QUALITY OF PRODUCTS OF THE HOTEL AND RESTAURANT INDUSTRY: THEORETICAL AND PRACTICAL ASPECTS

MONOGRAPH

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POLTAVA UNIVERSITY OF ECONOMICS AND TRADE (PUET)
Department of hotel, restaurant and resort business

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The monograph deals with theoretical and practical principles of quality of hotel and restaurant industry products as a component of competitiveness of enterprises.

It is intended for students of economic and service specialities, in particular "Hotel and restaurant business" of all forms of education, postgraduate students, research and teaching staff, representatives of the hotel and restaurant industry, public authorities.

CONTENTS

INTRODUCTION

The monograph includes 8 chapters, each of which is devoted to problematic issues of product and service quality in the hotel and restaurant business.

The first chapter "BASIS FOR THE FORMATION OF COMPETITIVENESS OF HOTEL AND RESTAURANT BUSINESS ENTERPRISES IN UKRAINE".

Improving the quality of service is an important component of the competitiveness strategy for hotels and restaurants. Investing in service quality allows businesses to ensure customer satisfaction and loyalty, build a positive image, stand out from the competition and increase profits. In today's market, where customers have access to a large number of options and can quickly share their experiences, service quality is one of the most important factors in the success of hotels and restaurants.

Improving the system of ensuring the competitiveness of restaurant business enterprises requires a comprehensive approach that includes the use of modern technologies, professional development of staff, marketing strategies, analytical tools and creating a pleasant environment for customers. Only such an approach will allow you to achieve success and take a strong position in the restaurant business market. Modern technologies, professional development of staff and innovative approaches help to achieve high quality of service and customer satisfaction.

The second chapter "IMPLEMENTING INTERNATIONAL STANDARDS ON THE QUALITY OF SERVICE IN HOTEL AND RESTAURANTS".

In the current environment of global geopolitical instability and economic crisis, the Ukrainian restaurant and hotel industry requires intensification of competitiveness in the industry market. In view of this, one of the priority areas of economic development today is to ensure strategic competitive advantages based on a high level of quality. Today, the market of the industry under study exerts considerable pressure on the industry, stimulating it to continuously improve the quality of services. In view of the above, every company

in the hotel and restaurant business requires strengthening its competitive advantages and improving the quality of service. International standards serve as a key indicator in this regard.

The third chapter "SUBSTANTIATION OF BLOCKCHAIN TECHNOLOGY IN THE HOTEL BUSINESS".

The introduction of the digital economy implies a profound restructuring of existing business models and processes of companies in the market. However, in the hospitality sector, especially in Ukraine, the use of digital and integrated technologies is often limited to basic automation (e-ordering, cashiering, online booking, QR code menus, etc.), as well as the provision of telecommunications services and the use of social media for marketing.

Of the numerous technological trends identified by analysts, five are the most important for the hotel and restaurant business in Ukraine. Therefore, a detailed analysis of each technological trend is required to identify the benefits it can bring, as well as the obstacles and risks in the process of its implementation in the Ukrainian hotel business. Such a technological trend as the use of blockchain technologies can be used in the hotel business to improve the quality and safety of guests and staff.

The fourth chapter "IMPROVING THE ACTIVITIES OF ACCOMMODATION FACILITIES THROUGH THE INTRODUCTION OF SOCIAL INNOVATIONS".

Despite all the challenges of our time, the hotel business continues to work, adapting to new operating conditions during the war period and developing development strategies for the post-war period of management. It is predicted that after the war, one of the promising areas of tourism will be "barrier-free tourism" and "inclusive rehabilitation and social tourism". The creation of a barrier-free space is not only a sign of a civilized society, but also a requirement of the time, which should be consistently implemented both in the state as a whole, and in the Poltava region in particular.

It is predicted that people with "special needs" can be a significant segment of potential customers of hotel services, but currently they are not covered by various types of services due to the rather low level of accessibility of the service environment. Given

the significant increase in this segment of consumers in the overall structure of the country, especially after Russia's military aggression on the territory of Ukraine, research aimed at improving the activities of accommodation facilities through the introduction of social innovations can be considered relevant and promising.

The fifth chapter "IMPROVING THE QUALITY OF SERVICE AT HOTEL AND RESTAURANT BUSINESS ENTERPRISES THROUGH THE USE OF THE LATEST OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS".

