

ГОТЕЛЬНО-РЕСТОРАННА СПРАВА

UDC 338.24:640.41(045)

DOI <https://doi.org/10.32782/2521-6643-2023.2-66.15>

Nebaba N. O., Doctor of Economic Sciences, Associate Professor,
Department of Economic Modeling, Accounting and Statistics
Oles Honchar Dnipro National University
ORCID: 0000-0003-1264-106X

Kucher M. M., PhD in Economics, Associate Professor,
Department of International Tourism and Hotel and Restaurant Business
University of Customs and Finance
ORCID: 0000-0002-3868-5311

Yazina V. A., PhD in Economics,
Department of International Tourism and Hotel and Restaurant Business
University of Customs and Finance
ORCID: 0000-0002-8695-3456

Saihak Ye. L., Lecturer at the Department of International Tourism
and Hotel and Restaurant Business
University of Customs and Finance
ORCID: 0000-0002-6406-9272

Golovko N. O., Student
University of Customs and Finance
ORCID: 0009-0001-7235-9333

THEORETICAL ASPECTS OF INFORMATION PROVISION OF RESTAURANT ENTERPRISE MANAGEMENT PROCESSES

The article is devoted to consideration of modern information support of restaurant enterprise management processes. It is established that the information support system organizes the collection, processing, storage and transmission of information to support various processes in the restaurant business. The information system consists of hardware, software and organizational components that cooperate to achieve effective management and is a key tool for effective management of a restaurant enterprise, which contributes to achieving competitive advantages and ensures improvement of service quality. The essence and characteristics of the system of information support of restaurant enterprise management processes have been studied. The constituent elements of information support in the management of a restaurant enterprise are considered. The classification of information technologies according to categories is provided. The advantages and features of information support for restaurant enterprise management processes are given. It has been established that information technologies are an integral part of the restaurant business, because they contribute to the automation and optimization of restaurant management processes, improve communication with customers, provide fast and convenient service, increase the efficiency of the kitchen and allow analyzing data to make better management decisions. Recommendations on the effective use of information support in restaurants are provided. It was analyzed that for the effective introduction of new technologies it is important to ensure proper training of the staff and support from the management. Adequate infrastructure and information security should also be provided to ensure data reliability and confidentiality. It has been studied that the introduction of modern information technologies and improvement of information support can significantly increase the efficiency and competitiveness of a restaurant enterprise. With proper planning, development and implementation of new technologies, the enterprise will be able to provide high quality customer service, increase its attractiveness in the market and improve its financial indicators.

Key words: automation, information center, information support, information technologies, restaurant business.

Небаба Н. О., Кучер М. М., Язіна В. А., Сайгак Є. Л., Головка Н. О. Теоретичні аспекти інформаційного забезпечення процесів управління ресторанним підприємством

Стаття присвячена розгляду сучасного інформаційного забезпечення процесів управління ресторанним підприємством. Досліджено сутність та охарактеризовано систему інформаційного забезпечення процесів управління ресторанним підприємством. Розглянуто складові елементи інформаційного забезпечення в управлінні ресторанним підприємством. Надано класифікацію інформаційних технологій відповідно категорій. Наведено переваги та особливості інформаційного забезпечення процесів управління ресторанним підприємством. Встановлено, що інформаційні технології є невід'ємною частиною ресторанного бізнесу, адже вони сприяють автоматизації та оптимізації процесів управління рестораном, поліпшують комунікацію з клієнтами, забезпечують швидке та зручне обслуговування, підвищують ефективність роботи кухні та дозволяють аналізувати дані для прийняття кращих управлінських рішень. Надано рекомендації щодо ефективного використання інформаційного забезпечення у закладах ресторанного господарства. Доведено, що інформаційне забезпечення управління ресторанним підприємством базується на використанні інформаційних технологій для збору, аналізу та оптимізації різних аспектів бізнесу. Це включає автоматизацію обліку товарів, управління персоналом, контроль за фінансами та взаємодію з клієнтами. Застосування інформаційних систем допомагає ефективніше вирішувати завдання у сфері ресторанного бізнесу. Інформаційне забезпечення ресторану відіграє ключову роль у забезпеченні ефективного та конкурентоспроможного бізнесу і його важливі аспекти включають: облік інгредієнтів та товарів, управління персоналом, фінансовий облік, маркетинг та CRM, технологічні інновації, системи управління замовленнями, автоматизовані системи управління запасами, програмне забезпечення для обліку і звітності, програми захисту від кібератак і збереження конфіденційності даних, а також інші технології, що полегшують роботу. Інформаційне забезпечення сприяє ефективному управлінню всіма аспектами ресторанного бізнесу, що важливо для досягнення успіху у цій галузі.

