IMPACT OF INTERNATIONAL TRADE ON DEPARTED TOURISTS: A Case of the South and South-East Asian Region

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The paper examines the impact of international trade on tourism of the top ten GDP ranking countries of South and South East Asian Region for a period of 15 years, 1995 to 2009. The study includes two independent variables of trade: imports and exports, and one dependent variable of tourism - the number of tourist departures. Pooled Regression Model, Fixed Effect Model and Random Effect Model have been applied as a research tool. Results of the study reveals that the international trade and tourism industry help to promote economic development of countries of the South and South-East Asian Region.

I. Introduction

Tourism is one of the major components for economic development and growth of any country. Large number of previous studies have highlighted significant relationship of the international trade and tourism. Trade is the process of transferring ownership of products and services from one entity to another. A process of transferring ownership within boundaries of a country is referred to as a domestic trade; whereas, transferring of ownership across boundaries of a country is referred to as international trade of goods and services. In 1936, the League of Nations defined a tourist as a person who visits another country for more than twenty four hours. The word 'tour' is derived from a Greek word `tornos' which means to move around a central point. Since1811, demand of tourism have been raised due to a large number of people who visit new sites and locations of different countries to explore sights and places of tourist's attraction. Trading started from the stone-age period because of increasing demand for satisfying needs and desires of people who became popular through barter system, before the innovation of money.

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The international trade and tourism generates revenue. It contribute to the current account financing and relationship of trade and tourism to enhance productivity and economic growth; and brings more business opportunities to a country. Each country is specialized in production of particular goods and services which ultimately increase the value and demand of its home made goods, improve balance of payments and foreign exchange earnings, and their cost is fetched from the wealthy international markets [Linnard (2008)]. It is important to study links between the international trade and tourism because development of tourism industry enhances the international trade of goods and services of a country. Moreover, enhanced international trade stimulates the interest of tourists' arrival to consume domestic products and services, which ultimately promotes the tourism industry of a home country.

1. Objectives

The objectives of this research paper are:

1. To study the empirical links between the international trade and tourism.
2. To examine the pooled effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
3. To investigate the fixed effects of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
4. To analyze the random effects of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.

2. Hypotheses

This research study has the following hypotheses to test:

1. H1: There is a pooled effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
2. H0: There is no pooled effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
3. H2: There is a fixed effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
4. H0: There is no fixed effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
5. H3: There is a random effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.
6. H0: There is no random effect of exports and imports on departed tourists of the top ten GDP ranking countries of the South and South-East Asian Region.

This paper is organized in a way that Section II entails the literature review, while the theoretical framework of trade and tourism analysis is provided in Section III. Section IV describes the data and methodology description. Finally, the conclusion and recommendations are given in Sections V and VI, respectively.

II. Literature Review

Large number of literature review prominents the influence of international trade of goods and services on tourism industry development and vice versa. Scheyvens (2002) highlights that trade of goods and services leads to economic development of a country at an international as well as domestic level. This study investigates that the international flow of goods and services promotes the tourism industry of a country with increasing demand of tourists. The study by Taner, et al. (2011) indicate a long run relationship between the international trade and tourism which empirically shows that flow of goods and services, and development of tourism industry leads to promote the economic growth and productivity of a country.

Hanafiah, et al. (2010) studied the empirical relation of trade and tourism of Malaysia with its partner countries. Their research showed that tourism demand is higher than the trade demand of a country. The authors found that in the panel data analysis only geographical distance and tourism price are significant in the local markets of Malaysia. On the other hand, a study by Hanafiah and Harun (2010) shows a significant high positive correlation between tourism demand and Gross National Income (GNI) and the significant negative correlation between the tourism demand and exchange rate of a country. The authors revealed that Malaysia depends mainly on tourism industry and as a result there is a strong relationship between the economic determinants and tourists travels of Malaysia.