Occupational health and safety (OH&S) management systems are an important factor in the functioning of a hotel and restaurant enterprise. Workplaces are becoming increasingly complex, which leads to an increase in the number of hazards and associated risks, such as improper operation of equipment, trip and fall hazards, sharp objects, high temperatures, fire hazards, electric shock, vehicles, chemicals, and emergencies. The number of injuries and diseases affecting employee productivity is growing. In such a situation, direct and indirect costs of the company's operations increase.

Data from the International Labor Organization (ILO) show that the total cost of compensating for accidents is 4 % of the world's gross domestic product (GDP).

Therefore, effective management of occupational health and safety through the use of the latest management systems in the hospitality industry is an extremely important issue. When considering effective occupational health and safety management systems, it is necessary to take into account the existing norms, rules and regulations on occupational health and safety in hospitality establishments.

The sixth chapter "THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON THE QUALITY OF SERVICES IN THE RESTAURANT BUSINESS".

Chapter 6 presents the areas of artificial intelligence application in the restaurant business. The most well-known include the use of chat-bots, robots, smart kiosks, and recommendation systems.

The article describes the advantages and disadvantages of artificial intelligence and indicates which processes are usually used

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to implement them. A description of the results of a consumer survey on the use of artificial intelligence in the restaurant industry is provided, and priorities for the introduction of these technologies are identified. The author establishes that artificial intelligence tools affect the quality of services at any business process in the restaurant industry. The introduction of artificial intelligence increases the degree of satisfaction of guests' needs, their loyalty, and also forms the originality of the service.

The seventh chapter "THEORETICAL APPROACHES TO THE MANAGEMENT OF INNOVATIVE PROJECTS IN THE HOTEL BUSINESS".

The study carries out a theoretical analysis of the interpretation of the concept of "innovation", characterises stages of development of innovation theories and classifies innovations by directions. The organisation of innovation activities and methods of implementing the state innovation policy are presented. The key features and structure of an innovative project necessary for its successful implementation, as well as the factors influencing the development of the hotel and restaurant business are identified.

The article considers main directions of development of the hotel and restaurant sphere in Ukraine, formation of the enterprise quality system and the scheme of innovation management. A systematisation of directions of innovation activity and types of innovation strategies in the hotel and restaurant business has been proposed. The results of the study are of practical importance for the development of the innovative potential of hotel and restaurant enterprises and contribute to their competitiveness in the market.

The eighth chapter "MODERN SYSTEMS OF SEARCH, SELECTION AND MANAGEMENT OF PERSONNEL TO ENSURE THE QUALITY OF THE HOTEL BUSINESS".

The hotel and restaurant business, as a branch of the service sector based on the provision of services to consumers, is closely related to the quality of staff work. Effective organization of staff work is a key factor in the success of any hotel and restaurant enterprise. This subsection of the monograph is devoted to a detailed analysis of the organization of staff work in the hotel and restaurant

business, which includes key aspects, methods and tools that contribute to the effectiveness of its use.

Today, effective personnel management is becoming a key factor in the success of hotel and restaurant enterprises. The work of qualified staff of hotel and restaurant complexes directly affects the quality of service and guest satisfaction. At the same time, the high turnover of personnel in the hotel and restaurant business of Ukraine, today, in the context of Russia's military invasion, requires the search for effective methods of motivation. Along with this, it is necessary to investigate the needs, expectations and satisfaction of the staff, which is essential to increase their loyalty and productivity.

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CHAPTER 1
BASIS FOR THE FORMATION OF COMPETITIVENESS OF HOTEL AND RESTAURANT BUSINESS ENTERPRISES IN UKRAINE

1.1. Theoretical foundations of competitiveness of restaurant business enterprises

Economic science has no clear information about who and when the term 'competition' was introduced into scientific circulation. The first full-fledged theoretical concepts on the sources of competition appeared only in the middle of the eighteenth century. The main merit in this regard belongs to classical political economy, whose representatives formulated the principles of ideal competition based on long-term research.

The starting point of the classical theory was the principle of absolute advantage, which was formulated by Adam Smith. This prominent economist first proved that competition, by leveling profit margins, leads to an optimal allocation of labor and capital. The model of perfect competition, the theoretical foundations of which were laid by Adam Smith, completely excluded any conscious control over market processes. The price system in a completely decentralized economy became a coordinating element in his theoretical concepts [2].

