

TOURISM IN JAMMU AND KASHMIR ECONOMY: ROLE AND PERFORMANCE

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Ability of tourism to earn foreign exchange and to raise income and employment has been well-recognised in economic literature. In the state like Jammu and Kashmir where the scope of large-scale industrialization is very limited and the potentialities of agricultural development are scarce, the role of tourism can be immense in the development of the economy. This paper highlights the economic contribution of tourism in Jammu and Kashmir economy and analyses its performance during the period from 2004-05 to 2012-13. In addition, bi-directional relationship between tourism and economic growth has been examined using OLS regression equations. The findings of the study reveal that there is a significant contribution of tourism in Jammu and Kashmir economy having on an average more than 7 per cent share in state income during concerned period. However, this sector has experienced disappointing growth viz-a-viz other sectors. Study establishes bi-directional relationship between tourism and economic growth in the state during the concerned period. Keeping in view significant contribution of this sector accompanied by disappointing performance, there is a dire need to emphasis this sector in better way through state policy so that it could be exploited at the optimum level and could contribute more extensively in economic life of the people in particular and in the economic growth of the state in general.

Keywords: Jammu and Kashmir, Tourism, Economic Growth, GSDP, Service Sector.

JEL Classification Code: L83, O14

INTRODUCTION

Tourism is one of the rapidly growing sectors of the world economy. The development of the tourism sector not only increases economic growth directly, but also stimulates the growth of other sectors through backward and forward linkages and increases domestic incomes and effective demand (Gokovali & Bahar, 2006). Tourism is an attractive tool for the economic growth, specifically in the developing world. Tourism has supported many developing countries to move away from a dependency on agriculture and manufacturing sectors. Ability of tourism to earn foreign exchange and to raise income and employment has been well recognised in economic literature (Vaugeois, 2000). Tourism industry has an extraordinary complex integration with many industries spread over many sectors and is considered as an umbrella industry containing a set of inter-related business participants (Verma, 2011). Like all other economic activities, tourism is also an economic activity and an organized industry; its dimensions are very large, its locations vary and its benefits are scattered over large segments of the population (Yadav & Sharma, 2010). Tourism round the globe is considered as a major tool of development and in the recent past it has proved its potential by emerging as the fastest growing industry contributing about 9% to global Gross Domestic Product (GDP) and generating 8.7% of total employment. As per the estimates of United Nations World Tourism Organisation (UNWTO), global tourism receipts hit a record by earning US \$1075billion in 2012 (Mir, 2014).

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Recently, tourism has emerged as a major industry of the Indian economy, contributing substantially to foreign exchange earnings and serving as a potential generator of employment opportunities. Amongst other Indian tourist states, Jammu and Kashmir (J&K) is an important one and has been remained a place of attraction for tourists since centuries. The lush green forests, sweet springs, perennial rivers, pictures que, alpines scenery and pleasant climate of Kashmir valley has remained an internationally acclaimed tourist destination, whereas Jammu region- the land of temples is attracting a large number of pilgrim, tourists and the important destination has been Shri Mata Vaishno Devi (SMVD) (Sharma at al., 2012). Jammu and Kashmir is known as the 'Paradise on Earth'. There are about 696 tourist attractions in the three regions of the state viz, Jammu, Kashmir and Ladakh that attracts thousands of domestic and foreign tourists. Jammu and Kashmir provides various types of tourism for the tourists. Some of them are Health tourism, Adventure tourism, Ecotourism, Pilgrim tourism, Wildlife tourism etc. The picturesque beauty, large natural lakes, the snow clad mountains surrounded by thickly populated pine forests with rivers flowing through have made Jammu and Kashmir as a prime tourist attraction (Government of India, 2001). In Jammu and Kashmir, tourism has a great potential for employment generation, even for people without specialized skills. Due to its spillover effect, it provides impetus to allied sectors like Handicrafts, Handlooms and Transport. It has the capacity to provide jobs in the unorganized sector and acts as an incentive to preserve cultural and heritage assets (Government of J & K, 2013). In the state like Jammu and Kashmir where the scope of large-scale industrialization is very limited and the potentialities of agricultural development are scarce, the role of tourism is immense in the development of the economy (Gadoo, 2011).

