

# AN ANALYTICAL STUDY ON TREND AND SEASONAL VARIATION'S OF FOREIGN TOURIST ARRIVALS.

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## Abstract

Indian tourism is likely to be the third largest tourism economy by 2028 and create 10 million jobs in the Indian tourism sector. India being a vast country has its own tourist attractions and possesses a rich heritage, diverse culture, architectural, monuments, climatically pleasant mountain chains, and various other resources. The article attempts to know the past trend in arrivals of foreign tourists to India. It also exhibits the seasonal demand of the tourism products of the country. Study is entirely based on the secondary data that is obtained for the period from January 2003 to December 2018. It was witnessed there is an increase of arrivals of the tourists.

Key Words- Tourism, Trend, Seasonal, Foreign tourist arrivals, Average.

## Introduction

Tourism is one of the sectors in our country, still it need to be fully utilized for the contribution towards GDP. India ranks 23 in foreign tourists arrivals as per the United Nations World Tourist Organization. Various heritage of historical places is having major impact on foreign tourist arrivals to the country. Apart from this, India has diverse portfolio of niche tourism products such as cruises, adventure spots etc. India has been known as the seat of spiritualism and India's cosmopolitan nature is best reflected in its pilgrim centers. As per Ministry of Tourism compiles monthly Foreign Tourist Arrivals (FTAs) & FTAs on e- Tourist Visa on the basis of information received from Bureau of Immigration (BOI), FTAs in April 2019 were 7,71,353 as compared to 7,45,051 in April 2018 registering a growth of 3.5%. In India the tourism sector is considered as a tool for creating employment opportunities as well as income generation in both organized and unorganized sectors. Mainly foreign tourists visit the places such as Meenakshi Temple, Brihadeeswarar Temple, Yelagiri Hills, Hogenakkal Falls and Vivekananda Memorial in Tamil Nadu state. Ajanta and Ellora Caves, Shirdi,

Ashtavinayak and Matheran in Maharashtra state. Taj Mahal, Agra Fort, Fatehpur Sikri and Sarnath in Uttar Pradesh state. Tourism sector has becoming one of the tool for economic development of the country. India is such a country that a tourist is attracted all the 365 days with its unique destination attraction.

## Methodology

The study is based entirely on secondary source of data. The data is obtained on foreign tourist arrivals for the period January 2001 to December 2019 from Indiastat e-resource. In order to arrive at the meaningful results time series analysis was employed that is linear trend and seasonal variation to the data obtained.

**Linear trend (T):** Over a long period of time, time series is very likely to show a tendency to increase or decrease over time. There are various factors responsible for such changes in time series. There are different types of trends, some of them are linear and some are nonlinear in their form. For shorter period of time, in most of the situations the straight line provides the best description of trend and for longer period of time, the non-linear form generally provides a good description of the trend. Often, it may be possible to describe such movements with a structured mathematical model. In the absence of such a definite format, approximately a polynomial or a free hand curve describes the movements.

**Seasonal variation (S):** The variation within a year is called as seasonal variation. Such seasonal components were analyzed through construction of seasonal indices.

### Estimation of seasonal indices of monthly data

To measure the seasonal variations in prices, seasonal indices were calculated employing monthly averaging method and expressed in percentages. In the first step, 12 months moving total were generated. These totals were divided by 12 to compute 12 months moving average. Then a series of centered moving averages were worked out.

### The seasonal indices were calculated by adopting the following steps:

In the first step, monthly averages for the study period were computed. In the second step, overall average was computed for the whole length of the study period. Then the monthly average values were converted into seasonal indices by computing the ratio of monthly average values by the overall average value and expressed in percentage.

$$SI_i = \text{Average}_i / \text{Overall average}$$

Where,

$$SI_i = \text{Seasonal Index for } i^{\text{th}} \text{ month}$$

$$\text{Average}_i = \text{Average value for } i^{\text{th}} \text{ month}$$

## Results and Discussion

The table 1 depicts trend in foreign tourist's arrivals to India for the study period of 2003 to 2018. It is clear from the table that there is a increase in arrivals of on an average 4,73,281 tourists every year which is influenced by the time variable (coefficient determination) of 96 per cent. This signifies the footfall of foreign tourists arrivals are increasing gradually which is may be due to another initiative that is providing visa on arrival (VOA) has also helped in encouraging foreign tourists in India. Table 2 depicts International tourist arrivals to different countries in the world as well as to Asia and the pacific region and India. It can be observed from the table that in the year 2001 683.40 million tourists had visited in entire world of which 114.50 million people had visited to the Asia and pacific region countries. A meager share that is 2.54 million people had visited to India in the year 2001. The compound annual growth rate of tourists travelling to the countries in the world was found to be 4.30 per cent for the last two decades which was signified by the time variable to the tune of 98 per cent. When we observe the growth rate of International arrivals to the countries in Asia and pacific region was found to be 6.74 per cent which was signified with the time variable of 98 per cent. The growth rate of foreign tourist arrivals to India was high when compared with the other two parameters. It was observed that the growth rate of 12.51 per cent which was signified with 94 per cent probability level.

