Assessment of the Sustainable Development of a Tourism Destination: The Case of an Adventure Park

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Abstract. The sustainable development of a tourism destination is a process that is continuously improved and has long-term value. By applying and distributing the economic, social and cultural dimensions equally, it is possible to achieve well-being for the environment and local people not only now, but also in the future. The study showed that the sustainable development of a tourism destination is presented differently by each of the authors, but all of them convey the idea that it is a process that includes economy, environmental protection, social dimensions and their management. By applying the process of sustainable development, tourism destinations achieve economic benefits without harming the environment and taking into account the social and cultural well-being of local people. It is recommended that voluntary publicity of environmental and socio-cultural activities in a tourism destination is an important factor that improves the image and increases value in society. Sustainability management is a more comprehensive, constructive, holistic approach than the management systems offered so far.

Keywords: adventure park, tourism, tourism destination, sustainable development, performance evaluation.

Introduction

Relevance of the article

Tourism is one of the most promising businesses in the world. Many new jobs are created, and large investments, such as support from the European Union and own finances, are allocated to the development of tourism throughout the world.

However, tourism needs to be developed responsibly, purposefully and harmoniously, finding trade-offs between environmental, social and economic goals. This is sustainable tourism, which is based on the principles of sustainable development. Such tourism development meets the needs of current generations without limiting the ability of future generations to meet their needs. Everyone, when developing and creating their business and activities in the tourism sector, must assess the possible impact of these activities on the environment, community, people and culture, since only improperly planned and executed tourism activities can harm the surrounding nature and community. Therefore, it is important in the development or creation of each tourist destination to assess possible threats and to look for ways, based on the principles of sustainable development, that would reduce this possible damage, negative impact on the environment and increase the positive benefits of tourism.

Level of problem investigation

Sustainability in tourism facilities was studied by Rahman et al. (2022) who in the International Journal of Tourism Research analysed sustainable development in tourism destinations, Roman, Roman, & Niedzolka (2020), Roblek et al. (2021), Estol, Camilleri, & Font (2018), Jasinskas (2015), Rahmadian, Feitosa, & Zwitter (2022), Panic, Kaščiakov, & Pavlakovič (2018). Sustainability is widely researched in hotels as tourism destinations by Palazzo et. al (2022), Leon – Gomez et al. (2021), Wullur, & Samehe (2020), Luo et al. (2016). In adventure parks that are not traditional tourism facilities, such as hotels or rural tourism farms, sustainability has not been widely studied by researchers. The study of sustainability in adventure parks provides an opportunity to assess sustainability not only in traditional tourism facilities and to contribute to the general field of tourism sustainability. The scientific novelty of this study is associated with the assessment of sustainable development in tourism destinations – adventure parks.

Scientific problem

How to evaluate the sustainable development of the tourism destination?

Object of the article

Assessment of the sustainable development of the tourism destination.

Aim of the article

To assess the sustainable development of the tourism destination.

Objectives of the article:

- 1. To present the essence of the concept of sustainable development.
- 2. To distinguish the advantages and disadvantages of sustainable tourism evaluation methodologies.
- 3. To analyse the level of sustainable tourism research.
- 4. To determine the level of sustainable development dimensions of the adventure park.

Methods of the article

Analysis of scientific literature, semi-standardised (structured) interview, qualitative content analysis.

1. Evaluation of sustainable tourism destinations

1.1. The concept of sustainable tourism destination development

Sustainable development is like a never-ending process that includes environmental, social and economic fields. In comparison, tourism has only recently begun to be assessed with regard to sustainable development. However, the activity of the tourism sector is very important in terms of sustainable development.

As stated by Roman, Roman, & Niedzolka (2020), sustainability in today's life is a popular trend that includes the development, operation and also tourism sectors. sustainable development, as a never-ending process, must be evaluated by taking into account the country's economic, social and environmental status. For a long time, it was believed that the activity of the tourism sector, as a service provision, should not be evaluated in terms of sustainable development, but in the long run, it became clear that this branch of the economy is important not only from the point of view of the general development of the country's economy but also from the point of view of sustainable development.

