

## IMPROVEMENT OF INFORMATION TECHNOLOGIES IN THE HOTEL BUSINESS

Magomedkhan Magomedovich Nimatulaev<sup>1</sup>

Ketevan Kitaevna Sirbiladze<sup>2</sup>

Olga Nikolaevna Tsvetkova<sup>3</sup>

Liudmila Ivanovna Ivanova<sup>4</sup>

Elena Evgenievna Konovalova<sup>5</sup>

**Abstract:** The article deals with the development of approaches to improving information technologies in the hotel business. It is ascertained that information technologies are one of the most effective means of communication and advertising, which allow informing the target audience about hotel services at a minimal cost. It is proved that the advantages of information technologies involve transmitting a wide range of information, as well as evaluating the effectiveness of events through feedback from the target audience. It is revealed that information technologies can become a breakthrough in the advertising space of the countries worldwide, and allow acquainting foreign potential clients with hotel business opportunities, the benefits of recreation at leading resorts, and the prospects of recreation in the green tourism system. It is determined that the specificity of information technologies in the hotel business is related to the development and implementation of such systems that would provide information about the availability of transportation and accommodation opportunities for tourists in the shortest possible time.

**Keywords:** information technologies, hotel business, tourism, information, efficiency, market, competitiveness.

### Introduction

The influence of information technologies on the development of the hospitality industry is huge because it is directly related to improving the efficiency of both hotel facilities individually and the entire hotel business in general. This directly affects the

---

<sup>1</sup> Financial University under the Government of the Russian Federation, 49, Leningradsky Prospekt Ave., Moscow, 125993, Russia. \*Corresponding Author. Email: [nimatulaev.m.m@mail.ru](mailto:nimatulaev.m.m@mail.ru)

<sup>2</sup> Financial University under the Government of the Russian Federation, 49, Leningradsky Prospekt Ave., Moscow, 125993, Russia.

<sup>3</sup> Financial University under the Government of the Russian Federation, 49, Leningradsky Prospekt Ave., Moscow, 125993, Russia

<sup>4</sup> Financial University under the Government of the Russian Federation, 49, Leningradsky Prospekt Ave., Moscow, 125993, Russia

<sup>5</sup> Russian State University of Tourism and Service, 99, Glavnaya Street, Cherkizovo, Moscow Region, 141221, Russia

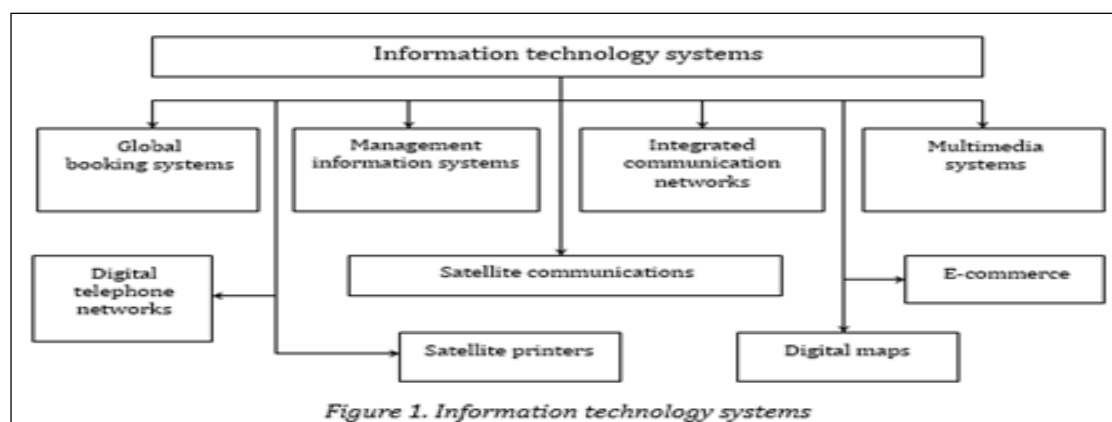
competitiveness of the hotel facilities in the contemporary market. In this case, today, the use of computer networks, Internet technologies, and software products for end-to-end automation of all business processes in the hotel business is not just a matter of leadership and creating competitive advantages, but also survival in the market in the near future. Therefore, effective automated information and technology management is a key element in increasing economic efficiency and improving the quality of services. In this context, the implementation of automated information systems becomes inevitable and indispensable for rapid and error-free control, comprehensive analysis of the existing situation, responsiveness, and completeness of customer service. In addition, the hotel business worldwide has become industrialized and represents the sector of the economy that provides significant foreign exchange earnings due to the development of foreign tourism. The study of issues related to the analysis of information technologies is reflected in the works of E.A. Dzhandzhugazova (2018), E.V. Yudina (2019), A.S. Kutumov (2018), E.I. Makrinova (2018), E.V. Plugar (2019), N.N. Yashalova (2018), and others. However, the issues of improving information technologies in the hotel business and determining its role in the system of global economic relations remain open for further research.