Tourism has been an important source of economic development for J&K economy over several decades (Mir, 2014). It is a notable source of state income for Jammu and Kashmir. Being labour-intensive service industry, it has vast potentiality to provide jobs to people with minimum of investment, which may be an added advantage to labour surplus economies over the world (Mukhtar, 2013). Tourism is one of the State's major industries and has played an important role for developing the economy, particularly in the region of the Valley and Ladakh. This industry has given jobs to a large number of people, particularly of the younger generation and generated economic activities in the primary, secondary and tertiary sectors in the State, which owes dependence to a large extent to this industry (GOI, 2001). Tourism is stated as the life line of Jammu and Kashmir in several studies and all possible efforts need to be undertaken for retaining, maintaining and sustaining it. Tourism opens up new window for resources, both investment generation and revenue generation leading to employment generation as well as socio-economic development of the local populace (Bhat, 2013). In this regard, this paper attempts to analyse role and performance of tourism in J&K economy and also examine causality between tourism and economic growth in the state since 2004-05. This paper has been organised into six sections. Beginning with introduction in section I, a brief review of literature has been given in section II. Section III deals with data and methodology used in the analysis. Section IV explains role and performance of tourism in J & K economy based on secondary data and section V brings out econometric estimation showing causality between economic growth and tourism in the state. Lastly, results and discussions are concluded in VIth section.

REVIEW OF LITERATURE

In development economics, tourism is considered as the most exciting and progressive industry. Tourism can be especially important in the regional development because it diversifies the economic base of the areas and also expands the employment market. Many developing economies focus on the development of the tourism as it is an easy source for the economic growth and development of any country (developing and developed). In economic literature, there are various theoretical and

empirical studies which analyse the contribution of tourism in economic growth. The empirical studies on tourism and economic growth have been carried out in two broad categories: firstly highlighting the role of tourism in growth and development of various countries; and secondly examining the causality between tourism and economic growth. Jimenez *et al.*, 2010; Gupta & Raina, 2010; Balaguer *et al.*, 2002; Connely, 2011; Vaugeois, 2000; Khatik & Nag, 2012 are prominent studies which assert that tourism has a significant contribution in the economic growth and development of various countries. Causality between tourism and economic growth have been analysed by several studies in recent literature. Tang *et al.*, 2009; Lee & Chang, 2007; Wang *et al.*, 2012 are the well-known studies that examine the relationship between tourism and economic growth. All these studies contend that there exists unidirectional relationship between tourism and economic growth in various countries and thus tourism has significant and positive impact on the economic growth of various countries. Samimi *et al.*, 2011 found bi-directional relationship between tourism and economic growth in developing economies. As well, the economic expansion in developing countries affects the tourism growth, which is reflected by the development in infrastructure and tourism.

There are some studies that highlight economic importance of tourism in Indian and J&K Economy. Khatik & Nag (2012) studied the role of tourism industry in economic development of India and found that tourism contributes 6.23 per cent to the national Gross Domestic Product (GDP) and is providing 8.78 per cent of the total employment. The authors concluded that tourism industry in India is growing and it has vast potential for generating employment and earning large amount of foreign exchange. Sharma (2013) examined growth of tourism industry in India using RRA (Rapid Rural Appraisal) method. The author revealed that in India, tourism contributes significantly in state income and employment. Gupta & Raina (2010) made an assessment of the economic impact of tourism in the Katra region of Jammu and Kashmir. The study revealed that with the increased inflow of the pilgrims, there is manifold increase in tourism activities in Katra and the varied activities have led to generate immense opportunities of generation of income and employment for the local people. Connely (2011) examining the economic contribution of Tourism in Indian state of Jammu and Kashmir concluded that Jammu and Kashmir is an important tourist destination and it attracts thousands of domestic and foreign tourists. The tourism sector of Jammu and Kashmir generates more than Rs. 300 crore revenue and provides employment to about 5 lakh people. Tourism industry has positive externalities and has desirable impact on economic growth of Jammu and Kashmir due to its spill over effects.