Ключові слова: автоматизація, інформаційний центр, інформаційне забезпечення, інформаційні технології, ресторанний бізнес.

The statement of the problem in general terms and its connection with important scientific or practical tasks. In today's world, restaurant enterprises undergo significant transformations due to the rapid development of information technologies and the increasing competition in the restaurant services market.

Improving the information support for managing restaurant enterprises is a relevant topic in the modern gastronomic industry. Thanks to the rapid development of technologies and the growing influence of the Internet, restaurant enterprises have a unique opportunity to utilize information systems and software to optimize their operations and enhance service quality.

Information technologies enhance operational efficiency, reduce costs, improve service quality, and increase customer satisfaction. Technologies and software are becoming more accessible and advanced, providing restaurant enterprises with extensive opportunities to refine their processes and achieve success in a competitive market.

Over the past five years, a considerable amount of research has been conducted to improve the information support for managing restaurant enterprises. Scholars and practitioners have focused on developing new methods and approaches that allow for the effective use of information technologies to optimize restaurant operations. Research encompasses aspects such as automating ordering and service processes, inventory management, customer data analysis, streamlining food preparation and delivery processes, as well as the implementation of electronic restaurant management systems.

Literature review. The analysis of recent research and publications involved utilizing a broad information base encompassing scholarly articles, publications, statistical data, and other relevant sources related to restaurant management and the application of information technologies in the restaurant business. Scholarly works of both domestic and international researchers such as O. Artemenko [1], L. Veretin [3], I. Yegupova [4], A. Kravchenko, V. Samodai [5], A. Svistun, M. Sukach, L. Khrushch, I. Shushakova [6], M. Shvydenko [7], S. Michael, and others were processed and analyzed for this study.

Purpose. The main goal is to explore opportunities for enhancing the information support of restaurant management processes to increase restaurant efficiency and improve consumer satisfaction. To achieve this goal, the following tasks have been identified: analyze existing approaches and methods of restaurant management utilizing information support; examine various types of information technologies used in the restaurant business; identify the main advantages and peculiarities of existing information support systems for restaurant enterprises; investigate the core components of information technologies and their role in the processes of managing restaurant enterprises.

Results. Information provision in managing restaurant enterprises is the process of ensuring necessary information for effectively overseeing all aspects of a restaurant's operations. It encompasses the collection, analysis, storage, and dissemination of information required for making informed managerial decisions.

The constituent elements of information provision in managing restaurant enterprises include: restaurant management systems: These software suites automate key processes in the restaurant business, such as ordering, inventory operations, financial accounting, table reservations, and more. They facilitate centralized data collection and processing, easing restaurant management; reservation and table management systems: These systems enable customers to reserve tables online while allowing restaurant staff to efficiently manage table schedules, avoid conflicts, and maximize resource utilization; inventory management systems: These systems assist restaurants in efficiently

managing inventory of raw materials and other necessary supplies. They automate ordering, supply, and inventory control processes, helping avoid shortages or excess stock; data analysis and reporting systems: These systems gather, analyze, and visualize data on sales, expenses, profits, dish popularity, customer satisfaction, and other metrics. They aid managers in obtaining informed data for decision-making and strategy development; customer mobile applications: These apps enable customers to place orders, reserve tables, view menus, provide feedback, and utilize loyalty programs. They enhance customer interaction and satisfaction [1].