One important aspect of sustainable tourism development is the development of sustainable tourism destinations, such as hotels, restaurants, and other tourism-related businesses. These destinations should be designed and operated in a way that minimises their environmental impact and maximises their positive economic, social, and cultural contributions to the destination (Estol, Camilleri, & Font, 2018).

To achieve this, sustainable tourism destinations development should consider a number of key factors, including:

- Environmental impacts: sustainable tourism destinations should be designed and operated in a way that minimises their environmental impact, through measures such as energy and water efficiency, waste reduction, and the use of renewable energy sources.
- Social and cultural impacts: sustainable tourism destinations should respect and support the local community and culture and should aim to minimise negative impacts on local residents. This may involve working with local suppliers, hiring local staff, and supporting local community initiatives.
- *Economic impacts*: sustainable tourism destination development should aim to contribute to the overall economic development of the destination, through the creation of jobs and the generation of income for local businesses and communities.
- Accessibility: sustainable tourism destinations should be accessible to all, including people with disabilities and different cultural backgrounds (Palazzo et. al, 2022).

1.2. Advantages and disadvantages of sustainable tourism assessment methodologies

Assessing sustainability in such businesses as tourism requires the integration of as many tools and methods as possible to achieve a comprehensive impact on the environment, social, and economic aspects (Sala et al., 2020) (Table 1).

Table 1

Methods for evaluating sustainable development

	Indicators/indices/	Evaluation of goods			
	criteria	- technology	Project evaluation	Sectoral/country assessment	
Environmental	 Environmental pressure indicators Ecological foot GSTC criteria 	 Life cycle assessment Material consumption per service unit Material flow analysis Energy process analysis Ex-energy analysis Emergy analysis 	 Environmental impact assessment Environmental risk analysis 	 Environmental advanced input-output analysis Input-output energy analysis Strategic environmental assessment Regional emergy analysis Regional analysis of ex-energy 	
Economical	 Gross national production product GSTC criteria	Life cycle costs	Accounting for all life cycles	 Analysis of all economic flows Analysis of economic materials Economic input-output 	
Social	Social indicators GSTC criteria		Social impact assessment	Social input-output analysis	
Sustainable development	 Sustainable Development Indicators Sustainable Energy Development Indicators GSTC criteria 			 Conceptual modelling System dynamics Assessment of impact on sustainability Integrated sustainability assessment 	

Source: Mikalauskienė, & Mikalauskas (2015)

Indicators/indices are a tool for evaluating sustainability. Sustainability assessments are often based on a variety of indicators. Different indicators are measured and show the share of the related specific indicator. Given a common unit of measure, indicators are useful for comparison (Pollesch & Dale, 2016). But the problem is that indicators/indices are more suitable for broad evaluations at the national or regional level, rather than being specifically focused on the individual tourism company.

Life cycle assessment, otherwise known as LCA, is an important tool to help ensure sustainability through environmental impacts that shows the costs necessary to create the service. It can also be described differently, i.e. that the energy expended on it is shown to create sustainable development throughout the entire period of the harmonious development of a particular area, destination, service or product (Chang, Lee, & Chen, 2014; Oželienė, & Drejeris, 2015). The main problem is that life-cycle assessment as a method is more aimed at a tourist service or product and only covers the environmental dimension.

Another tool for evaluating the sustainable development of tourism is the global sustainable development criteria – the latest initiative to harmonise sustainable tourism standards and promote convergence, which appeared in 2008. The GSTC are universal sustainability criteria developed for a multi-stakeholder consultation process and global tourism sustainability. In 2010, these criteria began to be implemented by setting minimum criteria so that any tourism company could aim to protect natural and cultural resources and reduce poverty using tourism as a tool (Hamimah et al., 2022).

The GSTC criteria are the result of using a common assessment of the sustainability of tourism. The assessment focuses on social and environmental responsibility, as well as the positive and

negative impact of economic and cultural tourism. These evaluation criteria are divided into 4 categories:

- Sustainable management.
- Socioeconomic impact.
- Cultural impact.
- Environmental impact (GSTC, 2022).

Each of the above-mentioned categories defines a certain general goal for evaluating the criteria. Sustainable management aims to demonstrate the effectiveness of sustainable management, the main objective of socio-economic impact is to assess how social and economic benefits to the local community are maximised and negative impacts are minimised, the main objective of cultural impact is to assess how the benefits of cultural heritage are increased and negative impacts are minimised, and the main objective of environmental impact is to assess how environmental benefits are maximised and negative impacts are minimised (Hamimah et al., 2022).

