Analysis of a paired regression model of the impact of income from international tourism on the foreign trade balance

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Abstract

International tourism is one of the largest and most highly profitable sectors of the world economy. International tourism takes a special place in the system of world economic relations and universal values, and it contributes to the strengthening of positive trends in the economic, political and socio-cultural life of society. Many researchers agree that international tourism has a strong impact on employment, as new jobs are geographically speaking, spread more widely than in other sectors of the economy. At the same time, existing work often does not address in detail and from the point of view of statistical analysis the relationship between tourism and the foreign trade balance of the country. That is why the definition of the role and importance of international tourism in the formation of macroeconomic indicators of the country, in particular - the foreign trade balance - is an extremely pressing issue for the development of the economy of an individual country and the world. This article is devoted to defining the role of international tourism in improving the structure of foreign trade activities. Correlation regression analysis is given. Based on the research carried out, the link between international tourism and the foreign trade balance of the country has been identified. Based on the statistical analysis of the country's data for 1995 - 2018, this showed that there is a correlation of exports of goods from revenues of international tourism. With a 1% increase in international tourism revenues, exports of goods from other industries grow by an average of 0.57%, and the foreign trade balance grows by an average of 0.59%. In this research, the role of tourism in the balance of payments has been proved very significantly.

Keywords: correlation-regression analysis, international tourism, foreign trade balance, pair regression model, Azerbaijan.

Introduction

International tourism takes a special place in the system of international relations and universal values, contributes to the strengthening of positive trends in the economic, political and socio-cultural life of society. Now international tourism remains one of the most dynamic sectors of the world economy, which is developing intensively. International tourism has a significant impact on countries where this service industry exists. In many countries of the world, international tourism plays a significant role in the formation of gross domestic product, the creation of additional jobs and employment, and the intensification of foreign trade balance. Many researchers agree that international tourism has a strong impact on employment, as new jobs are geographically spread more widely than in other sectors of the economy. At the same time,

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existing work often does not address in detail, as well as from the point of view of statistical analysis, the relationship between tourism and the foreign trade balance of a country. That is why the definition of the role and importance of international tourism in the formation of macroeconomic indicators of the country, in particular - the foreign trade balance - is an extremely pressing issue for the development of the economy of an individual country and the world.

None of the countries of the world in modern conditions can exist separately from other countries and be isolated from those processes that take place in the region or part of the world where it is located. Countries and their national economies interact in production, economic, political, military, cultural, humanitarian, environmental and other spheres. One such area is international tourism.

International tourism has a huge impact on such key sectors of the economy as transport and communications, construction, agriculture, production of consumer goods and others, that is, it acts as a catalyst for social and economic development. In turn, its development is influenced by various factors: demographic, natural-geographical, socio-economic, historical, religious and political-legal. International tourism has a strong impact on employment, as new jobs are geographically more widespread than in other sectors of the economy.

International tourism is a more profitable form of sale of goods and services than foreign trade, as it is carried out domestically. Tourism is often referred to as "invisible exports." A feature of this industry is that tourist services or goods that are produced for export are not exported outside the country - the consumer-tourist himself travels the distance on the goods that he is interested in. At the same time, when buying goods and services within the country, a foreign tourist pays for foreign currency, increasing the volume of exports.

Thus, tourism allows the country to cover the negative external trade balance. In some cases, up to 30-35% of the trade deficit is covered. For example, in Hungary, revenues from international tourism cover almost half of the trade deficit and Austria's revenues from tourism correspond to one third of revenues from exports of goods. In highly developed countries, international tourism takes the second or third place in the share of exports (Austria, Switzerland, Denmark, France), and in countries with moderate economic development (Spain, Greece, Portugal), international tourism takes the first place in the share of exports.

Evaluating the impact of tourism on the country's macroeconomic performance is hampered by the specific nature of work (seasonality, part-time work, temporary work, etc.). Yet the number of employees in the tourism sector is constantly increasing. This is not one of many sectors of the economy where attracting new technologies does not lead to a reduction of working staff This is important because by using more quantity of labour, tourism reduces social tension in society. In addition, world experience shows that the international tourism industry can be developed in times of economic crises, which is important for many countries, including Azerbaijan.

