

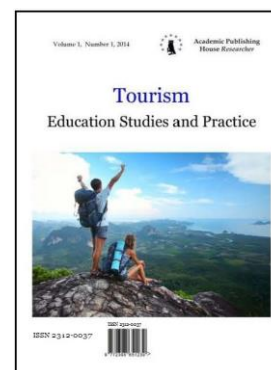
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## Evaluating Tourism Impact on the Economy of Armenia

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### Abstract

Tourism plays a principal role in the development of countries. It has an economic, social, cultural, environmental and political impacts. The article discusses the essence and the main impacts of tourism in the economy, presents the statistics of the sphere, evaluates tourism impact in Armenia by calculating tourism multiplier effect, the linear correlation coefficient R of Pearson between the number of incoming tourists and the GDP of the country. The balance of payments of travel account and its sub accounts, tourism competitiveness index are analyzed in the article and, as a result, several suggestions are made towards tourism enhancement in Armenia.

**Keywords:** tourism, economic impact, multiplier effect, balance of payments, travel, tourism competitiveness.

### 1. Introduction

The purpose of the research is to analyze and evaluate the impact of tourism on the economy of Armenia.

The object of the research is tourism sphere in Armenia.

The subjects of this research are economic and other impacts of tourism.

Many methods are used during the research such as analysis and synthesis, micro and macro analysis, statistical analysis and graphical methods.

In the research a variety of data are used from the National Statistical Service of RA, The World Travel & Tourism Council (WTTC) and other national and international organizations, state organs, etc.

The place and role of tourism are significant in the world economy system as it develops rapidly and is considered as one of the most profitable sectors. Tourism enlargement influences other areas of economy due to tourism multiplier effect. Tourism market is continuously expanding due to new services and activities. Under such conditions all the countries face the urgency to walk simultaneously with the global progress of tourism.

Here we will briefly introduce the main definition of tourism and its impact on the economy.

In 1954 United Nations gave the definition that "Tourism is an active rest influencing on the health recovery and physical development of a human body, and is related to traveling outside of the permanent place of residence" (Bogolyubov, 2005). According to the law of the Republic of Armenia "About tourism and tourist activities" tourism comprises the activities performed by citizens, travelling in the informative, recovery, sports, religious, professional, business, rest and other purposes, from the place (country) of permanent residence to another place (country) mostly

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for the term up to one year without interruption ([The law of the Republic of Armenia “About tourism and tourist activities”, 2003](#)).

The main types of tourism are: leisure/holiday tourism, business tourism, cultural tourism, ecotourism, education tourism, religious, pilgrimage tourism, health and medical tourism, visiting friends and relatives, agricultural tourism, sports tourism, etc.

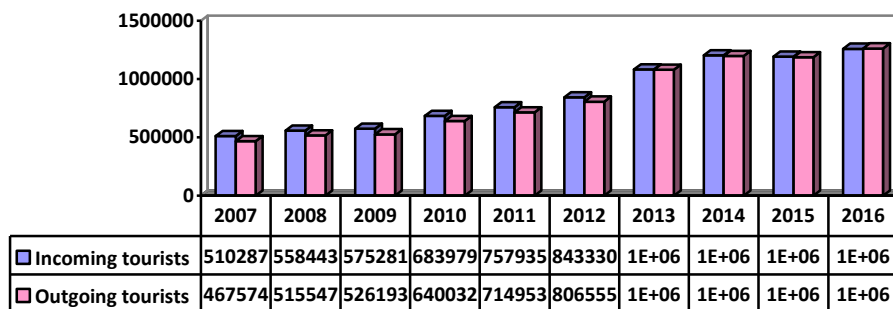
Tourism holds a significant and influential role in the development of countries. It has an economic, social, cultural, environmental and political impact such as:

- It has a direct and total contribution to GDP;
- Brings money from visitor expenses;
- It has a multiplier effect;
- Creates new jobs;
- Enables new investments;
- Contributes to regional development;
- Develops the infrastructures;
- Contributes to poverty decrease especially in regions;
- Reevaluates the cultural heritage, historical-cultural monuments, cultural traditions;
- Contributes to the development of the culture and art;
- Contributes to the maintenance of the environment and rational use of natural resources;
- Assists to the maintenance of traditions of national cuisine;
- Leads to interactions between different nations spreading peace and co-understanding;
- Creates new bridges among different cultures;
- Creates the brand and image of the country abroad;
- Contributes to the development of other sectors of the economy as well (for example: trade and services, education, technologies, construction, agriculture, etc.).

