

УДК 651.004

JEL Classification: L83, O31, Z39

DOI 10.35433/ISSN2410-3748-2024-1(34)-4

Kashchuk Kateryna
Doctor of Economics, Associate
Professor of the Department of
Economics, management, marketing
and hotel and restaurant business
Zhytomyr Ivan Franko State University
<https://orcid.org/0000-0002-4916-6867>

INNOVATIVE TECHNOLOGIES AS A FACTOR IN IMPROVING THE QUALITY OF SERVICE ORGANIZATION IN THE HOTEL AND RESTAURANT BUSINESS

This article reveals aspects of the impact of innovative technologies on improving the quality of service organization in the hotel and restaurant business. The issue of improving the quality of the organization of customer service at the enterprises of the hotel and restaurant complex was considered. The peculiarities of the application of innovative technologies at enterprises in modern conditions are analyzed.

The development of information technologies and growing competition in the market of hotel services necessitate the active use of innovations in the operation of modern hotels. Nowadays, innovation is considered one of the important competitive advantages of the hospitality industry. At the same time, the spectrum of application of innovations in the activity of a hotel enterprise is quite multifaceted. The purpose of the study was to demonstrate the use of innovations in the activities of enterprises of the hotel industry. The hypothesis of the study was the assumption that the key trends in the development of innovations in the hotel industry are digitization, resource-saving technologies and environmental protection. The research methodology was based on system analysis. The article examines innovations in the hotel industry that are relevant to today's realities. Analysis of existing developments and experience of using innovations in modern hotel enterprises of Ukraine allowed the author to clarify the classification of types of innovations in the hotel industry. Based on the results of the research, the main problems that arise in the process of introducing innovations in the hotel industry have been verified, and methods of their elimination have been determined. Scope: the obtained results can be used in the practical activities of hotel enterprises in the modernization and improvement of the service process. The author proves that "green technologies" have been given a prominent place in the innovations of the hotel industry in recent years. At the same time, the idea of environmental protection is implemented not only in the aspect of providing comfortable conditions for guests, but also at all stages of the life of a hotel enterprise: from engineering research, design, construction and operation to major repairs, reconstruction and complete liquidation.

Keywords: *innovative technologies, customer service organization, hotel and restaurant business.*

ІННОВАЦІЙНІ ТЕХНОЛОГІЇ ЯК ФАКТОР ПІДВИЩЕННЯ ЯКОСТІ ОРГАНІЗАЦІЇ ОБСЛУГОВУВАННЯ У ГОТЕЛЬНО-РЕСТОРАННОМУ БІЗНЕСІ

У цій статті розкрито аспекти впливу інноваційних технологій на підвищення якості організації обслуговування у готельно-ресторанному бізнесі. Розглянуто питання підвищення якості організації обслуговування споживачів на підприємствах готельно-

ресторанного комплексу. Проаналізовано особливості застосування інноваційних технологій на підприємствах у сучасних умовах.

Розвиток інформаційних технологій та зростаюча конкуренція на ринку готельних послуг обумовлюють необхідність активного використання інновацій у діяльності сучасних готелів. Нині інновації розглядаються однією з важливих конкурентних переваг індустрії гостинності. При цьому спектр застосування інновацій у діяльності готельного підприємства є досить багатограним. Мета дослідження полягала у демонстрації використання інновацій у діяльності підприємств готельної індустрії. Гіпотеза дослідження полягала у припущенні, що ключовими трендами розвитку інновацій у готельній індустрії є цифровізація, ресурсозберігаючі технології та захист довкілля. Методологія дослідження базувалася на системному аналізі. У статті розглядаються актуальні сьогоденнім реаліям інновації у готельній індустрії. Аналіз існуючих розробок та досвіду використання інновацій у сучасних готельних підприємствах України дозволив автору уточнити класифікацію видів інновацій у готельній індустрії. За результатами дослідження верифіковано основні проблеми, що виникають у процесі впровадження інновацій у готельній індустрії, визначено способи їх усунення. Область застосування: отримані результати можуть використовуватись у практичній діяльності готельних підприємств при модернізації та вдосконаленні процесу обслуговування. Автор доводить, що особливе місце в інноваціях готельної індустрії останніх років приділяється «зеленим технологіям». При цьому реалізація ідеї захисту навколишнього середовища відбувається не лише в аспекті забезпечення комфортних умов для гостей, а й на всіх етапах життя готельного підприємства: від інженерних пошуків, проектування, будівництва та експлуатації до капітального ремонту, реконструкції та повної ліквідації.

