

# RELATIONSHIP BETWEEN TOURISM AND ECONOMIC GROWTH IN SRI LANKA

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## ABSTRACT

This study identifies whether there is any significant relationship between tourism industry and economic growth in Sri Lanka. Tourism is an important component in the economy of most of the countries especially in Asia because of its environment, culture and heritage. It is considered as the main contributor to the economy in many countries and plays a crucial role in achieving macroeconomic stability. In Sri Lanka tourism can be identified as a critical component in the economy because it impacts on and is impacted from many other sectors in the economy. Transportation, accommodation, food and agriculture, retailing and manufacturing sectors of the country are heavily impacted on the changes in the tourism industry. Also, the contribution of the tourism sector to the Gross Domestic Production has increased after 2010 when compared with the previous years. Identifying the availability of any unidirectional relationship from tourism industry to economic growth is aimed and identifying the bi causal relationships is not an objective of this study. The study has used tourism earnings and tourist arrivals as independent variables to measure the tourism industry and Gross Domestic Product the dependent variable to measure the economic growth. Time series data from year 1978 to 2016 has used in conducting this study. Model validity tests such as normality test, Descriptive statistics, Regression question and multicollinearity test has applied in order to develop a well fitted model and relationship measurement tests such as multiple regression analysis, has used to identify the relationship between the variables. Findings reveal that there is a significant positive relationship between Tourism and Economic Growth in Sri Lanka. Further it was able to conclude that there is no any short-term relationship and the relationship between tourism and economic growth is long term. Accordingly, the study recommends to implement favorable policies to boost the tourism industry in order to accelerate the growth of the country.

**Keywords:** gross domestic product, tourism earnings, tourist arrivals

## Introduction

Tourism can be identified as one of the major foreign exchange earners and main growth sector for many economies. In global context tourism is identified as the main contributor to the economy in many countries and plays a crucial role in achieving the macroeconomic stability. When considering about the world tourism market it has recorded an average growth rate of 3.7% over the past five years and also is forecasted to grow at an average rate of 4.9% in the next five years. Asia and Pacific regions record the fastest growth in tourism earnings when compared with the

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other regions. When considering about Sri Lankan context it entered to the international tourism market in 1960s and since then acted as one of the most important sectors for the economic development. In 2009 the contribution of tourism for the Gross Domestic Product was 7.5% earning 407.5 billion rupees. Not only has the contribution to GDP had it also played a crucial role in providing employment opportunities. For most of the economies tourism is one of the fastest growing sectors and it helps in growth in other sectors such as agriculture, transportation, retailing and manufacturing and therefore can be identified as a key component of economic development. Tourism sector cannot be a success alone and it demands inputs such as food and services from the other sectors of the economy. Because of the great ability of the industry to generate employment opportunities it has become a critical component in Sri Lankan economy and thus plays an important socio-economic role in the country's development. Although tourism plays a major role in the economy, in empirical research a little attention has been paid to this sector.

### **Review of Literature**

According to a research conducted in India a relationship between tourism and economic growth cannot be identified in the short run. According to the research paper equilibrium relationship can be identified in the long run but it has not identified the direction of causality between tourism and GDP in India. The study has identified business travel and tourism spending, Leisure travel and tourism spending and real effective exchange rate as the determinants of Indian GDP. The study has conducted based on unit root test and granger causality test. (Georgantopoulos, 2013). Caglayan et al. (2012) has obtained mixed results on the relationship between Tourism and Economic growth. The study has conducted based on data from 1995 to 2008 and the analysis of the study is based on 135 countries. According to the study, in America, Latin America and Caribbean countries there is no impact from tourism to GDP but a causal relationship has identified from GDP to Tourism. Lashkarizadeh et al. (2010) According to a study conducted in Korea there is no impact of tourism to the economic growth in Korea both in short run and in the long run. But according to the results there is an impact from economic growth to tourism. That means there is a one-way causal relationship from Economic growth to Tourism. The conclusions are arrived based on the results of Engle and granger two stage approach and a bivariate VAR model.

