

Impact of Tourism Sector on Karnataka Economy

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Abstract

Tourism industry is one of the emerging and dominant power house in Indian economy. This sector has inter-linkage to other sectors of the economy and which provides various employment opportunities to local people. In this background, the present study is analyzed the impacts of the tourism industry on Karnataka economy and examined the determinants of Foreign Tourist Arrivals (FTA's) to Karnataka. For this, present study has been used cross sectional data from the 'Karnataka Economy Survey (2010-2022)' and the 'India Tourism Statistics (2010-2022)'. Trade, hotels and restaurants contributes highest to 'employments and GDP'. Followed by transport and air transport by tourism industry in Karnataka. Multiple regression results show that the 'GDP' and 'total internet users' of 53 cross countries has positive and 'distance' and 'ReeR' has negative and positive impacts on FTAs to Karnataka respectively. This study suggests that, Karnataka Government has to develop better facilities to hotel and restaurant sector in tourism industries.

Introduction

Tourism sector plays a vital role in the generation of employment and entrepreneurial opportunities to youths and young generations, which creates a multiplier effect of job creation. Tourism industry contributes to GDP equally as other industries in the economy, along with this sector generates foreign exchange reserves. This sector is labour intensive rather than manufacturing, even though a person is illiterate and unskilled can also can sustain from this sector. For example, street vendors, cab drivers, delivery boys and hospitality services etc.

Besides, tourism is highly significance to developing countries. Many unexplored natural resources are hidden in developing countries, these unexplored natural resources are tourism assets (Sceneries, tribal culture, wildlife sanctuaries etc..). This unexplored resource becomes an investment for poor to lead a decent and sustainable life without any huge financial investment. Hence, the tourism industry generates net benefits to the poor, thus World Trade Organization (WTO) declared the tourism sector as Pro-Poor Tourism (PPT). Benefits may be economic, but also may be the environment, cultural, social, infrastructural, conservation of natural resources (International Institute of Environment and Development 2001). In this path the country can halve the poverty through "Pro-Poor Growth Strategy" (WTO). Poverty reduction requires strategies on

a variety of complementary fronts and scales, but a prerequisite of significant progress is pro-poor-growth which benefits to the poor. In such a way the tourism can be the one source of such growth (IIED).

The tourism sector is a key driver for economic growth. This sector has a significant impact on trade, investment, job creation, infrastructure development and social inclusion (National Tourism Policy 2021). Another important concept of this sector is that, 'Green sector' or Sustainable tourism. Because, the sector Tourism can preserve and protect the natural and cultural heritages, through this conservation of resources. Without causing any pollution the tourism sector leading to the management of all resources in such a way that economic and social needs fulfilled (WTO, 1988). According to World Travel and Tourism Council, in India total contribution of travel and tourism to GDP is 6.9% (2019), but in 2020 it is decreased by 4.7 percent, this change has been occurred due to impact of Covid-19. The total contribution of travel and tourism to employment in India is 8.8 percent (WTTC 2019), but in 2020 it was reduced by 7.3 percent.

The growth of tourism sector will impact Indian Economy in terms of spreading benefits across the country, including remote areas and providing employment and entrepreneurial opportunities for youth, women, marginalized sections of the society and those in the informal sector (National Tourism Policy 2021). The tourism sector is expected to has same kind of effect is on Karnataka economy.

Karnataka is the 7th largest State in terms of area in the country. The State has several natural and cultural heritage centres, number of wild life sanctuaries and tiger reserves, a number of beautiful flora and fauna. The tourism sector is one of the priority sectors in Karnataka in terms of generating jobs and investments in the State. Karnataka state acknowledged the tourism sector for its contribution in terms of growing tourist visits from 36.7 million in 2006 to 215.03 million in 2018. (Karnataka Tourism Policy 2020-2025). The State attracts almost 12 percent of overall domestic tourist arrivals in India, ranking third among Indian states (Karnataka Tourism Policy 2020-2025). Karnataka's tourism sector contributed 14 percent of the State's GSDP and provided 30 lakhs jobs through direct and indirect employment (Karnataka Economic Survey 2021-2022).

