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August 26-27, 2022 / Bucharest, Romania

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Edited by

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26.08.2022, Session-3

Bucharest Local Time	National Institute for Economic Research "Costin C. Kirițescu"
16 00 : 18 30	București, Casa Academiei Române Calea 13 Septembrie nr. 13

HEAD OF SESSION: Dr. Alexandru SIN - SCHNEIDER

AUTHORS	AFFILIATION	TOPIC TITLE
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Mihaela-Iuliana GRIGORE Assoc. Res. Mădălina-Teodora ANDREI	University of Craiova Romanian Academy	POST-PANDEMIC ECONOMIC RECOVERY THROUGH WINE TOURISM. CASE STUDY: ROMANIA
Akmaral SAPIYEVA Assoc. Prof. Dr. Aliya AKTYMBAYEVA Yeldar NURULY Aida KALİYEVA	Al-Farabi Kazakh National University Al-Farabi Kazakh National University Al-Farabi Kazakh National University Al-Farabi Kazakh National University	MULTIPLIER EFFECTS OF TOURISM IN ZHONGAR-ALATAU NATIONAL PARK (KAZAKHSTAN)
Aida Kaliyeva Assoc. Prof. Dr. Aliya Aktymbayeva Akmaral Sapiyeva Yeldar Nuruly	Al-Farabi Kazakh National University Al-Farabi Kazakh National University Al-Farabi Kazakh National University Al-Farabi Kazakh National University	ENSURING THE DEVELOPMENT OF THE TARBAGATAI NATIONAL PARK THROUGH THE ORGANIZATION OF ECOTOURISM
Assoc. Prof. Dr. Yasin BAYKALIR	Firat University	A BREED THAT IS ABOUT TO DISAPPEAR: KARAKACHANSKA SHEEP
Assoc. Prof. Dr. Özlem FIRTINA	Gazi University	REAL WORLD VERSUS FAIRY TALE WORLD
Assoc. Prof. Dr. Erkan DENİZ Lec. Muhammed Halil AKPINAR Prof. Dr. Abdulkadir ŞENGÜR	Firat University Istanbul University Firat University	BIDIRECTIONAL LSTM BASED HARMONIC PREDICTION
Dr. Fakhir Aziz Rasul ROZHBIANY	Salahaddin University	THE REINFORCEMENT INFLUENCE ON ALUMINUM MATRIX COMPOSITES MODIFIED BY THE PROCESS OF STIR CASTING TECHNIQUE

MULTIPLIER EFFECTS OF TOURISM IN ZHONGAR-ALATAU NATIONAL PARK (KAZAKHSTAN)

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ABSTRACT

Rapidly developing tourism sector can contribute to the economic growth of a certain place. It can be observed from the employment of people living near the state national natural park, which is the object of this scientific work, and from the growth process of their economic conditions. However, in order to make it work more effectively, it is required to improve the information support of the national parks, develop the infrastructure, upgrade the level of education of the staff and enhance the quality of the routes. Based on this, the economic effects of tourism can benefit people living near the parks and contribute to economic growth at the national level. In order to estimate the indirect effect from tourism, the article considers a methodological approach to obtain a quantitative estimate of the multiplier effect in tourism. As the main means of calculations, the authors use visitor sampling and income rates. The main factors influencing the estimation of the multiplier in the tourism industry were analyzed. The impact of the multiplier effect of tourism on the combined spheres of economic and social spheres of the “Zhongar-Alatau” SNNP (State National Nature Park) was noted. Authors attempt to calculate the multiplier effect of tourism on the example of one of Kazakhstan's SNNPs, based on the official information of the statistical report of the Republic of Kazakhstan.

Keywords: Multiplicative Effect, Tourism Economy, Tourist Multiplier, National Park.

INTRODUCTION

Currently, methods for assessing the transformation of the multiplicative effect of tourist activity into the dynamics of the development of related sectors of the regional economy are widely used.

The successful development of tourism is associated with a clear picture of its economic importance for the country, determined by both direct and indirect influence. The direct impact of tourism is taken into account with varying degrees of reliability within the framework of the current national accounts. The indirect impact of tourism in the Kazakh economy has not yet been taken into account, although the relevance of such accounting is undeniable [1].

The modern economic theory of the multiplicative effect makes it possible to create a methodological tool for such accounting in the form of a tourist multiplier [2].

The essence of the multiplier effect is formulated as follows: an increase in any of the components of autonomous expenditures leads to an increase in the national income of the society, and by an amount greater than the initial costs.

Researchers V.I. Trukhachev, I.N. Lyakisheva, G.A. Ayrapetyan give the following definition of the tourist multiplier: "The tourism multiplier is the ratio of changes in one of the key economic indicators (for example, production, employment, income, etc.) to changes in tourist spending. The definition of the multiplier is based on the Casian analysis" [3].