The main aspect of the struggle in the market for enterprises is their competitiveness. It determines the viability of an institution and its performance in a competitive environment. A thorough competitive environment analysis is a prerequisite for making the right management decisions. Competition forces companies to regularly monitor changes in the market and the cost of resources and improve the quality of products and services offered to strengthen their

competitiveness. A single statistical indicator cannot measure the competitiveness of an enterprise. This concept is manifested at different levels of the quality of the production system, which is reflected through various factors and symptoms [3].

The methodological foundations for managing the competitiveness of enterprises are studied in the monograph by N. Tarnavska. The scientist proposes to study competitiveness from the standpoint of "...taking into account the hierarchy of this concept, given the existence of cause and effect relationships and the subordination of competitiveness at all levels of economic management (state, enterprise, product)" [4, c.75].

The author analyses the definitions of enterprise competitiveness and reveals the main difference between them. Its essence lies in identifying the fundamentals of competitiveness, its nature, and its characteristics. N. Tarnavska offers to allocate eight approaches to understanding the competitiveness of enterprises according to the definitions of scientists.

The first approach unites scientists who define the competitiveness of an enterprise from the standpoint of the competitiveness of their products (Voichak A. V., Kruhlov M. I., and others).

The second approach is based on the terms associated with using a system of competitiveness indicators (or a list of indicators) formed on certain grounds. Under the leadership of A. A. Mazaraki, a group of scholars interprets the competitiveness of an enterprise as a generalized assessment of its competitive advantages in matters relating to both resource potential, the quality of satisfaction of consumer demand, and the achieved efficiency of the economic system. At the same time, they pay attention to the events that occur at the time or during the assessment period [4, p. 80].

The third approach unites scientists in their understanding of competitiveness from the standpoint of the competitive advantage of a business entity over other market participants (Porter M., Yanovskyi M. A., and others) [3, p. 84].

The fourth approach identifies similar points of view of scientists in defining the competitiveness of an enterprise as a property of the object of management (or subject of market relations) (Pavlenko A. F. and others) [3, p. 85].

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The largest group of approaches (the fifth) includes variants of understanding competitiveness as an ability (opportunity) to compete and function in the market. Thus, Pavlova V. A. defined the ability of a business entity to influence the market situation in its own interests and the ability to produce products that meet consumer requirements at a relatively low level of costs [5].

Savchenko S. M. understands the competitiveness of an enterprise as its potential and real ability to design, manufacture, and sell products that are in priority demand among consumers, subject to effective economic activity and its practical, profitable implementation in a competitive market [6].

The sixth approach combines the definition of enterprise competitiveness as the availability of adaptability and flexibility to survive in a dynamic competitive environment. Thus, Petrovych I. M. and other scholars consider enterprise competitiveness a dynamic characteristic of the enterprise's ability to adapt to changes in the external environment while providing a certain level of competitive advantage [7].

The seventh approach includes variants of understanding the definition of competitiveness as an enterprise's competence (M. H. Mescon, M. Albert, V. Hedourie) [3].

The eighth approach covers the interpretation of the term ʿcompetitivenessʾ, considering the focused vision and interests of interested users of the information on competitiveness.

The category "competitiveness of an enterprise" is characterized by the following properties: comparability, spatiality, dynamism, subject matter, attribution, systematicity, and objectivity.

Comparability means that the competitiveness of an enterprise is determined by comparing it with its real competitors operating in the same market segment.

Spatiality means that competitiveness is assessed in the context of a particular market, as conditions may differ for different market segments.

Dynamism indicates that the competitiveness of an enterprise is variable and varies over time, requiring constant monitoring and evaluation.

Subject matter implies the identification of key parameters that affect competitiveness, such as product quality, technology, personnel qualifications, etc.

Attributability indicates the unique characteristics that give the company a competitive advantage, such as original technologies or innovative products.

The systematic approach implies a comprehensive approach to studying competitiveness, including analyzing many parameters and their interrelationships.

Objectivity indicates the need to base the research on reliable data and analytical calculations that reflect reality [9].