According to the study of Sarmidi and Salleh (2010), there is a strong correlation between the tourists arrival, economic development and net total trade. The authors found the long run causal relationship in trade and tourism variables of a panel data analysis. Kadir and Jusoff (2010) examined the short run and long run relationship in trade and tourism but the study fails to show a long run causal relationship in trade and tourism of Malaysia .The econometrics results showed unidirectional causal relation at 5 per cent level of significance. According to Kulendran and Kenneth (2010), the tourism industry plays a crucial role in development and enhancement of the international trade of goods and services and the economic growth of a country .The authors investigate a strong relationship between tourism and trade of goods and services of Australia.

According to Etzo, el al. (2013), foreign residing citizens promote Italian tourism industry for their business motives. The authors analyzed a dynamic panel data of 65 sample countries for the years 2005-2011. Hanafiah, et al. (2011) found the main determinants of tourism including bilateral trade, income, population,

tourism price and geographical distance between Malaysia and the Asian countries. The researchers specified the tourism demand model for a period of 1997-2008.

According to Santana, el al. (2011), little volatility of exchange rates lead to promote and enhance the tourism industry of OECD countries. The authors used a monopolistic competition model in their study and found that exchange rate has about 12 per cent impact on the tourism sector, considering the fact that these fluctuations in foreign exchange can tend to increase earnings for a home country. Moreover, this research study indicate that there is a cointgration between trade and tourism of OECD countries. Fischer, et al. (2006) examined the tourism and trade relationship of Germany and found a positive impact of tourism industry on imports and short run impact on economic development of the country.

Globalization makes tourism industry of a country more competitive [Ignacio et al. (2010)]. Rana (2006) examined two sample data i.e., pre and post crisis periods of 1988-1997 and 1997-2004 of Malaysia, Thailand, PRC, Korea, Philippines, Singapore, Japan and Indonesia. They found that during the post crisis period bilateral trade of goods and services, significantly explained development of the industrial sector of the countries of South Asian Region.

III. Theoretical Framework

The international trade plays a crucial role in enhancing national income whereas, tourism is a source of export revenue of a country [Hanafiah et al. (2010)]. According to Gallego, et al. (2011), inbound tourism of a country can lead to international trade-flow of products and services and encourage departures and arrivals of the international tourists. International trade theories have a great influential relevance with growth and development of tourism industry [Webster,et al. (2007)].

Butler (1980) introduced a Tourism Areas Life Cycle model for development of the tourism industry at six main stages: exploration, investment, development, consolidation, stagnation and decline, and three main components: living, action and planning. This model enables a home country to adjust the demand and supply sides of tourism which ultimately help to foster development and growth of the international trade and tourism industry. These six stages help to indentify the core areas where a country need to develop an appropriate regional strategies which help to sustain a stagnant period for a longer time period. Butler (1980) suggested that countries need to be aware of appropriate strategies and adopt the effective ones to promote their tourism industry at different stages. They need to implement this model in order to safeguard, against and verse, the tourism trends of a tourism industry. According to Kiyong (2010), one of the humans' transnational movement is tourism flow and trade which includes the flow of marchandise goods.

A number of trade theories, including Absolute Advantage and Comparative Advantage, Heckcher Ohlin (HO) Theorem, New Trade Theory and Intra Industry Theory (IIT) significantly highlights the fact that some countries have absolute comparative advantages and are specialized in the production of products and services. Comparative Advantage is being defined as a difference between the relative prices of two countries under a situation of autarky [Webster et al. (2007)]. Through growth of specialized products and services a country can promote its international trade, economic growth and development. According to Taner et al. (2011), trade performance provide an international competitive indication which ultimately support and develop toursim industry of a country.