On this basis, the purpose of this study is to study the long-term and short-term relationships between tourism and economic growth in Azerbaijan using annual data covering the period 1995-2018, as well as the distributed lag auto-regression and error correction models to study the relationships between variables.

This research will be interesting both for researchers studying the factors of tourism development in the country and for researchers who are considering the issues of intensification of foreign economic activity and improvement of macroeconomic indicators of the country. In addition, the research is interesting in terms of using statistical methods to identify the

relationship between an individual sector of the economy and the development of the economy as a whole.

Review of literature

Most modern researchers agree that tourism is of great importance in the development of the country's economy. For example, precisely such a main idea is present in the work of Krynova (2018), who claims that tourism not only satisfies human interests, but also serves as a source of income at the micro and macro levels.

Tourism involves the creation of jobs, accelerates the development of infrastructure, stimulates production in various fields, helps preserve the culture of the country. American researcher Tano (2015) claims that tourism has great potential and plays a very important role in achieving the country's main macroeconomic goals related to economic growth, employment, sustainable economic and social development. Tano notes that tourism is a good alternative to reserve currency recovery.

Also, for example, Abubakirova and Keleshbaev (2016) argue that the tourism sector remains in the spotlight, especially because of the economic benefits it provides to the state. The researchers, using statistical data, prove that the share of tourism in total fixed capital, foreign investment in tourism, the ratio of tourism spending to import costs, the contribution of tourism income to GDP are growing.

Sohanwar (2019) also argues that the impact of tourism on the country's macroeconomic indicators is mixed. Sohanwar explores the direct and indirect effects of investment on the economic growth of seven countries of the European Union (EU), which have a significant share of tourism revenues in their economy. For this, statistical methods for identifying relationships are used, which is very valuable from the point of view of our research.

But some researchers are exploring the relationship between tourism and foreign trade using mathematical and statistical indicators. Thus, Tariq and Ahmad (2015) established that tourism and trade relations play an important role in the economic development of the country. Tourism plays a significant role in the development of the country, as well as in the trade balance of the country. In addition, according to the authors, tourism and trade contribute to reducing poverty and expanding employment opportunities in the country.

Živković and Bjelić (2017) in their article devoted to a statistical analysis of Montenegro's participation in international trade, argue that most of the international trade today is carried out through transnational corporations. Researchers found the economic variables of the economic situation in the country, to which individual industries made the greatest contribution. From the point of view of this study, this is especially interesting, since the relationships between the external economic indicators of the country as a whole and individual business lines are given and statistically evaluated.

A similar research is presented by Dincer (2015), who, using statistics on Turkey, analyzes the impact of tourism on the country's economy, the impact of the development of the tourism sector on the economic performance of Turkey.

Yazdi (2017) considers tourism as one of the largest industries in the world and an important source of foreign currency, which is used to finance economic growth. The results of the research Yazdi has shown that there is a positive relationship between tourism spending and economic growth in the long and short term.

The presented researches, although they contain specific results of a statistical analysis of the relationship between tourism and the country's development, but they do not specify the effect of income from international tourism on the country's foreign trade balance, which suggests gaps in the study of this issue.

Impact of international tourism on foreign trade balance of Azerbaijan

International tourism occupies a special place in the system of international relations and universal values, contributes to the strengthening of positive trends in the economic, political and socio-cultural life of society. Now international tourism remains one of the most dynamic sectors of the world economy, which is developing intensively. This market accounts for 9% of world GDP, 6% of exports, every 11th job.

That is why determining the role and importance of international tourism in improving the structure of foreign economic activity is an extremely pressing issue for the development of the world economy.

The state of the market for international tourism services is interrelated with the state of the economy and is determined by the socio-economic, foreign economic and political processes that are taking place in the country, replicating the progress of the reform of public life.

So, the current foreign trade balance account includes transactions with goods, services, investment revenues and current transfers, and the capital account mainly includes transactions with financial instruments. The export sector of international tourism focuses on the sale of goods and services by nationals of the host country to international tourists. The credit side of the tourism item reflects the expenses that international tourists make to purchase various goods and services in the host country, while the debit side reflects the expenses that citizens of the country of origin make to buy goods and services when they travel abroad. The net result of this transaction is the difference between the two parties. That is why an assessment of the tourism sector based on the credit or debit surplus of the "tourism" item is not considered reliable. The calculation of net revenues from tourism will produce various results, as they do not include expenses incurred by nationals of the country of origin, but expenses incurred by nationals of the host country with respect to currency exchange, which have a direct impact on tourism revenues. This category of currency exchange expenses is included in the debit part of the foreign trade balance for various items.