These constituent elements of information provision contribute to optimizing managerial processes within the restaurant business, elevating efficiency, and ensuring a higher standard of customer service.

Information technologies represent a set of methods and tools utilized for the collection, transmission, storage, and processing of information using software and hardware, aiming to address managerial tasks of an economic entity. The classification of information technologies can be reviewed in Table 1.

Enhancing the competitiveness of Ukrainian enterprises can be achieved through accelerating innovative processes that facilitate the effective utilization of innovations in the form of new information technologies, products, and services, as well as organizational, technical, and socio-economic solutions in production, finance, commerce, administration, and other spheres.

The strategic objectives of information technologies aim to ensure business development, its manageability, quality, competitiveness, and cost reduction in executing business processes [1].

Table 1

Classification of Information Technologies

Category	Information Technology
Ordering and Reservation Management	Point of Sale (POS) systems; Reservation management systems; Online booking and ordering; Mobile applications for ordering and reservations.
Inventory and Supply Management	Inventory management systems; Electronic inventory accounting; Automated ordering systems from suppliers.
Personnel Management	Personnel accounting and scheduling systems; Electronic timekeeping registers; Automated payroll systems; Intranet and communication platforms for employees.
Analytics and Reporting	Data analysis and reporting systems; Electronic reporting forms; Business Intelligence systems.
Customer Service	Online ordering and delivery; Self-service kiosks; Mobile applications for ordering and restaurant reviews; Loyalty programs and bonus systems.

Source: Compiled by the author based on data from [1; 3; 6].

Firstly, information technologies assist in restaurant management and enhance operational efficiency. Restaurant management systems automate many aspects of operations such as table reservations, inventory management, sales tracking, and financial monitoring. This aids in reducing human errors and streamlining processes, ultimately leading to increased productivity and cost reduction.

Secondly, information technologies enable improved customer service. By implementing online table reservation systems and food ordering, customers can easily and conveniently plan their visits and avoid queues at the restaurant. Mobile device applications allow for ordering food for delivery or pickup, making the ordering process more convenient and faster.

Undoubtedly, the utilization of information technologies in the restaurant business also enhances communication with customers. Restaurants actively leverage social media platforms such as Facebook, Instagram, Twitter, and YouTube to promote their services, share promotions, discounts, and new menus. This enables them to attract a wider audience and build relationships with potential clients [7].

Furthermore, information technologies can contribute to enhancing the culinary creative process. Sending orders to the kitchen using electronic ordering systems (POS) and utilizing specialized kitchen software improves food preparation efficiency and reduces waiting time for customers. Innovations such as using artificial intelligence and machine learning automate the cooking process and aid in developing new recipes.

One cannot overlook the analytical capabilities that information technologies provide. They enable restaurateurs to collect, analyze, and utilize data about their customers, such as ordering habits, preferences for specific dishes, or eating styles. This allows for personalized offerings, menu adaptation, and improved marketing strategies.

Information systems take on the process of meal formulation considering the set of ingredients and procurement schemes. They automate the management of dish lists based on consumption norms and seasonal procurement norms for ingredients used in dishes.

Information technologies have become an integral part of the restaurant business today. They facilitate the automation and optimization of management processes, enhance communication with customers, ensure swift and convenient service, improve kitchen efficiency, and allow data analysis for better managerial decisions [2].

It is worth noting that the successful implementation of information technologies in the restaurant business requires not only the presence of necessary systems and software but also proficient planning, setup, and staff training. Ensuring cybersecurity is also a crucial aspect as restaurants collect and process a substantial amount of confidential information about their customers.

The Information System (IS) in restaurant management plays a pivotal role in collecting, processing, storing, and transmitting information necessary for the effective functioning of the restaurant. The fundamental essence of the IS lies in creating an informational environment that facilitates making well-founded managerial decisions and optimizing business processes.

