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## EFFICIENCY OF INNOVATIONS IN MICE TOURISM DEVELOPMENT

*Tourism development has a number of important consequences: from the growth of entrepreneurial activity and the transformation of the labor market to the redistribution of public resources. It also stimulates innovation, changes investment strategies and management practices, and forms new consumer preferences.*

*This article explores how the effectiveness of innovations in global tourism can be assessed using various theoretical and methodological approaches. It analyzes how innovations can help countries become more competitive in the tourism sector and examines examples of innovation strategies used in European countries.*

*The purpose of the study is to assess the effectiveness of innovations in world tourism, identify the integral index of the effectiveness of the national innovation strategy in the field of tourism.*

*The main research methods are theoretical methods such as research analysis, statistical processing, and synthesis of the data obtained. Of the empirical methods, observation, measurement and comparison were used.*

*As a result, the formula for the final index of the effectiveness of the national innovation strategy in world tourism was calculated. and a rating of the effectiveness of innovations in the field of tourism of the main tourist destinations of Europe was compiled, which is the scientific significance of this study.*

**Keywords:** innovations in tourism, performance index, innovation management, global tourism market, EXPO exhibitions, development of MICE tourism, visitors, destination.

**Кілт сөздер:** туризмдегі инновациялар, өнімділік индексі, инновацияларды басқару, әлемдік туристік нарық, EXPO көрмелері, MICE туризмін дамыту, келушілер, дестинация.

**Ключевые слова:** инновации в туризме, индекс эффективности, управление инновациями, мировой туристский рынок, выставки ЭКСПО, развитие MICE туризма, посетители, дестинация.

**JEL classification:** L 83

**Introduction.** Innovations are a key factor in the development of economies with a high level of market relations. Activity in the innovation sphere largely determines the pace of socio-economic progress. Developed economies place innovation at the forefront of their public policy, viewing it as a key tool for increasing competitiveness and strengthening the country's role in the international division of labor.

The main objective of the study is to assess the effectiveness of innovations in global tourism, which is reflected in the task of identifying the integral index of the effectiveness of the national innovation strategy in the field of tourism by calculating a formula that uses the index of the implementation of innovation potential (for example, investments, personnel, infrastructure); as well as the index of the effectiveness of innovation activities (for example, the introduction of technologies, participation in EXPO, the number of new tourism products).

To calculate each index, certain statistical indicators are used to assess the state and dynamics of specific areas of development of innovative tourism. These indicators are selected in such a way as to most accurately reflect the specifics of the aspect under consideration and ensure the possibility of conducting a correct comparative analysis between countries or regions.

To assess the effectiveness of national strategies for innovative development in the field of tourism, an index is used, calculated on the basis of official UNWTO statistics and a set of economic indicators. These indicators allow a comprehensive assessment of the innovative potential and the real level of innovation in the tourism industry of the analyzed country [1].

Based on the results of the study, the authors compiled a rating of the effectiveness of innovations in the field of tourism of the main tourist destinations in Europe.

**Literature review.** Key factors for the development of MICE tourism are of great importance, which need to be studied both separately and in dependence on each other [2]. MICE means meetings, incentives,

conferences or congresses, as well as conventions and exhibitions. Business tourism includes all aspects of the experience of travelers staying at least one night away from their permanent residence.

The smart and innovative era has come about due to the accumulation of information technology (IT). The tourism industry has quickly followed the new era, which has evolved into “smart tourism” using various intelligent IT and has started to build a “smart tourism ecosystem” providing an intelligent tourism community that interacts with organizations and tourists from the tourism business world.

Thus, a group of authors such as Fesenmaier and Gretzel in tourism research show that smart technology and innovation play a decisive role in shaping the tourism decision [3].

The acceptance of IT users by intelligent technologies is shaped by cognitive and affective reactions, as discussed in the works of foreign author Li [4].

Recently, the MICE (meetings, incentives, conferences, exhibitions) industry has paid much attention to Smart MICE, such as the exhibition guide system (EGS), to maximize the effect of exhibition activities - this topic was studied by Chung [5].

The motivational issues of exhibition visitors: building relationships, collecting information, purchasing and learning about the latest trends are discussed in the works of authors such as Rittichainuwat and Mair [6].

To meet these motivations, innovative recommendation systems have been developed that allow tourists to simplify the decision-making process by providing personalized information and suggesting alternatives, as discussed in the studies of Fesenmaier [7]

The work also uses scientific works of the following Russian authors: N. I. Kabushkin, D. G. Reshetnikov, etc. researchers [8].

**The main part.** The main factors influencing the development of the tourism industry: The natural potential of the country: unique landscapes, climate and other natural features. Cultural and historical heritage: historical, architectural and artistic monuments, as well as local traditions and customs. Transport accessibility: a developed transport network that ensures ease of travel for tourists. Socio-economic and legal conditions: a stable economy, an attractive investment climate and a legislative framework regulating tourism activities.

