
STUDY OF INTER LINKAGES OF TOURISM SECTOR; EMPIRICAL EVIDENCES FROM SAARC AND ASEAN COUNTRIES

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ABSTRACT

Tourism is one of the most rapidly growing industries and outshined traditional industries to become one of the world's largest and fastest expanding economic activities. The high importance of tourism in the present global economy makes it a very popular research field, especially in the scope of economic dependence between tourism and globalization at the global or regional levels. This study explores the extent to which tourism industry is integrated for the eight selected countries from SAARC and ASEAN for the period 2001 – 2010. The findings of the study clearly lead to the conclusion that a greater co-operation among the nations in tourism will benefit them all and tourism can act as a driver of development.

Key Words: SAARC, ASEAN, tourism, multiple regressions.

Introduction

Tourism is one of the most rapidly growing industries and outshined traditional industries to become one of the world's largest and fastest expanding economic activities. The view that tourism is an export industry is of considerable appeal to communities in search of economic development. There are numerous nations across the globe whose almost entire chunk of national income comes from tourism and there are countries in which tourism is the key contributor to their Gross Domestic Product and employment. Its growth has had large impact on employment, foreign exchange earnings, balance of payments and the economy in general. It provides employment and business opportunities for a wide section of the community including small and medium scale enterprises and people in outlying areas. Travel and tourism stimulates enormous investments in new infrastructure, most of which helps to improve the living conditions of local residents as well as tourists (UNWTO, 2004).

Many forms of economic cooperation have come up among countries and ASEAN and SAARC are one of them. ASEAN nations have showed rapid economic growth in the last fifteen years and are labeled as Asian Tigers. They have invested heavily in the tourism sector and are reaping benefits of the same. Tourism now contributes

significantly to their national income. Similarly, SAARC countries are also trying to strengthen their capability in this sector and taking appropriate steps in this direction. However, they have not been as successful as their ASEAN counterparts.

Globalisation has significantly altered the face of many industries and nations. Now no country conducts its affair in an isolated manner and therefore what is happening in one country affects the other country. Industries of one region or countries appreciably affect industries in another region and in turn are affected by them; same is the case with tourism. The high importance of tourism in the present global economy makes it a very popular research field, especially in the scope of economic dependence between tourism and globalization at the global or regional levels.

India is a member of SAARC but to improve and increase its ties with the ASEAN countries it embarked “looks east policy”. It includes more and more integration of the Indian economy with the economies of member countries of ASEAN. At the same time, they are also located geographically close to each and given the fact that tourists become more experienced and the tourism industry itself has been highly competitive, international tourism therefore presents various opportunities and challenges to the region of south Asia and south east Asia. In this context, it will be highly interesting to see that to what extent tourism sector in the member countries of these two regional associations are integrated with one another. What is the pattern of tourism sector development in the member countries of both these groups and are they associated with one another? This study seeks to explore the answers to these questions.

The organisation of the paper follows the following scheme. Having discussed the introduction in section one, section two has been devoted to the objectives and scope of the study. Section three explains at length, the methodology we have adopted for this study. In the section four, analysis of the data has been done and findings have been discussed. Last section i.e. section five summarises the study and concludes.

Objectives and scope of the study

This study aims at the accomplishment of following objectives:

- To analyse the trends of tourism growth in selected countries of SAARC & ASEAN.
- To explore the nature, extent and magnitude of linkages of tourism sector among selected members nation of SAARC & ASEAN.
- To study the level of integration of tourism sector with the national economies of selected countries of SAARC & ASEAN.

The study has been carried out for a total of eight countries. Of these eight countries, four belong to SAARC and the rest four of them are from ASEAN. From SAARC the countries which are included in this study are India, Pakistan, Nepal and Sri Lanka and from ASEAN the selected countries are Thailand, Malaysia, Philippines and Singapore. The period of the study is last one decade i.e. 2001-2010.