Tourism encompasses many industries, including hospitality, transportation, travel and accommodation, food and beverage, and recreation and entertainment. All of these directly or indirectly contributed to countries GDP and employment generation. Hence, the purpose of this research article is to understand, how all the above tourism allied sectors contribute to State GDP and what are the determinants of Foreign Tourist's Arrivals (FTA's) to Karnataka. In this background the present research article has been analyzed the following two objectives. First one is, descriptive analyses of the contribution of tourism allied sectors to State GDP and the second one, the determinants FTA's to Karnataka state.

Literature Reviews

Tourism is a highly dominant sector in the scenario of Indian economic growth. This sector has immense potential to generate employment opportunities, foreign exchange and sustainable human development of India (Dayal and Yadav, 2019). This industry required labour intensive technology rather than the capital intensive. Many developing countries are suffering from shortage of capital, fortunately these countries have huge workforce. Without much capital the tourism sector usages these workforces for the growth of the nation. Moreover, the tourism industry is environmentally friendly as compared to the manufacturing sector of the economy. Hence, the tourism contributes to Gross Domestic Product of the country (Ganesha and Madhawi, 2007).

Many empirical studies provide evidences for the growth of the economy found a strong relationship between tourism earnings and economic growth. Few studies analyzed the single country for the empirical study purpose and few studies analyzed the multiple countries to provide evidence for the long run relationship between tourism and economic growth. This is called Tourism Led Approach.

In case of Greece, Lebanon and Croatia, it is found that there is a long run relationship between tourism and economic growth (Dritsakis, 2004; Basil et al., 2015). The evidence confirms that Tourism Led Growth.

In case of cross-country studies, many studies evidenced there is a Tourism Led Growth. Lee and Chang (2008), examined the relationship between tourism development and economic growth of OECD countries over the period of 1990-2002. The study found that, the existence of one-way casual linkage between tourism and economic development and growth.

Fewer studies provide empirical evidences through "Tourism Satellite Account" for measuring the Economic Impacts of Tourism in Karnataka. TSA is based on the input-output framework of the state economy. In case of Karnataka, the results evidenced that, there is a positive impact of tourism on Karnataka economy, which is calculated from revenue generated by the core industries like accommodation and transportation. (Mahesh Kumar, 2012).

In Karnataka, the districts of Kodagu and Dakshina Kannada have the belt of Western-Ghats. In these districts the concept of 'home stay' originated, developed and well popularized, which created large scale employment opportunities and generated income to local people (Uma H.R., 2010 and Dayananda K. C., 2014).

A few studies analyzed the contribution of tourism industries to Karnataka economy, but this study analyzed contribution of tourism industries to employment and revenue. Also, the present study examined the determinants of FTAs. to Karnataka.

Methodology

The present study entirely based on secondary data. The data on the inflow of foreign tourist visitors to Karnataka are collected from various volumes of *India's Tourist Statistics-2021* published by Ministry of Tourism, Government of India. Real and Nominal Gross State Domestic Product (GSDP) of various year's collected from the *Karnataka Economic Survey* published by Directorate of Statistics, Government of Karnataka.

The present paper measures the impact of factors influencing on FTAs to Karnataka. For this, the study has been used cross sectional data for the period 2021 from 53 major countries of seven continents. For this purpose, the study has selected FTAs to Karnataka as a dependent variable and GDP (Gross Domestic Product for 53 selected countries), **Internet user**(total internet users per lakh in origin country), REER [**Real Effective Exchange Rate**] are used as indicators of external competitiveness (IMF, 2020) of 53 countries, the REER is the weighted average of a country's currency in relation to an index or basket of other major currencies. The weights are determined by comparing the relative trade balance of a country's currency against each country within the index. Another two variables are Distance (from capital cities of selected countries to Bangalore) and total internet users in selected countries are an independent variable. All this data is converted into natural log. The information has been collected from the 'World Development Indicators' Report- 2022 and Bureau of Immigration Government of India (2022).