DATA AND METHODOLOGY

This paper evaluates the contribution and performance of tourism in Jammu and Kashmir economy and also examines relationship between tourism and economic growth in the state using Ordinary Least Square (OLS) regression equation. Role and performance of tourism in the state during the period from 2004-05 to 2012-13 has been analysed. Study is entirely based on secondary data obtained from Indiastat database, Centre for Monitoring Indian Economy (CMIE) database and Directorate of Economics and Statistics Department, Srinagar and Economic Survey of Jammu and Kashmir. Two Ordinary Least Square (OLS) regression equations have been estimated for examining impact of latter on former. First equation specifies linear relationship between economic growth (dependent variable) and tourism (independent variable) in Jammu and Kashmir economy during concerned period. Another regression equation specifying linear relation between tourism (dependent variable) and economic growth (independent variable) in state of Jammu and Kashmir during concerned period has been estimated for the impact of economic growth on tourism activities in state economy.

ROLE OF TOURISM IN JAMMU AND KASHMIR ECONOMY

Table 1 shows growth and changing structure of Jammu and Kashmir economy during the period 2004-05 to 2012-13. Data reveals that Agriculture sector recorded increase in its value during the period from Rs. 610030 million in 2004-05 to Rs. 1208000 million in 2012-13 with average increase of Rs. 82265 million. In case Industrial sector, GSDP Industry has also increased from Rs. 770800 million in 2004-05 to Rs. 2017470 million in 2012-13 with average increase of Rs. 1328460 million. Service sector also showed an increasing trend in GSDP in value terms. GSDP of service sector increased from Rs. 1193510 million in 2004-05 to Rs. 4126240 million in 2012-13 with average increase of Rs. 2279070 million.

**Table 1: Growth and Structure of Jammu and Kashmir Economy during 2004-05 to 2012-13
(At Constant Prices 2004-05 in Rs. Millions)**

Year	Overall GSDP	GSDP Agriculture	GSDP Industry	GSDP Services
2004-05	2730460	610030	770800	1193510
2005-06	2991990	641060	856080	1324800
2006-07	3323010	672450	979470	1494900
2007-08	3709680	706320	1116500	1698610
2008-09	4231480	742910	1261350	2017440
2009-10	4838450	815460	1435300	2365770
2010-11	5697590	938760	1662400	2863970
2011-12	6597870	1068830	1856860	3426380
2012-13	7611530	1208000	2017410	4126240
Average	4636900	822650	1328460	2279070
Average Annual Growth Rates				
Growth Rate	13.88	8.76	13.20	17.11

Source: Centre for Monitoring Indian Economy, New Delhi.

Also all three sectors namely agriculture, industry and service recorded double digit growth rate at constant prices. However growth of service sector (17.12 per cent) was found to be much higher as compared to agriculture (13.20 per cent) and industry (8.76 per cent). In overall, GSDP of J&K economy recoded high growth rate of 13.88 per cent during the study period.

During the study period, state economy has experienced structural change which is quite evident from changing shares of three sectors in to GSDP. Relative share of agriculture and industrial sectors in state income have declined from 22.34 per cent and 28.23 per cent to 15.87 per cent and 26.50 per cent respectively during the study period, however decline in the relative share of agriculture sector has found to be much higher as compared to industrial sector. On the other, relative share of service sector has increased from 43.71 per cent in 2004-05 to 54.21 per cent 2012-13. Relative share of service sector in GSDP was found to be much higher than that of agriculture and industrial sectors during the study period. Thus, it is held that Jammu and Kashmir economy has experienced structural change during the study period. It has become a predominantly service sector economy as service sector contributes more than 50 per cent in state income. Hence, it is concluded that Jammu and Kashmir has been turned out to be a service sector economy in terms of relative share of this sector in GSDP.

