

# PECULIARITIES OF ASSESSING THE SUSTAINABLE DEVELOPMENT OF TOURISM ENTITIES THROUGH KEY PERFORMANCE INDICATORS

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## **Abstract:**

*Nowadays, entities are increasingly aware of the need for sustainable balanced development in all fields of activity, which has as its final goal the preservation of natural resources for future generations. Entities tend to create a balance between three components: financial, social and environmental. Sustainable development does not focus on increasing the volume of production, but on improving the quality of the entity's activities for long-term development. That is why, it is necessary to evaluate these activities based on indicators that characterize the entity's sustainable development. This article reflects the issues associated with the analysis of the sustainable development of entities, explaining the concepts of economic, social and environmental sustainability of a tourism entity. At the same time, the indicators that can be used to evaluate the performance of entities within the three types of sustainability are suggested.*

**Keywords:** *environmental sustainability, financial stability, key performance indicators, tourism industry.*

**JEL classification:** L83, M14, Q56

## **Introduction**

The tourism industry contributes to the growth and development of the national economy of countries through the economic connections it generates in relation to other economic sectors, by creating jobs and contributing to the GDP. Each state evaluates the field of tourism both from the perspective of the ability to attract tourists and as an opportunity for economic growth and sustainable development.

Tourism depends on the consumption of natural resources that are available in a particular location, directly or indirectly affecting the environment. During the construction of recreation areas, natural habitats with their riches are destroyed. The negative environmental results also include overcrowding, traffic congestion, air pollution, noise pollution, environmental degradation and damage to landscaping for the local community and tourists (Sunlu, 2003, pp. 264-266).

Beneficial socio-economic impacts for the local community are represented in the form of jobs and business opportunities, improved living standards and infrastructure development in the area (Rath & Gupta, 2017, pp. 51-52).

Thus, the tourism industry determines for the local community and, also for tourists, the following benefits (Baloch, et al., 2023, p. 5919):

- generating income for the population in the area and the community;
- improving local infrastructure and quality of life, including job creation;

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- awareness and understanding of different ethnic cultures, social values and traditions, interconnecting them and preserving traditions;
- rehabilitation and preservation of socio-cultural and historical heritage, including archaeological objects and natural landscapes;
- establishment of natural parks and scenic spots;
- conservation of nature, biodiversity and endangered species by controlling poaching;
- improving water and air quality through afforestation, land and soil conservation and waste recycling.

Tourism has immense potential to sensitize society's attention to the environment and also to spread awareness of various environmental issues when it brings people into closer contact with nature. This interaction definitely increases awareness of the value and importance of nature among the community and leads to environmentally conscious behavior. Thus, we can state that tourism creates both positive and negative economic, social and ecological effects. Their prevention can be achieved through professional management, which involves in the decision-making process all the actors involved in the development of tourism: central and local authorities (which have legislative, economic, social instruments), economic agents that offer tourist services, people who promote environmental protection and preservation of cultural heritage, local tourism service providers, tour operators and travel agencies and, obviously, tourists (Miron, et al., 2017, p. 8).

The sustainability of the tourism industry takes into account three important aspects (World Tourism Organization, 2023):

- 1) balance – tourism ensures a balance between the needs of the tourism industry, the environment and the local community, produces economic and social benefits, fairly distributed to all actors involved;
- 2) continuity – tourism ensures the optimal exploitation of the natural resources it uses, the preservation of the community's culture;
- 3) quality – tourism provides a valuable experience for visitors, while improving the community's quality of life, its cultural identity, reducing poverty and protecting the environment.

In this context, we can say that the implementation of sustainability criteria in the tourism industry has the effect of increasing the attractiveness of tourist destinations, offering new authentic experiences for tourists.

## **Description of the Problem**

Among the economic sectors of the states, tourism contributes 10% to global GDP, 7% to global exports and creates one of 10 jobs worldwide. Its ability to attract significant investment, generate employment, increase exports and adopt new and emerging technologies presents the tourism industry as an important pillar for economic growth, especially for underdeveloped and developing countries. At the same time, tourism affects the environment through the consumption of natural resources – energy, water, land, minerals and the generation of waste, loss of biodiversity, greenhouse gas emissions. According to UNEP, tourism would generate a 154% increase in energy consumption, 131% in greenhouse gas emissions, 152% in water consumption and 251% in solid waste disposal by 2050 (UNEP: Tourism, 2023). The consequences are significant, which is why a series of measures have been taken to stop this degradation (UNEP: Sustainable consumption, 2023).