## Methods

The theoretical and methodological basis of the research includes abstract-logical method, methods of induction, deduction, analysis, synthesis, and systematization used to justify approaches to improving information technologies in the hotel business; as well as statistical-economic and graphic methods applied to study the level and trends of the parameters reflecting information technology development at the present stage. The information base of the article includes statistical data of state bodies, legislative and regulatory documents governing the economic aspects of hotel business management, assessment of the implementation efficiency of information technology in the hotel activities in the context of the globalization of the digital economy, as well as the results of conducted scientific research (Kozlov & Budarnikov, 2018) (Nikolskaya & Kovaleva, 2018) (Zavalko & Kozhina, 2017). In the course of the study, it is planned to systematize the economic aspects of the hotel business enterprises operation, develop measures for coordinating activities between the main participants of the hotel business in the context of economy digitalization, compare different approaches to the use of information technologies, and determine their individual features in the current context.

## Research Findings

Studies show that information technologies have lately appeared in the global industry and have passed a significant development path. At the same time, the development prospects of computer-based information technologies are limitless (Fig. 1).



Currently, the hotel business is a global computerized business. It becomes more flexible and individual, more attractive and accessible to the consumer. In this context, personal computers and the Internet, their availability and reliability, contribute to the penetration of new information technologies into all spheres of public activities. These technologies are perhaps the first to increase productivity in the service sector. This is also observed in the hotel business. Indeed, hospitality and information are inseparable: the decision to travel is made based on information; automatic hotel accommodation at the time of reservation and payment is also based on information; information is exchanged hundreds of times a day by all participants involved in the hotel services market. This means that one should be able to work with information, namely, to collect and process it in order to make the correct managerial decision. Using the advantages of information technologies, at the present time, the contemporary hotel business is working confidently and successfully, laying the foundation for further prosperity. At the same time, a significant exhilaration in the hotel services market is observed in almost all European countries. Research confirms the steady trend of the European hotel business: an increase was recorded in the profitability of local hotel rooms in 21 of the 25 main European cities.

The same rapid increase in the profitability of hotel rooms is observed in the USA. A significant increase in the profitability of the hotel business lies in the development of the USA economy, i.e., an increase in gross domestic product and overall demand for goods and services. One of the main reasons for the optimistic situation in the European hotel market was the strengthening of the US dollar against the Euro. This has made travel of Americans to Europe much cheaper and more affordable. Therefore, the main development trends of enterprises in the hospitality industry over the past period are associated with deepening the specialization of hotel and restaurant offers, forming international hotel and restaurant chains, developing hotel enterprise networks, and implementing new computer technologies in the hotel business. As the analysis of existing information shows, almost all countries around the world have hotel chains that belong to world-famous companies. Hotel chains are particularly common in the USA. Therefore, the contemporary concept of production standard has appeared also in hotel chains. A rational idea that arises in one hotel chain is quickly implemented in others. This brings

immediately significant results. But the spread of hotel chains cannot meet all the diverse requirements of tourists because of certain depersonalization, standardization of service, which creates the basis for the development of small independent hotels that put at stake individuality and uniqueness.