IV. Data and Methodology

The study entails the panel data analysis of trade and tourism of the top ten GDP ranking countries of South and South-East Asian Region i.e., Indonesia, Pakistan, Malaysia, Sri Lanka, Thailand, India, Bangladesh, Philippines, Vietnam and Singapore. Secondary data has been collected for 15 years over the period of 1995-2009. The data consist of three variables: (a) tourism dependent variable, i.e., number of tourist departures, and independent variables of trade, (b) import, and (c) export; of sample countries.[1]

a) Tourist Departures
Many tourist departures consist of people who travel from their homeland and visit other countries.

b) Import
Import refers to goods or services which are brought (shipped) at a port of a home country.

c) Export
Export refers to goods or services which are brought (shipped) at a port of a home country.[2] The choice of tourism data is mainly conditioned by availability of the OECD countries data. More generalized results of a study can be formed if tourism variable data for extended time period is available.

[1] The data for tourism, import and export has been extracted from the websites of "The World Bank Indicators" and the "IMF" economic data sources.
[2] Two variables of trade have been measured in terms of Current US Dollars.

1. Descriptive Statistics

The descriptive statistic results of trade and tourism variables of the top ten GDP ranking countries of South and South-East Asian Region over a period of 1995-2009 are shown in Table 1. Malaysia ranks first for having a large number of tourist departures (i.e., 27,138,450 visitors) with a maximum mean value among all the top ten GDP ranking countries of the region, during 1995–2009. On the other hand, Sri Lanka has a minimum mean value of tourist departures (i.e., 603,200 visitors). With respect to the trade variables, maximum and minimum mean value of import is US$ 188 billion and US$ 7,660 million of Singapore and Sri Lanka, respectively. Singapore has a maximum mean value of exports (i.e., US$ 207 billion) whereas, minimum mean value of export (i.e., US$ 5,940 million) is found in Sri Lanka. The greatest variability for the period of 1995–2009 is found in the variable for import in India i.e., US$108,400 millions.

TABLE 1

Descriptive Statistic

Variables/ Country		Exports	Imports	Departures
Vietnam	Mean	2.27E10	2.59E10	2082750
	S.D.	2.121E10	2.466E10	933461.068
Thailand	Mean	9.30E10	8.86E10	2291250
	S.D.	5.168E10	4.601E10	978745.538
Sri Lanka	Mean	5.94E9	7.66E9	603200
	S.D.	2.253E9	3.304E9	163673.809
Singapore	Mean	2.07E11	1.88E11	4097700
	S.D.	1.076E11	9.414E10	1514252.746
Philippines	Mean	3.65E10	3.93E10	1931850
	S.D.	1.509E10	1.450E10	776105.139
Pakistan	Mean	1.25E10	1.62E10	5712800
	S.D.	4.789E9	9.217E9	2308614.955
Malaysia	Mean	1.12E11	9.52E10	27138450
	S.D.	5.663E10	4.131E10	8063024.831
Indonesia	Mean	7.15E10	6.29E10	2643000
	S.D.	3.486E10	3.179E10	1639393.277
India	Mean	9.67E10	1.12E11	5230100
	S.D.	8.848E10	1.084E11	2781199.19
Bangladesh	Mean	7.17E9	1.02E10	1195550
	S.D.	4.547E9	5.938E9	498721.996

2. Pooled Regression Analysis

The 'pooled regression analysis' shows that none of the trade variables have an impact on departed tourists. Pooled regression results shows that import and export have negative and insignificant impact on departed tourists of the South and South-East Asian Region. The econometric results indicate that when people of one country visit another country, they do not tend to increase/decrease exports/imports of their home country.

TABLE 2

Regression Analysis

	Coefficient	Std. Error	t-Statistic	Prob.
C	0.987083	0.800621	1.232897	0.2196
IMPORTS	-0.194535	0.479652	-0.405575	0.6856
EXPORTS	0.715485	0.430608	1.661571	0.0987
R-squared	0.415595	Mean dependent var		6.510730
Adjusted R-squared	0.407644	S.D. dependent var		0.455233
S.E. of regression	0.350369	Akaike info criterion		0.760136
Sum squared resid	18.045470	Schwarz criterion		0.820349
Log likelihood	-54.010230	Hannan-Quinn criter.		0.784599
F-statistic	52.268980	Durbin-Watson stat		0.037809
Prob(F-statistic)	0.000000			

Dependent Variable: DEPARTURE. Total panel (balanced) observations: 150.
Source: Econometrics results have been extracted from E Views 6.