Gautam, (2012) According to a research conducted in Nepal Tourism positively affects the economic growth in Nepal and on the other hand tourism is also affected by the economic growth. That means there is a bidirectional causality between Tourism and Economic growth. The study is based on data in Nepal from year 1975 to 2010 and Co integration test, Error correlation method and Granger causality test has used in arriving the conclusions of the study Jaforullah, (2005) According to another research conducted in Sri Lanka the economic growth in Sri Lanka is positively affected by the earnings from tourism both in the short run and in the long run. According to the study there is only unidirectional relationship between the

variables and a bidirectional relationship cannot be identified in Sri Lankan context. The research is conducted using data from 1968 to 2014 and Vector Autoregressive framework has used for the purpose of the study. Ravindirakumaran, (2015) Similarly, another research conducted in Mauritius has concluded that tourism positively affects the GDP. Export of sugar, manufactured exports, Physical Capital and human capital has used as additional determinants of Mauritian GDP and data from 1952 to 1999 has used for the analysis. When analyzing the research articles which have studied the relationship between tourism and economic growth it is clear that most of the studies have used only one variable which measures the growth in tourism. Also, there are very limited number of studies which has used number of tourist arrivals as an independent variable and most of them has used only Tourism Earnings. Also, in most of the research articles analyzed, they have incorporated independent variables which are not directly linked to tourism. But in my study, I have used 2 variables which measures the growth in tourism and other variables which are not directly linked to tourism are not considered. Also, I have used number of tourist arrivals which is not much used by other scholars.

## Methodology

There are three variables associated with the macroeconomic variables according to the literature review. Those are gross domestic product, tourism earning, and tourist arrivals. This study is conducted by analyzing the secondary data. This study will use an annually time series data for 39 years (from the year 1978 to 2016). The secondary data will be collected from The Tourism website, tourism annual report, various issues of Economic and Social Statistics of Sri Lanka and Annual reports published by the Central Bank of Sri Lanka. Data for the selected variables will be gathered from the Annual Reports of central bank of Sri Lanka. The secondary data will be collected from The Tourism website, Tourism annual report, various issues of Economic and Social Statistics of Sri Lanka. All most all the data collected for the Research is from secondary sources accompanied by various articles gathered in order to facilitate the data and to convert them into valuable information.

## Results and Discussion

### Descriptive Analysis

**Table 6 Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Gross domestic product	39	52.00	12410.00	2714.2564	3611.64630	13043988.985
Tourism earning	39	870.00	9293.00	4712.4615	2356.75062	5554273.466
Tourist arrivals	39	182622	990832	455305.79	226560.897	51329840117.378
Valid (listwise)	N 39					

According to the statics, it can be summarized that the minimum Tourism earning is 870.00mn in year 1978 whereas the maximum is 9293.00mn in year 2016. There is continuous increase of tourism earning in 1978 to 2016. The standard deviation measures the spread of the observations. The higher the value of standard deviation, the spread of the observations is also higher. Accordingly, spread of the tourism earning is 2356.75062mn. The mean value of the tourism earning over the 39 years of period was 4712.4615mn. The minimum tourist arrivals are 182622 in year 1987. Whereas the maximum is 990832 in year 2016. The mean value of the tourism arrivals over the 39 years period was 455306. There is fluctuation tourism arrivals in 1978 to 2016. The standard deviation measures the spread of the observations. The higher the value of standard deviation, the spread of the observations is also higher. Accordingly, spread of the tourism earning is 226561.

The minimum Gross domestic product is 52.00mn in year 1978 whereas the maximum is 12410.00mn in year 2016. There is 39 years gap between maximum gross domestic product and minimum gross domestic product. The standard deviation measures the spread of the observations. The higher the value of standard deviation, the spread of the observations is also higher. Accordingly, spread of the foreign direct investment is 3611.64630mn. The mean value of gross domestic product over the 39 years of period was 2714.2564mn.