Thus, the significance of tourism in the economy remains fascinating. Further, we will discuss the impact of tourism in Armenia’s economy.

**2. Discussion and analysis**

The number of incoming tourists in Armenia in 2016 was 1259657, and the number of outgoing tourists was 1262687 people ([Socio-Economic Situation of the RA in January-December 2016](#)). The basis for the calculation of the number of people entering and leaving the RA were the data obtained from the information system of border electronic management of the National Security Service of the RA.



**Fig. 1. Incoming and outgoing tourists of the Republic of Armenia (2007-2016)** ([Socio-Economic Situation of the RA, 2007-2017](#))

Source: Own adjustment based on the data of the National Statistical Service of the RA

The direct contribution of Travel & Tourism to GDP in Armenia in 2015 was AMD 183.4bn (3.8% of total GDP) in 2015, and is forecast to rise by 4.0% in 2016.

The total contribution of Travel & Tourism to GDP was AMD 660.9bn (13.7% of GDP) in 2015, and is forecast to rise by 3.7% in 2016.

In 2015 *Travel & Tourism directly supported 40,000 jobs* (3.3% of total employment). This is expected to rise by 1.6% in 2016.

In 2015, the *total contribution of Travel & Tourism to employment*, including jobs indirectly supported by the industry, was 12.2% of total employment (147,000 jobs). This is expected to rise by 1.2% in 2016 to 149,000 jobs.

Visitor exports generated AMD 437.5bn (29.6% of total exports) in 2015. This is forecast to grow by 4.8% in 2016.

Travel & Tourism investment in 2015 was AMD40.6bn, or 4.8% of total investment. It should rise by 1.5% in 2016 ([Travel & Tourism Economic Impact 2016 Armenia](#)).

**Table 1.** Travel & Tourism economic contribution in the Republic of Armenia (2010-2026) ([Travel & Tourism Economic Impact 2016 Armenia](#))

<b>Index</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016E</b>	<b>2026F</b>
Travel & Tourism (T&T) direct contribution to GDP (AMD bn)	124.1	130.4	155.3	161.6	174.2	183.4	190.7	279.5
T&T total contribution to GDP (AMD bn)	454.	457.7	560.9	579.5	629.5	660.9	685.6	1,003.9
T&T direct contribution to employment (1000 jobs)	29.8	32.3	35.9	35.9	37.2	40.2	40.8	42.8
T&T total contribution to employment (1000 jobs)	113.5	115.7	132.2	131.1	136.8	147.0	148.9	153.9
Visitor exports (AMD bn)	282.9	296.5	361.2	377.6	409.6	437.5	458.6	643.1
Capital investment (AMD bn)	36.0	36.2	37.1	36.9	38.8	40.6	41.3	59.9

Source: Own adjustment based on the data of "Travel & Tourism Economic Impact 2016, Armenia" report by World Travel and Tourism Council.

Now we will evaluate tourism multiplier effect (indirect and induced economic effects of tourism activity) in the economy. According to Stynes ([Stynes, 1999](#)), there are many different kinds of multipliers, for example:

Sales multiplier = (direct sales + indirect sales) / direct sales. (1)

Employment multiplier = (Total direct, indirect, and induced employment) / direct sales. (2)

Economic Impact of Tourism = Number of Tourists \* Average Spending per Visitor \* Multiplier (3) ([Stynes, 1999](#))

The GDP and employment multipliers in the RA should be:

GDP multiplier =  $660.9 / 183.4 \approx 3.6$  (4)

Employment multiplier =  $147.0 / 40.0 \approx 3.7$  (5)

Thus, this means that 1 new foreign \$ creates approximately 3.6 \$ inside the country and approximately 3.7 additional workplaces.