The method of the tourist multiplier is the most acceptable way to assess the impact of tourism on the economy of the region at this stage of the development of tourism statistics; statistical research method; mathematical model of the tourist differentiated multiplier.

In the process of studying the indirect impact of tourism on the economy, we used a statistical research method, a mathematical model of a tourist differentiated multiplier based on the theory of economic analysis by D. Keynes and methods of calculating the multiplier by P. Samuelson and V. Nordhaus.

MATERIALS AND METHODS

The authors made an attempt to calculate the multiplicative effect of tourism in the regional context on the example of one of the SNNP of Kazakhstan, based on the official information of the statistical accounting of the Republic of Kazakhstan.

Therefore, based on the described methods of assessing the tourist multiplier, we will calculate the multiplicative effect of wages of employees and profits of private business entities involved in tourist and recreational activities of the "Zhongar-Alatau" SNNP.

Taking into account the dynamics of the turnover of tourist expenses within the tourist multiplier, the calculation of the indirect impact of tourism in a generalized form will look like this:

$$К = I + I \times МСП + I \times МСП^2 + I \times МСП^3 + I \times МСП^4 + \cdots + I \times МСП^n, (1)$$

where:

К – is the multiplicative effect of tourist and recreational activities, expressed in monetary terms;

I – investments representing direct and indirect income from tourist and recreational activities.

n – is the number of monetary turns in the economy;

MPS – marginal propensity to consume, which is the ratio of the level of expenditure to the level of income of local residents in the studied region for the reporting period [4]. Since the territory of the "Zhongar-Alatau" SNNP is located on the border of the Taldykorgan region, then expenses and incomes of local residents will represent the arithmetic mean of expenses and incomes of the population of the region, respectively.

$$MPS = \frac{Expenses\ of\ local\ residents}{Income\ of\ local\ residents} = \frac{\sum_{O=1}^{2} EP}{\sum_{O=1}^{2} IP}, (2)$$

where:

EP – expenditures of the population in the reporting period;

IP – income of the population in the reporting period;

O – is the area for which the multiplicative effect of tourist and recreational activities is calculated; O = 1 (Taldykorgan region), 2 (Sarkand region).

From here, the formula will take the following form:

$$К = \frac{\sum_{i=1}^{m} I}{1 - МСП} = \frac{\sum_{i=1}^{m} I \times \sum_{O=1}^{2} ДН}{\sum_{O=1}^{2} ДН - \sum_{O=1}^{2} РН}, (3)$$

where:

i – is the category of direct and indirect income from tourist and recreational activities; $i = 1,2,3, \dots, m.$

Thus, according to Table 1, the multiplicative effect of wages of employees and profits of private business entities involved in tourist and recreational activities of the "Zhongar-Alatau" SNNP in 2021 is equal to:

$$К = \frac{(2\ 099\ 357\ тг. + 1\ 484\ 420\ тг. + 1\ 090\ 253\ тг. + 2\ 116\ 510\ тг. +}{(749\ 989\ тг. + 847\ 339\ тг.) - (476\ 289\ тг. + 603\ 113\ тг.)}$$

$$\frac{+1\ 697\ 024\ \text{тг.}) \times (749\ 989\ \text{тг.} + 847\ 339\ \text{тг.})}{(749\ 989\ \text{тг.} + 847\ 339\ \text{тг.}) - (476\ 289\ \text{тг.} + 603\ 113\ \text{тг.})} = 26\ 176\ 372\ \text{тенге.}$$

Table 1 – Income and expenditure levels of the population of Sarkand district and Taldykorgan region in 2021, on average per capita [3]

Region	Indicators	
	Nominal monetary incomes of the population, in tenge	Monetary expenses of the population, in tenge
Sarkand district	749 989	476 289
Taldykorgan region	847 339	603 113

In this particular case, deductions of wages to employees and profits of private companies from tourist and recreational activities of the "Zhongar-Alatau" SNNP in 2021 in the amount of 8,487,564 tenge generate additional income in the economy of the region in the amount of 26,176,372 tenge, while making more than 20 turns (transactions).

During the passage of four rounds of money turnover due to the expenses of tourists and tourists in the estimated amount of 10,727,356 tenge, the total effect of the tourist multiplier amounted to 13,308,440 tenge. 8,487,564 tenge out of 13,308,440 tenge went beyond the 4th circle of monetary turnover and continued their movement. It follows from this that in order to determine the full multiplier effect of tourist and recreational activities of the "Zhongar-Alatau" SNNP, we must take into account the difference of 4,820,876 tenge. Hence, the multiplicative effect of all subjects of tourist and recreational activities of the "Zhongar-Alatau" SNNP is equal to:

К=26 176 372 тенге+4 820 876 тенге=30 997 248 тенге.