Ключові слова: *інноваційні технології, організація обслуговування споживачів, готельно-ресторанний бізнес.*

Statement of the research problem. Modern trends in the field of application of innovative technologies cannot bypass the issue of improving the quality of service organization for consumers of the hotel and restaurant business. The use of innovative technologies ensures a high level of service culture and the most complete satisfaction of the requests of service consumers.

The processes of formation of socio-economic relations in Ukrainian society require a new concept of economic practice, which strengthens the competitiveness of domestic hotel enterprises. The most pressing issues are the modernization of Ukrainian hotel enterprises and their achievement of world-class competitiveness. This requires flexible and effective approaches to management and the search for new management tools [2, p.70].

Analysis of recent research and publications. In a broad sense, the words under innovation in the hotel industry understand new services, products, processes or ideas, as well as existing services, processes and ideas applied under new conditions [1]. Researchers agree that innovations allow to improve the quality of

services offered by hotel enterprises, increase labor productivity and customer satisfaction, gain a large market share and form a competitive advantage [2, 3]. A review of the literature devoted to the issue of the use of innovations in the field of tourist and recreational services allows us to ascertain a wide range of directions for scientific research.

In particular, the theoretical foundations of innovations in the field of hospitality found their imprint in the works of Johnson P. [4], Ottenbacher M. [5], Hyalager A. [6]. The role of innovations in increasing the competitiveness of hotel enterprises is highlighted in works [7–11]. The specifics of using innovations in the hospitality industry are presented in the studies of a number of domestic and foreign authors [9-11]. At the same time, the analysis of the studied literature allows us to state that the issue of classification of innovations in the hospitality industry is not resolved, and the existence of several multi-directional approaches. For example, Tyshchenko S.M. considers innovations in the hospitality industry in the spectrum of four classification features: technological, institutional, marketing, management [4].

Setting objectives. The purpose of our research was to demonstrate the use of innovations in the activities of modern enterprises of the hotel industry. The research hypothesis was the assumption that resource-saving technologies and environmental protection are the key trends in the development of innovations in the hotel industry. The scientific novelty of the study consists in clarifying the classification of types of innovations in the hotel industry.

Presenting main material. The market of hotel and restaurant services is a complex complex of functional links, the success of the enterprise's existence on the market depends on the coherence of their work. Taking into account modern trends in the field of hotel and restaurant business and the growing competition between enterprises in this industry, there is a need to ensure the efficiency and accuracy of the staff's work. The competitive advantages of hospitality industry enterprises also depend on innovations in the field of information technology, such as: complex automated management systems, as well as systems related to data storage and intelligent processing.

There are three main criteria for evaluating the feasibility of investments in automated management systems (AMS) of a hotel and restaurant complex:

- achievement of competitive advantage;
- productivity improvement;
- maximum use of available hotel resources.

The choice of the system depends on many parameters of the hotel: the size of the room fund, the availability of additional services (communication, pay TV channels, electronic keys, spa), location, number of guests, etc. Access control systems for rooms (electronic locks) are becoming increasingly popular. However, the basis of any hotel AMS is a PMS or room management system. It concentrates information on the current state of the room fund, its occupancy, residents, expected guests, as well as financial indicator.

Business processes to be automated in the hotel can be divided into two blocks: front office (external business processes) and back office (internal business processes). The front office of hotels is understood as structural divisions, employees who interact directly with customers - marketing, reception and accommodation, reservation and sales, support and service services. However, the basis of business always lies in internal back-office processes - structural units, hotel employees who, as a rule, do not interact with customers directly - services for the production of hotel services, personnel finance, supply, logistics, etc. Considering the hotel-restaurant complex as a set of functional departments, we will get the following structure of the AMS:

- database on the server;
- porter module (room stock);
- restaurant module;
- administrative module;
- accounting module;
- additional functional modules.