Criteria are minimum, not maximum. Companies, governments, and cities that apply them should achieve social, economic and environmental sustainability. Each tourism area has its own culture, environment, customs, and laws, so these criteria are intended to be specifically adapted to the local conditions of tourism areas and supplemented with additional criteria explicitly for a specific place and activity (GSTC, 2022).

The most favourable methodology for evaluating the methodology for tourism for business is the global sustainable tourism criteria, which cover all dimensions: environmental protection, economy, and social dimension. The GSTC provides an all-encompassing language and a common understanding of sustainable tourism and the implementation of the criteria can be adjusted to the local situation. The criteria are not aimed at approving sustainable tourist destinations, but rather to be used by existing tourist destinations, so that the destination could check whether it meets certification standards (Sharpley, 2022).

2. The level of sustainable tourism research

Interest in the topic of sustainable development has grown undeniably over more than 30 years. Today, sustainability can be the main goal across various types and sizes of tourism activities encompassing both environmental concerns and overall operations (Spenceley, 2018).

Sustainable tourism research makes more progressive ideas and discussions related to ecology policy, mobility, changing times, and changes in behaviour and system. In the field of research, the main entity is related to the ideas of the sustainable development sector in tourism programs. Sustainable tourism is constantly associated with the preservation of ecosystems, the promotion of human well-being, the equity capital of international and domestic generations, and public participation in decision-making (Rodriguez, Lopez & Caballero, 2017).

The highest and most common level of sustainable tourism research is the assessment of the impact of tourism, sustainability, development, behaviour and attitudes of visitors, and planning. The assessment of sustainability is related to sustainable tourism, but the 4 main areas most studied are aligned to study integrity with tourism as a whole. This leads to the conclusion that studies of sustainable tourism have mirror trends that make it possible to study tourism as a whole (Khan et al, 2021).

Font, & McCabe (2017) talk extensively about criteria, standards and certification in their study, arguing that the use of such methods in the study of sustainable tourism helps to achieve a reduction in the negative impact on the environment, increases social goodness and highlights the advantages, and also helps to increase the opportunities for economic benefits not only for companies but also for the communities around them. The researchers studying the application of the criteria also reveal the conclusions that the application of the criteria is a flexible and sufficiently easily applicable form of study of sustainability.

Analysis of the literature on sustainable tourism showed that the most suitable assessment methodologies are the GSTC criteria, which cover all theories and are based on the treatment of the destination of research. GSTC is universal and the most suitable for adaptation to the tourist

destination. Weaver (2014) explained that any tourism company or company providing tourism services can be a tourist destination. Therefore, the theoretical assumptions of sustainable tourism modelling are inseparable from the destination.

3. A study on the sustainable tourism assessment of adventure parks

Research methods

Aim of the research

To analyse the possibilities of sustainable development of tourism in the business of adventure parks.

Research methods

For the study of the sustainable tourism assessment of adventure parks, a qualitative study – interviews – was chosen. Qualitative research, such as interviews, is more suitable for studying complex structures and phenomena that are more difficult to extract using conventional methods. Qualitative writing is characterised by showing how a person is able to express his point of view on a certain topic. The semi-standardised interview with ready-made questions based on GSTC (2022) criteria for tourism operators and other tourism businesses was chosen. The GSTC criteria were selected as the most appropriate for the adventure park operation. A semi-standardised interview is conducted in advance following the order of the set questions and their formulation (Adams, 2015). However, each question is presented in such a way as to encourage the respondent to answer not in a single word or sentence, but in a story about a situation or experience, activities performed, emotions, etc., and examples illustrating the story. The standardisation of interviews helped to control the conditions of the survey, and the course and to compare the obtained results if there is more than one respondent (Adams, 2015). The research was conducted individually with each respondent. One of the respondents was interviewed directly, and the others by phone.

In the study of sustainable development assessment in adventure parks, the top managers of adventure parks were interviewed. Adventure park managers were chosen for the study because they shape adventure park policy and may or may not choose a coherent adventure park development strategy. By researching the top managers, it was possible to get the most accurate opinion about the activities of the adventure parks. When selecting interview participants, 3 managers of the most popular adventure parks in Lithuania ("UNO Parks", "STIHL virvių parkas", "Taurų parkas") were chosen in different areas of Lithuania.