International tourism generates a number of transactions included in the current account as well as capital flows. However, these transactions do not appear explicitly on the balance of payments. Tourist transactions affect other categories of balance of payments - these are:

- Goods: this category includes in the debit side all expenses incurred on imported products, which are intended to meet the needs of tourism. Their partial or complete substitution by domestic products is directly related to the development policy of the country, while on the credit side all products sold to tourists are laid: food, souvenirs, products of folk crafts, etc.
- Services: usually tourism revenues and tourism expenditures are recorded in the category "tourism." But services, in addition to travel, also include transport, receipts received from work and capital.
- Income: tourism, at least in the early stages of its development, needs skilled personnel, especially in the least developed and developing countries. The need for qualified members remains constant at later stages; This is more evident in connection with the operation of multinational enterprises. These requirements cause significant foreign currency expenses that are reflected on the debit side of the balance of payments.

- Capital flows: capital flows are linked to the financing of tourism infrastructure of host countries. These payments are listed as credit in the balance sheet because they relate to foreign exchange entering the receiving country, which will be used to finance tourism infrastructure and superstructure projects. Their impact is seen as long-term in terms of their credit and debit nature on the foreign trade balance, as their main goal is the periodic return of borrowed capital.

The impact of international tourism on the country's balance of payments depends on other components of the balance of payments, that is, the current balance of payments and the balance of capital flows. Some of the money is in the form of repatriated profits to transnational corporations, and so on. As a result of the different combinations of these constituents, the total balance can be either positive or negative. In turn, tourism can affect capital flows, and therefore it must also be taken into account to accurately determine the impact of tourism on the balance of payments and on the entire economy. It is very difficult to accurately assess the impact of international tourism on the balance of payments and foreign trade. Recently, a single international tourism account has been developed based on the collection of all financial statistics on international tourism.

However, not all money spent by foreign tourists in the host country can automatically improve its balance of payments. World practice knows the expenses of the party that receives tourists. First of all, these are items that are spent and goods familiar to a foreign tourist, but not produced or consumed in the host country, from construction and finishing materials of hotels, hotel and restaurant equipment, furniture, sports equipment to food, drinks and souvenirs. The increase in the reception of foreign tourists creates an additional burden on local infrastructure: water and electricity supply, sewerage, garbage removal, roads, transport, communications, security services. There is a need to expand and develop airports, train stations, sea or river ports, hotels, roads, etc., which requires huge funds and investments. In countries developing the international tourism industry, this is usually done at the expense of foreign investors.

Attracting foreign investors leads to the need to return part of their income to the investor 's country, which reduces the foreign trade balance of the country. Therefore, it is important for the country to balance the revenues derived from international tourism with the costs of it. (Including return of currency to the investor country, long-term expenses for construction and improvement of hotels, roads, airports, communication facilities, training of personnel to create comfortable conditions of stay for foreign tourists - which reduces the foreign trade balance). In order to eventually ensure a sustainable positive balance of payments of the country, both under the item "Tourism" and in general on foreign trade activities.

In order to consider the impact of international tourism on the foreign trade balance of Azerbaijan, it is necessary to collect and summarize data on foreign trade of the country for a certain period. Thus, Table 1 presents data on the trade balance of Azerbaijan in 1995 - 2018:

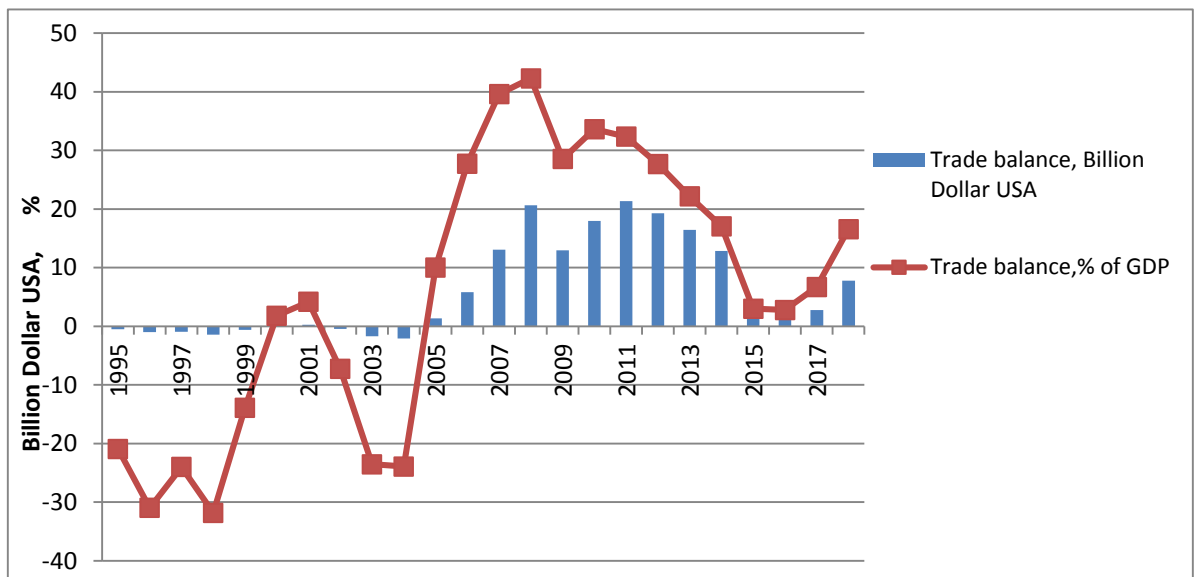**Table 1.** Data on the trade balance of Azerbaijan in 1995 – 2018

Year	Trade balance, Billion Dollar USA	Trade balance,% of GDP
1995	-0,51	-20,92
1996	-0,99	-30,99
1997	-0,95	-24,01
1998	-1,42	-31,83
1999	-0,64	-13,89
2000	0	1,79

2001	0,24	4,18
2002	-0,45	-7,28
2003	-1,71	-23,54
2004	-2,08	-23,93
2005	1,33	10,04
2006	5,82	27,75
2007	13,09	39,62
2008	20,67	42,31
2009	12,97	28,53
2010	18	33,62
2011	21,33	32,35
2012	19,29	27,69
2013	16,42	22,16
2014	12,84	17,06
2015	1,58	2,99
2016	1,05	2,78
2017	2,74	6,69
2018	7,78	16,57

According to: https://ru.theglobaleconomy.com/Azerbaijan/trade_balance_dollars/

Figure 1 shows the dynamics and share of Azerbaijan 's trade balance in the country 's GDP in 1995 - 2018:

Figure 1.Dynamics and share of Azerbaijan 's trade balance in the country 's GDP in 1995 - 2018.

In 2018 Azerbaijan carried out trade operations with foreign countries worth 30.924 billion dollars. This is 37% more than in 2017. Exports accounted for 19.459 billion, imports - 11.465 billion dollars of total trade turnover. During the year exports increased by 41%, imports - by

31%. As a result, there was a surplus of foreign trade turnover in the amount of 7.78 billion dollars, which is 59% more than in 2017.

These figures show an uneven change in Azerbaijan 's foreign trade performance. They will then be used in correlation analysis of the relationship with the dynamics of international tourism.

Methodology and materials (Methods of research)

The modern stage of tourism development requires the use of science-based management solutions that increase the efficiency and competitiveness not only of tourist enterprises, but also of the system of foreign trade relations of the country as a whole. The impact of various factors related to the development of international tourism on the final result - the foreign trade balance of the country - can be assessed by economic and statistical methods. Their application makes it possible to analyze the statistical indicators under study and to build a mathematical model on the basis of the obtained data. A large number of factors make it necessary to use multiple correlation-regression analyses to quantify the relationships between the statistical characteristics of the socio-economic processes that link international tourism and the country 's foreign trade performance.

During the analysis it is necessary to establish a theoretical form of connection between indicators of development of international tourism and foreign trade balance of the country (regression analysis) and to determine close connection (correlation analysis), that is, to quantify and evaluate the mechanism of interaction of factor characteristics. The objective of correlation-regression analysis in this study is to construct and analyze an economic-mathematical model of regression equation (correlation coupling equation), which reflects the dependence of indicators of international tourism and foreign trade balance of the country, and gives an estimate of the degree of close coupling. Correlation relationships are established on average for a large set of data from an information base, which has sufficiently typical and reliable statistical characteristics, as well as qualitative uniformity (approximation of conditions of formation of productive and factor characteristics) and quantitative uniformity (absence of an observation unit, which differs significantly from the main mass of data in numerical characteristics). These features require two tasks: finding a form of functional coupling and determining the degree of approach of correlation coupling in them, which is important in the framework of this study.