This study has two sections, one is descriptive analysis of contribution of tourism industries to Karnataka state GDP and second is, determinant factors of FTA' to Karnataka.

a) Analyses of the Contribution of Tourism Industries to State GDP

Tourism is combination of many sectors in the economy, which is called input and output linkage to the other sector of the economy. In this background, the present section analyzes descriptively the contribution of tourism allied sectors to the GSDP of Karnataka. Gross State Domestic Product is a

powerful indicator for measuring economic growth of the state (Karnataka Economic Survey 2020-2021). Regarding this, the present study attempts to analyze the revenue generated from the tourism industry. The table 1.1 discloses the total revenue generated by tourism industry in Karnataka. Revenue generated by the tourism industry is increased in Karnataka Tourism Development corporation is highest from year after year. Followed by jungle, lodges, resorts and directorate of tourism.

Table 1.1 Revenue Generated by Tourism in Karnataka (Rs. In Lakh)

Organization	Directorate of Tourism	Jungle Lodges and Resorts	Karnataka Tourism Development Corporation	Total
Year				
2011	119.7	3298.74	5240	8658.44
2012	35.61	4268.21	6256	10559.82
2013	89.21	4093.72	6684.2	10867.13
2014	101.63	4524.16	6583.74	11209.53
2015	104.54	3907.68	6811	10823.18
2016	138.12	3926.00	5340.00	9404.12
CAGR	2.904	3.542	0.378	1.665

Source: Karnataka Economic Survey of various years

The Compound Annual Growth Rate has increased in Jungle, lodges and Resorts, followed by Directorate of Tourism and Karnataka Tourism Development Corporation.

The table 1.2 reveals the total percentage share of tourism industries to Gross Value Added at 2011-2012 prices in both at India level and Karnataka level.

Table 1.2 : Percentage share of Tourism Industries in Total Gross Value Added (2011-12 Prices)

Tourism Industries	All India Level			Karnataka Level		
	2011-12	2017-18	2019-20	2011-12	2017-18	2019-20
Transport	4.82	4.81	4.79	4.12	4.01	4.59
Air Transport	0.05	0.07	0.07	0.07	0.20	0.15
Trade, Hotels and Restaurants	10.90	13.03	13.77	10.95	10.72	11.17

Source: Karnataka Economic Survey 2021-22

The highest contribution to GVA is by trade, hotel and Restaurants followed by transport and air transport. At India level, the contribution of tourism industry is more than in Karnataka.

Further, the share of employment in tourism industries is the most important concept to determine the impact of tourism sector on the Karnataka economy. The table 1.3 discloses the share of total employment in tourism industries at India level and at Karnataka level for three periods. The 'Trade industries' generated highest percentage of employment in tourism industry, followed by hotels, restaurants, transport and storage industries are contribute. The performance of tourism industries is alike at national level and Karnataka level.

Table 1.3 Share of Employment in Tourism Industries (in Percentage)

Tourism Allied Sectors	All India Level			Karnataka Level		
	2011-12	2017-18	2019-20	2011-12	2017-18	2019-20
Transport and storage	4.0	4.8	4.6	6.0	7.1	5.9
Trade	9.1	9.8	11.3	9.1	8.5	10.5
Hotels and Restaurants	1.6	1.9	1.7	2.9	2.9	2.6

Source: Karnataka Economic Survey 2021-22

b) Determinant factors of Foreign Tourist's Arrival to Karnataka

Since, the data selected for the analysis is cross sectional in nature, is expected that the presence of heteroskedasticity problem is might high. Hence, the paper tested for the same by using Brusck Pagon test. The results indicate the presence of problem of heteroskedasticity. Therefore, the study used Robust Standard Error of the test for correction of the problem. Further, another problem of the regression analysis is having multicollinearity among independent variable. To detect this problem, VIF has been used and the mean value of VIF is 1.09 and for all the variables also the VIF is less than 5. Therefore, the problem of multicollinearity is not present in the model. The table 1.4 relates to the results of regression analysis of dependent and independent variables of FTA's