Automated workplaces are connected by a local computer network, providing integrated management of all departments and services of the hotel. Thus, modern complex automatic control systems, which combine all vital elements of the hotel-restaurant complex into a single cycle, allow to minimize the loss of profit at all stages, effectively control the work of the staff, and improve the quality of service.

A promising direction of automation of the hotel-restaurant complex is the "Smart Home" concept, which allows for closer interaction of hotel management systems with AMS, energy saving, water supply and other resources that ensure the high-quality operation of the hotel enterprise.

Analyzing high-tech novelties of automation of the hotel and restaurant complex, several main directions can be identified:

- electronic concierge "Navigatoria" is a multilingual information terminal that contains all the necessary information about the region: events, attractions, shops, restaurants, places of entertainment and recreation. The system helps to significantly improve the quality of the service of providing information to tourists, promptly receive and process guest feedback, optimize the work of the reception and concierge service, and build the highest quality work with the hotel's partners;

- interactive television system – a system that provides the user, in addition to ordering programs and films, the opportunity to use a wide range of services such as: organizer, ordering room service, high-speed Internet access and a system of information messages from the hotel. Such a system is used in Hilton and IHG networks, while it is almost not used in Ukraine;

- electricity management system – climate control system through a central computer in each hotel room. This system is able to automatically control the supply of light, change the temperature in the premises or activate the air conditioner. This system allows you to reduce electricity consumption by at least 35% and reduces the harmful impact on the environment;

- remote media hub connector panel – a device with which hotel guests can connect their technical devices, for example, to the TV in the room. This system is

very useful in terms of increasing the comfort of the guests' stay, therefore it is used in many hotels of the world;

- a door lock with radio frequency identification, if available, the guest has the opportunity to enter both the room and other rooms of the hotel without a key, but with the help of special cards. In foreign hotels, such as Hyatt, Yotel, IHG, more progressive options are used - special bracelets that work over long distances or using a mobile phone;

- dispatching of hotel life support systems serves to automate building engineering equipment, namely heating, ventilation, air conditioning, lighting, access control, fire alarm systems, etc. The entire system of controllers outputs data to a single central control room. In addition, a single and transparent building operation scheme helps to reduce operating costs for the operation of all electrical and mechanical installations.

Modern automated control systems allow restaurants to significantly simplify, optimize, and speed up a range of day-to-day and business-specific operations, and will also have a positive impact on the restaurant's image and the level of guest loyalty.

Let's consider the most effective innovative technologies that are already working in some restaurants, bars, cafes at hotels.

In a number of cafes and restaurants, purely professional portable waiter terminals are used in the process of serving guests. These wireless devices were originally developed for commercial use and are therefore optimally designed taking into account the specifics of enterprises in the hospitality industry.

The presence of hot keys and convenient menu navigation allow you to quickly add dishes to order, which is especially relevant for the work of cafes and restaurants during peak hours, for example, when serving business lunches. Data exchange is carried out using the terminal's own radio protocol, which significantly increases system reliability.

In a number of restaurants, thanks to specially developed software solutions, it became possible to display menu items on touch screens of "tablets". Electronic

menus, thanks to their interactivity and flexible information search capabilities, are popular with customers and are great for sales promotion. Communication with various peripheral devices (fiscal printers, video surveillance system, etc.) should be mentioned among the functionalities of e-Menu.

In this case, two service options are possible.

1. Waiters who are equipped with e-Menu tablets place their orders independently.

2. Guests have the opportunity to create an order themselves and send a request for kitchen production. At the same time, they can evaluate the appearance of dishes and the ingredients included in them, learn about the calorie content of products, the size of portions and cooking technologies.

Most often, not only the description of dishes is given here, but also recommendations for their taste combinations with other menu items and drinks.