Interview questions were formulated using GSTC (2022) criteria. The GSTC criteria were chosen because they are the most developed, approved and applicable for the evaluation of tourism operators. The criteria can also be applied to any tourist object. The GSTC (2022) criteria are a flexible, easy assessment methodology with minimal assessment criteria. The GSTC (2022) criteria as an assessment methodology have only a few shortcomings: there is no unified assessment system and it is not defined how to present the assessment results. A table was also created for evaluating the criteria. This methodology was chosen based on Ramanauskas and Gargas's (2011) sustainable development evaluation study. The methodology of Ramanauskas and Gargas (2011) is applied as it is most effective to combine the systematisation of interview results and follow the progress of coherence from them. Using the GSTC criteria, the interview questions were made according to all the aspects analysed in the literature sources, that is, all dimensions are covered: environmental, socio-cultural, and economic. Sustainable development management is also analysed. Interview questions according to GSTC are designed to be most suitable for evaluating adventure parks (Table 2) (GSTC 2022).

Survey sample

The given table (Table 2) shows the questions developed in the interview based on the GSTC criteria. The questions and explanations of what each of the questions gives to the research, why it is needed and how they connect with each other are presented. Interview questions cover all 3 dimensions and sustainable management.

Table 2

Explanation of interview questions and objectives

Question	Goals		
How do you understand the concept of sustainable	To ascertain the extent of the sustainable tourism		
tourism?	opportunities within the adventure park		
Do you have a sustainable management system for your	To find out if there is a management system, what it entails		
adventure park? If not, are you going to create one,	or if it is in the process of implementation		
why?	of it it is in the process of implementation		
Do you have regular staff training at your adventure	To learn how the harmonious management of personnel is		
park? If not, are you about to start?	evaluated, whether it is non-existent or is about to start		
How do you think there is satisfaction with the services	To find out how adventure park managers evaluate their		
provided by your adventure park? If not, what are you	adventure parks in the eyes of customers. What is their		
going to do about it?	attitude towards the services provided		
What methods of promotional material do you use to	To find out advertising channels used to promote the		
promote your tourism destination?	tourism destination		
How do you contribute to natural and cultural heritage?	To find out what kind of immersion the adventure park has		
and the second s	in the natural and cultural heritage as a criterion of the		
	sustainable development system		
Are you using sustainable building elements in your	To find out whether the adventure park aims for coherence		
adventure park? If not, are you about to start?	through construction elements		
Do you apply sustainable development opportunities for	To find out whether the adventure park has aspirations to		
individuals with disabilities? If not, are you about to	contribute to the promotion of disabled people's integration		
start and which ones?	into society		
What economic benefits does your adventure park bring	To learn and evaluate the current situation of the economic		
to the local community?	dimension and to review how the sustainable development		
	of tourism in an adventure park provides benefits according		
	to the economic dimension in the GSTC criteria		
How else could you improve the economic benefits for	To learn what else can be implemented in order to improve		
the local community?	the existing criteria of the economic dimension		
What is your attitude towards the employees as the	To learn about employee guarantees and opportunities		
manager of the adventure park?			
What can an adventure park offer in terms of improving	To learn about implementing improvement opportunities to		
employee attitudes?	enhance employee attitudes		
How do you contribute to the development of local	To clarify the situation in contributing to the preservation of		
culture?	local culture and how to achieve it		
How could you contribute more to the preservation of	To learn about the possibilities of improving the criteria of		
the area's cultural resources?	the socio-cultural dimension		
What environmental and ecological promotion methods	To learn what is the approach to environmental protection		
do you apply in the adventure park?	and what methods are used to preserve the environment		
What would you suggest from the adventure park side to	To learn about the possibilities of improving the criteria and		
better protect the environment, wildlife and natural	what methods could be used to improve them in the future		
landscape?			

Source: GSTC (2022)

The research data analysis and the discussion of the results

The study aimed to prepare a sustainable tourism evaluation model and, after applying it, to assess the sustainability of adventure parks, and to find out the possibilities of increasing sustainable development. During the research, the sustainable tourism destination evaluation model based on GSTC (2022) was applied and the sustainability of tourism destinations – adventure parks, was assessed, and where sustainability should be increased was analysed.

