Multiplicative effect as a factor in the development of industrial tourism in the Rostov Region

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Abstract. The article conducts a study of the issue of analyzing the multiplicative impact of tourism in general and industrial tourism in particular on the economy of the Rostov region. Tourist spending can have an impact on the economy of the host region through the effect of a direct and indirect multiplier, that is, directly through tourist income and through indirect expenses of tourist enterprises and related industries. The assessment of the multiplier effect of tourism spending on the regional economy is made using the input-output model. Money spent in tourism helps create jobs in tourism directly, but it also indirectly creates jobs in other sectors of the economy. A hotel, for example, has to buy products from local producers, who can spend some of this money on developing production. Tourists often buy souvenirs, which increases employment and production in small businesses. Recognition of the multiplier effects produced by the tourism industry suggests further research in the general context of the economic and social efficiency of tourism at the level of a particular region. Keywords: Tourism, industrial tourism, multiplicative effect

1 Introduction

The impact on the economy of the region of tourist spending has a pronounced multiplier effect. The direct multiplier is that any tourist's expenses become the income of the tourist enterprise, but the indirect multiplier is more important, manifested in the fact that the recipients of direct and indirect tourist income spend them on goods and services not directly related to their activities, which creates the effect of the induced multiplier.

2 Review of scientific sources

The tourism multiplier is based on Keynesian (J. M. Keynes, 1936) [1] principles of recycling part of the income by its recipients in the form of consumer spending, which then creates more income and activity.

Assessment of the multiplicative effect of expenditures on the economy is carried out using the regional cost-output model created by Nobel Prize laureate V. Leontiev [2]. The

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application of the cost-output model to the tourism industry was reflected in the works of Douglas C. Frettling & Endre Horváth (1999) [3, 4].

Howard L. Hughes (1994) investigated errors in the interpretation of the tourist multiplier, referring to the fact that the interpretation of tourist spending can be either very wide or very narrow, which entails an incorrect assessment of its impact on the economy [5]. Bryden, J., & Faber, M. (1971) conducted a sociological study that showed the relationship of tourist spending with an increase in the tourist multiplier [6].

In their book "Tourism theory: concepts, models and systems," G. Lohmann, A. Panosso Netto (2017) paid a special attention to the tourist multiplier and its impact on the Brazilian economy [7].

The shift in economic relationships under the influence of the COVID-19 pandemic (to a greater extent than other sectors) affected the tourism industry, and since the multiplier works both in the forward and reverse directions, therefore this entailed a significant negative effect, the study of this problem was reflected in the work of Rodousakis N, Soklis G. (2022) [8] and Tsionas, Mike G. (2020) [9].

The impact of industrial tourism on economic development was investigated by A.H.J. Otgaar & J. Klijs (2010) [10]. A study of the factors determining the attractiveness of industrial tourism was conducted in Cheng-Fei Lee (2015) [11]. The possibilities and prospects for the development of modern industrial tourism were investigated by Boros, L, Martyn, Z, Pal, V (2013) [12].

The statistical model of tourist expenditure multiplier was considered by Juha V.M., & Gagai M.S. (2012) [13].

The development of industrial tourism in the Rostov region was considered in the works of I. Kedrova, T. Zainullina & L. Karich (2023) [14]. The magnitude of the tourism multiplier is investigated in the works of A.B. Krutik (2011) [15], N.A. Yakubovskaya (2008) [16].

3 Methods of research

The following research methods were used: analysis of scientific sources, synthesis of scientific ideas, foreign experience, description of the concept. Statistical observation and analysis methods. Field studies and surveys of business leaders offering industrial excursions and tours were conducted.