Under these conditions, sustainability must define the development of tourism in the future. The tourism industry must reassess its development through the approach of sustainability to become an important factor in achieving the goals of the sustainable economy. Thus, there is a need to measure and monitor the resilience of tourism on the environment. For this purpose, work has been started to establish a set of indicators for evaluating the impact of tourism activity, at the international level inclusively.

Tourism sustainability indicators focus on four aspects: economic (tourism's direct share of economic activity, tourism's direct share of total employment, visitor diversification, employee retention and workforce shortages, tourist yield – average spend per tourist, etc.), social (tourism wage compared to national average, level of tourism job security, measure of visitor satisfaction, travel openness and facilitation, workforce inclusiveness etc.), ecological (existence of sustainable tourism policies, level of CO2 emissions, number of recognized natural heritage sites, share of total annual energy consumed which is from renewable sources etc.) and institutional (existence of a disaster action plan, tourism's proportion of government spending, level of trust in government, digital infrastructure etc.) (OECD, 2022, p. 76).

## **Methodology and Data**

In preparing the article, the author used traditional research methods, such as fundamental and qualitative research. The fundamental research allowed the elucidation of current trends in the field of sustainable tourism, reflecting the Key Performance Indicators used to evaluate the activity of tourist entities on three dimensions: economic, social and environmental. In the framework of this research, various theoretical studies were investigated that formed the basis of the final conclusions. The qualitative research aimed to understand and raise awareness of the importance of evaluation through the lens of Key Performance Indicators, which can directly influence the practical activity of tourist entities.

The purpose of the research is to study and reflect the composition of Key Performance Indicators for the evaluation of the activity of tourist entities under three aspects - economic, social and environmental. The theoretical-methodological support of the researched subject was provided by the works of researchers in the given field.

## **Results**

The sustainability of a tourism entity is manifested by its state of equilibrium as a socio-economic system, which signifies the entity's ability to fulfill its vital functions at the moment, while maintaining its dynamic stability. The priority objective of the development of the tourist entity, as an element of the national economy, aims to contribute to the implementation of balanced management decisions in three areas: economic, social and ecological, which correspond to the provisions of the Sustainable Development Concept (Sustainable Development, 2023).

Sustainable development includes a set of indicators such as financial, environmental and social. Financial stability is one of the most important descriptors of the financial position of a tourism entity and is evaluated using a set of indicators (Table 1).

**Table 1****System of financial performance indicators of a tourism entity for the implementation of the sustainable development strategy**

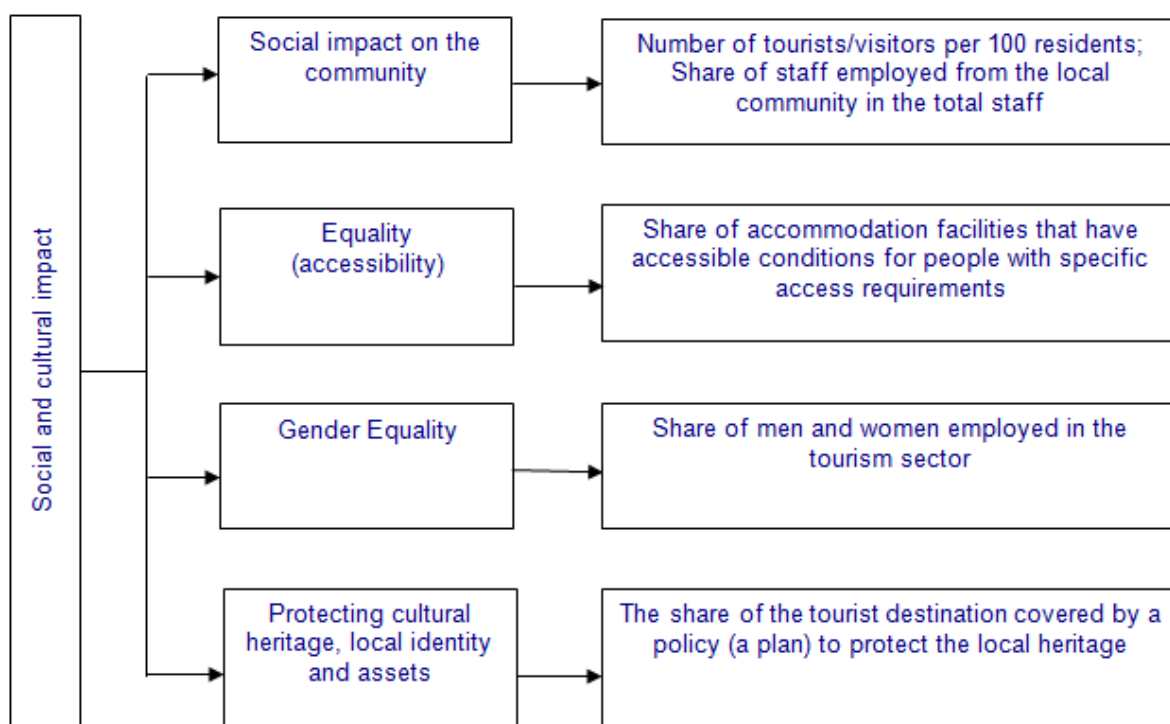
Reference criteria	Indicators	Calculation methodology
Asset Valuation	Net Asset Value (NAV)	The total value of the entity's assets minus the total value of the liabilities, divided by the number of shares outstanding
Inventory Valuation	Inventory Coverage Ratio	The normative sources of finance (working capital and short-term liabilities) divided by the entity's inventories. The ratio value measures the share of inventories, which are covered by the normative sources of finance (stockholders' equity, short-term and long-term liabilities, etc.)
Resource Efficiency	Asset Turnover Ratio	Net sales divided by the total or average assets of the entity
	Equity Turnover Ratio	The ratio of the net sales of a company and the average stockholders' equity of the entity
	Capital Turnover Ratio	The ratio between the entity's net sales and the average shareholders' equity across a specified period
	Debtors Turnover Ratio	The net credit sales divided by the average accounts receivable. This ratio measures the efficiency of the entity in managing and collecting the credit issued to the customers
Profitability Analysis	Profitability Ratios	Profitability ratios assess the entity's ability to earn profits from its sales or operations, balance sheet assets, or shareholders' equity (profit is divided by an indicator on the basis of which profitability is estimated)
Equity Analysis	Equity Growth Rate	The net income minus stock dividends, divided by the stockholders' equity assets