Table 2 shows the contribution of tourism in overall GSDP and services GSDP of Jammu and Kashmir during in terms of value and relative share during the period from 2004-05 to 2012-13. The importance of tourism sector has been highlighted using Hotels, trade & Restaurant (In Rs. Millions) as proxy because this indicator constitutes the income of various stakeholders working in tourism sector especially. Contribution of tourism to GSDP in value terms has increased from Rs. 190945 million in 2004-05 to Rs. 299924 million in 2012-13 with an average increase of Rs. 2566420 million. Growth of tourism has found to be of 6.34 per cent during study period which is termed to be the lowest in comparison with other sectors of the state economy. However relative share of tourism in GSDP remained fluctuating from 6.99 per cent to 8.04 per cent during the study period, but it constitutes significant portion of on an average of 7.37 per cent of state GSDP. Relative share of tourism in service sector also declined from 15.99 per cent in 2004-05 to 7.26 per cent in 2012-13. Besides deceleration in terms of declining share, this sector constitutes significant part (12.50 per cent) of service sector GSDP on an average during the study period. Hence, it is concluded that tourism both in terms of value and share constitutes significant portion in overall GSDP and services sector GSDP, however contribution has been declining continuously. Some natural disaster in Utrakhand and case of Afzal Guru may be some of the reason for disappointing performance of this sector especially during later two years. In overall, results make a strong case for serious attention at policy level by centre and state governments so as to improve its performance.

Table 2: Growth and Contribution of Tourism in Jammu and Kashmir during the period from 2004-05 to 2012-13: Comparative view

(At constant prices 2004-05)

Year	GSDP (in Rs. Millions)	Agriculture (in Rs. Millions)	Industry (in Rs. Millions)	Services (in Rs. Millions)	Tourism (in Rs. Millions)	% Share of Tourism in Overall GSDP
2004-05	2730460	610030	770800	1193510	190945	6.99
2005-06	2991990	641060	856080	1324800	205637	7.11
2006-07	3323010	672450	979470	1494900	223651	7.30
2007-08	3709680	706320	1116500	1698610	249482	7.66
2008-09	4231480	742910	1261350	2017440	278736	8.04
2009-10	4838450	815460	1435300	2365770	272839	7.53
2010-11	5697590	938760	1662400	2863970	294836	7.53
2011-12	6597870	1068830	1856860	3426380	293727	7.23
2012-13	7611530	1208000	2017410	4126240	299924	6.95
Average	4636900	822650	1328460	2279070	256642	7.37
Average Annual Growth Rate						
2004-05 to 2012-13	13.88	8.76	13.20	17.40	6.34	-

Source: Centre for Monitoring Indian Economy, New Delhi and Indiatat Database, available at: www.indiatat.com

Table 3 reveals the contribution of agriculture, industry, service and tourism sector in the Gross State Domestic Product of Jammu and Kashmir from 2004-05 to 2012-13. As shown in above tables, GSDP of the different sectors of the Jammu and Kashmir in value terms has shown an increasing trend, but the percentage shares showed fluctuating trends. The relative share of agriculture in overall GSDP decreased from 22.34 per cent to 15.87 per cent during 2004-2013. The contribution of the industry has increased in value terms but its relative share in GSDP decreased from 28.23 per cent to 26.5 per cent during same period. On the other, GSDP of the service sector has increased and its relative share in overall GSDP also increased from 43.71 per cent to 54.21 per cent from 2004-05 to 2012-13. Relative share of tourism has increased up to 2008-09, but since then it has been continuously declining. Being a sub-sector, this constitutes a significant portion (7.37 per cent) of state income during the period which cannot be ignored anyway. Having vast potentials of tourism development in the state, it is very disappointing trend which demands dire need of identifying factor responsible for this so that it can contribute more in state income and employment in the future.