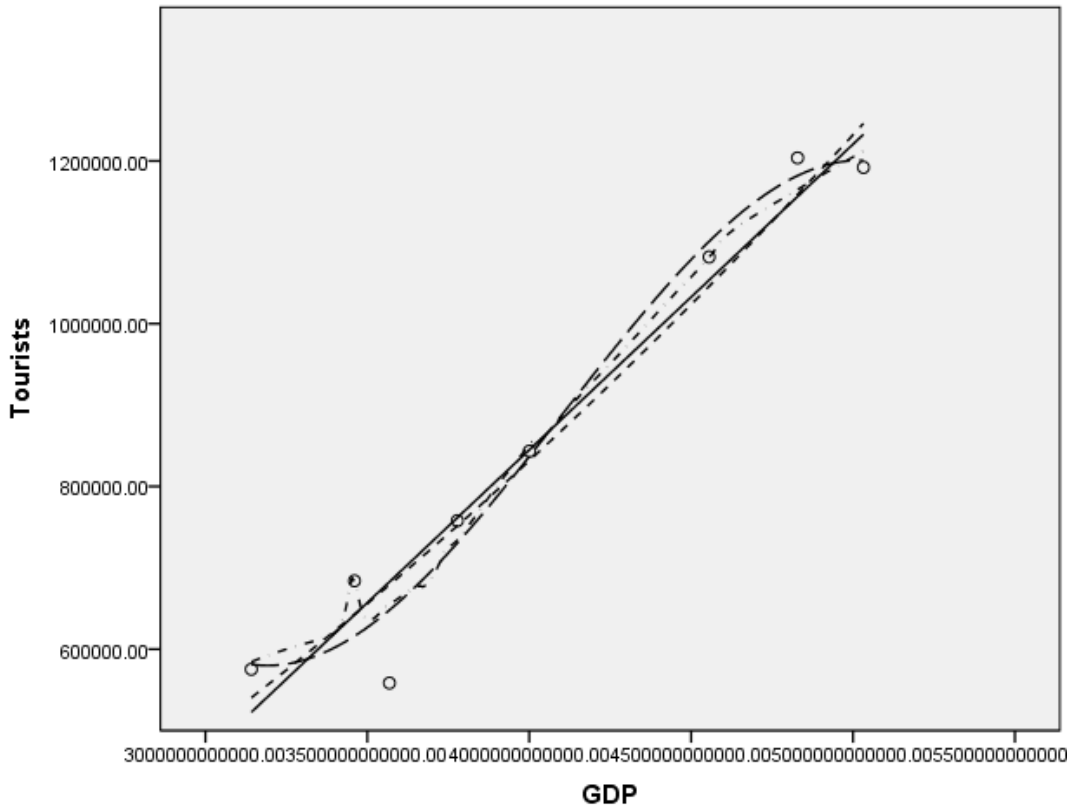
According to statistics of the National Statistical Service of the RA the spendings per tourist counted 1203\$ in average in 2013 in Armenia ([Socio-Economic Situation of the RA, 2013](#)). As we don't have the same data calculated for 2014 and 2015, we may consider it the same as in 2013. In that case:

Economic Impact of Tourism = Number of Tourists \* Average Spending per Visitor \* Multiplier =  $1259657 * 1203\$ * 3.6 = 5,455,322,536$  \$ USD (8)

So, tourism economic impact was 5,455,322,536 \$USD in Armenian economy.

We have also calculated the correlation coefficient between the number of incoming tourists and GDP of the country. The linear correlation coefficient R of Pearson is 0.975 (an R value of exactly +1 indicates a perfect positive fit, so if the number of tourists increases, the GDP will also increase). The coefficient of determination, R<sup>2</sup>, which gives the proportion of the variance

(fluctuation) of one variable that is predictable from the other variable, is 0.950, which means that 95 % of the total variation in GDP can be explained by the linear relationship between number of tourists and GDP.



**Fig. 2.** Linear regression between the number of the tourists and the GDP of the RA  
 Source: The figure was made via SPSS software based on the above-mentioned analysis.

According to the Travel & Tourism Competitiveness Report 2015 which was published by the World Economic Forum within the framework of the Global Competitiveness and Risks team and the Industry Partnership Program for Aviation & Travel, Armenia was at the 89rd place among 141 countries (in 2013 was the 79rd). Spain was the top of the 2015 edition of the TTCI global rankings for the first time, followed by France (2nd), Germany (3rd) ([Travel & Tourism Competitiveness Report, 2015](#)).