*Source: developed by the author based on Tretyakova, et al., 2023, p. 246*

In the process of carrying out the analysis of sustainable development through traditional methods, such as analysis of balance sheet liquidity, calculation of solvency indicators, cash flow analysis, etc., tourism entities may have the problem of the absence of relationship between the main business processes and indicators of sustainability assessment. For greater accuracy of the results, it is necessary to constantly adjust the set of performance indicators according to the type of tourism activity (recreational, cultural, sports, commercial, medical, business, rural, complex, etc.).

There is a positive correlation between the economic and social performance of an entity, and social involvement brings a series of benefits that cover and exceed the costs induced by it. At the same time, between the entity's social responsibility and its profitability there is a direct and reciprocal relationship of determination: a socially responsible entity will be perceived by customers as good and will record substantial profits. Similarly, a financially sound entity can afford to promote and invest in socially responsible behavior, which will attract more customers and greater prosperity. The relationship between the profitability and the social responsibility of a tourism entity follows a circular trajectory: social responsibility – customers – profitability – social responsibility.

The social performance of a tourism entity can be evaluated according to several criteria. Figure 1 highlights the main indicators by which social conditions can be assessed.



**Figure 1 – The system of social performance indicators of the tourism entity**

*Source: developed by the author based on Guide on the European System of Tourism Indicators for Sustainable Destinations, 2013, p. 20*

The evaluation of the performance of tourism entities must also take into account the ecological aspect. As mentioned in the previous paper, the tourism industry is a branch of the national economy that significantly affects the environment, most tourist destinations being an integral part of it. The disadvantage of this aspect of evaluation is that the used indicators are more difficult to determine and the information is less available.

At the same time, the high costs of operating tourism entities from an ecological point of view are often affordable only to large and multinational companies. The financial insufficiency and inability of small tourism entities to meet the strict standards and criteria set by environmental protection schemes, as well as their inability to absorb the costs associated with them, discourages their participation in environmental protection (Erdogan & Tosun, 2009, p. 413).

The basic indicators that represent the starting point for assessing the level of sustainability of entities in the tourism industry are presented in Table 2.