According to the evaluations carried out during the research (Table 3), the strongest adventure parks are in sustainability management. The second adventure park is a little further behind them. Adventure parks are the most lagging behind the maximum evaluation in economic and environmental indicators.

Table 3

Comparison of empirical research results

	Indicator	Assessment	Maximum rating	The difference
1 adventure park	Sustainability management	0.857	1	0.143
	Economics	0.400	1	0.600
	Socio-cultural	0.333	1	0.667
	Environmental protection	0.429	1	0.571
2 adventure park	Sustainability management	0.571	1	0.429
	Economics	0.400	1	0.600
	Socio-cultural	0.833	1	0.167
	Environmental protection	0.429	1	0.571
3 adventure park	Sustainability management	0.857	1	0.143
	Economics	0.400	1	0.600
	Socio-cultural	0.500	1	0.500
	Environmental protection	0.429	1	0.571

Analysing the answers of the managers of the adventure parks about sustainability management, it was confirmed that the traditional management of tourism is applied in the adventure parks instead of sustainability. Adventure parks are still more about economic benefits than long-term preservation for future generations. Sustainable development in adventure parks also contributes to the employment of the local community by creating new jobs.

During the research, it became clear that adventure parks increase opportunities for the socialisation of the disabled, the aim is to serve and integrate them into society, and there is also a need to create services specifically for them.

All the answers of the managers of the adventure parks showed that the socio-cultural indicator is being developed. Also, the results of the evaluation of the socio-cultural indicator when calculating the coherence are better compared to other dimensions, except for the first adventure park. Adventure parks contribute the most to the preservation of public culture through the organisation of events and cooperation for publicity purposes in the organisation of events.

During the research, it was clarified that sustainable development through the environmental dimension aims to preserve the unique landscape without damaging the environment, that is, the elements of sustainable construction are applied, the aim is to preserve the environment, as well as to expand the fauna.

The study helped to reveal that cohesion is not a spontaneous phenomenon. Its development requires strategy and management, on which the effectiveness of cohesion depends. In order to effectively develop sustainability in the tourism destination – adventure park, it is necessary to create sustainability conditions.

The research did not confirm such data suggesting that entrepreneurs single out the economic indicator over others. Furthermore, it indicated that there is no definite requirement for a social indicator when assessing sustainability. The statement that sustainable development is a long-term process has been confirmed, as well as the statement that socialisation is an integral aspect of sustainable development.

Conclusions

1. Sustainable development is presented differently by each of the authors, but all convey the idea that it is a process that includes the economy, environmental protection, social dimensions and their management. By applying and distributing the economic, social and cultural dimensions equally, it is possible to achieve well-being for the environment and local people not only now, but also in the future. By applying the process of sustainable development in tourism facilities, it is possible to obtain economic benefits without harming the environment and considering the social and cultural well-being of local people.

- 2. The advantages of using the criteria of global sustainable tourism as sustainability assessment methodology are as follows: the assessment methodology is easy and flexible, and it could be modified and applied to different tourism destinations in companies and regions, assessment criteria are the smallest. The weakness: there is no defined united meaning of evaluating system and it is not defined how the results have to be presented.
- 3. With the help of literature analysis, the problem was revealed that sustainability research is primarily based on the results and assessment of developed countries.
- 4. By analysing answers from managers of adventure parks and evaluating the results, it was found that the most missing opportunities are in environmental protection and economic criteria. It confirms that there is no encouragement in adventure parks for renewable energy, also there is no encouragement in water use reduction and the preservation of animal species.