4 Results and Discussion

The tourism multiplier was developed in the mid-20th century and is based on Keynesian (John Maynard Keynes) principles of recycling part of the income by its recipients in the form of consumer spending, which subsequently creates more income and activity not only directly in the tourism industry, but also in related industries, as well as in industries not directly related to tourism. The basis for calculating a simple multiplier is a direct inflow of funds into the economy, for example, due to tourist expenses, which, of course, implies higher incomes of tourism service providers. As a result, this will be distributed in the form of wages, rent, interest, profits from these expenses even as indirect income to suppliers of goods and services that contribute to the organization and operation of the tourism business.

It should be noted that indirect income, which is distributed among providers of hotel services, food services, public services such as transport, communications, and even the electricity industry, is identified by the economy as payments to resource providers. After all, any entrepreneur in the above higher income areas can spend or maintain that income gain. If he decides to spend additional revenue on the production of goods and services, then the
industrial cycle creates increased income for suppliers of secondary activities, which, in turn, have more money available for spending.

Tourism, being one of the largest sectors of the economy of many countries, has a high multiplier effect. The influx of money from one tourism sector to another through other industries and sectors of the economy is very high, which contributes to economic development.

Tourism not only creates jobs in the tertiary sector, but also contributes to the growth of the primary and secondary sectors of industry. This is known as the multiplier effect, which in its simplest form shows how many times the money spent by a tourist passes through the country's economy.

In the case of our study - the multiplicative effect of industrial tourism on the example of its development in the Rostov region. Firstly, this area serves as a fundamental source of the formation of new jobs and the development of the regional economy. Secondly, many other countries, to which both Russia and the Rostov Region belong, have significant strategic potential for tourist and recreational development with adequate economic growth and improving the well-being of the population. In this regard, industrial tourism is a combination of planned and tactical management decisions to adapt regional and sectorial economic systems to the changed situation, emerging opportunities for gaining competitive advantages. At the same time, a well-formulated and economically sound strategy allows you to streamline and allocate limited resources in the most efficient way, taking into account possible changes in the external and internal environment.

In the multiplicative effect of industrial tourism, trajectory and point goals can be distinguished. Trajectory goals involve the determination of the general direction of development, they reflect the most common (systemic) issues. Point goals are formulated taking into account the achievement of a specific final result.

Over the past 10 years, a sharp jump in domestic tourism has occurred in the Rostov region - this was expressed in the emergence of new accommodation facilities, training, the development of agro tourism, industrial tourism. Farming (mainly wineries), fishing, realizing that tourists became quite actively interested and used their resources began to create infrastructure at a higher level for consumers of services. This led to an increase in banking services in the form of lending to form an attractive and high-quality infrastructure, since these farms became objects of tourism. From the point of view of the formation of the value of the multiplier effect of tourism development for the economy of the Rostov region, we can talk about the appearance of the "Agency for Business Tourism and Communications," which appeared three years ago - this indicates the isolation of tourism and its allocation in the regional economy. And as statistics for the first half of 2022 show (according to MTS analysts), 1 million 832 thousand tourists arrived in the Rostov region in the first half of the year - precisely those who spent the night here. And this figure is higher than it was last 2021.

Table 1. Comparison of economic indicators in the field of tourism in the Rostov region in 2019-2022 and development prospects until 2030.