Table 2

## Environmental Impact Core Indicators in the tourism industry

Reference criteria	Indicators	Characteristic
Reducing Transport Impact	Percentage of tourists and same day visitors using different modes of transport to arrive at the destination (public/private and type)	Transport contributes to greenhouse gas emissions and local air pollution generated by tourism. Tracking visitor distance travelled and mode of transport encourages improvements in the use of environmentally-friendly transportation for tourism.
	Average travel (km) by tourists to and from home or average travel (km) from the previous destination to the current destination	
Climate Change	Share of tourism entities involved in climate change mitigation activities, such as: CO2 offset, low energy systems, etc.	Climate change mitigation (reducing the impacts) and adaptation (responding to some of the inevitable impacts) strategies need to be considered in tourism sector, because many businesses are located in areas vulnerable to flooding, drought and other impacts.
Solid Waste Management	Waste volume produced by destination (tones per resident per year or per month)	Tourism activities contribute significantly to solid waste. Waste reduction initiatives include various economic incentives, recycling and reuse programs.
	Volume of waste recycled (percent or per resident per year)	
Sewage Treatment	Percentage of sewage from the destination treated to at least secondary level prior to discharge	Tourism contributes heavily to pressure on sewage treatment stations, especially, in the destinations dominated by beaches, lakes, and rivers. This can cause severe environmental and health problems and create a negative image of the tourist destination if not properly treated.
Water Management	Fresh water consumption per tourist compared to general population water consumption per person	The tourism sector is a significant water user. This is a particular issue for tourist destinations where water is in short supply, because increased water usage may result in hardship for existing residents.
Energy Usage	Energy consumption per tourist compared to general population energy consumption per person	The tourism sector is a key energy user. Tracking energy usage helps guide energy conservation programs.
Landscape and Biodiversity Protection	Share of tourist destination (area in km <sup>2</sup> ) that is designated for protection	Protected areas are a key asset of a destination's tourism product. High biodiversity helps ensure the sustainability of natural areas and benefits the image of the tourist destination, making it more attractive to tourists.
Light and Noise Management	Policies to minimize light and noise pollution	Light and/or noise pollution may be a significant source of disturbance for resident communities and stress on wildlife in some touristic destinations. Policies for lighting and noise-levels need to be considered at planning of the touristic activities.

Source: developed by the author based on European Tourism Indicator System, 2013, pp. 28-29



To generalize what has been presented, we can conclude that one of the key concepts of the activity of entities in the tourism industry is the concept of sustainable development. The economic development of tourist entities must ensure the achievement of both economic and social and environmental indicators. Therefore, instead of unlimited economic growth, balanced sustainable development is needed. The system of indicators that characterizes the sustainable development of tourism entities is oriented towards meeting the needs of customers, as well as other interested parties (investors, the local community, etc.). It can serve as a basis for the development of a system of performance indicators in the field of management of the sustainable development of entities in the tourism industry in order to substantiate, select and further develop an appropriate strategy (Salimova & Gudkova, 2017, p. 157).

Thus, the organization of efficient tourism activity requires the development and implementation of a comprehensive system of regulatory mechanisms that contribute, firstly, to the economic development of the entity and the community, secondly, to increasing the level of social stability, thirdly, to reduce the level of impact on the environment during the implementation of economic activities. A balanced management of these three dimensions can be achieved by respecting the respective conditions:

$$\sum_{i=1}^N KPI_i = \sum_{a=1}^M F_a = \sum_{b=1}^L S_b = \sum_{c=1}^G E_c \quad (1)$$

where: KPI – key performance indicators;

$F_a$  – financial development factors;

$S_b$  – social development factors;

$E_c$  – ecological development factors.

The balance between the three dimensions (economic, social and environmental) is achieved when the growth rates of natural and anthropogenic regeneration of the natural environment under minimum conditions are equal, or exceed the growth rates of the use of natural resources (Polyanskaya & Yurak, 2018, pp. 853-854).

## Conclusions

In the current context of phenomena globalization and the growing awareness of the interdependencies between nature and the economy, there is a growing conviction that the social responsibility of economic agents and sustainable development are an integral part of the business environment, being oriented towards ensuring a balance between economic growth, social progress and natural resource reserves.

Sustainable tourism activities minimize the impact of tourism on natural resources in the area of a specific destination, including physical, social and psychosomatic impacts. Sustainable tourism also demonstrates a positive and responsible attitude of both tourists and community towards protecting and conserving environmental resources. The sustainable development of tourism reflects a thinking oriented towards taking responsibility for local environmental, economic and social issues.

Operational elements related to the way the activity of the tourist entity is carried out to achieve the desired results are evaluated by means of Key Performance Indicators. These indicators are essential for entities in the tourism industry because they reflect the efficiency of their activity. Having a clear and measurable set of indicators, entities can more easily identify the

needs and wishes of tourists and visitors, and also the impact of the activity on the local community, cultural heritage, and the environment.

Key Performance Indicators are an effective tool to track the progress of economic, social and environmental activity and to identify directions in which certain adjustments are required. Key Performance Indicators help identify the most profitable courses of action, retain loyal customers, measure customer satisfaction, follow the effectiveness of sales policies and environmental strategies.

## **Future Directions**

The study made it possible to present the implementation and inclusion of the concept of sustainable development within the entities of the tourism industry, emphasizing the relevance of the assessment of the environmental factor for the formation of strategies aimed at achieving sustainability for tourist destinations. The proposed methodological tools can be further refined and supplemented with indicators specific to tourist entities in accordance with the activities carried out by them, with the location of the entity, with the segment of tourists or visitors, etc.

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