### Growth of GDP

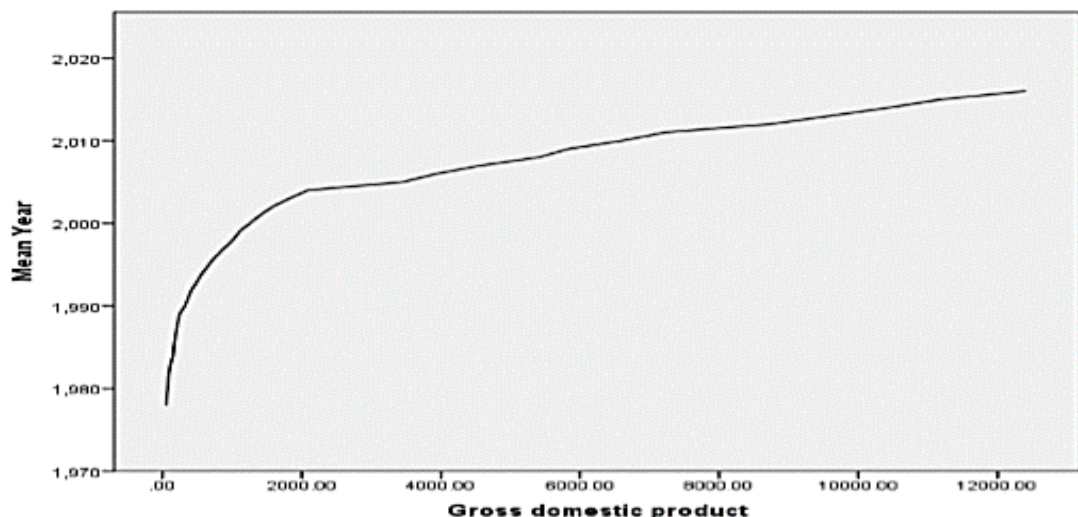
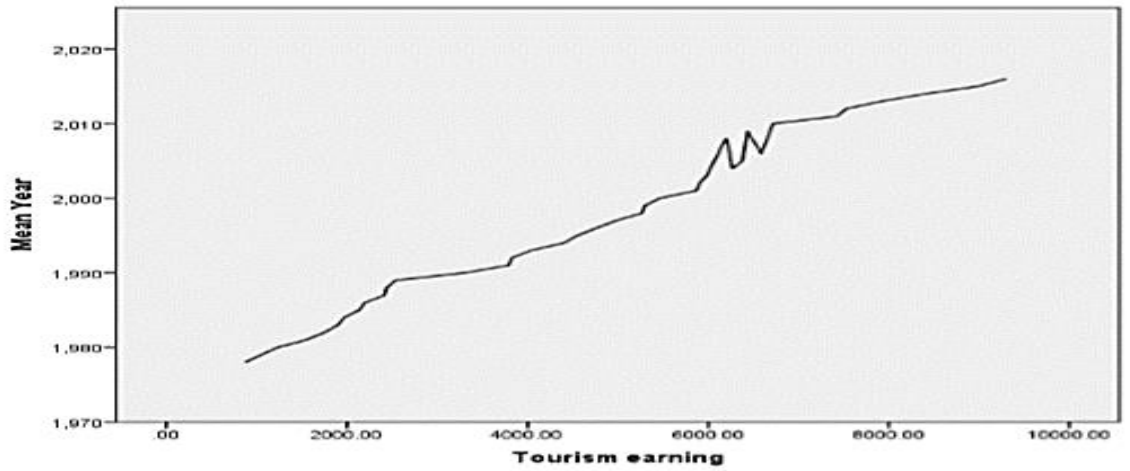


Table 01 : Growth of GDP

All Data were collected from 1978 to 2016, the figure has been illustrated graphically the fluctuation of Gross domestic product in Sri Lanka.