Index	Rank (out of 141)	Score (1–7)
<b>Travel &amp; Tourism Competitiveness Index</b>	89	3.42
<b>Enabling Environment</b>	57	5.00
<b>Business Environment</b>	50	4.62
<b>Safety and Security</b>	38	5.80
<b>Health and Hygiene</b>	48	5.92
<b>Human Resources and Labor Market</b>	71	4.48
<b>ICT Readiness</b>	69	4.16
<b>T&amp;T Policy and Enabling Conditions</b>	95	3.90
<b>Prioritization of Travel &amp; Tourism</b>	80	4.43
<b>International Openness</b>	83	2.78
<b>Price Competitiveness</b>	77	4.58
<b>Environmental Sustainability</b>	97	3.79
<b>Infrastructure</b>	84	3.14
<b>Air Transport Infrastructure</b>	92	2.26

<b>Ground and Port Infrastructure</b>	97	2.98
<b>Tourist Service Infrastructure</b>	73	4.18
<b>Natural and Cultural Resources</b>	130	1.63
<b>Natural Resources</b>	136	1.88
<b>Cultural Resources and Business Travel</b>	99	1.38

**Fig. 3.** Travel & Tourism Competitiveness Index of the Republic of Armenia

Source: Own adjustment based on *Travel & Tourism Competitiveness Report 2015*

Thus, several steps should be undertaken towards improving the main sub-indexes of tourism competitiveness.

The financial inputs and outputs from tourism are reflected in the balance of payments, which may be defined as a set of country's international transactions. It records all economic transactions between resident and non-resident entities during a given period (Balance of payment statistics, Eurostat). It is divided into two parts: current account, the capital and financial account. Travel Services are included into current account. Travel is subdivided into two major components: business and personal.

The business travel category covers travelers going abroad for all types of business activities: visiting an economy for sales campaigns, market exploration, commercial negotiations, missions, meetings, production or installation work, or other business purposes on behalf of an enterprise resident in another economy.

Personal travel category covers travelers going abroad for purposes other than business (e.g., for leisure activities such as holidays, participation in sports and other recreational and cultural activities, paying visits to relatives and friends, pilgrimage and religious observances, studies, and health-related reasons). All goods and services acquired by travelers from the economies in which they are traveling and for their own use are recorded under travel. The most common goods and services entered in travel are lodging, food and beverages, entertainment, and transportation within the economy visited, all of which are consumed in the providing economy, and gifts, souvenirs, articles purchased for travelers' own uses and taken out of the economies visited ([Balance of Payments, Manual, International Monetary Fund](#)).

Travel credits cover goods and services for own use or to give away acquired from an economy by nonresidents during visits to that economy. Travel debits cover goods and services for own use or to give away acquired from other economies by residents during visits to these other economies ([Balance of Payments and International Investment Position Manual](#)).

Now we will present the travel account of Armenia's Balance of payments in 2015. The "Services" account was -94.54 mn USD, with 1512.73 mn USD credit and 1607.26 mn USD debit. The Travel account was -59.96 mn USD (which has increased in recent years), with 935.82 mn USD credit and 995.78 mn USD debit. Business travel account was -110.90 mn USD (122.00 mn USD credit and 232.90 mn USD debit), personal travel account was 50.94 mn USD (813.82 mn USD credit and 762.88 mn USD debit). Health-related personal travel score was -2.38 mn USD (79.38 mn USD credit and 81.77 mn USD), education-related travel score was -1.25 mn USD (52.05 mn USD credit and 53.30 mn USD debit), accommodation services score was -22.60 mn USD (141.33 mn USD credit and 163.93 mn USD debit), food-serving services score was 72.07 mn USD (110.26 mn USD credit and 38.19 mn USD debit) ([Balance of Payments of the Republic of Armenia, 2012-2015](#)).