Thus, the expenses of tourists and tourists as a result of tourist and recreational activities of the state "Zhongar-Alatau" SNNP in the amount of 10,727,356 tenge in 2021 generate additional income in the economies of Sarkand district and Taldykorgan region in the amount of 30,997,248 tenge, while making more than 24 turns (transactions).

Having received the total amount of money turnover in the economy, we calculate the multiplier of tourist expenses and the multiplier of tourist income.

The formula for calculating the multiplier of tourist expenses is as follows:

$$k_e = \frac{K}{E}, (4)$$

where:

k_e – is the multiplier of tourist expenses, which is the ratio of the sum of the multiplicative effect of tourist and recreational activities to the expenses of tourists;

K – is the multiplicative effect of tourist and recreational activities, expressed in monetary terms;

E – total expenses of tourists and tourists in the process of tourist and recreational activities, expressed in monetary terms [5].

According to the formula, the multiplier of tourist expenses is 2.89. This means that additional income is generated in the economy from the tourist and recreational activities of the "Zhongar-Alatau" SNNP 2.89 times more than the amount of expenses of tourists and tourists visiting the national park.

$$k_e = \frac{30\ 997\ 248 \text{ тенге}}{10\ 727\ 356 \text{ тенге}} = 2{,}89.$$

The formula for calculating the multiplier of tourist income is as follows:

where:

k_p – is the multiplier of tourist income, which is the ratio of the sum of the multiplicative effect of tourist and recreational activities to income from tourist and recreational activities;

K – is the multiplicative effect of tourist and recreational activities, expressed in monetary terms;

P – is the total income from tourist and recreational activities, expressed in monetary terms [5].

According to the formula, the multiplier of tourist income is 2,698. This means that the economy generates additional income from the tourist and recreational activities of the SNNP "Zhongar-Alatau" 2,698 times more than the amount of direct and indirect income from the tourist and recreational activities of the national park.

$$k_p = \frac{30\ 997\ 248 \text{ тенге}}{11\ 486\ 975 \text{ тенге}} = 2{,}698.$$

A small difference between the calculated coefficients suggests that the links between the subjects of tourist and recreational activities of the "Zhongar-Alatau" SNNP are not yet mature and strengthened enough. In addition, this confirms the fact of underdevelopment of the tourist infrastructure and tourism sector of the region, and the national park in particular.

From the above, on average, one tourist or tourist spent 3,563 tenge to visit the national park in 2021. The obtained multipliers of tourist expenses and income can also have practical application for assessing the multiplicative effect of tourist and recreational activities of other state national natural parks of the Republic of Kazakhstan. This is possible based on the fact that the "Zhongar-Alatau" SNNP has a significant development over the 6 years of its existence, while remaining the youngest national park of the republic.

CONCLUSION

As a result of the analysis of the initial data, the multiplicative effect of the tourist and recreational activities of the "Zhongar-Alatau" SNNP was revealed. As a result, it was found that in 2021, 3011 tourists and tourists visited the national park, the total income from which amounted to 11,486,975 tenge with total expenses of 10,727,356 tenge. This generated additional income in the economies of Sarkand district and Taldykorgan region in the amount of 30,997,248 tenge. The multipliers of income and expenses, in this case, amounted to 2.698 and 2.89, respectively. In other words, the expenses of each visitor in 2021 in the amount of 3,563 tenge generated additional income in the economy in the amount of 10,295 tenge. The received tourist multipliers are very high.

Thus, the assessment of the multiplicative effect of tourist and recreational activities is a complex research process that requires a large amount of initial information. The results obtained during the assessment make it possible to assess the real contribution of the tourism entity to the economy and, therefore, take into account when planning the economy. But in this case, the assessment of the multiplicative effect should be carried out in the context of all sectors of the national ebuconomy.

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References

1 Nurgalieva A.Sh. Multiplicative effect of tourism in the region // KazKKA Khabarshy No. 2 (63). – Kokshetau, 2013. – pp. 190-197.
2 Gulyaev V.G. Tourism: economy and social development. M., Finance and Statistics, 2003. – 69 p.
3 Trukhachev V.I. Economics of international tourism: a textbook / V.I. Trukhachev, I.N. Lyakisheva, G.A. Hayrapetyan. – M.: KNORUS, 2015. – 256 p
4 Ruetter H. Wirtschaftsfaktor Tourismus. In: Volkswirtschaften der Schweiz. Bern, 2001. – C. 125-132.
5 J.R. Brent Ritchie., Charles R. Goeldner. The Macroeconomical Theory of John Keynes. – 2016. – 128 p.