Thanks to e-Menu, which has an intuitive multilingual interface, in addition to reducing the time of processing orders, it is possible to avoid tedious inquiries of waiters. Next, after creating an order, the system notifies the waiter about it, who confirms the order and sends it via a wireless network to service printers at the cooking points (kitchen, bar).

Analyzing the role and importance of innovative technologies for the hotel and restaurant business, one can make well-founded conclusions that this role is strategically important, and the importance of innovative technologies will rapidly develop in the near future. It is these technologies that today play a decisive role in the hotel and restaurant business.

e-Menu has a number of advantages, which are presented in the table. 1.

Table 1

Benefits of implementing e-Menu

№	Benefits for guests	Benefits for restaurateurs
1	Convenient, intuitive and visual touch interface.	Prompt and clear execution of orders increases the institution's income.
2	Bright and colorful photos.	Significantly reduces the burden on personnel, allows to reduce staff.

3	Easy navigation and instant access to the menu category of interest	Advertising of the establishment and partner services placed in e-Menu creates an additional source of income.
4	Comprehensive information about the dish: image, detailed description, ingredients, cooking method, calories, energy value, etc.	Pop-up offers of food and drinks, pre-programmed in e-Menu, allow you to promote menu items more effectively, increase the amount of the average check.
5	The ability to request a bill without waiting for a waiter.	e-Menu increases overall business efficiency and service level
6	One-touch access to games and other interactive entertainment.	Registration of user actions and movements in the e-Menu structure forms a unique basis for analyzing guest behavior patterns.
7	Reduction of order waiting time.	The interactive ordering system emphasizes the uniqueness of the establishment and will allow you to always be one step ahead of your competitors.
8	The possibility of choosing several options for preparing a meal.	e-Menu will increase the loyalty of regular customers and attract new ones.
9	Exclusion of waiter errors when accepting and using the order.	Colorful interface, games and other interactive entertainment will attract the youngest guests and their parents.
10	Ability to call a waiter with one click.	An interactive ordering system creates a business image that keeps up with the times.
11	Convenient multilingual support.	With e-Menu, there is no need to re-edit and reprint the menu every time there is a need to make changes to it.
12	Ability to share your impressions with friends on social networks.	Constantly showing customers appetizing images of food and drinks, e-Menu encourages impulse orders.
13	The ability to involve children in ordering in a playful way stimulates the desire to eat.	The absence of a human factor in the process of accepting an order eliminates the possibility of error and guarantees that the guest will be served exactly the dishes he ordered.
14	Means of feedback to the management of the institution in the form of a simple interactive questionnaire.	Collection and automatic analysis of reviews and impressions of guests.

The data in Table 1 allow us to consider the advantages of e-Menu implementation for both consumers and restaurateurs. The main advantages for guests when implementing e-Menu is a convenient, intuitively understandable and visual touch interface; bright and colorful photos; easy navigation and instant access to the menu category of interest; comprehensive information about the dish: image,

detailed description, ingredients, cooking method, calories, energy value, etc. At the same time, the main thing for restaurateurs is the prompt and clear execution of orders, which increases the income of the establishment, significantly reduces the burden on the staff, and allows to reduce the staff.

As a conclusion, it is worth paying attention to the fact that the modern economic development of society, the flow of information and the introduction of innovations, digital technologies lead to the fact that public catering enterprises cease to be just a place for eating, moving into the category of places for leisure, communication and work.

Without the use of innovative technologies, it is impossible to achieve a high level of service in a restaurant. Innovative technologies provide for the automation of many restaurant processes, which would improve the quality of service while simultaneously reducing staff. Thus, already today domestic restaurant business enterprises can make their work more dynamic and profitable with the help of innovative technologies.

However, new technologies are not only a standard list of the company's main resources, but also usage technologies coming from the outside - mobile technologies that give a new round of development to the automated customer service system [3, p. 88].

The organization of the service process in hotel and restaurant complexes is extremely complex in its content, requiring compliance with sanitary and technological standards, control over service personnel, accounting process, transaction analysis and monitoring of particularly important physical, cost and economic indicators.