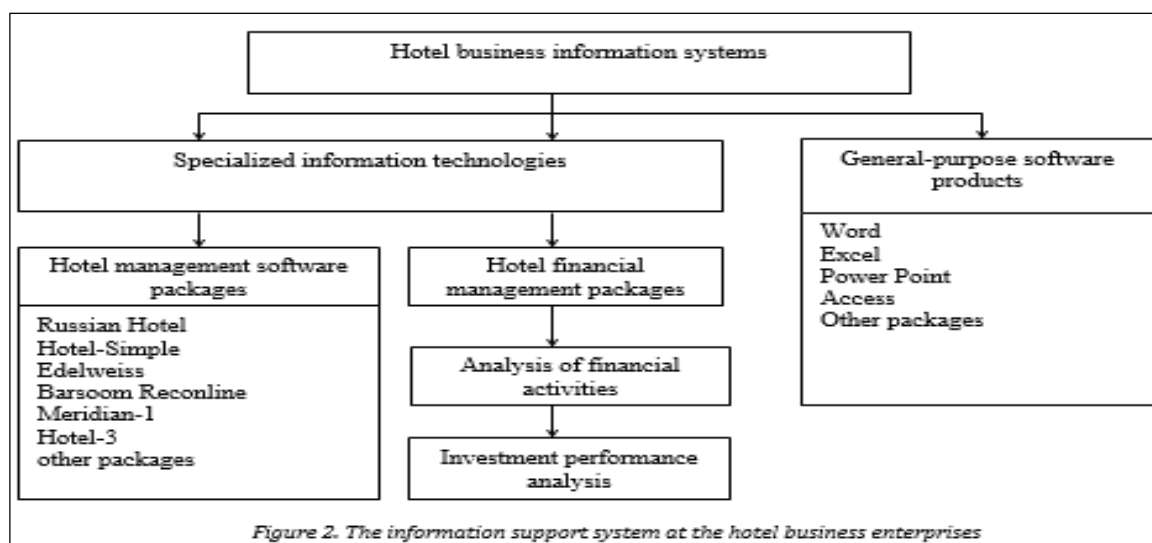
These hotels are comfortable, usually built in a rural style, offer services at a reasonable price and have everything needed for work and leisure. Here customers can get a refined personalized service. The uniqueness of such hotels is the main tool of market policy. In the fight for the customer, whole groups of hotel enterprises and each hotel individually are constantly expanding the range of services, bringing new original offers to the market. Under these circumstances, the rapid development of information technologies and software in the hotel business is due to the effect that can be obtained if they are used correctly. Only information systems are able to provide hotel users with the level of services that are required to operate in the modern market. Therefore, due to the access to various databases, their correct use, and management, hotel owners have a unique opportunity to attract guests of a specific profile and, as a result, provide their customers with more personalized services. Existing technologies also give an opportunity to enter into the global network of databases to browse international web sites and Internet pages. However, at the present stage of the hospitality enterprises' performance, objective factors arise which complicate the managerial decision-making processes in the context of accelerated socio-economic development. The scope of professional information that should be mastered and used in everyday activities is increasing, and science and technology are developing rapidly. This encourages the implementation of more productive and qualitatively new information technologies.

Practice has shown that the staff structure in a contemporary hotel enterprises has become much more complicated, which is due to the emergence of new professions, significant substantive changes in the work of specialists of traditional specialties, increasing the level of education and spiritual culture of employees, the emergence and diversification of opportunities for personal actualization in the context of informatization of society. Therefore, the hotel industry needs specialists who are armed with the latest achievements of science, who skillfully manage large groups of employees, make effective, balanced professional decisions, plan activities and implement ideas in a new way, and respond adequately to negative trends and phenomena of the macro-environment in the hotel business. At present, it is difficult to imagine how hotels, resorts, motels, and other hotel businesses could have functioned without information systems. These systems are now widely distributed and well-coordinated. Therefore, the high economic efficiency of using information systems has prompted their owners to fight for market power. In this context, the hotel business is one of the components of the tourism industry.

The material infrastructure, which is designed to accommodate tourists, is one of the first places when developing tourist infrastructure since the quality of accommodation and appropriate service strongly affects the level of tourist service. This means that the hotel industry is becoming a rapidly growing business that generates significant cash receipts, including foreign exchange. At the same time, the development of the hotel business is constrained by a number of factors, such as economic crisis,

shortcomings in the financial and banking system, limited solvency of the population, and inefficient tax system. Research shows that complex automation of booking processes, payments with guests, agents, tour operators, and business management, in general, occupies an important place in the structure of information technologies in Russian hotels. There are already several automated hotel control systems on the market, developed mostly abroad, but they are not sufficiently adjusted to the Russian market conditions, are relatively expensive, and limit the possibility of operational technical support. In such circumstances, individual hotel businesses are forced to choose the development of their own custom-designed analytical management systems. Despite the fact that today this allows solving the current problems of hotels, but in the future, it will become inefficient, because developing and maintaining custom-designed systems will become economically unprofitable.