3. Fixed Effect Model

The econometrics results of the fixed effect model (see Table 3) shows that only export have positive significant impact on departed tourists of the South and South-East Asian Region countries. It further explains that R-square value of the FEM model is 97 per cent, which is the variation in number of tourist departures and is only due to export by considering the sample characteristics variations. Value of F-statistic shows that the model is found fit and is good.

4. Random Effect Model

The econometrics results of 'random effect model shows the international trade and tourism of the South and South-East Asian Region countries (Table 4). The table also shows that in addition to the constant value of the two trade variables, export is found to have positive significant impact on tourism variable i.e., number of tourist departures of the South and South-East Asian Region countries.The econometric results indicate that when residents of one country visit another country they intend to bring more opportunities for expanding their businesses abroad, which ultimately tends to increase export of a home country.

TABLE 3

Fixed Effect Model

	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.207354	0.362547	-0.571936	0.5683
IMPORTS	-0.110547	0.154240	-0.716720	0.4748
EXPORTS	0.743828	0.158663	4.688113	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.971280	Mean dependent var		6.510730
Adjusted R-squared	0.968991	S.D. dependent var		0.455233
S.E. of regression	0.080164	Akaike info criterion		-2.132868
Sum squared resid	0.886823	Schwarz criterion		-1.892017
Log likelihood	171.9651	Hannan-Quinn criter.		-2.035018
F-statistic	424.2759	Durbin-Watson stat		0.793556
Prob(F-statistic)	0.000000			

Dependent Variable: DEPARTURE. Total panel (balanced) observations: 150.
Source: Econometrics results have been extracted from E Views 6.

TABLE 4

Random Effect Model

	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.184881	0.381099	-0.485124	0.6283
IMPORTS	-0.106122	0.153629	-0.690771	0.4908
EXPORTS	0.737275	0.157646	4.676761	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.402052	0.9618
Idiosyncratic random			0.080164	0.0382
Weighted Statistics				
R-squared	0.705510	Mean dependent var		0.334739
Adjusted R-squared	0.701503	S.D. dependent var		0.145848
S.E. of regression	0.079684	Sum squared resid		0.933385
F-statistic	176.083900	Durbin-Watson stat		0.753314
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.401187	Mean dependent var		6.510730
Sum squared resid	18.490380	Durbin-Watson stat		0.038027

Dependent Variable: DEPARTURE. Total panel (balanced) observations: 150.
Source: Econometrics results have been extracted from E Views 6.

V. Conclusion

This research study employed the Pooled Regression Model, the Fixed Effect Model and the Random Effect Model in order to determine impact of the international trade on tourism of the top ten GDP ranking countries of South and South-East Asian Region. Previously, relation between the international trade and tourism has been analyzed with perspective of the time series analysis. Tourism industry of

Malaysia is healthier and has flourished better than other countries of the region and hence it leads to promote economic conditions and the international trade of Malaysia, as compared to the other South and South-East Asian countries. Singapore, however, has an improved and upward trend of imports and exports. The econometric results of this study shows that export has a positive significant impact on number of tourist departures of the top ten GDP ranking countries of South and South-East Asian Region. Hence, it has been indicated that business tours of people of home countries of the region, other countries/regions, plays an important role in increasing exports of the regional countries.

VI. Recommendations

Countries of the South and South-East Asian Region can make important policy implications in their region on the basis of findings of this research study. Businesses strategies needs to be reflected effectively in order to promote international trade and industry of countries included in this study . Governments of these countries should focus on appropriate policies and strategies in order to enhance tourism industry of their country. As a result, it will promote and generate more international trade and foreign exchange earning. Policies should be made to focus on incentive, seminars, conferences, exhibitions and meetings to encourage tourism industry and hence facilitate the international trade. These activities, as a relatively higher value, added market will ultimately lead to prosper growth and development of a country.

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