One of the components of the successful operation of a hotel and restaurant enterprise is the quality of the provided services, which must: satisfy the consumer's requirements, meet the applicable standards and technical conditions, and even ensure profit. The use of e-Menu allows you to take into account all these positions and significantly increase the attractiveness of the restaurant enterprise for the consumer and, as a result, increase the income from food services.

Improving the quality of customer service can include a whole system of indicators, the most important of which are: introduction of innovative service technologies; compliance with order fulfillment deadlines; change of service culture, etc.

Emphasis on improving the quality of services of the hotel and restaurant complex with the use of innovative technologies dictates another necessity, namely, providing enterprises with qualified personnel capable of conducting innovative business, adapting it to changing market conditions, and creating creative forms independently [1, p. 339] and service technologies.

Conclusions. In conclusion, it is worth noting that the application of innovative technologies in the hotel business is dictated, first of all, by consumers, who are people aged 18-35, that is, generation "Z" - the "digital generation", born in the era of globalization and postmodernism, the flourishing of digital technologies. It is the desire for something new and the search for non-standard, alternative solutions that becomes the beginning of a new stage in the development of the hotel and restaurant business in Ukraine, which acquires its unique and unique features that combine Western technologies and domestic features in the hotel and restaurant business.

REFERENCES

1. Pro zatverdzhennia Natsionalnoi ekonomichnoi stratehii na period do 2030 roku [On the approval of the National Economic Strategy for the period until 2030]. Resolution of the Cabinet of Ministers of Ukraine No. 179 dated 03.03.2021. Available at: <https://www.kmu.gov.ua/npas/pro-zatverdzhennya-nacionalnoyi-eko-a179> [in Ukrainian].
2. Babchynska O.I. (2018). *Komunikatsiinyi protses v upravlinni: osnovni polozhennia* [Communication process in management: basic provisions]. *Efektivna Ekonomika*, vol. 9. Available at: http://www.economy.nayka.com.ua/pdf/9_2018/51.pdf [in Ukrainian].

3. Hromova O. V., Orobinskyi O. S. (2019). Komunikatsiina polityka v systemi upravlinnia zovnishnoekonomichnoiu diialnistiu pidpriemstva [Communication policy in the management system of the enterprise's foreign economic activity] *Pryazovskiy ekonomichnyi visnyk*, vol. 6(17), pp. 118–121. [in Ukrainian].
4. Tyshchenko, S. (2021). Tsyfrovi tekhnolohii v industrii hostynnosti [Digital technologies in the hospitality industry]. *Tavriiskiyi naukovyi visnyk. Seriya: Ekonomika*, vol. 7. pp. 131–139. DOI: <https://doi.org/10.32851/2708-0366/2021.7.16> [in Ukrainian].
5. Vila M., Enz C., Costa G. (2012). Innovative Practices in the Spanish Hotel Industry // *Cornell Hospitality Quarterly*. Vol. 53. №1. P. 75–85. [in English].
6. Johannesson A., Olsen B., Lumpkin G. T. (2001). Innovation as newness: what is new, how new, and new to whom? // *European Journal of Innovation Management*. Vol. 4. №1. P. 20–31. [in English].
7. Jones P. (1996). Managing hospitality innovation. // *Cornell Hotel and Restaurant Administration Quarterly*. №37 (5). P. 86–95. [in English].
8. Ottenbacher M. C. (2007). Innovation management in the hospitality industry: Different strategies. // *Journal of Hospitality & Tourism Research*. №31 (4). P. 431–454. [in English].
9. Hjalager A. M. (1997). Innovation patterns in sustainable tourism – an analytical typology. // *Tourism Management*. Vol. 18. №1. P. 35-41. [in English].
10. Enz C., Siguaw J. (2003), Innovations in hotel practice. // *Cornell Hotel and Restaurant Administration Quarterly*. Vol. 44. №5-6. P. 115-123. [in English].
11. Orfi la-Sintes F., Mattsson J. (2009). Innovation behaviour in the hotel industry. // *Omega - The International Journal of Management Science*. Vol. 37. №2. P. 380-394. [in English].

Стаття надійшла до редакції 25.04.2024