusted R^2 which is modified version of R^2 for number of predictors in model. The value of adjusted R^2 0.919533 is which shows that 91% variation in tourism is explained by independent variables.

F – test that is used to test the overall significance that provide a better fit to the data than a model that contains no independent variables. For the test the hypothesis is as follow:

Ho = model with no independent variable fits the data as well as model

Ha = models fit the data better than intercept only model

The p value of F test is 0.001000 which is less than alpha level 0.05, then we will reject the null hypothesis saying that the model fit the data better than intercept only model.

Thus, it can be concluded that murder and theft are two types of crime that discourage tourist to visit India. while it is more responsive to violent crime (murder). When we look at the revenue from international tourists indicate that international tourists consider the risk of victimization while choosing the destination to visit.

3.4 Threat of terrorism and tourist preferences

Terrorism is the major problem all over the world. It is defined as the threat or violence either by an individual or group of people on random population with the aim of gaining certain social or political benefits. Its effect can destroy an economy's growth. Terrorists are generally not born; they are made. It has a major impact on innocent people. Countries like India, where tourism acts as a backbone of the economy, are majorly affected by sustained and repeated terrorist attacks.

India experiences various terrorist attacks, one such attack is the Mumbai attack on 26 November 2008. In this attack, around 164 people were killed and many were injured. The target areas of attack were The Taj Mahal Palace, The Oberoi Trident and Tower and Leopard Café, the places largely visited by foreign tourists. According to studies conducted, it was found that this had led to a decline in the number of foreign tourist arrivals in India and majorly in Mumbai and Delhi.

As per the latest report by the U.S. Department, India has experienced a large number of terrorist attacks in 2016 and is ranked third after Iraq and Afghanistan. Out of these attacks, the major target states of India are: Jammu and Kashmir (19%), Chhattisgarh (18%), Manipur (12%) and Jharkhand (10%).

On an average, these attacks in India have led to an increase in the number of deaths by 17 per cent, which acts as the major concern of tourists in terms of visiting a destination. Thus, discouraging them to visit India.

3.5 Policy measures to control crime contribution to development of tourism sector of India

Recently, the Indian government has started focusing more on the tourism sector and has taken many initiatives in the form of various policies. One such initiative is "Statue of Unity" that is the statue of Sardar Vallabhbhai Patel, which was inaugurated in 2018 and is expected to boost tourism. In the budget 2018-19, the government allotted Rs 1250 crores for the development of tourist circuits. During 2018-19, around seven projects worth Rs 384.67 crore were sanctioned by the government related to tourism.

The government is expecting to achieve a 1 per cent share in the World's International Tourist's arrival by 2020. The tourism industry is growing in terms of E-tourism. In 2018, the government of India has also launched 'Incredible India mobile app' used to share the experience of travelling.

Insecurity is the major factor discouraging tourists. It is found that tourist that travel alone are at higher risk of being victim of criminal activity compared to the tourists that travel collectively with friends and family.

In this paper, we studied that tourists suffer from crime rate and are disproportionally victim of criminal activities. However, tourist can also cause crime and disorder problem. Thus, effective policies should be framed in order to control crime and majorly terrorist activities so as to attract foreign tourist.

In order to determine the policies that control crime, it is important to look at the factors that lead to crime. It includes unemployment, illiteracy, poverty etc. Other than these factors alcohol and drug consumption can also lead to criminal activities as a result there is a need to double alcohol tax, reducing alcohol outlets. As per studies, it is found that it has led to decrease in traffic crash deaths, sexually transmitted diseases, violence and crime. However, reducing outlets may lead to increasing unemployment for the people employed in these industries thus there is need to find substitute of their source of income.

Another way to reduce crime is by making sure about the increase in police presence. As per the research it is found that there almost 40% of criminal cases that are left unregistered or unnoticed because of the absence of police at the place. Thus, the more is their intervention the less will be the chances of criminal activities to take place. Extremely stronger and clear consequences of criminal activities to be allotted which will discourage people to undertake such activities in future.

Another way to reduce crime is to keep kids in school longer. According to a research it is found that students who continue their studies and don't drop out are less likely to commit crime. There is also need to introduce behavioral intervention program in school curriculum. This will help them to guide to become a good human and not to engage in criminal activities. It should include certain exercises that kids do in order to establish self-regulation skills and also the skill to be friendly to people around.

These policies will help to reduce criminal activities which will make tourist feel the country to be safe and secure destination to visit. Thus, enhancing foreign tourist arrival making the tourism sector of India even more stronger.

4. Conclusion

This paper concludes that in order to enhance tourism sector of India there are many factors which include sanitation, natural calamities, health, telecommunication, airways infrastructure, crime and terrorism. However, the main focus is laid on crime as the factor affecting foreign tourist arrival in India. It was found that criminal activities like murder and theft have significant impact on foreign tourist preferences while rape does not have significant impact. At last the paper focuses on various polices that can be taken by government to control crime which in turn will help to enhance foreign tourist arrival in India leading to growth of tourism which is the major factor enhancing GDP of the economy.

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