The state in the tourism sector always strives to: Guarantee the rights of citizens on vacation and during travel. Environmental protection and rational use of natural resources. Create favorable conditions for the development of educational, health and cultural tourism. Develop the tourism industry, create jobs and increase income. Preserve tourist attractions and effectively use tourism resources. The main functions of state policy in the field of tourism: Coordination: coordinate actions between government agencies and participants in the tourism market. Planning: development of strategies and programs for tourism development. Regulation: establishment of norms and standards in the tourism sector. Marketing: promotion of the national tourism product. Stimulation: support of priority areas of tourism development. Social function: development of accessible tourism for all segments of the population. Protective function: ensuring the rights and interests of participants in the tourism market. Instruments of influence of state policy in the field of tourism: Provision of financial incentives and subsidies to tourism enterprises. Support for scientific research and implementation of innovations in the tourism industry. Active use of marketing tools to attract tourists in the international market.

Three main models of tourism management have developed in world practice: 1. Model with minimal government regulation. Example: America, where: Government spending on tourism at the federal level is reduced. Tourism is developing thanks to the country's strong economy. Large private companies are actively working, providing a high level of service and competitiveness.

1. Centralized model: In some countries where tourism is a priority area of state policy (for example, in Greece, Egypt, Tunisia and Turkey), tourism management is concentrated in the hands of a powerful ministry. These countries annually allocate significant funds for the promotion of tourism brands, large-scale advertising campaigns and the development of tourism infrastructure. 2. Mixed model: In countries with a moderate degree of centralization, such as Spain, Italy, Poland, France a mixed model is used. Within this model, there is a national tourism agency, which is part of a broader ministry dealing with various areas. The agency performs the functions of coordination, marketing and analysis of the industry, acting within the framework of the general economic or cultural policy of the country.

Event tourism as a promotion tool: One of the effective and modern ways of promoting national tourism destinations on the international market is event tourism.

Event tourism is a combination of entertainment and active participation in vibrant and significant cultural events. It covers many formats, including: Auctions and fairs, Theatrical productions and festivals, Film and theater forums, Gastronomic festivals, exhibitions, Fashion weeks and designer shows, Music festivals and competitions international sports competitions, World EXPO exhibitions and other large-scale events. International EXPO exhibitions occupy a special place in event tourism. They serve as global platforms for demonstrating innovations, establishing international cooperation and promoting tourism. EXPO is an event aimed at education, progress and international cooperation in the field of innovation. There are two main types of EXPO exhibitions, differing in scale and theme: universal, which are held every five years and cover a wide range of topics, and specialized, which are held between universal and focus on a narrower topic. Universal exhibitions are larger in scale (up to 6 months, without restrictions on area), while specialized ones are more compact (up to 3 months, up to 20 hectares) [9].

The Bureau International des Expositions (BIE), founded in 1932 and based in Paris, is the key organisation regulating the holding of international Expos. Its main task is to ensure that the provisions of the 1929 Paris Convention concerning these non-commercial events lasting more than three weeks are observed, as well as to deal with various organizational issues [9].

Table – 1

**Financial costs associated with holding EXPO since 2000**

Expo	Expo 2000	Expo 2005	Expo 2008	Expo 2010	Expo 2012	Expo 2015	Expo 2017	Expo 2020
Destination	Hannover Germany	Nagoya Japan	Zaragoza Spain	Shanghai China	Yeosu South Korea	Milan Italy	Astana Kazakhstan	Dubai OAE
Financial Costs of implementation (US\$ billion)	1,8	3,4	1,08	4,3	8,95	1,49	3	35
Quantity of visitors (million people)	19	23	7	72	9	26	5	25

*\* compiled by authors based on [10].*

As a result of a comparative analysis of the data according to Table 1, the authors came to the conclusion that every year the financial costs associated with holding the EXPO increase, as does the number of visitors and tourists. If in 2000 about 2 billion dollars were spent on holding this exhibition, then in 2020 this amount was 35 billion dollars. At the same time, we also see that the number of visitors does not depend on the financial costs incurred by the state to organize the Expo.

International EXPOs, held under the auspices of the International Exhibitions Bureau (BIE), play an important role in this area. These universal platforms serve to showcase innovations, establish international cooperation and promote tourism. Their main objective is to inform the public, stimulate progress and facilitate the exchange of advanced solutions between countries. There are two types of EXPOs: universal and specialized.