In the research by Naherniuk D. V. and Kovalenko L. H., the authors identify two main approaches to defining competitiveness. These are comparative and resource-based. The first one is based on a comparison of the characteristics of the enterprise with the corresponding attributes of its competitors. The second approach is based on the existence of different types of enterprise resources and the possibilities of their use.

Naherniuk D. V. and Kovalenko L. H. agree that the resource approach is more consistent with the concept of potential as a set of different types of resources. The presence of a certain potential is not related to the presence or absence of competitors; the concept of competitiveness arises only in connection with the existence of competitors. Only in the presence of competition can we talk about the competitiveness of individual market participants [10, 11].

The presented approaches make it clear that the competitiveness of enterprises is a complex and multifaceted concept that a single indicator cannot measure. For restaurant business establishments, this means that successful competitiveness requires a comprehensive approach that includes market analysis, resource management, innovation, and adaptation to change.

Market conditions have intensified competition between businesses to attract customers and maximize profits. This competitive pressure forces businesses to continuously improve their operations, enhance production and sales processes, and introduce new

technologies, organizational forms, and salary systems to increase productivity and quality, thereby enhancing their competitiveness.

The competition in the restaurant business is special due to the various functions inherent in this industry: production, sales and organization of consumption of products. This complexity and the combination of production and non-production aspects make the nature of competition for restaurant businesses more complex. Unlike most industries, where the main object of competition is products, work or services, in the restaurant business, the competitiveness of a business entity is determined by both the quality of products and the level of service. According to the above quote, the 'restaurant product' includes many aspects, such as the service staff's atmosphere, cleanliness, comfort, competence, and attention [12].

In the restaurant business, competition is particularly intense due to the need for high service levels and product quality. Restaurants constantly fight for consumers' attention, competing for their loyalty by creating a favorable atmosphere, quality food, and high service levels. In order to attract and retain customers, they must constantly improve their staff's skills and management and cooking processes.

Research shows that consumers prefer restaurants with quality service and products, so businesses in this industry should focus on improving the quality of service and food, as this affects their competitiveness.

To assess the quality of products in the restaurant business, it is proposed to use indicators of assortment, uniqueness, taste characteristics and appearance of dishes. The development of the modern restaurant industry shows that enterprises satisfy not only basic consumer needs, but also consider aspects such as comfort and social status, which are related to higher needs. In addition to product quality, consumers assess the value of an enterprise through service, staff, and overall image.

The term "service quality" is defined as a set of characteristics of the service process that ensure customer satisfaction. Customers expect to be served by professionals who can help them make choices, explain differences and answer their questions [1].

Quality service in the restaurant business is key to success. However, investing in service is only worthwhile after creating an establishment with good cuisine, interesting design, a pleasant atmosphere and a convenient location. This is important for maintaining competitiveness.

Based on the generalization and analysis of the research results by Ukrainian and foreign scholars, D. Nahorniuk proposes to use the following factors to assess the competitiveness of a restaurant business establishment: products, services, personnel, image and price.

They form the competitiveness of restaurant business enterprises. However, it should be noted that each of the factors has its own characteristics that are specific to them [13]:

− products (assortment, attractiveness of dishes, taste of the dish);

− services (uniqueness, breadth);

− staff (compliance with sanitary and hygienic requirements, service skills, sociability);

− image (equipment of the premises, decoration of the hall, corporate identity of the hall);

− product prices (average check, discount system).

Every company operating in the market has its own competitive advantages, which can be developed systematically or accidentally. Some researchers describe competitive advantages as the advantages of a restaurant over other restaurants in the same industry. The competitive advantages of an enterprise are related to its competitiveness. However, competitiveness does not arise from a single competitive advantage but depends on a set of such advantages. Although these terms have a causal relationship, they are not identical.

Competitive advantage refers to the position of an enterprise in the market that allows it to survive in competition and attract customers. These advantages arise from the unique tangible and intangible assets owned by the company and from strategically important areas of activity that allow it to win in a competitive environment. Competitive advantages are based on unique assets and special competence in important areas of activity for the enterprise. These advantages are usually realized through the company's strategic units and form the basis of its business strategy.