The primary characteristics of the Information System (IS) in restaurant management encompass: information gathering: The IS ensures the collection of information from diverse sources such as customer orders, inventory records, financial data, and more; information processing: The IS facilitates processing information to derive useful insights and reports. This may involve sales analysis, inventory control, personnel management, and other operations; information storage: The IS ensures information storage in a centralized database, allowing easy accessibility while ensuring its security; information transmission: The IS enables the transmission of information among various departments and employees within the restaurant, enhancing communication and collaboration; process automation: The IS assists in automating many routine operations like order tracking, inventory management, customer transactions, leading to more efficient resource utilization and reduced errors [7].

An additional characteristic of the Information System (IS) in restaurant management is: integration with other systems [7]: The IS can be integrated with other systems such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), or Access Control Systems to establish a unified information platform and facilitate cohesive operations across various functional areas; mobile accessibility: Modern ISs can provide mobile access to information via mobile devices, allowing restaurant managers and employees to access real-time information and manage processes even outside the office; data security: ISs should have data protection mechanisms including backup, encryption, and access control to ensure the confidentiality and integrity of information, especially concerning financial data and customers' personal information; scalability : ISs should be flexible and scalable to meet the growing needs of the restaurant enterprise. They should be capable of handling large volumes of data and adapting to changes in business processes and market requirements [7].

Overall, the Information System is an integral component of restaurant management, contributing to process optimization, increased efficiency, and informed managerial decision-making.

Therefore, informational support and technologies play a crucial role in the restaurant business, aiding in the improvement of management, customer service, culinary creativity processes, and data analytics. Their utilization can contribute to enhanced efficiency, cost reduction, and improvement of a restaurant's competitiveness. Information technologies have become an essential tool for success in the modern restaurant industry.

Information technologies in the restaurant business encompass a wide array of solutions that help automate various aspects of restaurant management and enhance guest service quality. Employing information technologies in restaurant operations helps save time, effort, and resources, increases business efficiency, and enhances guest satisfaction. Through proper implementation and utilization of these technologies, a restaurant can gain a competitive edge and become more successful in the market [6].

Restaurant automation systems allow establishment owners to address a range of issues: monitoring employees to reduce the likelihood of deception, facilitating accounting processes, and improving customer service speed.

At present, there are two types of restaurant automation systems: standalone and cloud-based. Each has its drawbacks – standalone systems do not protect against employee deception, while cloud-based systems rely on internet access and lack substantial flexibility in operation.

There's also a hybrid system variant. A local module is installed in the restaurant, and then data is synchronized and uploaded to remote servers. This ensures system operability even with poor internet connectivity. Once the connection is restored, the data on the server can be easily updated.

The system is modular, featuring components for floor managers, waitstaff, chefs, and accountants. For instance, when a waiter takes an order, the system immediately displays the list of dishes on the chefs' screen. Upon dish completion (where managers can set a countdown for preparation time), the waiter receives a notification on their phone or tablet. The primary components of information technology in the restaurant business are presented in Table 2.

Information technologies (IT) play a crucial role in modern restaurant businesses, automating and optimizing numerous processes. Here are several ways in which IT can contribute to the restaurant business: order and reservation management: IT systems enable restaurants to accept online orders, maintain a customer database, manage reservations, and tables.

This simplifies the order taking and processing, prevents errors, and provides convenience for customers; Point of Sale (POS) systems: Utilizing modern POS systems allows restaurants to efficiently process payments, including contactless transactions, integrate loyalty programs, and gather sales data for analysis; inventory management: IT aids restaurants in inventory tracking, timely product orders, and avoiding surplus or shortages. An automated inventory management system can suggest when to restock, optimize orders, and ensure efficient product usage; kitchen automation: IT can automate kitchen processes, including electronic ordering systems and communication with service staff, leading to faster, error-reduced order preparation and improved quality; online presence and delivery: IT enables restaurants to build their online presence through websites, mobile apps, and social media, facilitating menu viewing, placing delivery or pickup orders, and leaving reviews.