Correlation analysis parameters are used to target performance characteristic levels. The set of information inputs must be checked for a linear relationship between all or more factor characteristics (multicolineity). In economic processes there are objective relationships between individual factors, so this study will use this statistical method to study the relationship between international tourism and foreign trade balance.
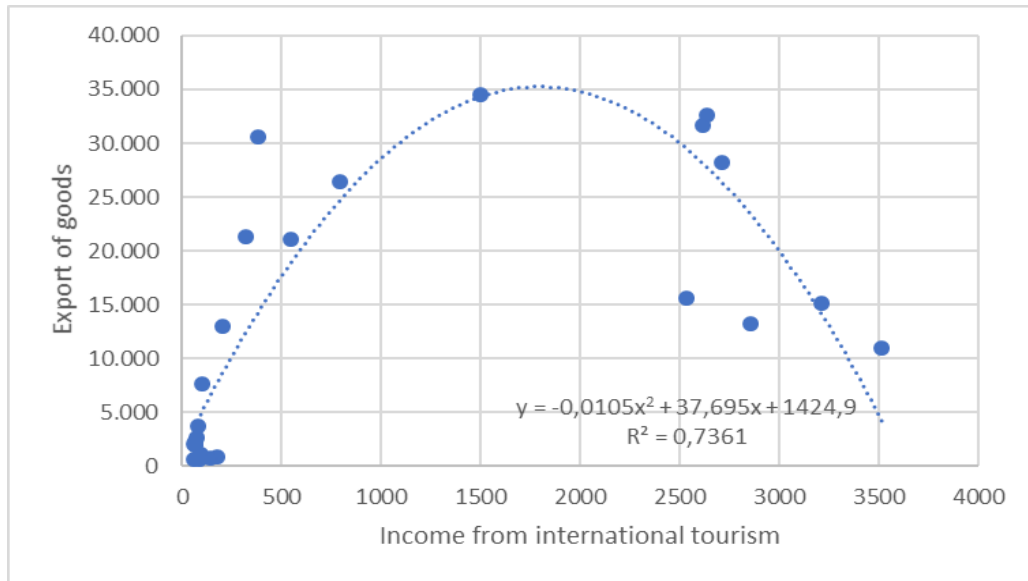
Thus, the results of correlation and regression analysis can be used to support management decisions in international trade and tourism for short-term and strategic planning.

Results of the research

The effective characteristics of the study are the foreign trade balance and exports of goods in other industries. The indicator of revenues from international tourism is considered as a factor. For research purposes, paired regression models are constructed.

On the basis of correlation fields (Fig. 2, 3) a nonlinear form of connection between features in the form of a second degree polynomial (second order parabols) is selected visually.

Figure 2. Field of correlation of exports of goods from revenues of international tourism

The determination factor is R2 close to one, which indicates a sufficient quality of model selection to real data.

According to the initial data for 1995-2018, a pair regression model of species (1) was built:
$Y_1 = 1424{,}892 + 37{,}695 \cdot X - 0{,}011 \cdot X^2$, (1)

Where Y1 - exports of goods of other industries;
X - revenues from international tourism. (Equation 1. Pair regression model of species for 1995-2018).