EXPO-2017 in Astana (Kazakhstan), dedicated to "Energy of the Future", successfully demonstrated the potential of EXPO as a tool for promoting the country's tourism image, which allowed demonstrating the potential in the field of sustainable technologies and ecotourism. The cost of entrance tickets ranged from 12.5 to 25 US dollars, which ensured the availability of the event to a wide audience. Along with the main exhibition, a diverse cultural program was presented, including concerts, theater productions, musicals and other forms of performing arts. Ticket prices for cultural events ranged from 1.5 to 150 US dollars. More than 33 thousand artists from different countries performed at EXPO-2017, which made the event not only an exhibition, but also a world-class cultural center, attracting the attention of millions of tourists and participants from all over the world.

Thus, EXPO exhibitions demonstrate significant potential as a catalyst for event tourism and are a powerful tool for geo-economic promotion of a destination in the global tourism market.

Thanks to the Expo-2017 exhibition, which took place in the capital of Kazakhstan Republic. Astana became a place of attraction for the whole world. This event gave a powerful impetus to the economic development of the country, especially in the tourism sector, where the demand for the services of travel companies almost doubled. As a result, Astana and Almaty entered the top 5 most popular cities for tourists from the CIS country for the first time [10].

The competitiveness of national tourism at the international level directly depends on the effective implementation of innovations. Evaluation of the innovation strategy in tourism allows us to determine how effectively the country uses its resources (organizational, human and financial) to achieve this goal. Analysis of these resources is the basis for further innovative development.

Realization of the innovative potential in tourism is impossible without innovative activities, including the creation of new knowledge, technology transfer and development financing. It is this that ensures the competitiveness of the country's tourism product at the international level. The effectiveness of an innovation strategy is determined by the relationship between investments, innovative activity and the competitive advantages achieved [2,5].

Assessing the international competitiveness of national tourism is a standard, albeit incomplete, way of measuring the effectiveness of innovation policy. The problem is that this method does not show how innovations actually affect a country's competitiveness in global tourism. Unfortunately, there are no reliable and universal indicators that could directly measure this effect.

In order to conduct a comparative analysis of innovative strategies in the field of tourism implemented by various destinations, it is proposed to use the index of effectiveness of the national innovation strategy in world tourism. This index, which is an economic and statistical tool, provides the ability to assess the dynamics of the main quantitative indicators in a comparable form over a given time interval.

The choice of the most suitable option depends on the context and purpose of the paraphrase. It is important to preserve the meaning of the original text, but to make it more understandable and/or to focus on certain aspects.

The final index is formed by combining two components: an index reflecting how successfully the innovative potential in national tourism is realized, and an index assessing the effectiveness of innovative efforts in this area. The index formula uses:

Let:

$I_1$  — Index of implementation of innovation potential (e.g. investments, personnel, infrastructure);

$I_2$  — Index of efficiency of innovation activity (e.g. implementation of technologies, participation in EXPO, number of new tourism products).

Then the generalized index can be expressed as:

$$IENIST = \alpha \cdot I_1 + \beta \cdot I_2$$

where,

-  $\alpha$  and  $\beta$  are weighting coefficients reflecting the relative importance of each indicator (for example,  $\alpha = 0.5$ ,  $\beta = 0.5$ , if they are equivalent).

The key categories of indicators: a) International tourism: total number of foreign tourist and income from their visits; b) Innovation potential: share of researchers, expenditure on scientific research and percentage of organizations engaged in tourism; c) Innovation activity: number of patents in the field of tourism per 100 thousand employees.

At the same time the main evaluation indicator is the integral index of the effectiveness of the national innovation strategy in tourism. It is calculated based on the share of implemented innovations in the tourism industry and the share of costs for technological innovations in total costs. The index ranges from 0 to 1.

Table 2 contains the results of the index calculation and shows what place each country occupies in the ranking of the effectiveness of innovative strategies in world tourism.

Table – 2

**Indicators of the effectiveness of innovations in tourism of European countries in the world market (2016-2020)**

Country, year	2016	2017	2018	2019	2020
AUSTRIA	0,82	0,88	0,85	0,88	0,83
BELGIUM	0,72	0,76	0,65	0,75	0,85
UNITED KINGDOM	0,75	0,77	0,73	-	-
GERMANY	0,76	0,80	0,85	0,81	0,83
GREECE	0,68	0,78	0,75	0,56	-
DENMARK	0,94	0,96	0,98	0,82	0,91
SPAIN	0,75	0,76	0,72	0,65	0,67
ITALY	0,62	0,66	0,73	0,56	-
CYPRUS	0,54	0,62	0,68	0,53	0,54
LUXEMBOURG	0,87	0,75	0,76	0,84	0,98
NETHERLANDS	0,74	0,74	0,86	0,88	0,83
PORTUGAL	0,27	0,33	0,47	0,25	0,33
CROATIA	0,34	0,45	0,32	0,36	0,41
MONTENEGRO	0,26	0,39	0,47	0,25	0,35
SWITZERLAND	0,91	0,99	0,97	0,94	0,96

*\* compiled by the authors based on [12].*

Based on the data in Table 2, we see that the success of a national innovation strategy in tourism is determined by how effectively a country uses its innovations to gain competitive positions in the global tourism market. To assess this, an integral index (from 0 to 1) is used, based on the share of implemented innovations and the costs of technological developments, which reflect the degree of implementation of the country's innovative potential.