**Growth of tourism earning**

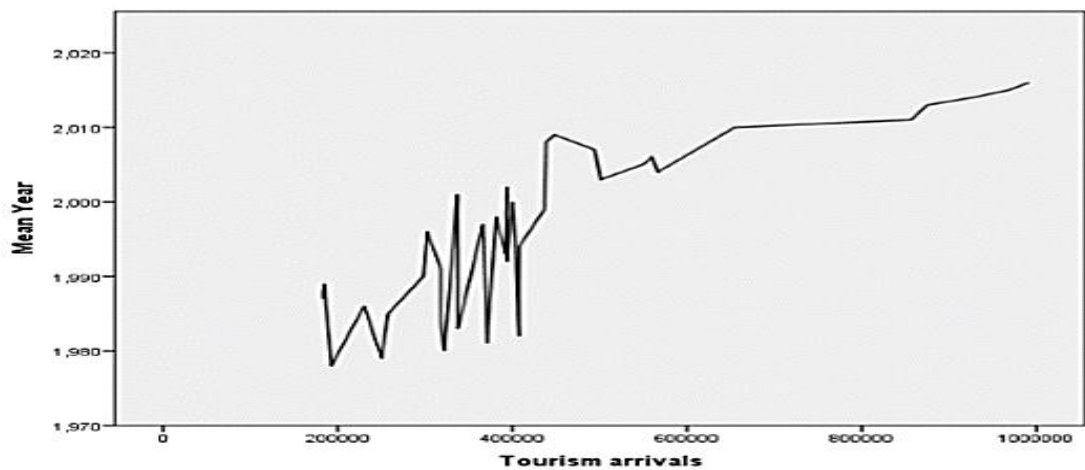
Table 02 : Growth of tourism earning



The figure has been shown graphically how the exchange rate fluctuate within the time period.

**Growth of tourist arrivals**

Table 03 : Growth of tourist arrivals



As per the above diagram, it has been illustrated graphically how the tourist arrivals fluctuate within the time period 1978-2016

**Regression Analysis**

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	436744501.104	2	218372250.552	133.409	.000 <sup>b</sup>
	Residual	58927080.332	36	1636863.343		
	Total	495671581.436	38			

a. Dependent Variable: Gross domestic product

b. Predictors: (Constant), Tourist arrivals, Tourism earning

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error				Beta	Tolerance
1	(Constant)	-4251.723	478.057		-8.894	.000		
	Tourism earning	.287	.170	.187	1.687	.010	.268	3.735
	Tourist arrivals	.012	.002	.773	6.963	.000	.268	3.735

a. Dependent Variable: Gross domestic product

The model estimation is as follows,

$$GDP = -4251.723 + .287(TE) + .012(TA) + e$$

The regression equation shows that the gross domestic product will always depend on a constant factor of -4251.723 regardless of the existence of other tourism variables. On the other hand, every unit increase of tourism earning has a positive impact on gross domestic product. On the other hand, every unit increase of tourism arrivals has a positive impact on gross domestic product. All the variables are significant at the level of P- value is less than the standard significance level of 0.05. Thus, tourism earning and tourist arrivals is the significant predictors of gross domestic product. Tourism earning and tourist arrivals have a positive relationship with gross domestic product. However, the relationships are statistically significant as the P-value of tourist arrivals is 0.000 and p-value of tourism earning is 0.010 above the standard significance level of 0.05. This observation of probability values concludes that this is a statistically good fitted model. Tourism earnings and number of tourists arrived has used as independent variables to measure the tourism industry and Gross Domestic Production has used as the dependent variable to measure the economic growth. Secondary data was collected for the purpose of conducting this

study and data was obtained from the Central Bank Annual Reports from 1978 to 2016.

Multiple regression analysis has used to identify the relationship between Tourism and Economic Growth and according to the results generated there is a significant positive relationship between Tourism and Economic Growth in Sri Lanka. Increase in Tourism earnings from one million lead to an increase in Gross Domestic Production by 0.287 million rupees and increase in number of tourist arrivals by one lead to an increase in Gross Domestic Production by 0.012 million rupees. In addition to the regression analysis correlation analysis has used to identify the existence of a relationship between Gross Domestic Production and each independent variable. The results suggest that Gross Domestic Production has a moderate positive relationship with Tourism earnings and weak positive relationship with number of tourists arrived.

### **Recommendation**

According to the findings there is a positive relationship between tourism and economic growth in Sri Lanka. Both tourism earnings and number of tourists arrived are positively related with the Gross Domestic Production. So. it is highly recommended to implement necessary policies to get increase the number of tourist arrivals and earnings from tourism to enhance the growth of the country. Taking necessary actions on improvement in infrastructure facilities. to promote regional development. implementing window policies to increase the direct and indirect investment, plans for preservation of culture, heritage and environment, Developing tourism circuits, Tax benefits on transportation and accommodation sector, reducing visa constraints on the movement of people are some of the policies Sri Lanka can adopt to enhance the tourism industry. As tourism is a sector which impacts on and is impacted from many other sectors of the economy the government should have a broad view in implementing the policies which favorably affects tourism. The results of the current study related to the tourism sector as such, future research may consider other sectors of economy. Further finding of this study revealed that determinants of gross domestic product which were taken in this study tourism earning and tourist arrivals. Therefore, the future researchers can take more factors in their study.

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