The data of Table 2 show that the model is statistically significant at the level of significance α = 0.05 by Fisher 's criterion, as well as its parameters by Student 's criterion (Babeshko, 2018:385). 73.6% variations in exports of goods from other industries are due to variations in revenues from international tourism.
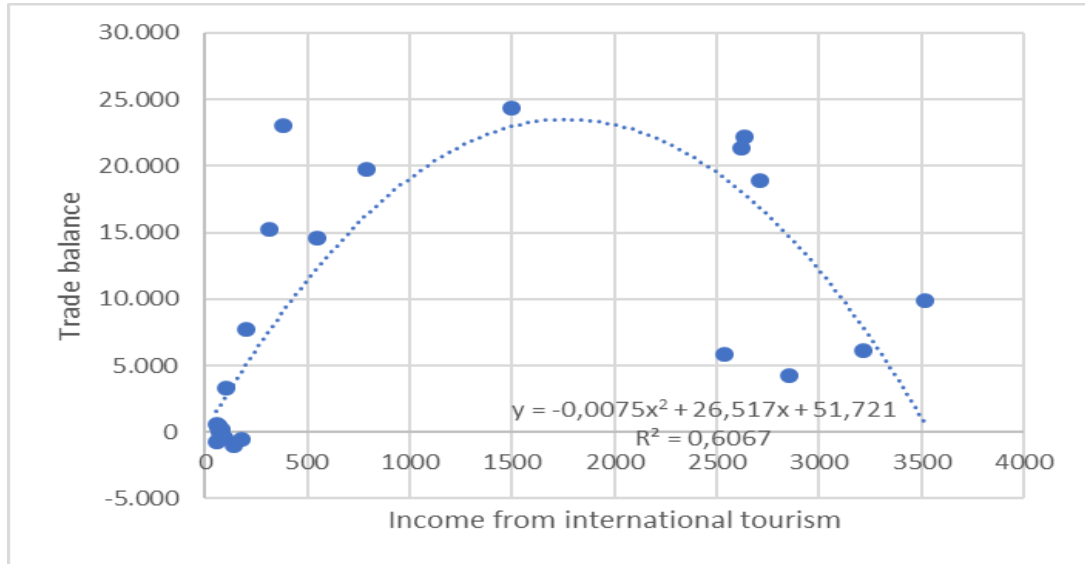
With an increase in revenues from international tourism by 1 unit, exports of goods grow by an average of 37.695 units.

Table 2. Model for regression of exports of goods from international tourism revenues

Regression statistics	
Multiple R	0,858
R-square	0,736
Normalized R-square	0,711
Standard error	6535,365
Observations	24

Dispersion analysis					
	df	SS	MS	F	Importance of F
Regression	2	2501663089	1250831545	29,286	0,000
Balance	21	896930835	42710992		
Total	23	3398593924			
	Coefficients	Standard error	t- statistics	P- Value	Lower 95%	Upper 95%

Y- crossing	1424,892	2052,883	0,694	0,495	-2844,312	5694,097
X	37,695	5,544	6,799	0,000	26,165	49,225
X^2	-0,011	0,002	-5,980	0,000	-0,014	-0,007

Figure 3. Field of correlation of foreign trade balance from revenues of international tourism

The determination factor R2 more than 0.5, suggesting that the selection of this model to describe the relationship under study is acceptable.
According to the initial data for 1995-2018, a pair regression model of species (2) was built:
$$Y_2 = 51{,}721 + 26{,}517 \cdot X - 0{,}007 \cdot X^2, \qquad (2)$$

Where Y2 is the foreign trade balance. Equation 2. Pair regression model of species for 1995-2018

Table 3. Model of regression of foreign trade balance from revenues of international tourism

Regression statistics					
Multiple R	0,779				
R-square	0,607				
Normalized R-square	0,569				
Standard error	6031,637				
Observations	24				

Dispersion analysis					
	df	SS	MS	F	Importance of F
Regression	2	1178384191	589192095	16,195	0,000
Balance	21	763993437	36380640		
Total	23	1942377628			

	Coefficients	Standard error	t- statistics	P- Value	Lower 95%	Upper 95%
Y- crossing	51,721	1894,652	0,027	0,978	-3888,425	3991,866
X	26,517	5,117	5,182	0,000	15,875	37,158
X^2	-0,007	0,002	-4,622	0,000	-0,011	-0,004

The data of Table 3 show that the model is statistically significant at the level of significance α = 0.05 according to Fisher 's criterion, as well as its parameters according to Student 's criterion.

60.7% of the variation in the foreign trade balance is due to the variation in revenues from international tourism.

With an increase in revenues from international tourism by 1 unit, the foreign trade balance is growing by an average of 26.517 units.

Average approximation error is calculated using formula (3) (Gladun, 2017:232):

$$\bar{A} = \frac{1}{n} * \sum \left| \frac{(y - \hat{y})}{y} \right| * 100\%. \qquad (3)$$

Equation 3. Average approximation error.