The need to carry out automation based on standard products is determined by the following reasons: 1. The standard system accumulates the best operation practices of dozens and hundreds of hotels. Its implementation may require some changes in the operating technology of the hotel, but this will have a forceful effect in the future; 2. The standard system is necessarily supported by the developer. The hotel staff will not find themselves in a situation where current problems remain unresolved if the system administrator is dismissed. Thus, the hotel cooperates with a firm that one can count on to support at any time rather than with specific individuals; 3. The standard system is developing along with market needs and information technologies. If necessary, the hotel can improve its own automated management system and switch to a newer version of the software. In recent times, managers of hotel businesses are thinking about how to offer and sell over the hotel rooms through the Internet, and how to implement their own electronic sales system. As known, almost everyone connected to the network can get information about a particular country, region, city, government agency, organization, as well as view websites, slides, or videos. Moreover, in contrast to the world of TV, the Internet has real signs of interactivity, i.e., not only the ability to switch programs but also to ensure the organization of accommodation and recreation. New methods of ordering services and effective ways to attract related businesses to one's business have already appeared in the virtual market (Fig. 2).



This is due to the need to implement progressive forms of service, build a unified technological process and a stable distribution channel, ensure coordination of actions, and flexibly manage information flows. In this context, using the Internet in the hotel services market includes the following main advantages: the ability to independently select hotels, routes and travel plans, book rooms and pay for them, as well as, for example, order a conference room, or a car; saving money from using the operational links through the network with real and potential partners, travel companies, transport organizations, regardless of their location; effective advertising focused on target groups of consumers, providing information about discounts, expanding and forming permanent clientele; establishing electronic channels for accessing the hotel website based on marketing and banner support; conducting a comparative analysis of competitors, in-depth study of best world practices and international management in the hotel business.

## Discussion

The reliability of the presented approaches is confirmed by the fact that information technologies are confidently implemented in the hotel business operation (Demkina & Kostikov, 2019) (Lebedev & Reznikova, 2018) (Rykhtikova & Anisimov, 2018). They can give an impetus to the investment of hotels and tourist complexes which require expansion, reconstruction, and modernization. This is due to the necessity to provide rooms with modern furniture and European style interiors, to strengthen the material, technical, and service base in order to ensure that the service level meets international standards. This determines the total number of domestic and foreign tourists arriving and accommodating in hotels, i.e., hotel workload. It is such enterprises that need to place information about investment projects on their websites and information system servers. Therefore, information technologies represent a step into the

future, and the implementation of prospects, achieving commercial success in the hotel market, and professional recognition in the society will strongly depend on how quickly the implementation process of these technologies occurs in practice.

In this context, the mastery of modern information technologies and hotel servicing methods is becoming an objective necessity. These technologies help to navigate a large number of hotel services offers, to solve the problem of quickly choosing the best option. This is especially true for potential tourists, guests, business people and employees who come on business, on a business trip, or to participate in exhibitions. Therefore, the selection of a suitable hotel from the databank is facilitated by the use of a search engine. The user-friendly interface and intuitive navigation allow ordering a hotel room with minimal time and effort. At the same time, digital technologies provide a narrow specialization in the hotel business, high qualification of specialists, managerial, design, software, and technology experience in managing transactions, marketing support for large hotel companies, and an attractive partner program for agents.

## Conclusion

Summing up, it can be noted that the hotel business is a powerful mechanism that is actively functioning and developing while requiring maximum support from the state and considerable investments. In this context, information technologies are becoming one of the most effective means of communication and advertising that allow informing a multimillion target audience about hotel services at a minimal cost. The advantages of information technologies are that they allow transmitting text, graphics and video information, as well as evaluate the effectiveness of events through feedback from the target audience. It is information technologies that can become a breakthrough into the advertising space of the countries worldwide, acquainting foreign potential clients with hotel business opportunities, the benefits of recreation at leading resorts, and the prospects of recreation in the green tourism system. In this case, the specificity of information technologies in the hotel business is related to the development and implementation of such systems that would provide information about the availability of transportation and accommodation opportunities for tourists in the shortest possible time, as well as provide quick room reservations and the prompt solution of auxiliary tasks when rendering hotel services.

## References

- [1]. Demkina, N.I., Kostikov, P.A., Lebedev, K.A. (2019). Formation of professional competence of future specialists in the field of information environment. *Espacios*, 40(23), 3.
- [2]. Dzhandzhugazova, E.A., Kabelkait-Vaitkene, Yu.A. (2018). Transformaciya gostinichnogo biznesa v usloviyah razvitiya cifrovoj ekonomiki v Rossii [Transformation

of the hotel business in the context of digital economy development in Russia]. *Service Plus*, 12(3), 96-104.