<table>
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<tr>
<th>Indicators</th>
<th>Increase in the number of vacationers in the region</th>
<th>Spending tourists in the region</th>
<th>Increase in the volume of paid services for tourists</th>
<th>Financing of the tourism development program, investments</th>
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<td>2019 year</td>
<td>1.5 million tourists</td>
<td>The total revenue of 15 thousand rooms of the region amounted to 6 billion rubles per 3</td>
<td>22% (2015-2019 years.)</td>
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The appearance of tourists always pulls a lot of components: accommodation facilities, roads, catering, excursion services, infrastructure development. It turns out that the transport component for tourism is an important component, but, apparently, not the only one. If people want to relax in the region of the Rostov region, therefore they need to offer various options for this vacation. These include interesting objects for visits - first of all, these are wineries. Currently, there are six wineries in the region that receive tourists this year. The Rostov region is a zone of very complex sheltering winemaking, one of the northernmost regions of industrial winemaking. For example, a winery of the Vedernikova type began to grow unique autochthonous varieties of the Rostov region and wine is produced on an industrial scale from the same autochthonous varieties. 10 years after the opening of the winery, it became necessary to develop this direction as tourism, but for this, first of all, to build accommodation facilities. As a result, a working cluster "Don Valley" appeared: these are six wineries with first-class accommodation facilities on the banks of the Don River (for example, "Petrovskaya Zastava"). Which also led to an understanding of reaching a new level of tourism development and the formation of the "Don Valley" as a national tourist route. Travel to wineries and winery in Tsimlyansk. Tour operators have already begun selling it. Wine production on the Don continues to develop. The Tsimlyanskie Vina enterprise plans to build its own recreational zone, and at this stage of tourism development, regular excursion services using special audio technologies are already organized in the vineyards of Tsimlyansk; a first-class tasting room is open.

Some wineries have accommodation facilities, and if there are no such facilities at the winery itself, then tourists are accommodated in nearby hotels.
In the Rostov region 640 CAF(collective accommodation facilities). Currently, the Federal Agency for Tourism gives grants for the development of tourist infrastructure, including for the construction of glamping. Last year, grants were received in the Rostov region by the Sunrise Park enterprise in the Neklinovsky District - this is an example of a grant erected at the expense of the grant, as well as 30% of co-financing. Of course, part of the glamping is also being built for investors' money - for example, the tourist complex "Razin Pier" on Buyan Island in the Bagavsky District. It is a comfortable house with panoramic windows and a beautiful view of the Don, consisting of three houses, but in the future the owner wants to build 22 more of the same.

![Fig. 1](image1.png)

Fig. 1. The main indicators of the activities of tourist companies in Rostov-on-Don for 2020-2021.

National tourist routes are already the next stage in the development of industrial tourism, which brings the Rostov region to the level of international tourism. The longest national route in time is the Don Valley Tour. It lasts 5 days and 4 nights. The rest of the tourist routes are three-day. And another of the three national tourist routes in the region is the Cossack Roads or the Big Cossack Circle. This tour includes a visit to the Starozolotovsky farm - the opportunity to include the farm appeared precisely thanks to the multiplicative effect that has been formed over the past five years. And expressed in the following factors. The existence of the ethnographic museum "Quiet Don," which received about 5 thousand people over the past five years. As a result, additional new projects began to form, affecting the development of tourism in this region - festivals, apiary, lavender field, exhibition center, new winery, mill, kalachnaya and others. The ultimate goal of the tourist project is to create an ethno-farm that would function all year and would be a new tourist cluster on the map of the Rostov region.

5 Conclusion

Thus, as a result of the study, the following conclusions can be drawn.

1. Tourism became a sector that developed rapidly in the global economy and made positive contributions to national economies after the 1950s.
2. The widespread recognition of the economic effects produced by the tourism industry requires further research interacting with a number of factors and the study of possible consequences in the general context of the economic and social efficiency of tourism in general and industrial tourism in particular.
3. Money spent in tourism and hotels helps create jobs directly in the travel agency and hotel, but it also indirectly creates jobs in other sectors of the economy.
4. Through the tourism, more than 10 million jobs are provided, a significant part of which falls on small towns, the number of employees can grow by 10-15% annually due to the continuation of existing support measures and the further implementation of new programs and projects (for example, tourist cash back). On average, in Russia, one job in tourism is guaranteed to create about one and a half places in related industries.

5. The volume of taxes from tourism in 2021, according to the Federal Tax Service, amounted to a little more than 400 billion rubles, and one ruble of taxes in tourism accounts for almost three rubles of taxes in related industries.

6. The trajectory and point goals of the multiplicative effect in industrial tourism are closely linked to the concept of long-term and short-term goals. As a rule, trajectory goals are long-term, and point goals are short-term, although the latter can be formulated for the future.

References

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