The result of calculating the approximation error across both models shows that the model data is not adequate to the real data because its magnitude is well over 15%.
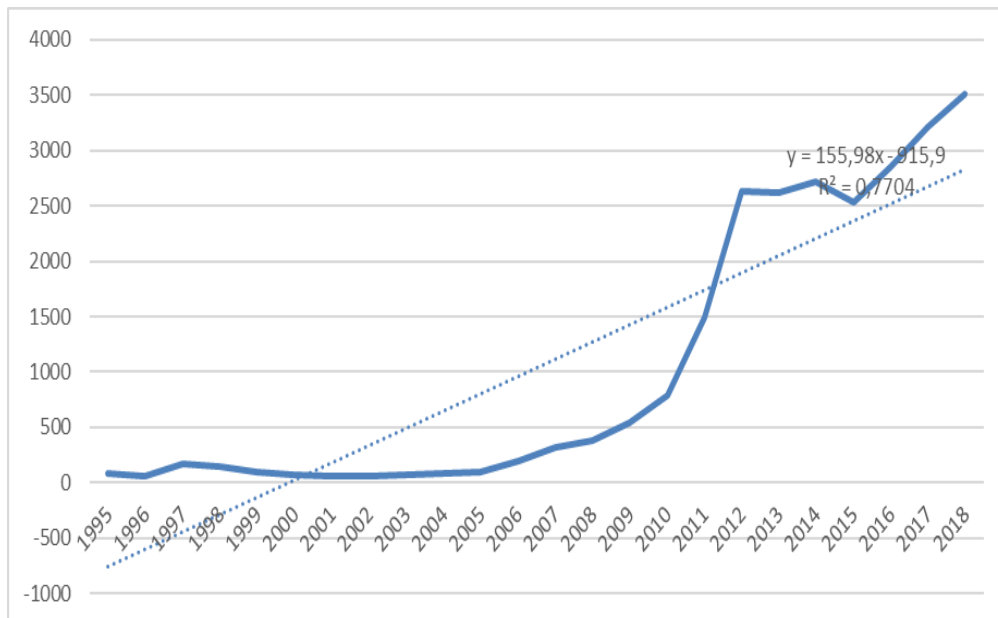The elastic coefficient in the polynomial model is calculated as follows:

$$\vartheta = \frac{(b + 2c\bar{x})\bar{x}}{a + b\bar{x} + c\bar{x}^2} \qquad (4)$$

Equation 4. Elastic coefficient in the polynomial model.

The elasticity coefficient shows that with an increase of 1% in international tourism revenues, exports of goods from other industries grow by 0.57% on average, and the foreign trade balance grows by 0.59% on average.

The forecast of the value of revenues from international tourism according to the linear model (Figure 4) shows that in 2019 revenues will amount to 2983,652 units.

Figure 4. Dynamics of revenues from international tourism for 1995-2018

Substituting the forecast value of revenues from international tourism in the found models (1) and (2) received that in 2019 the forecast value of exports of goods will be 20370,337 units, and the foreign trade balance - 12460,324 units.

Discussion

Based on studies by other authors, as well as their own theoretical conclusions, it has been established that there is a relationship between international tourism and the foreign trade balance of the country. This is because the development of international tourism has a direct impact on the employment of the population, since the characteristic of the tourism industry is that its growth leads to the creation of additional jobs, regardless of the level of development of the country. In addition, the impact of tourism is reflected in the balance of payments, that is, revenues from international tourism and payments of residents of the country for travel.

Statistical analysis carried out on the basis of data on income from international tourism in Azerbaijan and the foreign trade balance of the country for 1995 - 2018 showed that, indeed, there is a correlation of exports of goods from income of international tourism. This is identified on the basis of a nonlinear model (parabola). At the same time, the determination coefficient was calculated, which turned out to be close to one, which indicates sufficient quality of model selection to real data. Based on further calculations, it has been found that 73.6% of the variation in exports of goods from other industries is due to the variation in revenues from international tourism. With a 1% increase in international tourism revenues, exports of goods from other industries grow by an average of 0.57%, and the foreign trade balance grows by an average of 0.59%. These are very indicative results, which support the assumption that there is a close link between revenues from international tourism and the country 's foreign trade balance.