Methodology

This is a descriptive and empirical study. It is based on secondary data. The data for the purpose of the study has been collected from a number of sources; important amongst them are- website of the central banks of the selected countries, various reports and publication of world bank, respective tourism departments of the selected countries, UNWTO publications etc. The data has been processed using the statistical software SPSS Version 20.

Simple yet useful traditional measures like percentages, proportions, ratios have been calculated. Descriptive statistics, simple and multiple regression and correlation have been used to analyse the data and drive the result. Important variables and indicators used in the study are:

- Foreign tourist arrival (FTA)
- Foreign tourist receipt (FTR)
- Tourism total contribution to GDP (TTGDP)
- Tourism total contribution to total employment (TTE)
- Percentage of capital investment in tourism (CIT)
- GDP growth rate (GR)
- Capital account balance at percentage of GDP (CAB)

Discussion

Tourism in SAARC and ASEAN

SAARC is a regional association of countries located in South Asia which was set up in 1985 and ASEAN is the association of countries located in South East Asia. The member countries of SAARC include India, Afghanistan, Pakistan, Bangladesh, Sri Lanka, Maldives, Nepal and Bhutan while The Association of Southeast Asian Nations (ASEAN) was founded on August 8 1967. The members include Malaysia, Indonesia, Philippines, Singapore, Thailand, Myanmar, Cambodia, Laos, Vietnam and Brunei. The ASEAN countries are economically more developed than the SAARC countries.

The ASEAN countries have exploited their tourism potential by allocating a higher percentage of their GDP to the development of tourism sector. Their excellence in tourism is manifest in the higher ranking they receive in the Travel and Tourism Competitiveness Index. On the other hand, SAARC countries have not yet accorded much significance to the development of tourism in their respective countries while the fact is that the countries of SAARC have very rich heritage and natural beauty. Of all the SAARC countries two of them Maldives and Nepal are highly dependent on tourism. Still except Maldives none of SAARC countries have been able to leverage their strength in this sector. In the table no. 1 key statistics have been shown for the countries included in the study.

Table 1

Year: 2011		Key Statistics			
COUNTRIES	TTGDP ¹	TTEMP ²	CIT ³	GR ⁴	TTCI Rank ⁵
INDIA	6.4	7.8	5.0	6.8	68
PAKISTAN	7.30	6.4	8.3	2.9	125
NEPAL	8.8	7.6	4.9	3.8	112
SRI LANKA	8.3	7.5	4.0	8.2	81
MALAYSIA	14.8	12.9	8.9	5.0	35
THAILAND	16.3	11.4	6.8	7.8	41
PHILIPPINES	8.5	9.6	4.1	3.9	94
SINGAPORE	10.5	8.5	20.2	4.8	10

1. Tourism total contribution to GDP,
2. Tourism total contribution to total employment
3. Percentage of capital investment in tourism
4. GDP growth rate
5. Travel & Tourism competitiveness index

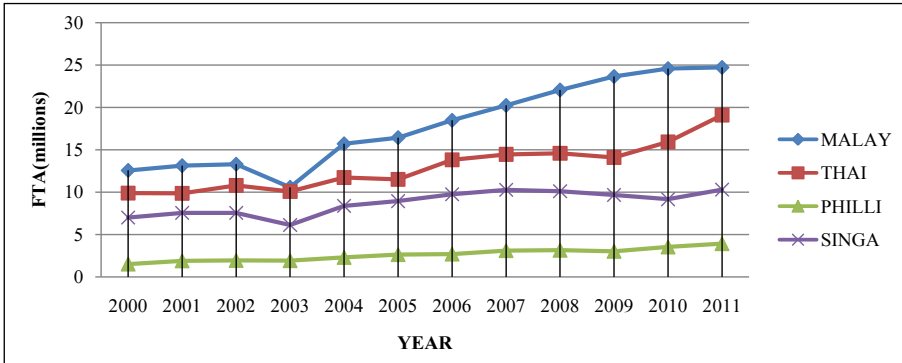


Fig. 1: Foreign Tourist Arrivals of SAARC Countries (2000- 2011)