As for the sources of competitive advantage, they can be divided into internal and external. Internal advantages arise from the characteristics of the enterprise itself (e.g., cost levels, productivity, management system) that exceed those of competitors. On the other hand, external advantages are based on an enterprise's ability to create more value for customers by providing them with greater satisfaction, lower costs, or increased efficiency. In general, an enterprise's competitive advantage arises from the unique characteristics and skills it possesses and can be internal or external. Still, both types of advantages are important for achieving a sustainable competitive position in the market [14].

For the enterprises of the hotel and restaurant industry of Ukraine, in the conditions of fierce competition and the constant influence of a changing external environment, enterprises focus on the state of the internal environment of the institution and pay attention to the development of a survival strategy. The latter component will allow enterprises to implement changes in existing processes, ensuring their position in the service market and increasing the institution's profits [15].

According to statistics from early 2020, the number of temporary accommodation and catering facilities in Ukraine was 69,689. Enterprises accounted for 7885 units, 11.3% of the total. Individual entrepreneurs accounted for the lion's share of the total number, i.e., 61,804 units, which was 88.7% [16].

The volume of products (goods and services) sold by these enterprises totaled UAH 487.18 billion at the end of 2019. At the end of 2019, small and medium-sized enterprises accounted for 66.4% of the products sold in Kyiv region. All of these businesses performed an important social function. At the end of 2019, the sector employed 397,500 people, accounting for 52.7% of all working-age employees in the region. Temporary accommodation and catering accounted for 2.0% (1.9 thousand people). In the latter, there were 400 small businesses that sold products and services of their own production for UAH 0.5 billion as of the beginning of 2020 [17, 18].

According to O. M. Oliinyk, 'price competition in the restaurant industry is formed on the basis of changes in the price of services per

person. By setting a lower price per guest or the total price for the entire contingent, the institution can strengthen its position compared to competitors. The main variant of non-price competition is based on the quality of basic and additional services. By improving the quality of service and keeping the price at the level of the closest competitors, the restaurant gains significant competitive advantages, which allow it to take a leading position in the market, increase the number of guests and the market share' [18, p. 196].

The author proposes an improved methodology for assessing the competitiveness of restaurant business establishments. It is based on such criteria as location of the establishment, interior, parking area, number of seats, menu, cuisine, mode of operation, quality of service, additional services, reputation, popularity, and average check per person. Each of the criteria (10) is assessed by experts on a 5-point scale.

The competitiveness of an institution was assessed as the ratio of the product of the value of the i-th criterion and its weight to the total number of criteria included in the assessment scale. The composite competitiveness indicator is a combination of the calculated indices of competitiveness of the institution and the weighting indicators [18, p. 193].

In our opinion, the most important thing in the proposed methodology is the choice of competitiveness criteria, which should be approached more carefully. The criteria can be divided into separate groups.

According to Halasiuk S. S. and Naimark K. A., the level of competitiveness of goods and services is 'a comprehensive assessment of consumers' intentions to purchase a particular product, giving it preference over any similar goods and services in a specific market'. Under these conditions, the parameters of services that meet the requirements set by the consumer are compared. The parameters are determined through: market research, collecting data on competitors' preferences, and a thorough analysis of potential consumers' preferences [19].

The development of the modern gastronomic sector shows that restaurants satisfy not only the basic needs of customers, but also

consider such aspects as comfort and social status, which are at the highest level of consumer needs for goods and services. In addition to the food, consumers evaluate a restaurant's value through the services provided, the staff's service, and the enterprise's overall image.

Researchers correctly note that the requirements of the modern consumer are becoming more complex. Business-to-customer interaction is becoming more individualized as creating a product and service becomes a multi-criteria task. For restaurant companies, service primarily means the provision of services. Although the basic properties of services – intangibility, inseparability, impermanence, and impossibility of storage – remain, they have their own characteristics in the gastronomy sector.

Some services are determined by the functional purpose of the enterprise, which is implemented through the production program. Other services may be related to the main ones or be additional. When assessing the consumer value of services, restaurants propose to consider the quality of basic, related, and extra services, comparing them with competing establishments, which is formalized in terms of actual and expected service perception.

To assess the actual perception of services, it is recommended to use a system of individual indicators, including the convenience of ordering and payment, the speed of order fulfillment, and the uniqueness of additional services. As for the compliance of the level of service with customer expectations, a survey and analysis of basic, related, and extra services with a rating of 'fully compliant,' 'partially compliant', or 'not compliant' is envisaged. This will make it possible to determine how clearly the company has identified its target audiences and provided them with a high level of service, which, under other conditions, indicates its competitiveness [20].