Thus, the objective of the article was achieved, which was theoretical and practical confirmation of the link between revenues from international tourism and the foreign trade balance of the country (using the example of Azerbaijan).

Conclusion

The role of tourism in the balance of payments is quite significant, as proved in theory and on the basis of statistical data. Developing countries promote and support tourism development, as it can transform their economies from a predominantly traditional agricultural economy into an industrial economy and thus drive needed development. This transformation requires spending on large capital investments. Many developing countries - including Azerbaijan - need investment costs that can be financed by exports of primary goods or tourism-related services. The Government of Azerbaijan should be systematically oriented towards the development of tourism, since if a country cannot produce certain products due to lack of necessary factors of production, it can receive these products from other countries in exchange for its products in demand abroad. Thus, Azerbaijan, as a developing country, uses tourism-related exports to import raw materials as well as machinery and equipment. Analyzing data on tourism-related exports and imports of machinery and equipment, we see that tourism-related exports clearly do increase the country 's foreign trade turnover.

In order to eliminate the negative current tourist balance, it is advisable to balance the income received from entry tourism with the costs of it (including the return of currency to the investor country, long-term costs for the construction and improvement of hotels, and infrastructure such as roads, airports, communication facilities, training of personnel to create comfortable conditions for foreign tourists) in order to eventually ensure a stable positive balance of payments for the country under the umbrella of Tourism.

The solution of the above-mentioned issues will allow for intensifying innovative processes and increased competitiveness of the international tourism business taking into account the global challenges of the modern world economy.

References

Abubakirov, A. et al. (2016). Place of tourism in the economy of the Republic of Kazakhstan, *Issues of economy and finance of the Republic of Kazakhstan*, 39, 3-6.

Akay G. H. et al. (2017). Turkish tourism, exchange rates and income. *Tourism Economics*, 23, 66-77.

Babeshko, L.O. et al. (2018). Econometrics and econometric modelling: textbook/, M.G. Beach, I.V. Orlova.- M.: Vuzovsky textbook: INFRA-M, 385.

Buranov, A. B. (2016) Development of Kyrgyz-Azerbaijani interstate, economic and cultural cooperation at the present stage, *Journal of Kyrgyz-Russian Slavonic University*,10, 135-136.

Dincer, M. Z. et al. (2015). Reel effective exchange rate volatilities impact on tourism sector in Turkey: an empirical analysis of 2003-2014. *Procedia Economics and Finance*, 23, 1000.

Gladun, I.V. (2017). Statistics: textbook/I.V. Gladun.- 3rd ed., Moscow: KNORUS. 232 p.

Gulyayeva, G. Y. (2017). Effective mechanisms of management: monograph. Penza: ICNS "Science and Enlightenment.", 244.

Khoshnevis Yazdi, S., Homa Salehi, K. & Soheilzad, M. (2017). The relationship between tourism, foreign direct investment and economic growth: evidence from Iran. *Current Issues in Tourism*, 20(1), 15-26.

Krynova, T. G. (2018). The Importance of Tourism for the Economy of the Country//This collection is based on the results of the International Scientific and Practical Conference "Concept of the Knowledge Society" in Modern Science, held on June 3, 2018 in Kazan, 105.

Kum, H., et al. (2015). Tourism and economic growth: The case of next 11 countries. *International Journal of Economics and Financial Issues,* 5, 1075-1081.

Shakouri, B. et al. (2017). International tourism and economic growth and trade: variance decomposition analysis //*Journal of Tourism & Hospitality*, 6(3), 1-11.

Sokhanvar, A. (2019). Does foreign direct investment accelerate tourism and economic growth within Europe? *Tourism Management Perspectives*, 29, 86-96.

Statistics on Azerbaijan's foreign trade balance. Available online at https://ru.theglobaleconomy.com/Azerbaijan/trade_balance_dollars/

Tariq A. et al. (2015). The Nature of Relationship between International Tourism and Trade: A Panel Data Perspective. *Journal of Statistics*, 1, 9-21.

Thano, R. (2015). The impact of tourism on the balance of payments. *American Journal of Economics, Finance and Management*, 1, 529-536.

Živković, O. & Bjelić, P. (2017). An Analysis of International Trade of Montenegro Using Statistics on the Operations of Transnational Corporations' Affiliates. *Journal of Central Banking Theory and Practice*, 6(1), 145-163.