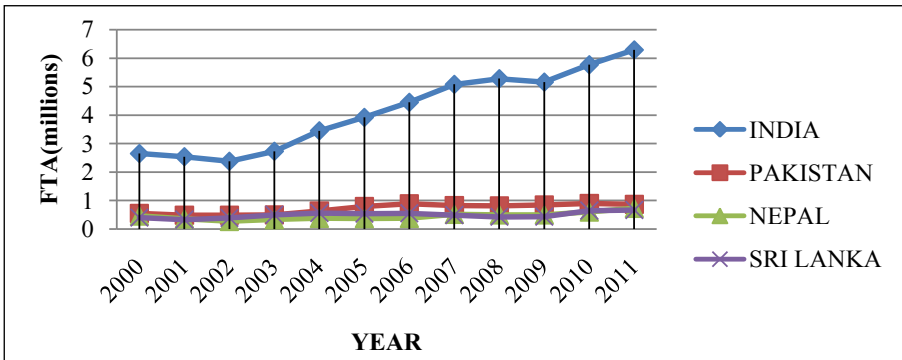


Fig. 2: Foreign Tourist Arrivals of ASEAN Countries (2000- 2011)

In the table no. 2 mean and standard deviation of all the variables for all the countries for the period of study have been tabulated. Important findings from the table are:

- Tourism contribution to GDP is impressive for ASEAN countries as compared with SAARC countries. Also it has remained stable for all the countries as is clear from small values of standard deviation.
- Variation in FTA is more for ASEAN countries than SAARC countries.
- Tourism in ASEAN countries provides employment to a larger percentage of population except in case of Singapore and also has no much variation.
- Capital investment in tourism sector has been impressive for the ASEAN countries while SAARC countries lag behind.

Table 2: Descriptive Statistics

COUNTRIES	TCGDP		FTA		TCEMP		GR		FTR		CA		CI	
	MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D
India	7.7	0.90	4.0	1.2	9.8	1.2	7.4	2.3	8.3	4.0	-0.71	1.4	3.8	2.0
Pakistan	6.5	0.48	0.72	0.17	5.7	0.42	4.5	2.1	0.76	0.17	-1.3	4.6	4.4	1.7
Nepal	9.6	1.0	0.42	0.10	8.3	0.91	3.9	1.5	2.5	0.10	1.3	2.3	5.3	2.6
Sri Lanka	9.4	0.93	0.48	0.09	8.3	0.80	5.1	2.7	0.72	0.17	-3.0	2.7	4.4	0.92
Malaysia	16.3	0.98	17.8	4.7	13.9	1.0	4.6	2.8	12.5	3.4	12.7	3.4	9.7	0.73
Thailand	16.8	1.0	12.6	2.1	13.3	0.88	4.3	2.9	15.7	5.3	2.9	3.4	11	1.8
Phillipiones	9.7	0.82	2.6	0.58	11.0	0.83	4.7	1.9	2.7	1.4	2.2	2.4	3.1	1.0
Singapore	8.7	0.70	8.7	1.3	6.6	0.70	5.7	4.9	6.0	3.1	2.9	3.4	19	2.9

Data analysis and findings

First of all let us examine the extent to which foreign tourist arrivals and foreign tourism receipts in these eight countries are correlated with another. It gives an idea about the extent to which tourists inflow in these countries are interdependent. The table no. 3 shows the pearsonian correlation between FTRs & FTAs for selected four SAARC countries.

Table 3 : Correlation Between FTRs & FTAs for select SAARC Countries

PAIRED COUNTRIES	FTR	FTA
India- Pakistan	.992*	.939*
India- Sri Lanka	.788*	.492
India - Nepal	.718**	.927*
Pakistan – Sri Lanka	.725**	.568
Pakistan- Nepal	.540	.772*
Sri Lanka- Nepal	.555	.417

** .05 Level of significant

* .01 Level of significant

From the table it is clear that the tourist inflow in India is highly correlated with the tourist inflow in Pakistan and Nepal (sig. at 5% level) while FTR is highly correlated with Nepal (at 5% level). The figures in the table provide enough evidence to conclude that tourist inflows as well as FTRs in all SAARC countries are highly interdependent.