[3]. Konovalova, E.E., Yudina, E.V., Silaeva, A.A., Pyshnoy, A.A., Kramarova, T.Yu. (2019). Aktual'nye aspekty i sovremennye podhody u upravleniyu dohodami v gostinichnom biznese [Urgent aspects and modern approaches of revenue management in the hotel business]. *Economy and Entrepreneurship*, 8(109), 664-667.

[4]. Kozlov, A.V., Budarnikov, A.A., Zhuravleva, Yu.S., Gonsales, S.E., Lebedeva, O.Ye. (2018). Development of the market for sports services in present-day conditions. *The Journal of Social Sciences Research*, 3, 144-148.

[5]. Kutumov, A.S., Zakharov, B.S., and Arzhitov, A.S. (2018). Informacionnye tekhnologii kak effektivnyj metod prodvizheniya malogo biznesa [Information technologies as an effective method to promote small business]. *Bulletin of the Buryat State University. Economics and Management*, 1, 56-62.

[6]. Lebedev, K.A., Reznikova, O.S., Dimitrieva, S.D., Ametova, E.I. (2018). Methodological approaches to assessing the efficiency of personnel management in companies. *Journal of Advanced Research in Law and Economics*, 9(3(34)), 1331-1336.

[7]. Makrinova, E.I., and Svyataya, E.O. (2018). Risk-menedzhment kak effektivnyj instrument obespecheniya ekonomicheskoy bezopasnosti predprinimatel'skih struktur gostinichnogo biznesa [Risk management as an effective tool to ensure the economic security of entrepreneurial structures in hotel business]. *Bulletin of the Belgorod University of Cooperation, Economics, and Law*, 2(69), 9-19.

[8]. Nikolskaya, E.Yu., Kovaleva, N.I., Uspenskaya, M.E., Makshakova, N.I., Lysoivanenko, E.N., Lebedev, K.A. (2018). Innovative quality improvements in hotel services. *European Research Studies Journal*, 21(2), 489-498.

[9]. Plugar, E.V., and Stakhno, N.D. (2019). Risk-orientirovannyj kontrol' osnovnyh processov gostinicy [The risk-oriented monitoring of key hotel processes]. *Service in Russia and Abroad*, 13(2(84)), 213-222.

[10]. Ponedelnik, A.A., Yashalova, N.N., Sokovnina, N.V., and Ruban, D.A. (2018). Investicionnyj obraz gostinichnogo hozyajstva v elektronnom prostranstve (na primere krupnyh gorodov yuga Rossii) [The investment image of the hotel industry in the electronic space (in terms of large cities in the south of Russia)]. *National interests: Priorities and security*, 14(1), (358), 121-136.

[11]. Rykhtikova, N.A., Anisimov, E.Ya., Evdokimov, S.Yu., Ivanova, E.V., Lebedeva, O.Ye. (2018). Improvement of enterprise financing system in unstable economic environment. *The Journal of Social Sciences Research*, 3, 298-303.

[12]. Zavalko, N.A., Kozhina, V.O., Zhakevich, A.G., Matyunina, O.E., Lebedeva, O.Ye. (2017) Methodical approaches to rating the quality of financial control at the enterprise. *Quality - Access to Success*, 18(161), 69-72.



### **MELHORIA DAS TECNOLOGIAS DE INFORMAÇÃO NOS NEGÓCIOS HOTELEIROS**

**Resumo:** *O artigo trata do desenvolvimento de abordagens para melhorar as tecnologias da informação no setor hoteleiro. Constata-se que as tecnologias da informação são um dos meios mais eficazes de comunicação e publicidade, o que permite informar o público-alvo sobre os serviços hoteleiros a um custo mínimo. Está provado que as vantagens das tecnologias da informação envolvem a transmissão de uma ampla gama de informações, assim como a avaliação da eficácia dos eventos por meio de feedback do público-alvo. É revelado que as tecnologias da informação podem se tornar uma inovação no espaço publicitário dos países em todo o mundo e permitir que os clientes estrangeiros em potencial tenham oportunidades de negócios em hotéis, os benefícios da recreação nos principais resorts e as perspectivas de recreação no sistema de turismo ecológico. É determinado que a especificidade das tecnologias da informação no setor hoteleiro está relacionada ao desenvolvimento e implementação de tais sistemas que forneceriam informações sobre a disponibilidade de oportunidades de transporte e acomodação para turistas ao menor tempo possível.*

**Palavras-chave:** *tecnologias da informação, hotelaria, turismo, informação, eficiência, mercado, competitividade.*