The remaining countries occupy intermediate positions, which allows visualizing and interpreting the level of effectiveness of innovation strategies in a comparative context. The distribution of countries by index value reflects the level of correspondence between the resources and results of innovation activities in the tourism sector.

**Conclusion.** Processing and interpreting a vast array of statistical data allows not only to assess the innovative potential and effectiveness of innovative activities in tourism, but also to determine the level of competitiveness of the national tourism product in the countries of the European tourism macroregion [12].

The diversity of innovation strategies applied in the countries of the region indicates a significant heterogeneity of their innovative development. This heterogeneity is manifested in differences both in the structure of innovation potential and in the range of implemented innovative initiatives. These differences have a direct impact on the effectiveness of national strategies in the competitive environment of global tourism.

The analysis of research allows to calculate the final index, which is formed by combining two components: an index reflecting the success of the implementation of innovative potential in national tourism, and an index assessing the effectiveness of innovative efforts in this area.

It is calculated based on the share of implemented innovations in the tourism sector and the share of costs for technological innovations in total costs.

Thus, the use of an integrated approach to assessing the innovation strategy allows for a comprehensive analysis of its impact on the international competitiveness of tourism and the development of effective directions for further development, which is also of practical importance in planning the budget for the next international EXPO exhibitions.

It is expected that the future researcher will be able to study the factors influencing the development of an innovative strategy for MICE tourism, in order to subsequently expand and detail other indicators.

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## **МІСЕ ТУРИЗМІНІҢ ДАМУЫНДАҒЫ ИННОВАЦИЯЛАРДЫҢ ТИІМДІЛІГІ**

### **Аңдатпа**

Туризмнің дамуының бірқатар маңызды салдары бар: кәсіпкерлік белсенділіктің өсуінен және еңбек нарығының трансформациясынан мемлекеттік ресурстарды қайта бөлуге дейін. Ол сондай-ақ инновацияларды ынталандырады, инвестициялық стратегияларды және тәжірибелерді басқарады, жаңа мүмкіндіктерді ұсынады.

Бұл мақалада жаһандық туризмдегі инновацияның тиімділігі әртүрлі теориялық және әдістемелік тәсілдер арқылы қалай бағалануы мүмкін екендігі қарастырылады. Ол инновация елдердің туризмдегі бәсекеге қабілетті болуына қалай көмектесетінін және Еуропа елдерінде қолданылатын инновациялық стратегиялардың мысалдарын қарастырады.

Зерттеудің мақсаты – әлемдік туризмдегі инновациялардың тиімділігін бағалау, туризм саласындағы ұлттық инновациялық стратегияның тиімділігінің интегралды индексі анықтау.

Негізгі зерттеу әдістеріне зерттеу, статистикалық өңдеу және алынған мәліметтерді синтездеу сияқты теориялық әдістер жатады. Қолданылған эмпирикалық әдістерге бақылау, өлшеу және салыстыру кіреді.

Жақында әлемдік туризмдегі ұлттық инновациялық стратегия тиімділігінің қорытынды индексінің формуласы есептелді. және Еуропаның негізгі туристік бағыттарындағы туризм саласындағы инновациялардың тиімділігінің рейтингі жасалды, бұл осы зерттеудің ғылыми маңыздылығын құрайды.

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## **ЭФФЕКТИВНОСТЬ ИННОВАЦИЙ В РАЗВИТИИ МІСЕ-ТУРИЗМА**

### **Аннотация**

Развитие туризма имеет ряд важных последствий: от роста предпринимательской активности и трансформации рынка труда до перераспределения общественных ресурсов. Оно также стимулирует инновации, изменяет инвестиционные стратегии и практики управления, формирует новые потребительские предпочтения.

В данной статье рассматривается, как можно оценить эффективность инноваций в мировом туризме с использованием различных теоретических и методологических подходов. Анализируется, как инновации могут помочь странам стать более конкурентоспособными в сфере туризма, и рассматриваются примеры инновационных стратегий, используемых в европейских странах.

Целью исследования является оценка эффективности инноваций в мировом туризме, выявление интегрального индекса эффективности национальной инновационной стратегии в сфере туризма.

Основными методами исследования являются такие теоретические методы, как исследовательский анализ, статистическая обработка и синтез полученных данных. Из эмпирических методов использовались наблюдение, измерение и сравнение.

В результате исследования была рассчитана формула итогового индекса эффективности национальной инновационной стратегии в мировом туризме, и составлен рейтинг эффективности инноваций в сфере туризма основных туристических направлений Европы, что составляет научную значимость данного исследования.