

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
DNIPRO UNIVERSITY OF TECHNOLOGY
«DNIPRO POLYTECHNICS»**



**Department of tourism and business economics
KHARKIV NATIONAL AGRARIAN UNIVERSITY
NAMED AFTER V.V. DOKUCHAIEV**



Department of information technology, consulting and tourism

**TOURISM UNDER CONDITIONS OF
UNCERTAINTY:
FROM THEORY TO PRACTICE**

**Materials of I international
scientific-practical Internet conference**

May 12, 2021

**Dnipro
NTU «DP»
2021**

УДК 338.48

Т 79

Т 79 **Tourism** in conditions of uncertainty: from theory to practice: Materials of I international scientific-practical Internet conference, May 12, 2021, Dnipro [Electronic resource] / scientific red. V.M. Shapoval; Ministry of Education and Science of Ukraine, Nat. tech. Dnipro Polytechnic University. – Electron. text. data – Dnipro: NTU «DP», 2021. – 108 p. Access mode: <http://nmu.org.ua>. – Name from the screen.

Туризм в умовах невизначеності: від теорії до практики: Матеріали I міжнародної науково-практичної Інтернет-конференції, 12 травня 2021 р., м. Дніпро [Електронний ресурс] / науковий редактор В.М. Шаповал ; М-во освіти і науки України, Нац. техн. Ун-т «Дніпровська політехніка». – Електрон. текст. дані – Дніпро: НТУ «ДП», 2021. – 104 с. – Режим доступу: <http://nmu.org.ua>. – Назва з екрана.

ISBN 978 – 966 – 350 – 752 – 1

The results of scientific research of the issues, trends and prospects of the tourism industry are presented. In particular, modern paradigms of development of the enterprises of the tourist industry in market conditions; a wide range of theoretical and applied problems, covering such relevant areas of modern regional tourism research as the geography of tourism; analysis of economic, social and environmental aspects of tourism; strategic planning of tourist systems development; the role of innovations and innovative technologies in tourism, modernization of hotel and restaurant business are considered.

Theses are published in the author's edition.

Викладено результати наукових досліджень стосовно проблем, тенденцій та перспектив туристичної галузі. Зокрема, розглянуто сучасні парадигми розвитку підприємств туристичної галузі в ринкових умовах; широке коло теоретичних і прикладних проблем, що охоплюють такі актуальні напрями сучасних регіональних туристичних досліджень, як географія туризму; аналіз економічних, соціальних та екологічних аспектів туристичної діяльності; стратегічне планування розвитку туристичних систем; роль інновацій та інноваційних технологій в туризмі, модернізація готельно-ресторанного бізнесу. Доповіді друкуються в авторській редакції.

ISBN 978 – 966 – 350 – 752 – 1

© НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ
“ДНІПРОВСЬКА ПОЛІТЕХНІКА”, 2021
УДК 330.48

SMART-TOURISM: NEW TECHNOLOGIES AND CHALLENGES OF MODERNITY

Tourism is one of the priority directions of economic development and culture of the country. Its development should become one of the strategic tasks of further stabilization and socio-economic growth of the country and separate territorial-administrative units, destinations. In modern conditions, the functioning of the tourism sector depends on the rapid and continuous exchange of information, which is one of the key benefits of ensuring the competitiveness of subjects of the market of tourist services. This situation is conditioned by the need to change the ways and means of tourist service. In addition, it is aimed to form and provide channels of communication with partners and consumers of tourist activities, as well as the need for the introduction of new innovative technologies to ensure the sustainable development of tourism, which determines the use of smart technologies. The use of modern information technology in the tourism industry promotes its popularization and dynamic development.

An intensive use and introduction of smart technologies can predict the transition from the traditional form of economic relations to smart economies in everyday life. Smart-tourism has specific features in the process of functioning smart cities and smart-destinations, which is the spatial aspect. Also, as well as in the management of territorial and administrative units and destinations, that is a functional approach.

Smart is a new quality that occurs when integrating 2 or more components. One of them is technological innovation and the Internet, or just Internet. Smart-tourism is a tourism, in which the constant and systematic uses of Smart-elements lead to the additional value tourists' travelling. Smart-tourism is always the result of the efforts of all interested parties as Smart-tourism company, which are the organizations working in the field of tourism. Besides, due to concerned issue, the use in business of Smart-elements leads to a fundamentally new quality of processes that increase the efficiency of business and the competitiveness of the firm. Also, Smart-Tourist is a consumer tourist service that constantly uses Smart-elements to achieve new quality tourism processes in order to fully satisfy their tourist needs. And Smart-process (in tourism) that concerned with providing a tourist service, which effectively enables to correspond and face with the needs of Smart-tourists [2, p.46].

The content of Smart-tourism activities is work with information, databases as collection, generalization, and use. The purpose of the activity is to transform information into the experience of the consumer of tourist services and business proposals. Sources of information are social, government units, tourism infrastructure subjects, as well as individuals. A compulsory element is the use of advanced

information technology. The result of the activity should be the effectiveness and the stability of the territory and the enrichment of experience for the tourist. In this context, the need for a scientific study of the effective interaction of destinations and business with a tourist based on the concept of «smart tourism» becomes an important issue [3, p. 401].

Studies show that smart-tourism (sustainable, meaningful, actions that lead to responsible trips) is viewed not as an industry, but as a catalyst for changes that occur when travel participants make steady, tangible actions that make trips accountable and up-to-date.

Changing the vectors and priorities in the consumer market, the importance of the innovative component in the process of providing tourist services, harmonization of communication interaction with consumers using the latest technologies require new approaches to the management of cities and hospitality enterprises. That is why the implementation of Smart City technologies is interconnected and focused primarily on tourism development and, accordingly the Smart Tourism Destinations (STD) concepts. AS the result, that is being introduced more and more.

Smart City is a city that uses modern technologies to improve the quality of life in it. Smart City is the technologies, which are integrated into the appropriate structures to improve the quality of service delivery, reduce cost and resource consumption, and improve communication and understanding with residents, which is the main reason for this concept.

Smart City technology should be considered as a kind of road map of city development that allows not only centralized management of local administrative departments, libraries, transport system, hospitals, power stations, law enforcement agencies and other services, but also allows to pay attention to tourist attraction, that are located in different districts of the city.

It should be noted, currently there are different approaches and rating systems that allow to analyze and rank «smart cities», as a rule, with the main characteristics of which are smart economy, smart mobility, smart environment, smart people, smart living and smart governance [1].

With regard to the practical implementation of the concept of «Smart City», there have been successfully implemented the projects on the transformation of megacities within a similar development trajectory and leaders have been identified in major cities of the world. So, according to a rating developed by Professor Boyd Cohen and presented in the American magazine Fast Company, among the «smartest» cities of Europe in 2018 are Copenhagen, Amsterdam, Vienna, North America – Seattle, Boston and San Francisco, in the Asia-Pacific region , they are Seoul, Singapore and Tokyo, Latin America countries like Santiago, Mexico and Bogota [5].

The best practices of managing urban services on the world market for tourist services based on innovative approaches and Smart City projects indicate that many innovative tools (e.g. The Internet of Things, non-contact communications technology, cloud technologies, etc.) have been developed and implemented. Which

ensure the implementation of the main provisions of the concept of sustainable tourism development and raising social standards of the population.

Among the most common ways to use Internet-based technology and contactless communications within the «Smart City» in tourism are the following as mobile applications and payments, e-tickets, geolocation, online access to news editions, the use of mobile devices as keys for opening doors in accommodation facilities, vouchers or discount cards. Duties and main activities are actively carried out on the use of biometric data and elements of artificial intelligence. Convenient for tourists use are audio guides, electronic guides, tourist buses with Wi-Fi, mobile applications of «added reality», which are connected with the organization of collective transport tours and excursion routes, video card design of 3D models of historic buildings, the use of smart technologies and QR codes in museums, etc.

The technologies and tools of Smart City are being developed, which have already found practical application in the development of tourism of Ukrainian and foreign cities. The concept of Smart City should be aimed at the development of not separate intelligence systems, but at an integrated approach to the development of a large number of different subsystems, combining the results of the work of the team of architects and engineers, manufacturers of equipment and communication systems.

The number of implemented technologies is not as important as creating a model that allows you to solve most of the issues caused by the rapid rate of urbanization.

An example of a comprehensive approach to city development in Ukraine, including taking into account the development of tourism based on Smart City technologies, is the development of SMART City' brand in Kharkiv, which began in 2008. The brand's content is as follows: «SMART is not just a smart city, it's a social, modern, art city, research, and a tourist city».

In the tourism sector, «Smart City» brand implements the project of QR codes «7 Wonders of Kharkiv». The first QR-code is opened on one of the main romantic sights of Kharkiv, that is the Mirror jet. The code is on a plastic plate, which contains three technologies. By attaching a mobile device to a matrix code a person enters the page with a language choice and reads the object information [4]. For devices with the operating system Android, iPhone sixth model and newer technology of contactless data transmission, the Internet for reading is not required. To find out more about the object, you can go to the suggested source link. The third technology is Kharkiv project innovators, that is currently being tested. As result, it will help to obtain accurate data on the number of tourists.

The use of smart technologies, the Internet of things, neural marketing, and software automation of all the business processes of the tourist enterprise today is not just a matter of leadership and the creation of competitive advantages, but also the survival of the services market.

Innovations in tourism contribute to the development of new ideas, new directions of development, and increase the competitiveness of the territory. The Smart Tourism Destinations Concept is based on the use of the synergy between Smart Sensitive Innovative Technologies and their social component to support

tourism experience. Smart technologies are aimed at satisfying the needs of tourists by combining information communication technologies with tourism innovations, which aims to improve the quality of service, create an interactive platform containing information on tourism resources, information of subjects of tourism activity. The Internet and related interactive technologies today are the main tools for making decisions on the direction of travel, means of travel, and places of accommodation, food and leisure activities.

The problem of information provision and provision of services in the network of service of urban cultural tourism will be solved based on the analysis of the accumulated information about tourist objects and services. Since current tourist information technology is currently inadequate, it does not provide them with adequate information support during all stages of travel (planning, realization of the trip, post-travel period). However, the specific information systems are mostly oriented towards use in a particular tourist destination.

References:

1. European Smart Cities. How to determine if your city is smart? [Electronic resource]. – Available at: <http://e-gov.by/best-practices/evropejskie-smart-cities-kak-opredelit-yavlyaetsya-li-vash-gorod-umnym>
2. Kormyagina N.N. Smart-turizm kak chast Smart-kontseptsii [Smart tourism as part of the smart concept] / N.N. Kormyagina // Marketing i logistika: nauchno-prakticheskiy zhurnal. – №6(14). – 2017. – S.45-57.
3. Tunyk O.M. Smart-turyzm: novitni tekhnolohiyi ta vyklyky suchasnosti [Smart Tourism: the latest technologies and challenges of modernity] / O.M. Tunyk // Materialy VI Mizhnarodnoyi naukovo-teoretychnoyi konferentsiyi «Tvorchyy poshuk molodi – kurs na efektyvnist», (Khmelnyskiy, 25 lyutoho 2015 r.). – KHKTEI. – S.401–402.
4. Smart-Kharkov [Electronic resource]. – Available at: <https://ain.ua/special/smart-kharkiv/>
5. The 10 Smartest Cities In [Electronic resource]. – Available at: <https://www.fastcompany.com/3024721/the-10-smartest-cities-ineuro>