Table 3 presents seasonal indices of foreign tourist's arrivals to India for the period of January 2001 to December 2019. It can be observed from the table that arrivals of foreign tourists is more in the months of October (103.73), November (122.91), December( 138.64), January( 119.15), February(118.07) and March(108.22) as the seasonal indices were more than hundred in these months. Among these highest foreign tourists arrivals is observed in the month of December. In India, majority of the foreign tourists visit Tamil Nadu state as the major destinations. Majority of the visitors do visit Chennai city followed by Mahaballipuram, Kanchepurram, Madurai, Rameshwaram, Kanyakumari, Thanjuvar etc. Majority of the foreign visitors from Myanmar, Thailand and Srilanka are visiting Bihar as one of the major destination. Bihar is having the tourist place as well as temples situated at Rajgir, Bodhgaya, Gaya, Nalanda, Topchachi, Patna etc (Upadhay, 2017). On the other side the lowest footfall of foreign visitors is in the month of May which was evidenced in the table no 2 having the value of 70.63. As per the seasonal indices the lowest foot fall of the foreign visitors are seen

in the month of July (93.55), August(86.04), April (81.04), September (79.68), June (77.48) and least was in the month of May ( 70.63). India is a tropical country as in the months of the low foot falls of foreigners. These months will fall under the seasons of summer and rainy season which is another major reason for the low foot fall.

As per the reports of Ministry of Tourism, Government of India. The percentage share of Foreign Tourist Arrivals in India during April 2019 among the top 15 source countries was highest from Bangladesh (25.28%) followed by UK (10.79%), USA (10.52%), Australia (3.57%), Germany (3.16%), China (3.08%), Malaysia (2.83%), Sri Lanka (2.81%), Canada (2.52%), Japan (2.36%), France (2.19%), Singapore (1.61%), Thailand (1.61%), Russian Fed (1.45%) and Rep. of Korea (1.37%). The percentage share of Foreign Tourist Arrivals in India during April 2019 among the top 15 ports was highest at Delhi Airport (28.68%) followed by Mumbai Airport (13.06%), Haridaspur Land Check Post (11.05%), Chennai Airport (6.90%), Bengaluru Airport (6.11%), Kolkata Airport (5.75%), Cochin Airport (3.25%), Gede Rail Land Check Post (2.85%), Hyderabad Airport (2.56%),Goa Airport (2.18%), Ghojadanga Land Check Post (1.95%), Cochin Seaport (1.71%), Ahmedabad Airport (1.53%), Agartala Land Check Post (1.25%) and Trivandrum Airport (1.23%)

Table 4 presents tour operators approved by Ministry of Tourism Government of India for the assistance of tourists of inbound as well as outbound tourists. There are totally 1061 approved tour operators in India. Of which the main composition is of inbound tour agents comprising of 48.63 per cent of share (516 ). This was followed by travel agents with the share of 20.92 per cent of share (222), domestic tour operator 14.33 per cent( 152), tourist transport operator 10.74 per cent (114), and least was of adventure tour operators with the share of 5.37 percent (57).

## Conclusion

Among various service industries in the country, Tourism sector is one of the largest and fastest growing sectors in India. Its impact can be seen in the creation of employment opportunities as well as foreign exchange earnings. Government has to necessarily take initiative for proper maintenance of various heritage sites across India. In order to obtain sustainable income from the tourism industry proper infrastructure, security for the foreign tourists, adequate marketing and promotion activities need to be conducted effectively which will aid in increasing foreign tourist arrivals to the country. Maharashtra and Tamil Nadu States are the most visited states by foreign tourists and the increasing trend of inflow will certainly in the upcoming years. This would not only result in increase in tourist's inflow, but also in creating new business opportunities, increasing FDIs, and contribute to the economic growth.

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**Table 1. Trend in arrivals of foreign tourists to India**

Equation	R <sup>2</sup>
Y= 2280258+473281.1t	0.96

Significant at one percent

**Table 2. Growth rate of International tourist arrivals to different countries, Asia and Pacific region and India.**

Year	International Tourist Arrivals in the world in Millions	International tourist arrivals in Asia and the pacific region in Millions	International Tourist Arrivals to India in Millions
2001	683.40	114.50	2.54
2002	703.20	123.40	2.38
2003	691.00	111.90	2.73
2004	762.00	143.40	3.46
2005	803.40	154.60	3.92
2006	846.60	166.00	4.45
2007	894.00	182.00	5.08
2008	917.00	184.10	5.28
2009	883.00	181.10	5.17
2010	948.00	204.90	5.78
2011	994.00	218.50	6.31
2012	1039.00	233.60	6.58
2013	1087.00	249.70	6.97
2014	1137.00	269.50	13.11
2015	1195.00	284.10	13.77
2016	1241.00	306.30	15.02
2017	1333.00	324.10	16.81
2018	1409.00	347.70	17.42
2019	1460.00	360.70	17.91
<b>CAGR</b>	4.30	6.74	12.51
<b>R<sup>2</sup></b>	0.98*	0.98*	0.94*

Significant at one percent

**Table 3. Seasonal Indices of arrivals of foreign tourists to India**

Months	Seasonal Indices
January	119.50
February	118.08
March	108.23
April	81.50
May	70.63
June	77.48
July	93.55
August	86.40
September	79.68
October	103.73
November	122.91
December	138.65

**Table 4. Tour operators approved by Ministry of Tourism Government of India**

Sl No	Particulars	Numbers	Percentage
1	Travel Agent	222	20.92
2	Inbound Tour Operators	516	48.63
3	Tourist Transport operator	114	10.74
4	Adventure Tour Operators	57	5.37
5	Domestic Tour Operators	152	14.33

Source: Ministry of Tourism, Government of India.