Table 2

Key Components of Information Technology in the Restaurant Business

Technologies	Characteristics
Restaurant Management Software	Managing all aspects of daily operations, including ordering, inventory, payroll calculation, and financial accounting.
Order Management Software	Receiving and processing guest orders using electronic menu systems, mobile applications, or online food delivery platforms.
Electronic Payment Systems	Ability to accept credit cards, contactless payments, or mobile payments for guest convenience.
Electronic Inventory Management Systems	Automatic tracking of product quantities and alerts for necessary inventory replenishment.
Personnel Management Systems	Work schedules, time tracking, access control, authorization systems, staff training, and development.
Commercial Platforms	Online table reservations or food delivery platforms to attract new customers and increase sales volume.
Quality Control Systems	Collecting guest feedback, assessing food quality, monitoring cleanliness, and safety.
Interactive Screens and Digital Menus	Presenting dishes and beverages through interactive screens or digital menus.
Mobile Applications	Food ordering, table reservations, payments, and special offers through mobile applications.
Automated Kitchen Systems	Order displays, preparation time management systems, electronic recipes, and order status monitoring.
Wireless Networks and Access Points	Wireless internet for guests and mobile device-based offers.
Interactive and virtual reality	Tables with sensors, virtual tours, virtual menus, or gaming elements.
Security and video surveillance systems	Cameras, motion sensors, recording systems for security and service monitoring.
Social media and internet marketing	Brand promotion, guest interaction, advertising campaigns through social media and the internet.
Automated wine systems	Temperature control for storage, wine ordering, and information provision.
Smart devices	Smart thermostats, trash fill sensors, lighting systems for process automation.
Geolocation technologies	Personalized guest offers based on their location.
Video menus and presentations	Presentation of dishes and cooking in video format or interactive demonstrations.
Guest feedback and evaluation systems	Collecting feedback and ratings through electronic surveys, mobile apps, and social media.

Source: compiled by the author for data [4].

Integration with delivery platforms simplifies the food delivery process and expands the audience reach; analytics and reports: IT allows collecting, analyzing, and utilizing sales, expenditure, dish popularity, and other data, aiding restaurant owners in informed decision-making for business management, menu refinement, pricing, and promotional strategies; customer service enhancement: IT can assist restaurants in providing better customer service, including electronic menus and table orders, customer loyalty programs, personalized offers, and booking reminders, enhancing customer satisfaction; security and data protection: IT also plays a crucial role in ensuring customer data, operational systems, and payment transactions' security. Employing secure networks, data encryption, and other technologies helps prevent misuse and maintain information confidentiality. Information provisioning is a crucial component of management and operational activities in any organization, involving the collection, processing, storage, and dissemination of information to support decision-making and achieve set objectives. The components of information systems in the restaurant business are outlined in Table 3.

Table 3

Composition of Indicators in Information Systems within the Restaurant Business

Component	Definitions
Hardware	The physical components of an information system, such as computers, servers, routers, printers, and other devices necessary for processing, storing, and transmitting data in the restaurant business.
Software	A set of programs used to perform specific tasks in the restaurant industry, including order management systems, POS (Point of Sale) software, inventory management programs, reservation systems, and other solutions that facilitate restaurant operations.
Databases	Structured data repositories used to store information about customers, menus, inventory, financial data, and other critical aspects of the restaurant business. Databases enable the storage, update, and analysis of information to make decisions and improve business processes.
Communication tools	Data transmission and communication means, such as local networks, wireless technologies, internet connectivity, and other communication channels that facilitate information exchange among different devices, programs, and users in the restaurant business.
Information security	Systems and procedures ensuring the confidentiality, integrity, and availability of data in the restaurant business.
Data analytics	Methods, tools, and techniques for analyzing large volumes of data to derive valuable insights and support decision-making. Data analytics in the restaurant industry may involve statistical sales analysis, demand forecasting, trend identification, and other analysis methods to enhance business efficiency.

Source: compiled by the author based on [4].

All these IT solutions can function independently or be combined depending on the needs and scale of the restaurant business. Information provision encompasses processes, technologies, and resources necessary for collecting, processing, storing, and transmitting information for the effective operation of the organization. The advantages and specifics of information provision are listed below in Table 4.