In the table no. 4 the correlation between FTA and FTR of India with major ASEAN countries have been shown.

Table 4: Correlation Between FTRs & FTAs for select ASEAN Countries

PAIRED COUNTRY	FTA	FTR
India - Philippines	.981*	.562
India - Thailand	.969*	.976*
India - Malaysia	.961*	.959*
India - Singapore	.851*	.230
Malaysia - Singapore	.849*	.383
Malaysia - singapore	.960	.640**
Malaysia - Thailand	.952	.978*
Thailand - Singapore	.841	.287
Thailand - Philippines	.968	.589
Philippines - Singapore	.838	.369

** .05 Level of significant

* .01 Level of significant

It is very interesting to note that FTA among ASEAN countries as well as with India is strongly correlated. It has important implication for India. The volume of tourist arrival in India follows tourist arrival trend of ASEAN countries more closely than SAARC. It shows that tourism sector of India is more integrated with the tourism sector of ASEAN economies rather than with those of SAARC.

Next, we have tabulated the correlation for important pairs of indicators for all the eight countries included in the study. Important findings can be summarized as under:

- FTA and FTR are moderately to highly correlated in case of all countries
- The correlation between capital invested in tourism and FTA is highly significant for India, Pakistan and Philippines.
- In case of Thailand and Pakistan investment in tourism has significantly raised the tourism contribution to total employment in these countries.
- The growth rate of the economy in case of all countries except for Sri Lanka shows weak to negative correlation with FTA and FTR.

Table 5: Correlation Table

VARIABLES	COUNTRIES							
	INDIA	PAKI STAN	NEPAL	SRI LANKA	MALAY SIA	THAI LAND	PHILI PPINES	SINGA PORE
FTA-FTR	.994**	0.978*	.778**	.844*	.950*	.979*	.596	.590
CI-GR	.430	0.103	-.268	-.242	-.157	-.162	-.096	.405
CI-FTA	.683**	0.930*	.339	-.514	-.253	.605	.860*	.614
CI-FTR	.652**	0.920*	-.514	-.240	-.214	.595	.633**	.364
EMP-CI	-.694*	0.730*	.339	-.553	-.288	.820*	-.440	.497
EMP-FTA	-.703*	0.700**	-.033	.224	.772**	-.489	-.592	.750**
EMP-FTR	-.726*	.651*	.442	-.024	.804**	-.471	.064	.088
GR-FTA	.446	.184	.594	.831*	-.065	-.083	.314	.199
FTR-GR	.417	.183	.649*	.850*	-.003	-.132	.144	-.482

** .05 Level of significant

* .01 Level of significant

How the tourism sector employment has performed in these countries is an important issue as these countries have huge population and any growth in this sector must be translated into employment generation. We have taken employment function as:

$$EMP = \psi(FTR, CI, FTA)$$

The specified form of the model is:

$$EMP = \alpha + \beta_0 FTA + \beta_1 FTR + u$$

However for Sri Lanka and Thailand we have used simple linear regression taking capital invested as the single independent variable

$$EMP = \alpha + \beta_0 CI + u$$

The test of the significance of the specified model (multiple regression) has been carried out using the F test.

$$H_0 : \beta_0 = \beta_1 = 0$$

$$H_A : \beta_0 = \beta_1 \neq 0$$

The result of the multiple regression is shown in the table no. ... As is clear from the table the model is valid for all the countries. There is no evidence to accept the null hypothesis and hence it is rejected. However, in case of ASEAN countries the model is significant at 5% level of significance while in case of SAARC countries it is significant at 10% level. It can thus be concluded that the validity of the model is more robust in case of ASEAN countries than the SAARC countries. In case of Singapore, the independent variables account for 72% of the variation in total employment in tourism which is highest among all countries. In case of India the variance explained is 42%.