Table 1.4 The Results of Regression Analysis
Dependent Variable: Foreign Tourist Arrival's

Variables	Co-eff	Robust Std.err.	t	P> t
Ln GDP	.0870751	0.1437691	6.06	0.000
Ln INTERNET	0.21653	0.2750691	0.78	0.035
Ln REER	.332896	0.6776341	0.49	0.625
Ln Distance	-0.097468	0.3511335	-0.27	0.782
Constant	1116435	0.3699845	0.30	0.764
Number of obs = 53				
F (3, 49) = 13.21				
Prob > F = 0.000				
R-squared = 0.2462				

Source: Authors Calculation

Further, the result also showed that the effect of GDP per-capita on the tourist arrivals is statistically significant at 1% level. Since the calculated t value is 6.06 and the probability is 0.000. As per theoretical expectation the effect of per-capita GDP has a positive effect on tourist arrivals and the estimated value of the GDP is 0.0870751, which indicates that if GDP per-capita of origin country increases by 1 percent, on the average total number of tourist arrivals to Karnataka increased by 8.7 percent. These results are similar with the results of previous international studies (Wit and Wit, 1995; Barman and Nath, 2018). Further, if individual income increases a part of increased income used for recreational activities, hence the increase in income leads to increase in tourism activities. Hence, the present study observed the positive effect of GDP per-capita on Tourist Arrivals.

The second variable is total internet user per lakh, which is statistically significant at 10 percent. Since the calculated t value is 0.78 and the probability is 0.035. The variable "Total Internet user" has a positive effect on tourist arrivals and the estimated value of the LNINTERNET is 0.21653, which indicates if total internet user of origin country increases by 1 percent, on the average the total number of tourist arrivals to Karnataka increased by 21 percent. If individual known to use internet properly, he will get know the facts and figures about the tourist place. Hence, this study observed the positive effect of total internet user on Tourist arrivals.

The third variable is that to determine the FTAs to Karnataka is Real Effective Exchange Rate. In earlier studies the REER on tourist arrivals was negative but statistically insignificant. As per the theoretical predictions as inflation increases in terms of living cost the tourist arrivals reduced. But in the present study the REER is positive but statistically insignificant. The estimated value is 0.333 which is not consistent with the theoretical predictions. Since calculated t value is 0.49 and probability value is (0.625). And one more variable is, 'distance' (from travelling country to Bangalore). The results of multiple regression of the variable 'distance' from travelling country to Bangalore is negative and statistically insignificant in the present study. As per the theoretical expectations, if distance is more from travel country to destination country, then people will drop their travelling. Hence, the variable is insignificant and negative. The present study observed that the distance variable is negative but insignificant.

This study observed that, GDP and internet users have positive and significant on FTA's, this says if the GDP in terms of income and information & communication technology increases in the origin country, the number of arrivals in the destination country also increases.

Conclusion

This study analyses the impact of tourism sector on Karnataka economy in terms of contribution of tourism sector to GSDP and share of employment from tourism industry to Karnataka economy and determining the factors of FTAs to Karnataka. The share of employment in percentage year after year has been increasing at Karnataka and India level. The present study has taken three determining factors of FTAs to Karnataka. Among these, GDP(GSDP) and total internet users have positive and statistically significant. And remaining two variable such as, 'REER' and 'Distance' are positive and negative respectively, but insignificant in determining the FTAs to Karnataka. This study concluded that, the GDP is the major factor and the variable 'total internet user' is support to determine the FTA's, to Karnataka. This study suggested that, Karnataka state has to give much importance to investment and improvement in all sorts of the hotel and restaurant industry, and also to improve the transportation and air transport facility in the state.

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