**Table 3.** Balance of the payments of the RA, (2012-2015) mn USD

	2012	2013	2014	2015
CURRENT ACCOUNT	-1 057.85	-812.93	-883.11	-279.09
Credit	5 023.42	5 533.38	5 588.46	4 926.36
Debit	6 081.27	6 346.31	6 471.58	5 205.45
GOODS AND SERVICES	-2 213.48	-2 320.51	-2 168.35	-1 280.94
Credit	2 917.90	3 155.89	3 318.90	3 136.62
Debit	5 131.38	5 476.40	5 487.25	4 417.56

SERVICES	-101.57	-124.35	-112.95	-94.54
Credit	1 402.19	1 520.03	1 620.75	1 512.73
Debit	1 503.77	1 644.38	1 733.70	1 607.26
Travel	14.75	-49.16	-58.06	-59.96
Credit	817.45	880.39	965.84	935.82
Debit	802.70	929.55	1 023.90	995.78
Business	-121.24	-153.83	-145.38	-110.90
Credit	134.53	124.03	133.75	122.00
Debit	255.77	277.86	279.12	232.90
Acquisition of goods and services by border, seasonal, and other short-term workers	-111.45	-133.33	-118.07	-80.10
Credit	14.77	11.74	19.66	18.47
Debit	126.22	145.07	137.74	98.57
Other	-9.79	-20.51	-27.30	-30.80
Credit	119.75	112.29	114.08	103.53
Debit	129.54	132.79	141.39	134.34
Personal	136.00	104.67	87.32	50.94
Credit	682.93	756.36	832.10	813.82
Debit	546.93	651.69	744.78	762.88
Health-related	1.37	-0.68	-1.52	-2.38
Credit	52.73	63.29	74.53	79.38
Debit	51.35	63.98	76.05	81.77
Education-related	7.60	4.77	2.47	-1.25
Credit	40.93	46.36	51.97	52.05
Debit	33.34	41.59	49.50	53.30
Other	127.02	100.59	86.37	54.56
Credit	589.27	646.71	705.59	682.38
Debit	462.24	546.12	619.23	627.82
For both business and personal travel	14.75	-49.16	-58.06	-59.96
Goods	-17.77	-41.03	-46.41	-46.21
Credit	252.40	271.84	298.22	288.95
Debit	270.17	312.87	344.63	335.16
Local transport services	-2.10	-4.85	-5.48	-5.46
Credit	29.82	32.12	35.24	34.14
Debit	31.92	36.97	40.72	39.60
Accommodation services	-8.69	-20.07	-22.70	-22.60
Credit	123.45	132.96	145.87	141.33
Debit	132.15	153.0	168.56	163.93
Food-serving services	65.52	68.08	74.52	72.07
Credit	96.31	103.73	113.79	110.26
Debit	30.79	35.65	39.27	38.19
Other services	-22.21	-51.28	-58.00	-57.75
Credit	315.46	339.75	372.72	361.14
Debit	337.67	391.03	430.72	418.89
of which, health services	1.37	-0.68	-1.52	-2.38
Credit	52.73	63.29	74.53	79.38
Debit	51.35	63.98	76.05	81.77
of which, education services	7.60	4.77	2.47	-1.25
Credit	40.93	46.36	51.97	52.05
Debit	33.34	41.59	49.50	53.30

Source: Own adjustment based on the data of the National Statistical Service of the RA



When the country imports more goods and services than it exports, the trade current account is negative. Higher debit of travel services means that our outgoing tourists abroad spend more than incoming tourists spend here on goods and services.

### 3. Conclusion and suggestions

Hence, tourism development is of high importance for the whole economy. For that objective, several steps must be undertaken towards increasing tourism competitiveness and promoting tourism such as:

1. fostering human resources of the sphere by preparing high qualified specialists and organizing trainings according to the international practice,
2. developing ground and air transport infrastructure,
3. increasing the effectiveness of marketing by elaborating country brand strategy and attracting tourists via e-marketing tools,
4. improving price and quality indicators of tourism services by increasing the quality of services and using flexible price system of discounts,
5. raising the environment sustainability and extending the conservation of the environment and natural resources,
6. revising the legislation and statistical recording of the sphere,
7. benchmarking the international best practice in tourism hospitality and restaurant business,
8. processing and implementing strategic development programs of the sphere aimed at promoting the most perspective types of tourism in Armenia (religious, wellness, cultural-historical, gastronomy, urban, adventure tourism and agritourism), etc.

Undoubtedly, these steps should promote tourism advancement, which in its turn should impact other spheres of the economy, the regional development, positive increase of the travel account of the balance of payments as well, etc.

As a conclusion, it is worth mentioning that Armenia may emerge as specific tourism destination in the world based on its tourism assets, natural resources, ancient history and culture.

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