Table 4

Advantages and Specifics of Information Provision

Advantages	Description
Increased efficiency and productivity.	IT aids in automating many routine processes, freeing up staff from unproductive tasks and providing more time for customer service. This improves service quality and reduces wait times.
Optimization of inventory management.	Inventory management IT systems help reduce unnecessary expenditures, prevent product shortages, and maintain optimal inventory levels. This enhances business efficiency and reduces costs.
Enhanced accuracy and error reduction.	IT systems help avoid human errors in the ordering process, food preparation, and transactions. This positively impacts customer satisfaction and decreases expenses associated with error correction.
Analytics and informed decision-making.	IT enables the collection and analysis of sales data, dish popularity, expenses, and other key metrics. This provides restaurateurs with information for making informed decisions regarding business management and development strategies.
Improved communication.	IT systems facilitate communication among staff, table service, and the kitchen. Electronic ordering systems and communication between service staff and chefs help reduce delays and improve workflow coordination.
Attraction of new clients.	Websites, mobile apps, and social media aid restaurants in attracting new customers, providing them with convenience in ordering and reservations, as well as offering extended options for selection and personalized service.
Increased customer satisfaction.	IT solutions enhance the overall customer experience in restaurants. Fast and efficient service, order accuracy, personalized offerings, and convenient payment processes contribute to customer satisfaction and potential increase in loyalty.
Cost reduction and efficiency improvement.	IT solutions help restaurants reduce manual labor costs, prevent losses, optimize processes, and improve overall business efficiency.

Source: compiled by the author based on [5].

It is essential to consider that the successful implementation of IT solutions in the restaurant business requires proper planning, staff training, and ongoing support. The systematization of information programs in the restaurant business involves the utilization of various programs and systems for data collection, processing, storage, and

analysis. The primary goal of systematizing information programs is to facilitate restaurant management, enhance business process efficiency, and improve customer satisfaction. Some key aspects of systematizing information programs in the restaurant business are outlined in Table 5.

Table 5

Information Programs in the Restaurant Business

Information System:	Description
Point of Sale (POS)	Software designed for order processing, cash transactions, inventory management, and reporting. Ensures swift and accurate order processing and payment handling.
Inventory Management	IT systems that control product and ingredient inventory, automating the ordering process and receipt of goods.
CRM System	A customer interaction management system that gathers and analyzes customer data, provides personalized service, and enhances customer loyalty.
Analytical System	A data collection and analysis system for sales, financial indicators, dish popularity, and other key metrics to facilitate informed decision-making.
Online Ordering and Delivery	Systems and platforms for online customer order acceptance, food delivery organization, and ensuring a convenient customer experience.
Human Resources System	IT systems for human resource management, including employee record-keeping, work schedules, payroll, and other personnel processes.

Source: compiled by the author based on [5; 6].

Systematizing information programs helps restaurants optimize business processes, enhance efficiency, and ensure customer satisfaction. The selection of specific programs depends on the restaurant's needs, size, and operational specifics. Overall, information provision is an essential element of the restaurant business, aiding in streamlining operations, attracting customers, and improving the overall service experience. Implementing IT solutions can become a competitive advantage for a restaurant and contribute to its successful development.

Conclusions and Prospects for Further Research in this Direction. Information systems are an integral component of successful restaurant management. They facilitate the collection, processing, storage, and transmission of information to support various processes within the restaurant business. Comprising hardware, software, and organizational components, an information system collaborates to achieve efficient management, serving as a key tool for effective restaurant management that fosters competitive advantages and enhances service quality.

The application of core information technologies in the restaurant industry aids businesses in improving customer service, streamlining management processes, ensuring effective control over inventory, finances, and other operational aspects. Information technologies are essential tools for the successful operation of a restaurant business, aiding in effective management, improved customer service, and achieving competitive advantages in the market.