References

- Adams, W. C. (2015). Conducting semi-structured interviews. Handbook of Practical Program Evaluation Edition: 4. 492–505.
- 2. Chang, D., Lee, C.K.M., & Chen, C. H. (2014). Review of life cycle assessment towards sustainable product development. *Journal of Cleaner Production*, 83, 48–60.
- 3. Estol, J., Camilleri, M. A., & Font, X. (2018). European Union tourism policy: an institutional theory critical discourse analysis. *Tourism Review*, 73(3), 421–431
- 4. Global Sustainable Tourism Council. (2022). GSTC destination criteria. https://www.gstcouncil.org/en/gstc-certification/gstc-criteria/criteria-for-destinations.html
- Hamimah, T., Huda, N. N., Kamlun, K. U., Rosmalina, A. R., & Jennifer, C. K. L. (2022). Sustainability assessment of mangrove forest as a tourist destination: A case study using GSTC Criteria in Kota Belud, Sabah, Malaysia. *IOP Conf. Series: Earth and Environmental Science*. 1053 (2022) 012028.
- 6. Jasinskas, E. (2015). Challenges of sustainable tourism development assessment. Sustainable development problems and their solutions in Lithuania. Vilnius University, Aleksandras Stulginskis University.
- 7. León-Gómez, A., Ruiz-Palomo, D., Fernández-Gámez, M.A., & García-Revilla, M.R. (2021). Sustainable Tourism Development and Economic Growth: Bibliometric Review and Analysis. *Sustainability*, 13, 2270.
- 8. Luo, Y., Chen, Y., & Zheng, W. (2016). A Literature Review on Evaluating Tourism Destinations. Information Science and Management Engineering IV (ISME 2016), 329–334.
- 9. Oželienė, D., & Drejeris, R. (2015). Įmonių darnios plėtros vertinimo metodinio potencialo analizė. *Mokslas Lietuvos ateitis. Verslas XXI amžiuje*. Vilniaus Gedimino technikos universitetas. Vilnius. 7(2), 189–198.
- 10. Palazzo, M., Gigauri, I., Panait, M.C., Apostu, S.A., & Siano, A. (2022), Sustainable Tourism Issues in European Countries during the Global Pandemic Crisis. *Sustainability*, 14, 3844.
- 11. Panić, A., Koščak, M., & Pavlakovič, B. (2018). Managing a sustainable tourism destination. Proceedings of The International Conference on Research in Management & Economics. Retrieved from https://www.doi.org/10.33422/ime.2018.12.74
- 12. Pollesch, L. N, & Dale, H. V. (2016). Normalization in sustainability assessment: Methods and implication. *Ecological Economics* 130, 195–208.
- 13. Rahmadian, E., Feitosa, D., & Zwitter, A. (2022) A systematic literature review on the use of big data for sustainable tourism. *Current Issues in Tourism*, 25(11), 1711–1730
- 14. Rahman, M. K., Masud, M. M., Akhtar, R., & Hossain, M. M. (2022). Impact of community participation on sustainable development of marine protected areas: Assessment of ecotourism development. *International Journal of Tourism Research*. 24(1), 33–43.
- 15. Ramanauskas, J., & Gargasas, A. (2011). Evaluation of the activities of rural tourism homesteads from the aspect of sustainable development. *Management theory and studies for rural business and infrastructure development: research papers*, 2 (26), 186–192.
- 16. Roblek, V., Drpi'c, D., Meško, M., & Milojica, V. (2021). Evolution of Sustainable Tourism Concepts. *Sustainability*, 13, 12829.
- 17. Rodriguez, R. A., Lopez, A. G., & Caballero, J. L. J. (2017). Has implementing an ecolabel increased sustainable tourism in Barcelona? *Cuadernos de Turismo*, 40, 93–134.
- 18. Roman, M., Roman, & M., Niedziolka, A. (2020). Spatial Diversity of Tourism in the Countries of the European Union. *Sustainability*, *12*(7), 2713.
- 19. Sala, S., Crenna, E., Secchi, M., Mischella, S., Sanye, & Mengual, E. (2020). Environmental sustainability of European production and consumption assessed against planetary boundaries. *Journal of Environmental Management*, 69.
- 20. Schmutz, V., & Eliott, M. A. (2016). Tourism and Sustainability in the Evaluation of World Heritage Sites, 1980–2010. Sustainability 2016, 8(3), 261.
- 21. Sharpley, R. (2022). Sustainable tourism governance: local or global? Tourism recreation research. https://doi.org/10.1080/02508281.2022.2040295
- 22. Wullur, M., & Samehe, V. (2020). Importance Performance Analysis using Dematel: A Case Study on Tourist Destination Attributes in Manado Indonesia. *SHS Web of Conferences*, 76, 01024.