Table 3: Relative Shares of Different Sectors viz-a-viz Tourism in Jammu and Kashmir Economy during 2004-05 to 2012-13: Comparative View

Year	Agriculture (% Share)	Industry (%Share)	Services (% Share)	Tourism (% share)	Tourism within GSDP Services (% Share)
2004-05	22.34	28.23	43.71	6.99	15.99
2005-06	21.43	28.61	44.28	7.11	15.52
2006-07	20.24	29.48	44.99	7.30	14.96
2007-08	19.04	30.10	45.79	7.66	14.68
2008-09	17.56	29.81	47.68	8.04	13.81
2009-10	16.85	29.66	48.90	7.53	11.53
2010-11	16.48	29.18	50.27	7.53	10.26
2011-12	16.20	28.14	51.93	7.23	8.57
2012-13	15.87	26.50	54.21	6.95	7.26
Average	18.44	28.86	47.97	7.37	12.50

Source: Indiatat Database, available at: www.indiastat.com.

Table 4 highlights the revenue generated by different departments/organizations from tourism (in Rs. millions) in Jammu and Kashmir from 2004-05 to 2012-13. The total revenue generated from the different departments/ organizations has increased from Rs. 208.19 million to Rs. 469.29 million from 2004-05 to 2012-13. All the departments/ organizations realised an increase in their revenue except Sonamarg Development Authority (SDA) and Patnitop Development Authority (PDA) during the period. Among departments/ organizations, the revenue generated is found to be higher in case of Royal Spring Golf Course (RSGC) and Jammu and Kashmir Tourist Development Corporation (JKTDC). The growth of the revenue earned by the different departments/ organizations from 2004-05 to 2011-12 is 15.67 per cent. Growth of revenue earned by different departments/ organizations was found to be 92.53 per cent in case of DTK/J, 18.61 per cent of SKICC, 79.50 per cent of GDA, 63.18 per cent of PDA*, -3.91 per cent of SDA, 17.04 per cent of PDA, 1.27 per cent of RSGC, 72.14 per cent of CCC, and 4.62 per cent of J&K TDC during concerned period. Therefore, it is held that all the departments and organisation have registered manifold increase in revenue earned from tourism during concerned period and the growth of the revenue earned by the departments from tourism was found to be quite higher.

Table 4: Revenue Generated by Different Departments/Organisation from Tourism in J&K (In Rs. millions)

Deptt./ Organization	DTK/J	SKICC	GDA	PDA*	SDA##	PDA**	RSGC	C C C	J & K TDC	Total
2004-05	1.14	4.60	1.97	0.51	0.00	1.10	5.72	28.90	164.24	208.19
2005-06	1.48	4.93	2.18	0.91	1.37	1.01	3.50	75.44	179.64	270.50
2006-07	3.52	5.20	3.24	0.99	3.63	1.56	3.47	67.60	176.53	265.77
2007-08	6.20	6.40	4.85	1.90	3.25	7.90	5.00	79.88	176.30	291.69
2008-09	5.40	7.12	5.11	1.27	4.50	2.00	4.56	83.91	196.30	310.19
2009-10	5.66	6.50	3.43	0.66	3.90	1.95	4.42	111.60	189.40	327.54
2010-11	7.26	1.10	3.73	0.23	7.94	3.00	6.43	124.80	269.75	436.26
2011-12	9.63	11.45	1.45	0.31	1.00	2.60	6.31	195.70	225.00	469.29
Average	5.03	7.15	4.87	1.46	3.00	26.41	4.93	95.97	197.14	322.43
Average Annual Growth Rates										
2004-05 to 2011-12	92.53	18.61	79.50	63.18	-3.91	17.04	1.27	72.14	4.62	15.67

Source: Indiastat Database, available at: www.indiastat.com.

Note: DTK/J denotes “Director Tourism Kashmir/ Jammu”, SKICC denotes “Sher-i-kashmir international convention centre”, GDA represents “Gulmarg development Authority”, PDA* denotes “Pahalgam development Authority”, SDA denotes “Sonamarg development Authority”, PDA** denotes “Patnitop development Authority”, RSGC denotes “Royal Spring Golf Course”, CCC denotes “Cable Car Corporation”, J & K TDC denotes “Jammu & Kashmir Tourism Development Corporation”

Table 5: Percentage Share of Different Departments/Organizations in Total Revenue Earned in Jammu and Kashmir from 2004-05 to 2012-13 in millions.

Deptt/Organization Period	DTK/J	SKICC	GDA	PDA*	SDA##	PDA**	RSGC	CCC	J&K TDC	Total
2004-05	0.54	2.21	0.94	0.24	0.01	0.52	2.74	13.88	78.88	100
2005-06	0.54	1.82	0.80	0.33	0.50	0.37	1.29	27.88	66.41	100
2006-07	1.32	1.95	1.21	0.37	1.36	0.58	1.30	25.43	66.42	100
2007-08	2.12	2.19	1.66	0.65	1.11	2.70	1.71	27.38	60.44	100
2008-09	1.74	2.29	1.64	0.40	1.45	0.64	1.47	27.05	63.28	100
2009-10	1.72	1.98	1.04	0.20	1.19	0.59	1.34	34.07	57.82	100
2010-11	1.66	0.25	0.85	0.05	1.82	0.68	1.47	28.60	61.83	100
2011-12	2.05	2.44	0.30	0.06	0.21	0.55	1.34	54.33	54.33	100
Average	1.46	1.89	1.05	0.28	0.95	0.82	1.58	29.82	63.67	100

Source: Indiastat Database, available at: www.indiastat.com.

Note: DTK/J denotes “Director Tourism Kashmir/ Jammu”, SKICC denotes “Sher-i-kashmir international convention centre”, GDA represents “Gulmarg development Authority”, PDA* denotes “Pahalgam development Authority”, SDA denotes “Sonamarg development Authority”, PDA** denotes “Patnitop development Authority”, RSGC denotes “Royal Spring Golf Course”, CCC denotes “Cable Car Corporation”, J & K TDC denotes “Jammu & Kashmir Tourism Development Corporation”

Table 5 shows relative share of different departments/organizations in revenue generated from tourism during the period from 2004-05 to 2011-2012. Data reveal that organisations namely GDA (0.94 per cent to 0.30 per cent), PDA* (0.24 to 0.06), RSGC (2.74 per cent to 1.34 per cent), and J&KTDC (78.88 per cent to 54.33 per cent) have registered significant decrease in their relative shares in revenue generated from tourism during the concerned period.

On the other, organisations namely DTK/J (0.54 per cent to 2.05 per cent), PDA** (0.52 per cent to 0.55 per cent), SKICC (2.21 per cent to 2.44 per cent), SDA (0.01 per cent to 0.21 per cent), and CCC (13.88 per cent to 54.33 per cent) have experienced substantial increase in their relative shares in revenue generated from tourism in the state. Moreover on an average, J&KTDC (63.67 per cent) constituted largest share in revenue generated from tourism followed by CCC (29.82 per cent), SKICC (1.89 per cent), RGSC (1.58 per cent) and DTK/J (1.46 per cent) during the study period. On the other, organisation namely PDA* (0.28 per cent) constituted smallest relative share in revenue generated from tourism, followed by PDA** (0.82), SDA (0.95 per cent), and GDA (1.05 per cent) during this period. Therefore, it is established that only two organisations namely J&KTDC and CCC constitute more than 90 per cent share of revenue generated from tourism. However the share of J&KTDC had been falling since 2004-05 and of CCC had been increasing during the study period.

Table 6 shows the foreign and domestic tourist arrivals in Jammu and Kashmir during the period from 2004 to 2011. Data show that foreign tourist arrivals increased from 40242 in 2004 to 71593 in 2011 with an average increase of 51536 million. Growth rate of foreign tourist arrivals from was found to be 9.73 percent during this period. On the other hand, domestic tourist arrivals in Jammu and Kashmir have shown fluctuating trend. From 2004 to 2007, it registered an increase, but decreased in 2008 and further it increased tremendously in 2009. However, average increase in domestic tourists was remained to be of 8700132 million.

Table 6: Tourist Arrivals in Jammu and Kashmir during 2004-2011.

Year	Foreign Tourist Arrivals	% share	Domestic Tourist Arrivals	% share	Total Tourist Arrivals
2004	40242	0.58	6881473	99.42	6921715
2005	44345	0.61	7239481	99.39	7283826
2006	46087	0.60	7646274	99.40	7692361
2007	52754	0.66	7915271	99.34	7968025
2008	54697	0.71	7638977	99.29	7693674
2009	54475	0.59	9234862	99.41	9289337
2010	48099	0.48	9973190	99.52	10021289
2011	71593	0.54	13071531	99.46	13143124
Average	51537	0.59	8700132	99.41	8751669
Average Annual Growth Rates					
2004-2012	9.73	--	11.20	--	11.23

Source: India stat Database, available at: www.indiastat.com.

Growth rate of the domestic tourist arrivals was found at the level of 11.2 per cent during the period during 2004-2011. Growth rate of the domestic tourists (11.20 per cent) was found to be higher than that of foreign tourists' (9.73 per cent) during 2008-2011. Total tourist arrivals have

increased from 6921715 million in 2004 to 13143124 million in 2012 with annual growth of 11.23 per cent. Hence, double digit growth of tourist arrival presents encouraging picture of tourism sector in J&K during the concerned period. However, this sector is not performing at par with other sectors of the economy. As lot of scope for tourism expansion is available in the state, tourism can be used as one of the leading sector in the process of growth and development.

Amongst various types of tourism, pilgrimage tourism occupies important place the state. Every year, people in lakhs come to pilgrim places of the state. Amarnath holi cave and Mata Vaishno Devi are famous pilgrimage tourist destinations of the state. Table 7 shows the number of pilgrim tourists visited to Amarnath holi cave and Mata Vaishno Devi from the year 2008 to 2012. The tourist arrivals to Amarnath holi cave have increased from 373419 in 2008 to 621000 in 2012. Similarly tourist arrivals to Mata Vaishno Devi increased from 6576000 in 2008 to 6576000 in 2012. In overall, number of total pilgrims has increased from 6949419 to 7197000 during the same period. Thus, data reveal that Amarnath and Mata Vaishno Devi caves have experienced rapid increase in pilgrims since 2008 which shows that pilgrimage tourism is one of important tourism's operating in the state carrying huge possibilities of expansion of this types' tourism as India has large religious population that used to visit their respective holy places.

Table 7: Pilgrims Visited to Jammu and Kashmir from 2008 to 2011

Year	Amaranth Holi Cave	Mata Vaishno Devi	Total
2008	373419	6576000	6949419
2009	373419	8235064	8608483
2010	458046	8749000	9207046
2011	634000	10115232	10749232
2012	621000	6576000	7197000

Source: Economic Survey 2012-13 (Government of J&K).

Tourism Income and Economic growth in Jammu and Kashmir : an Econometric Estimation

Empirical evidences on relation and causality between tourism and economic growth in various developing and developed economies of world state that there is strong bi-directional causality between these two. Similar relation has been examined in case of Jammu and Kashmir economy through Ordinary Least Square Regression (OLS) equations.

Table 8: Impact of Economic Growth on Tourism Expansion in Jammu and Kashmir

Dependent variable: Tourism Expansion (In Rs. Millions) Independent variable: State GSDP as proxy of Economic Growth (In Rs. Millions)

Constant	Coefficient	p-value	R ²	Adjusted-R ²	D-W Statistics	F-test	Standard Error of estimate
2.504 [5.679] (0.001)	0.437 [6.578] (0.000)	0.000	0.861	0.841	0.695	43.272	0.0292

Note: Figures in large brackets [] are t-statistics and in () level of significance

Source: Authors' Calculations

Table 8 shows the impact of economic growth on income from tourism in case of Jammu and Kashmir. Results relating to model fit show that there is no auto-correlation in data as value of D-W statistics (0.695) is less than two. The value of R-square (0.861 per cent) signifies ideal model fit and also indicates that 79 per cent variation in income from tourism is explained by economic the single variable namely economic growth in this analysis. The p-value (0.000) reveals the significance of results at 0 percent level. Value of Regression Coefficient has found to be 0.437 which is statistically significant at 0 per cent level. This confirms positive elasticity of income from tourism with economic growth in Jammu and Kashmir. Moreover high value of r-square (0.861) also indicates towards strong positive correlation between tourism expansion and economic growth. Therefore, it is concluded that economic growth has significant impact on tourism expansion in Jammu and Kashmir during the study period.