The advantages of information provisioning in the restaurant industry encompass operational efficiency enhancements. Information systems enable the automation of ordering, inventory tracking, personnel, and financial management processes, thereby reducing the risk of errors and expediting task completion. Information provisioning within a restaurant enterprise allows for increased efficiency, improved customer service, and risk mitigation. Restaurant enterprises integrating information technologies into their platforms stand a greater chance of achieving success and competitive advantages in the market.

Bibliography:

1. Скопень М.М., Сукач М.К., Будя О.П., Артеменко О.І., Хрущ Л.А. Інформаційні системи і технології в готельно-ресторанному та туристичному бізнесі : підручник / за ред. М.К. Сукача. К.: Ліра-К, 2017. 768 с.
2. Бишовець Л.Г., Куракін О.Б., Крижанівський А.І. Інноваційні технології обслуговування в сучасному ресторанному бізнесі. 2020. URL: <https://er.chdtu.edu.ua/bitstream/ChSTU/3215/2/БЛГ%2С%20КОБ%2С%20КАІ.pdf>
3. Веретін Л.С. Інформаційне забезпечення як одна із передумов удосконалення управління продуктивністю підприємства. *Ефективна економіка*. 2015. № 4. URL: <http://www.economy.nayka.com.ua/?op=1&z=4469>
4. Єгупова І.М. Особливості функціонування закладів ресторанного господарства: монографія / за заг. наук. ред. В.Г. Герасименко. Одеса: ОНЕУ, 2016. 262 с.
5. Самодай В.П., Кравченко А.І. Організація ресторанної справи: навч. посіб. Суми: Вид-во СумДПУ імені А.С.Макаренка, 2015. 424 с.
6. Шушакова І., Свистун А. Інформаційні технології в управлінні підприємствами ресторанного господарства. *Економіка та суспільство*. 2021. № 25. URL: <https://economyandsociety.in.ua/index.php/journal/article/view/292>
7. Швиденко М.З., Касаткіна О.М., Швиденко О.М. Інформаційні технології : навч. посіб. К.: ЦП «Компринт», 2019. 571 с.

References:

1. Skopenia M.M., Sukach M.K., Budya O.P., Artemenko O.I., Khrushch L.A. (2017), *Informatsiini systemy i tekhnolohii v hotelno-restorannomu ta turystychnomu biznesi* [Information systems and technologies in the hotel, restaurant and tourism business], Lira-K, Ukraine.
2. Byshovets, L.H. Kurakin, O.B. Kryzhanivskyi, A.I. (2020), *Innovatsiini tekhnolohii obsluhovuvannia v suchasnomu restorannomu biznesi* [Innovative service technologies in the modern restaurant business], [Online], available at: <https://er.chdtu.edu.ua/bitstream/ChSTU/3215/2/БЛГ%2С%20КОБ%2С%20КАІ.pdf>
3. Veretin L.S. (2015), *Efektivna ekonomika*, Informatsiine zabezpechennia yak odna iz peredumov udoskonalennia upravlinnia produktyvnistiu pidpriemstva. [Information provision as one of the prerequisites for improving enterprise productivity management] [Online], vol. 4, available at: <http://www.economy.nayka.com.ua/?op=1&z=4469>
4. Yehupova, I.M. (2016), *Osoblyvosti funktsionuvannia zakladiv restorannoho hospodarstva* [Peculiarities of the functioning of restaurants], Odesa: ONEU, Ukraine.
5. Samodai, V.P. Kravchenko, A.I. (2015), *Orhanizatsiia restorannoi spravy* [Organization of the restaurant business]. Sumy: Vyd-vo SumDPU imeni A.S. Makarenka, Ukraine.
6. Shushakova, I. Svystun, A. (2021), *Economy and society*, Informatsiini tekhnolohii v upravlinni pidpriemstvamy restorannoho hospodarstva [Information technologies in the management of restaurant enterprises], [Online], vol. 25, available at: <https://economyandsociety.in.ua/index.php/journal/article/view/292>
7. Shvydenko, M.Z. Kasatkina, O.M. Shvydenko, O.M. (2019), *Informatsiini tekhnolohii* [Information Technology]. K.: TsP «Kompynt», Ukraine.