Table 6: Summary of multiple regression in case of Employment

COUNTRIES	Adjusted R2	P-VALUE	SIGNIFICANCE LEVEL
INDIA	0.42	.060	10%
PAKISTAN	0.37	.079	10%
NEPAL	0.42	.059	10%
SRI LANKA	0.21*	.097	10%
MALAYSIA	0.54	.026	5%
THAILAND	0.64*	.003	5%
SINGAPORE	0.72	.005	5%
PHILIPPINES	0.57	.033	5%

*Independent variable is CI in tourism

The result is clear the countries that have invested heavily in the tourism and have attracted more foreign tourist have generated employment in this sector. Next we proceed to estimate the FTA for all the countries. Here again we have taken two independent variables- growth rate and capital account balance as % of GDP for four countries India, Pakistan, Sri Lanka and Philippines. The second variable ie CAB has been used as a proxy for exchange rate of the local currency in terms of major currencies of the world. For Nepal, Thailand and Singapore we have used simple linear regression with Capital invested as independent variable and for Malaysia we have taken only CAB as independent variable.

$$FTA^* = \alpha + \beta_0GR + \beta_1CAB + u$$

$$FTA\# = \alpha + \beta_0CI + u$$

$$FTA@ = \alpha + \beta_0CAB + u$$

* = India, Pakistan, Sri Lanka and Philippines

= Nepal, Thailand and Singapore

@ = Malaysia

The result of the analysis has been shown in the following table:

Table 7: Summary of multiple regression in case of FTA

COUNTRIES	Adjusted R2	P-Value	SIGNIFICANCE LEVEL
INDIA	.843	.001	5%
PAKISTAN	.465	.046	5%
NEPAL	.325	.050	5%
SRI LANKA	.693	.007	5%
MALAYSIA	.251	.080	10%
THAILAND	.287	.064	10%
SINGAPORE	.299	.059	10%
PHILIPPINES	.629	.013	5%

From the table it is clear that the model explains 84% of the variance in case of India which is also the highest while the least is in case of Malaysia which is only 25%.

Another way to analyse the FTA indicator for the countries is that we can apply one way ANOVA to test the hypothesis:

$$H_0 : \sigma_S = \sigma_A$$

$$H_A : \sigma_S \neq \sigma_A$$

σ_S = variance of FTA for SAARC countries

σ_A = variance of FTA for ASEAN countries

Table 8: ANOVA for equality of variances for SAARC and ASEAN (FTA)

Source of variance	Sum of squares	Degree of freedom	Mean squares	Computed value of F	Table value of F
Between sample	294.97	2-1=1	294.97/1=294.97	294.97/22.18=13.29	5.99 (5%)
Within sample	133.13	8-2=6	133.13/6=22.18		
Total	428.10	8-1=7			

Clearly, our null hypothesis of equality of variances is rejected at 5 % level of significance. It can thus, be concluded that variations in FTA for SAARC as a whole is significantly different from ASEAN countries.

Final Remark

From the foregoing analysis a number of important conclusions can be drawn which has important implications for the development of tourism sector in these countries. First, those countries that have paid adequate attention towards the development of tourism sector have been reaping its benefits. In the last one decade (2001 – 2010) ASEAN economies have climbed rapidly in the TPCI index while SAARC countries are still at the bottom of pyramid. The governments of these countries should realize that by investing in tourism sector they too can use it as an engine of development.

Second, the findings clearly indicate that the both regions should diversify and increase co- operation among them to leverage the potential that the tourism sector has. For instance, ASEAN countries are not as rich as SAARC countries in heritage and culture but they have exploited sun and sand. Similarly countries like Nepal and Afghanistan do not have access to sea but regional co – operation can benefit them in many other ways. Most of the tourist inflows in these countries are from same regions which can lead to fierce competition among them.

Third, clearly for the study period tourism sector in ASEAN countries is more integrated with their economies. This is the only way tourism can play a larger role in the economies of these countries thereby improving the life of millions in these two regions.

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