

Application of technological innovations in the tourism industry

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Abstract. In the conditions of digitization and ecological transformation of industry and society, studying the opportunities to apply technological innovations and their impact on the tourism sector has become a research topic. The directions of tourism business innovations are explored and the role of technological innovations in adapting the tourism sector to the processes of transformation and digitalization of society is outlined by conducting a systematic analysis. The aim of this study is to identify the different approaches to tourism product innovation, clarify the scope of technological innovation and to present the possibilities of their application in the tourism sector. As a result of the study the scope of technological innovations in the tourism sector is outlined and guidelines for their application are proposed in order to diversify the tourist product and optimize tourism business activities.

1 Introduction

The European and world experience show that skillful use of scientific research and modern technologies and innovations make it possible to take active actions with the aim of increasing the competitiveness and efficiency of businesses. A major challenge is the transition to organizing the business on the basis of knowledge and the inclusion of the tourism business in the global information society.

The ability to create and implement innovations plays an important role in the prosperity of an organization, the sector and the economy as a whole. The implementation of innovations is a determining factor for increasing the competitiveness and efficiency of the tourism business in the first place, of the sector afterwards and, respectively, of the economy. The requirements of the European Union in the sphere of tourism and the prospects for development of national tourism are primarily expressed in the quality of the tourist product and the way tourism services are provided.

The tourism sector in the European Union faces serious challenges in the medium- and long term, related to its ecological transformation, digitalization and integration of new technologies in particular, as well as to its competitiveness and sustainability [1]. As rightly noted in [2] “tourist behaviour is also evolving into new patterns reflecting some of the challenges mentioned above”.

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Studying the innovation activities in the tourism sector and to what extent the innovations, implemented in the sector, bring competitive advantages is of particular importance to our country that follows the European priorities, laid down in the European Green Deal and the Innovation Strategy for Smart Specialization 2021-2027 [3].

These issues and matters related to researching the impact of technological innovations on the possibilities of the tourism sector to diversify its product and optimize its activities are particularly relevant as innovations, on the one hand, are transforming business operations and marketing in the tourism business, and on the other hand, are changing the consumer experience.

It is precisely these matters that require presenting the practical applicability of technological innovations in the tourism sector. The research objective, formulated in this way, can be decomposed into the following tasks:

- developing a conceptual framework of the study by exploring theoretical propositions related to innovations in the tourism sector;
- presenting technological innovations leading to transformation and digitization of the tourism sector;
- bringing out the benefits of implementation of digital innovations in terms of optimizing processes in the tourism business.

Providing a detailed presentation of technological innovations is not intended in this paper.

2 Materials and methods

This research is based on the systematic literature review approach, and online databases are used to collect the necessary data. Data from the published systematic reviews [3-6] are integrated; thus, the reproducibility of previous studies is emphasized. Most importantly, our analysis provides an up-to-date, expanded and more detailed insight into the field of research on innovations in the tourism industry and, in particular, the technological innovations that are most quickly adopted by the tourism business and customers.

3 Theoretical frameworks

The rapid development of technology plays a crucial role in the recovery of tourism and the adaptation to the tourists' changing needs. Confidence in technology is growing as technology has proven its worth and continues to be introduced to the tourism industry.

If compared to other sectors of the economy, tourism has a relatively low productivity, that is why it is difficult for tourism to attract sufficient capital for investment and highly qualified personnel. One of the main reasons for this drawback is that tourism is a labour-intensive industry. However, it can be argued that the current level of productivity is not considered as the most determining indicator of the future development of a business, industry or economy, but rather the level of innovation.

Because of the heterogeneous nature of the tourism product, combining tangible and intangible components, it is difficult to study the innovations in the tourism industry, since they are planned and carried out within a single type of enterprise. Innovations are considered as a great source of competitive advantages and economic growth. Innovations are seen as necessary for tourism businesses as they are a factor in growth, returns, sustainable performance and leadership. Due to the characteristics of consumers involved in the tourism industry, most tourists require different innovations.

Therefore, tourist expectations and trends often change and the demand structure, valid for a certain period, may change in the next period.

Businesses are developing new designs, procedures, methods, service content and distribution systems instead of their usual systems due to changing tourism demand. The ability to create and implement innovations plays an important role in the development of a tourism enterprise, the industry and the economy as a whole. The implementation of innovations is a determining factor for increasing the competitiveness and efficiency of tourism enterprises in the first place, of the industry and, respectively, of the economy. The demands of tourists and the prospects for development of national tourism are primarily expressed in the quality of the tourist product and the way tourist services are provided [4-5].

Studying innovations and finding their place in the activity of a tourism business is accompanied by the use of several basic concepts, which should be defined and clarified in advance [6].

From a macroeconomic point of view, innovations are associated with the concept of a national innovation system, which was introduced in 1987 by Ch. Freeman [7] as a network of institutions in the public and private sectors, whose activities and interactions initiate, import, modify and diffuse new technologies. The national innovation systems approach stresses that the flows of technology and information among people, enterprises and institutions are key to the innovative process. Ch. Freeman believes that technological differences between technologically advanced countries and other countries are the result not only of technological innovations, but also of the way of organization, financing, marketing, education and a number of other factors. The combination of all factors contributing to overcoming these differences is called a National Innovation System.

The aim of outlining the innovations at the macroeconomic level is to clarify their role in the development of industries and the economy as a whole. Enterprises implement innovations and are the primary source of investment, therefore they occupy a priority place in the economy. This is also the reason why innovations are given careful consideration at the micro level, which makes it possible to clarify the essence of the concept and define innovation as a driving force in the activity of an enterprise.

Schumpeter is believed to be the first major economist to go back to the theories of Jean-Baptiste Say [8], who broke with traditional economics. According to him, in order to have a healthy economy, it is necessary to look for a dynamic disequilibrium, which is achieved through innovative entrepreneurship, rather than striving for balance and optimization of processes. It was Schumpeter who introduced the concept of "innovation" as "change in order to introduce and use new types of consumer goods, new means of production and transport, markets and forms of organization in production".

Schumpeter's views on innovation are reflected in Neo-Schumpeterian economics, developed by such scholars as Freeman and Dosi [9]. Following Schumpeter [8], contributors to the scholarly literature on innovation consider innovation as an economic lever in enterprises and hence in the economic sectors of the countries. According to them, innovation must increase value, customer value, or producer value. The goal of innovation is positive change, to improve existing products, services, markets, etc [10].

In Romer's theory of entrepreneurship [11], for example, innovation is seen as a new element (node) introduced in the economic system which changes, even if momentarily, the costs of transactions between at least two parties. From the point of view of entrepreneurship, Drucker [6] defines innovation as the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a business or service.

Innovation, as part of the marketing mix of an enterprise, has attracted the interest of well-known marketing theorists such as Kotler [12], Pride and Ferrell [13]. In terms of marketing, innovations are part of the enterprise's commodity policy and are related to the market realization of new products, technologies, customer relations.

According to these authors, innovation is a means used by an enterprise in its product line management; a means by which an enterprise reacts, both in terms of emerging new needs on the part of consumers, and in terms of the products offered by competitors in the market.

Innovation [14] is most often defined as a change aimed at renewing or introducing something new and useful in practice, and this can be implemented in different fields: business, society, politics, science, art, etc. The concept of innovation is complemented and updated in the Technological Concept of Innovation of the Oslo Manual [15], which links product and process innovation to research and technology transfer. According to the Oslo Manual innovation is the end result of innovative activity, embodied in the idea of a new or improved product, introduced to the market, new or improved technological process used in practical activities or in a new approach to social services.

In many studies, innovations are linked to investments that lead to technological changes in the true sense of the word “technological” [16]. It makes perfect sense to examine the two concepts as interrelated since innovation is impossible without investment. Investments provide the capital needed for carrying out innovation throughout the process of its implementation. In the digital era and the knowledge economy, innovation is closely linked to technology.

The changes caused by the technological systems of enterprises lead to changes in products, organization, marketing, and consumer behavior. The understanding of innovation as the end result, embodied in a new product, technology, etc., was imposed by the very creator of the concept, J. Schumpeter [8]. P. Drucker [6], in his early years of innovation research, was also among the advocates of the idea of seeing innovation as an outcome. Subsequently, his scientific and practical research turned to seeing innovation as a systematic, organized, and purposeful activity. He was impressed by the experience of the Japanese, whose progress can be attributed not only to technology, manufacturing processes, decreasing costs, or marketing but also to making innovation purposeful and systematic, developing it into a discipline. Among the advocates of the opposing theory, that innovations need to be examined as an end-to-end process with its initial resources, stages, and corresponding output, is Cooper [17], who has developed the Stage Gate Model. The process consists of five stages, which are connected to each other by gates in the Stage Gate model. Each stage is designed to collect specific information. The above-cited authors, exploring innovation in one or the other approach, are only a small part of the long list of significant authors who work on the problems of innovation theory.

When summarizing the considered theories, it can be concluded that innovations in the tourism sector should be understood as the end result of the innovation activity, embodied in the form of a new or improved product introduced on the market, new or improved technological process, new approaches used in tourism activity and customer relations, which lead to overall changes in the activity and have an impact on the financial condition of the tourism organization.

4 Results and Discussion

In order to stimulate the development and realization of the potential of the tourism industry, it is necessary to review the conceptual approaches and strategic guidelines for the development of the industry in the context of modern trends in economic development: innovation, globalization and sustainability. Modern research methodology of innovation processes is based on three approaches [18]:

- technology push (from science to market);
- market pull (from market needs to science);
- integrated approach (combining the two previous approaches).

An important question regarding the strategy a tourism company should pursue is whether successful innovations might be the result of "technology push" or "market pull". "Technology push" occurs when an emerging technology or a new combination of existing technologies gives rise to an innovative product and a new solution to a marketing problem. In some cases, the new technology transforms into radical product or process innovations and achieves its own market position. The technology push approach (Push model of the innovation process) is related to the development of science and technology.

In this approach, the innovation process represents the transformation of an idea into a commercial product, passing sequentially through fundamental research, applied research, experimental design and technological development, marketing, production, and finally post – sales.

Such a strict sequence of stages in the implementation of the scientific idea can be described by the linear model of the innovation process (Fig. 1).



Fig. 1. “Technology push” approach [18].

According to this model, the developed fundamental idea is embodied in applied research, which serves as a basis for innovation and subsequent commercialization. This model establishes a direct linear relationship: the more fundamental research, the more applied research, innovations and more advanced technologies introduced.

Much more often, the impetus for innovation is the market demand. This predetermines the importance of the second approach – the approach of market demand pressure (market pull, i.e. from market needs to science). The approach links the growth of the innovation potential of the industry with the demands of the market.

A sharp distinction between innovations resulting from "technology push" and "market pull" is hardly found in today's innovation practice. The integrated approach of the innovation process assumes that the innovation process becomes more and more complex, non-linear, which shows that the logic of technological development and the needs of the market are equivalent sources of an innovative idea. This means that it is possible to create innovation directly, bypassing the scientific research stage (Fig. 2).

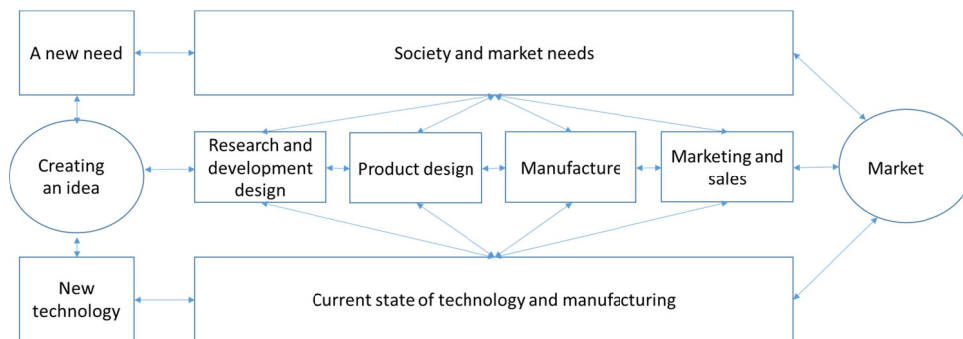


Fig. 2. Integrated approach to the innovation process [18].

What is specific about this approach is that when an idea is generated, a concept is developed and then direct development follows.

No matter which approach a tourist business uses to implement innovations, they represent a necessary part in the program for development and realization of the tourist product on the market, when the main goal of a tourist organization is to operate in conditions of competition and attract a maximum number of tourists. With the help of innovative aspects in its activity, a tourism organization can ensure the validation of its product in the market.

As seen from Fig. 3 revolutionary changes in tourism are the result of great technological revolutions.

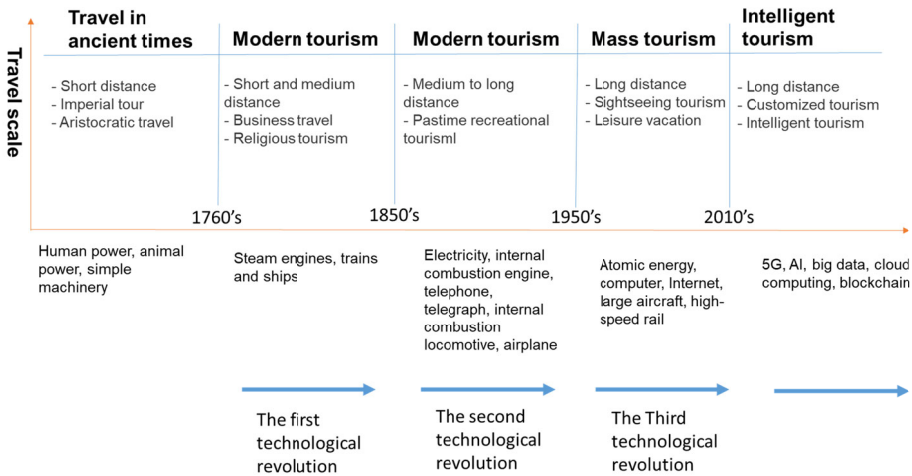


Fig. 3. Technological revolution and tourism development [19].

Innovation activity in the tourism business is a complex type of activity, combining new knowledge, products, personnel training, etc. The implementation of innovations in a tourism enterprise should not be fragmented, but planned and purposeful. An innovative enterprise, which has adopted the system approach to innovation management, regulates innovation activity at all levels in close coordination and interrelationship with all management tools and decisions.

It should be noted that innovations in the service sector, including the tourism industry, have their specifics [20]:

- a large part of innovations are not subject to patenting, which significantly reduces the life cycle of innovations;
- high uncertainty of implementation consequences;
- difficulties in evaluating the effectiveness of innovations;
- the need to apply an integrated approach when introducing innovations.

Based on the provisions of the Agreement on Trade in Services (GATS) [21], the innovations in tourism develop mainly in three directions:

- organizational innovations related to the development of tourism business management in a systemic and structural sense;
- marketing innovations that allow meeting the needs of target users or attracting customers, not covered for a given period of time;
- product innovations aimed at changing the consumer properties of the tourist product, its positioning and providing competitive advantages.

The innovations in a tourist organization and the measures related to their implementation, management and control form the innovation activity.

The specificity of innovations to be manifested in the overall activity of a tourist enterprise gives Janszen [6] reasons to consider innovations as a very important factor for the constant growth and development of an enterprise.

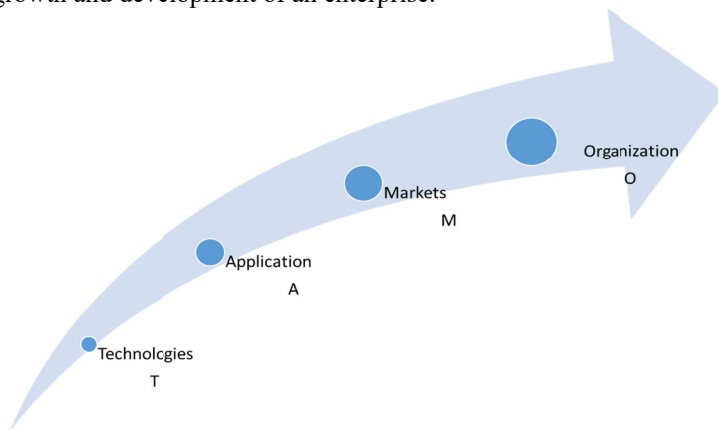


Fig. 4. Innovation trajectory [6].

As seen from Fig. 4 the enterprise innovates its activity mainly in four areas: T (technology); A (application); M (market) and O (organization). On the basis of the examined trajectory and the outlined specificity in the innovation activity of the tourist enterprise, the innovations can be classified into the following four groups:

- T (technology) – technical-technological innovations – new technology in the operation of the hotel enterprise;
- A (application) – product innovations - new application, in the form of new basic and additional products, new tourist resources;
- M (market) – marketing innovations – new markets, market segments, channels and sales methods;
- O (organisation) – organizational innovations – a new organizational form or a new approach in the management of the hotel enterprise.

With the help of this grouping, it becomes possible to study the innovations implemented by the organization, considering at the same time the relationship between individual innovation actions and the changes that cause innovation in its overall activity. And since innovations are implemented in order to achieve positive results, it is necessary to consider the distinct types of innovations and their specific context.

The focus of the current development is on the first type of innovation implemented in the tourist enterprise – technical-technological innovation. They are related to the application of new or significantly improved methods of service and provision of tourism products, the implementation of innovations, through transfer from other industries or innovations related to technologies specific to the tourism industry. Technical-technological innovations directed towards equipment, human resources, working methods or a combination of the three. This process of innovating is long-term, with large investments, and the human resources involved are not only employees within the tourist enterprise, but often also attracted (external) specialists.

Technical-technological innovations are divided into material-technical, high-tech, and information-communication innovations. In the tourist enterprise, there are technological innovations that are related to efficient technologies, equipment, and the technical security of the enterprise as a whole. Technical-technological innovations are related to the improvement of service, the organization of work, and the production and delivery of the tangible part of the tourist product.

Material - technical innovations are aimed at the material base of the enterprise, which are directly related to the parameters of the tourist product. The result of this type of innovation is improvements in the equipment, furnishings in the rooms and common areas of hotels, restaurants, and entertainment establishments [22, 23].

High-tech innovations optimize the service delivery in the enterprise. As a result of the introduction of this type of innovation, customer service times are reduced, computer systems are introduced to track all operations and processes on-site, including RMS systems and others. High-tech innovations are innovations implemented through transfer from other sectors and enterprises that find suitable applications in tourism as well.

The third type of technical-technological innovation is the information-communication one. These innovations include the implementation and validation of new methods and information technologies for offering and delivering tourism products, as well as implementing communication structures in the value creation process.

The application of these innovations allows real-time management of payments, reservations and even reception desk improvements, namely through efficient booking systems and a guest check-in system, with a module for creating profiles of customers and tour operators. These products facilitate the implementation of marketing innovations related to relationship management with tourists and guests, since the system enables customer tracking and visit history.

Thus far, it can be summarized that technical-technological innovations often serve as the foundation for implementing other types of innovations - marketing, product, organizational, increasing the types of tourist products and services and extending their life cycle. The tourism industry uses technological innovations to improve the supply of tourism products and promote the upscaling of tourism services.

Continuous technological advancement leads to the offer of increasingly awe-inspiring technologies, that exceed our expectations [24]. One of the popular ideas is that of virtual reality. Although considered an innovative approach, the term "virtual reality" dates back to the 1960s, but nowadays the concept has evolved into the following four varieties [25]:

- VR – virtual reality;
- AR – augmented reality;
- MR – mixed reality;
- XR – extended reality – a mix of VR, MR, AR.

By their very nature, all four types are dependent to 3D digital computer models, which give users many options, some of which are related to their purpose, rotating or moving in different directions.

Virtual reality (VR) is a computer-generated 3D virtual world that is a given space that has no direct contact with the real world. Service users have access only as far as the generated environment allows them to explore. To create a more realistic experience for customers, audio headsets and video glasses can be offered to enrich their experience. The pleasure of the simulation is achieved by using one of the following devices: special virtual reality glasses, a computer, tablet or a smart phone.

Augmented reality (AR) is an innovative approach to digital technology that is based on virtual reality and is considered its extension. Augmented reality is a combination of virtual reality factors and objects, paired with aspects of the real world (digital objects added to the real environment).

Mixed reality (MR) is a combination of the real world and digital objects that interact with each other.

Extended reality (XR) is a combination of the previous three types and includes elements of both virtual and augmented reality, as well as mixed reality.

In the increasingly digitized world we live in, the use of VR systems provides expanded possibilities for service personalisation that tourism enterprises and establishments can provide above and beyond the traditional approach.

Popular methods introduced and applied by the tourism business in order to capture consumers' attention often facilitate the use of services such as interactive floors, walls, tables and bars, digital tour guides and other innovation-based methods for turning travel into an easy, affordable and truly enjoyable experience.

The implementation of interactive floors by the tourism industry is primarily related to the achievement of the effectiveness of the place of visit, which automatically turns it into an exciting experience.

Similar to interactive floors are interactive walls that can be used for advertising purposes, to attract attention or to refresh the space. Other applied innovations are the interactive bar or table, which create a memorable look and a unique signature in dining areas or bars.

The prevalence of technology in the tourism industry is primarily driven by the desire for increased customer consumption. Planning a tourist trip is related to the preliminary preparation of a number of details, starting from the choice of destination, choice of means of transport, accommodation venues and local sights and monuments. Until recently, the client preferred to save their valuable time and have all these details arranged by the nearest travel agency, while now there is an increase in the number of users who organize their trip on their own, because everything is just a click away. With a few clicks, a customer can book their ticket to a chosen destination with their preferred mode of transport, reserve their stay at a suitable accommodation, and locate the best restaurants and bars in the vicinity. All this is possible through a smart device and the availability of a wi-fi connection.

Thanks to the digitization of a large part of the processes, subject to the analysis of customer data, and through the use of technologies based on the "Internet of Things", the services used by users are selected according to their interests and needs, which immediately turns the tourist proposition into a more effective, sustainable and appealing one. Examples of useful applications for industry and tourist travel are any of the following technological innovations:

- Pursuit of smart travel. It is based on the interconnection between different service systems, thanks to which passengers can buy their tickets and check-in online, use their boarding passes from their smartphone and enjoy an entirely automated check-in. This leads to the improvement of travel-related processes, increasing the security and safety of travellers.
- Creation of new jobs. Due to the increasing digitization seen in the sector, job creation will be increasingly linked to knowledge and technical skills that employees would be expected to possess. These requirements are in place to achieve a more efficient implementation of smart travel services.
- Transforming smart destinations. These are destinations with a strategy to support the entire tourist cycle. This means including it in every stage of the tourists' journey - before, during and after its implementation. This type of destination provides tourists with a pleasant and memorable stay, striving to implement sustainable management of local tourism resources, anticipating difficulties and overcoming them in a timely manner, so that they do not impact the customer experience.
- Implementation of the "digital tour guide" service. By using this service, tourists can effectively organize their stay at the destination. This can be done both online and offline. The application uses the users' location information through their smart device, which can be either a phone or a tablet, and sends information related to both navigating to their desired location and providing an audio guide-related service, when visiting the local attractions.

- Possibilities for online booking and accommodation. The influence of the COVID-19 pandemic in the past few years, has led to the optimization of several processes, including the receipt and registration of passenger boarding passes. This is now also possible with remote access, mere hours before the trip itself.
- Online communities. Online communities have become major players in the travel industry. When looking for a hotel or restaurant in our chosen destination, we can immediately read the review section to find out if it is worth the visit. It can be said that these communities have become a new type of tour guide that collectively recommends the best places in and around your travel destination, having a huge impact on the customer choice and final decision.
- Travel safety guidelines. In times of a global pandemic, governments around the world have introduced specific regulations regarding travel and tourism in their countries. For example, some countries only allow vaccinated travelers, while others do not allow tourism at all. As the situation is constantly changing, so are these regulations. To know exactly where you are, governments around the world provide tourists and citizens with digital information platforms that provide users with real-time information about the current situation regarding rules and regulations in their country. This also includes alert levels regarding terrorism risks and/or environmental disasters such as floods or forest fires.

Technology can help any business create a larger and more loyal customer base, regardless of the specific industry or sector they operate in [26-29].

5 Conclusions

Innovation in the tourism business seems complex, given that the prime focus is the tourism product, which has a different scope depending on the elements it comprises of. Therefore, innovation is usually implemented through a series of small steps that lead to gradual development and implementation, and one innovation inevitably leads to another.

In the modern sense, innovations in tourism are planned, purposeful, inevitable and manageable practical changes at the level of the organization itself. They are aimed at developing tourism flows and creating tourism products and experiences that satisfy and anticipate individual demand as much as possible. This requires knowledge of the main sphere in which the tourist organization directs its innovation activity.

The first sphere is related to the introduction of new products, these are new primary and add-on products, as well as the modification and upgrading of already existing products, etc.

The second sphere in which the innovation activity is directed towards is the implementation of new technologies both in the production and in the sale of tourist products.

The third sphere of innovative activity of tourist organizations is the use of new tourist resources that have not been used in the development of the industry itself.

The fourth sphere for innovation is related to changes in the organization of the activity. Part of the innovations in this direction are aimed at creating associations, collaborations and exchange with other industries, binding with long-term contracts, etc.

The fifth sphere of innovation activity is identifying and utilising new markets.

Regardless of the seeming diversity of the spheres for innovation, they are interconnected. It is not possible to create new products without using new tourism resources. In turn, new products are aimed at new segments, i.e. new markets. Finding a new market niche is only possible with the use of new sales channels to connect tourism organizations with potential customers. And all these innovations would not have taken place without reorganizing the activities of individual units.

Innovation would not be possible without the implementation of new technologies, both related to the functional performance of operational activities, as well as to the sale of tourist products and the organization of customer relations.

Based on the outlined scope of the innovation activity of tourist organizations and the opportunities that technological innovations provide for the development of the tourism industry, the following benefits of their implementation can be outlined:

Firstly, technological innovation leads to a range of product innovations in response to customer demand for opportunities to create products themselves by adding services and experiences that meet their specific interests. In this regard, there are increasing requests for "unique experiences" (unforgettable, once-in-a life-time occasions), as tourists want to get a sense of adventure and experience tastes and aromas that cannot be enjoyed elsewhere in the world. There is also an increased demand for "slow adventure," a form of tourism that eschews high adrenaline and replaces it with authentically pleasant experiences: visiting little-known wild places and natural areas, rural communities, cooking, painting, crafts, and educational courses unique to those locations. Through technological innovation, products with multi-sensory perception are offered, in which the tourist does not use only one way of perceiving reality, for example, sight or hearing, but combines them, thereby adding.

Secondly, technological innovation is a prerequisite for using new marketing and communication channels. Technological and organizational innovations enable people to work away from the office, giving them the opportunity to "escape" from their usual environment and combine work with leisure and entertainment. The consequence of this is that the consumer wants to receive a service or buy a product at any time of the day and at any place, and travel businesses become 365/24/7 service providers. 24/7 booking options allow you to plan frequent and short breaks in nearby or faraway destinations.

Thirdly, technological and communication innovations enable fast bookings, options for amendments, cancellations and changes in travel. The implementation of reservation systems and online guides, not only by accommodation and transport companies, but also by all types of tourist sites (museums, attractions, events, etc.), allow tourists flexibility in planning their vacations and entertainment. People no longer tolerate long lines, crowded views, mainstream experiences, unsustainable practices, poor customer service and lack of information.

Fourth, systems for resource management (ERP), supply management (SCM), learning management (e-learning), document flow management (e-book keeping and accounting) are only part of the information solutions that help for the effective management of the main and auxiliary business activities in the tourist enterprise. The introduction of robots to serve tourists minimises the cost of maintenance and staff training.

In the conditions of digitization and ecological transformation of industry and society, technological innovations give new perspectives to the tourism sector. Technological innovations are the basis on which other types of innovations are built, such as marketing, product development, and organizational innovation. Innovative organizations improve their competitiveness by optimizing business processes and meeting consumer expectations. Innovations in tourism bring about changes in efficiency, sustainable production, and optimized organization of activities and sales. Innovations in the tourism enterprise for interconnectedness and their effective management lead to optimization of the industry. Tourism businesses realize the potential that technological innovations have for the development of the whole sector. It can be realized if the following elements are combined: uniqueness; professionalism and expertise; inducing transformation; personalization; active exchanges.

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