Table 9: Impact of Income from Tourism on Economic Growth in Jammu and Kashmir.

Constant	Coefficient	p-value	R ²	Adjusted-R ²	D-W Statistics	F-test	Standard Error
- 4.01 [-2.477] (0.042)	1.971 [6.578] (0.000)	0.000	0.861	0.841	0.634	42.272	0.062

Dependent variable: State GSDP as proxy of Economic growth (In Rs. Millions) Independent variable: Income from Tourism (n Rs. Millions)

Note: Figures in large brackets [] are t-statistics and in () level of significance

Sources: Authors' Calculations

Table 9 shows impact of Income from tourism (In millions) on Economic growth (in Rs. millions). Results of estimations assert that value of D-W statistics (i.e.0.634) is less than the two (2) and confirm that problem of auto-correlation in given data has been checked. High values of R-square (0.861) and adjusted r-square (0.841) claims that more than 80 per cent of total variation is explained by tourism expansion. The p-value is found to be of 0.00 and highlights that regression coefficient is significant at 0 per cent level. In overall, statistics show ideal model fit. Value of Regression Coefficient has found to be 1.971 which is statistically significant at 0 per cent level. This confirms positive elasticity of economic growth with tourism expansion in Jammu and Kashmir. Moreover high value of r-square (0.861) also indicates towards positive correlation between economic growth and tourism expansion. Therefore, it is concluded that tourism expansion has significant impact on economic growth in Jammu and Kashmir during the study period.

CONCLUSION

Study reveals the role and performance of tourism sector in J & K Economy during the period from 2004-05 to 2011-12. Jammu and Kashmir has been turning out to be a service sector economy in terms of relative share of this sector in GSDP which is accounted as almost 48 per cent on an average during study period and this sector has also registered highest growth rate. Tourism comes out as one of the important sectors of Jammu and Kashmir economy as it constitute significant portion of overall GSDP (7.37 per cent) and services sector GSDP (12.50 per cent) both in terms of value and share, however contribution has been declining consistently. Tourism has been outperformed by other sectors of economy as it has registered lowest growth in comparison with agriculture, industry and service sectors. Declining contribution in GSDP and lowest growth rate of

tourism related activities in the state reveal disappointing performance this sector during the study period. Besides its disappointing performance in J&K Economy, trends within the sectors are bit encouraging as there is an increasing tendency of domestic as well as foreign tourist arrivals in Jammu and Kashmir during the study period. However domestic tourist arrival registered higher growth than that of foreign tourist arrivals. Domestic tourist arrivals constituted significant portion of total tourist arrivals in Jammu and Kashmir. Analysis also unleashes performance of various state departments/organisations involved into tourism activities in the state and established that all the departments and organisation have registered manifold increase in revenue earned from tourism during study period. Only two organisations namely J&KTDC and CCC constitute more than 90 per cent share of revenue generated from tourism. Moreover, pilgrimage tourism has come out as one of important tourism among other types in the state.

Econometric analysis reveals bi-directional causality between economic growth and tourism and confirms that economic growth has significant impact on tourism expansion in Jammu and Kashmir during the study period and vice-versa. Tourism industry has vast potential for generating employment and earning large amount of foreign exchange besides giving a stimulus to the country's overall economic growth. Having potentialities and capabilities of tourism activities to expand, study makes a strong case to give appropriate attention at state policy so that it can contribute more significantly in J&K economy in terms of income and employment.

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