According to N. V. Mykhailova, concerning the economic aspects of the activities of competing enterprises, it is advisable to use indicators of the price level and the level of workload of the enterprise. In this case, the calculation of a complex indicator that will reflect the realization of the economic interests of the business entity's owners can be made using the group indicators 'price' and

'sales' proposed by H. T. Piatnytska [21]. As single indicators – indicators of product prices and price lists for additional services, as well as the turnover rate of seats in the hall and the degree of implementation of additional services [20].

The sequence of actions for assessing the competitiveness of an enterprise at the stage of operational management of an economic entity includes the following main stages:

a) preparation of initial information on the system of single indicators;

b) calculation of group indicators for assessing the competitiveness of the enterprise;

c) calculation of complex indicators for assessing the competitiveness of the enterprise.

Regarding the main methods of assessing the competitiveness of the restaurant business enterprise at the operational level of management, the use of benchmarking and matrix methods, as well as the construction of a polygon of competitiveness of the enterprise, is provided for positioning the enterprise in a competitive group, determining the dynamics of the competitive position, and identifying competitive advantages and bottlenecks of the restaurant business enterprise [20].

The approaches to assessing the competitiveness of the hotel and restaurant business have grounds for use, as they meet the objectives set by scientists to achieve the research goals. However, in planning the development of the hotel and restaurant business, it is also important to consider the level of competitiveness and the influencing factors. These factors include service organization, production, and service technologies, efficiency in solving customer problems, response to guests' specific requirements, information services system, rational service, effective hotel and restaurant management, planned work, motivation system, and quality control system.

The first step in determining the impact of factors on the competitiveness of the hotel and restaurant business is analysis, which includes qualitative and quantitative assessment. Quantitative

analysis covers the selection and calculation of the enterprises' financial, technical, marketing, and human resources parameters, while qualitative analysis identifies and evaluates the qualitative aspects that affect competitiveness. The next stage analyses the conditions that ensure competitiveness and ranks the factors by their importance for forming competitiveness. At the last stage, the results are studied, and management decisions are made based on their interpretation [22].

Thus, different approaches are used to assess competitiveness, which correspond to the objectives of the study. They take into account not only the level of competitiveness, but also the influential factors that shape this level.

1.2. Quality as a component of competitiveness of hotel services

In today's business environment, competition is the force that drives the production of competitive products and services. This is especially true for both the restaurant and hotel industries. The quality of products and services ensures competitiveness [23]. Therefore, quality is considered a component of competitiveness. Most senior managers of Ukrainian hotels focus on the quality management system. Moreover, they emphasize its adjustedness that meets the requirements of international standards [23, p. 10].

The peculiarity of quality in hotel services is that enterprises provide a quality customer service system that determines the degree of satisfaction with the service. Therefore, the hotel client should be sure that they will be of high quality when selling and promoting hotel services. This can be ensured by creating a quality control system at the enterprise.

Implementing a service quality control system in a hotel is a complex process that requires strategic planning, involvement of all staff, and constant monitoring. The key stages of this process are (Table 1.1):

Table 1.1 – Hotel service quality control system (compiled by the author)

Stages	Essence of the process
1. Determine the quality standards that the hotel strives to meet	Standards include both internal hotel requirements and external standards, such as international certification programs (e.g., ISO 9001)
2. Develop policies and procedures	Includes instructions for staff on guest service, rules of conduct, cleanliness and safety standards, and procedures for responding to customer complaints
3. Staff training and development	Hotel staff is a key element in ensuring the quality of service. Therefore, it is important to organize training and education programs to help employees understand and adhere to the standards set. This may include training in customer service, communication skills, conflict management, etc.
4. Implementation of technology	Innovative technologies can greatly simplify the quality control process. For example, Property Management Systems can automate many processes, such as reservations, room service, complaints, etc. Feedback systems can also be used to allow guests to provide feedback and assess the level of service
5. Monitoring and evaluation	To ensure ongoing quality control, monitoring and evaluating the hotel's performance regularly is necessary. This can include internal audits, guest surveys, feedback analysis, and regular meetings with staff to discuss results and identify ways to improve
6. Feedback and corrective action	An important element of the quality control system is handling guest feedback. