Innovative Staff Training Strategies for the Tourism and Hospitality Industry

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Abstract—**The article discusses innovative approaches to staff training for the tourism and hospitality industry. The main changes in the system of personnel training are related to digitalization, which radically changes business processes in all spheres of the economy, including the tourism and hospitality industry. The influence of digital technologies on changes in the composition of the competencies of tourism and hotel business has been studied. It is shown that when forming the strategy of personnel training for the tourist industry, the formation of digital competences acquires special significance.**

Keywords—tourism; hospitality; digital technologies; digital competencies

I. INTRODUCTION

The modern development of tourism and hotel business is directly related to the emergence of information and communication technologies, which have a huge impact on the tourism industry as a whole, and on the tourists themselves. Digital technologies are based on fundamentally new approaches to information processing, including artificial intelligence, big data technologies, Internet of Things, mobile technologies, blockchain, etc.

Digitalization affects all spheres of human life, forms new channels of communication, such as social networks and various instant messengers, which have already become an integral attribute of interpersonal communication. Digital technologies lead to the transformation of human behavior, quickly alter the needs of tourists, for whom permanent access to the Internet becomes commonplace. In tourism, they even began to use the new term electronic nomad, whose characteristic attributes of life were gadgets and constant access to the Internet. The key condition for a comfortable journey was the constant availability of the Internet and the availability of various mobile applications for tourists.

An important competitive advantage of a tourist product is its information support, which contains the maximum amount of information necessary for a traveler. According to Travelport, when planning a trip, 80% of Russian tourists use video and photos of the chosen tourist destination and its attractions, 75% of tourists leave their reviews, 69% want to get the maximum possible amount of information about the destination.

Tourists are actively using mobile services that provide convenient and comfortable digital communication. There are several groups of mobile services for travelers [1]:

- cartographic services
- geographic information systems
- audio guides
- reference catalogs with reviews and tips
- booking air tickets
- hotel booking
- booking of train tickets
- car rental and taxi
- reference information on catering enterprises
- weather background information
- accounting of finance
- translators
- messengers
- travel organizers
- additional services

Currently, there is a digitalization of business processes in the field of tourism and hospitality, therefore, changing requirements for the level of competence of personnel of enterprises of the tourist and hotel industry. In this regard, the modernization of the training system that meets the future needs of the digital tourism industry is of particular importance.

II. METHODS AND MATERIALS

During the study, monographic, statistical, economic-analytical, comparative methods were used. On their basis, statistical data on the level of development of information and communication technologies were analyzed, the degree

of application of digital technologies in tourism was studied, changes in the labor market in the tourism and hospitality industry were identified, and proposals for a strategy for modernizing educational programs regarding the formation of digital competencies were formulated.

A key trend in the development of the world economy and society is the digitalization of all spheres of life. Technological changes lead to the transformation of business processes, affect the labor market. In this regard, it is necessary to improve the system of personnel training of enterprises of the tourist industry. Currently, the scientific literature is actively exploring the impact of digitalization on education [2] [3]. Digital competencies become key in personnel training, they contribute to the acquisition of other important competencies, such as knowledge of a foreign language, mathematics, cultural awareness, etc [4].

Digitalization of business processes radically changes the labor market, modifies the conditions and forms of labor, cooperation and exchange. A new model of labor and employment "Work 4.0" has appeared, which implies new requirements for the training of personnel of organizations [5]. A distinctive feature of this model is an increase in the share of intellectual creative labor and a high level of staff mobility.

By 2030, the projection of 57 traditional professions and the emergence of 186 new professions are projected. Professions such as virtual habitat designers, technological ethics advocates, digital culture interpreters, and IoT data analysts will be in demand. About 65% of today's schoolchildren and students will occupy positions that today do not yet exist. More technologically advanced professions are expected to appear: space tour guides, personal content managers, human designers. These changes will directly affect the tourism and hospitality industry.

Scientists note the importance of developing digital competencies for tourism and hospitality workers [6]. The tourism and hospitality industry is one of the most information-rich areas in which information plays a key role in all business processes. The use of information technology in tourism and hotel business began in the 60s of the last century. It was associated with the creation of global reservation systems and led to dramatic changes in the technology of the formation of tourist products [7].

Digital competencies imply the ability to perform various tasks in the field of the use of information and communication technologies (ICT), including creating and using content with the help of digital technologies, searching and sharing information, using computer programming, etc [8]. Knowledge of existing information technologies in tourism, development of skills and abilities to use them in professional activities at all levels of tourism management is an important and important component of training for the tourism industry and hotel business. Digitalization allows you to create a single information space of the tourism industry. New principles of information support and tourism and hotel business management are being formed, which requires an understanding of the role of information support as the most important subsystem of the information society.

In this regard, the level of requirements for employees of the tourist and hotel industry in terms of possession of modern information and communication technologies is increasing.

The development of digital technologies involves the continuous improvement of staff in the tourism and hospitality industry. Obsolescence of knowledge will occur at a faster pace than today. In this regard, continuous lifelong learning will be demanded, the paradigm of education will drastically change, the level of staff mobility will increase, and the technology of working out of the office will expand [9]. The development of information and communication technologies will contribute to the spread of cross-border remote employment.

The data on the number of specialists of the highest and medium qualifications in the field of information and communication technologies (ICT) were analyzed. "Fig. 1" shows the share of ICT specialists in the total number of people employed by individual countries [10].
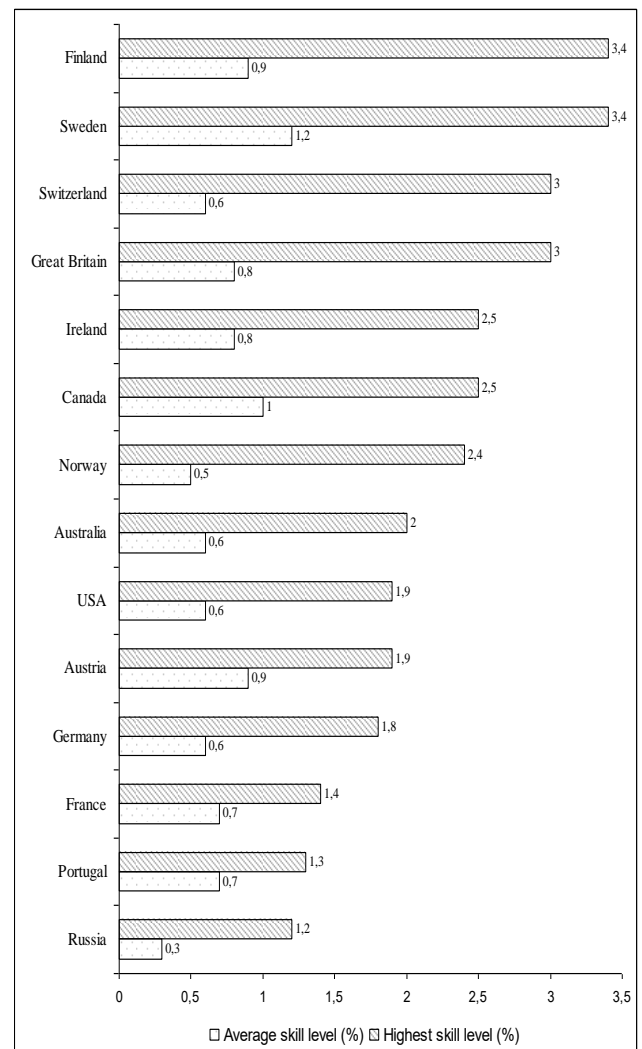

Fig. 1. Share of specialists in the field of information and communication technologies in% of the total number of employees in 2017.

It was found that in terms of the development of the digital economy, the share of information and

communication technology specialists in the total number of countries employed in the economy is extremely small. In all countries there is a shortage of specialists in the field of information and communication technologies, which over time will only increase.

In a digital economy, the main assets are information and personnel with the necessary information and communication skills. Information forms the knowledge industry and allows you to generate new knowledge about markets, innovative technologies, future development directions, etc. In a digital economy, the requirements for the level of professional competence of personnel in the field of digital technologies increase sharply. In the program "Digital economy of the Russian Federation", approved by the decree of the Government of the Russian Federation of July 28, 2017 No. 1632-p, personnel and education are included in the basic directions of development of the digital economy. It emphasizes the need to improve the education system taking into account the requirements of the digital economy, the formation of digital competencies that allow working in the conditions of digitalization of business processes.

To work in conditions of digitalization requires new professional competencies:

- digital competencies

- focus on self-development and achievement of results

- adaptability

- the ability to think critically

- skills for solving non-standard tasks

- decision making under uncertainty

- communication skills

- effective teamwork skills

- skills work with big data

The leaders in the development of the digital economy are Singapore, Finland, Sweden, Norway, the United States of America, the Netherlands, Switzerland, the United Kingdom, Luxembourg, and Japan. They are actively transforming their educational systems, taking into account the formation of digital competencies, retraining national labor resources, attracting the best specialists to the education sector.

The development of the digital economy requires special competencies that will be in demand in the professions of the future: systems engineering thinking, project management, lean manufacturing, robotics, artificial intelligence, programming, working with people, working in conditions of uncertainty, artistic skills, environmental thinking.

To ensure the competitiveness of the company will have to stimulate personal development of staff, motivate staff to continuous professional growth and adaptation to new technologies. Technologies are developing much faster than staff adaptation. In order to improve information and communication competencies, many large companies, for example, Unilever, are already developing and implementing internal training programs for personnel using social networks and cognitive technologies. In order to maintain their competitiveness, it is advisable for companies to maintain and promote the ideology of continuous staff training.

III. RESULTS AND DISCUSSION

A characteristic feature of tourist activity is a high informative capacity, the presence of large information flows, their constant updating and high speed of exchange operations. Informational interrelations exist between all participants of the tourist market, however, special attention is paid to information intended for end users (tourists). This is due to the need to provide the most comprehensive information necessary to make a decision about the trip and used during the trip. The quality of information and communication support of tourism activities is a major factor in competitiveness in tourism. Based on this, when training for the tourism and hospitality industry, special importance is given to the formation of the information and communication competence of a specialist.

In the context of the transition to a digital economy, it is necessary to strengthen the formation of digital competencies in the training of personnel for the tourism industry and hotel business. Training programs will need to provide for the formation of specialized digital skills related to solving complex professional problems in the digital environment, the skills of high-tech professions (programmers, web-designers, big data analysts, etc.).

The key competencies of the tourism and hospitality industry in the digital economy include:

- concentration and attention management

- digital competence

- creativity

- ability to self-study

- environmental thinking

- cross-cultural skills

In the Russian federal state educational standards in the areas of training "Tourism" and "Hospitality" the formation of digital competencies is assumed within the framework of the general professional competence. This competence implies the ability to apply technological innovations and modern software in the tourism sector. For the formation of this competence introduced the discipline "Information and communication technologies in tourism activities." It consists of two parts: "Information and communication and GIS technologies in tourism" and "Software and automation of tourism enterprises".

In the "Tourism" direction of training it is recommended to use the following automated systems (one or more of the educational organization's choice): SAMO-Tour, Leader-Tour, TourManager, Master-Tour, Tourist Office, Intour-Soft, ANTGroup, Edelweiss, Barsum, Rekonline,

TourManager, ERP.travel, U-ON Travel, MyDocuments-Tourism, Megatek Master-Agent, My Tourists, SELF-travel agent, 44 Columbis, 1C: Travel Agency, Sail-Travel Agency, TourFX: Agent, HotelCloud, Maxi Bucking, Contour.Hotel , Bnovo, 1C: Hotel, jParus Hotel, etc..

In the "Hospitality" direction of training it is recommended to use the following automated systems (one or more of an educational organization's choice): Amadeus PMS, Epitome PMS, OPERA, Logus HMS, Nimeta, Edelweiss, KEI Hotel, NewHotel, Iico, R-Keeper, MICROS, Microinvest, etc.

Recommended as additional software in the field of economics, management and marketing:

- automated customer relationship system (CRM),
- accounting system,
- the system of preparation and maintenance of financial statements,
- a system of statistical data analysis and modeling of economic processes,
- system of financial analysis, planning and business design,
- electronic document management system.

Thus, in the preparation of bachelors for the tourism and hospitality industry, the formation of digital competencies at the level of professional users is currently provided, which provides for the needs of the modern labor market in the tourism and hospitality industry.

In the field of tourism and hospitality will be used innovative digital technologies that radically transform this area of activity. These digital technologies include:

- big data technologies
- cloud services
- Internet of Things (IoT), which involves the management of electronic devices through the Internet, for example, smart home technologies are actively used in the hotel business
- artificial intelligence
- mobile technologies that are already actively used in the tourism and hospitality industry

Obviously, competition will intensify as the digital economy develops. Competitive advantages will be acquired by those companies that will be able to quickly introduce new technological and managerial changes related to the digitalization of the economy, adapt and accept new requirements for running a digital business.

IV. Conclusion

The introduction of digital technologies in the tourism and hospitality industry creates new staffing requirements that are associated with the development of digital skills and competencies. When developing educational programs, it is proposed to take into account the innovative prospects for the development and digitalization of the tourism and hospitality sphere. In our opinion, it is advisable to conduct a study "Foresight competence in the tourism industry 2030", which will allow to identify the necessary digital competencies for workers in the tourism industry.

In educational programs it is necessary to provide an increased level of digital competencies. This means that training requires not only the development of skills in the field of information and communication technologies and specialized software, but also deeper digital competencies. These include skills in working with IoT technologies, information security and confidentiality (cybersecurity), programming skills, etc.

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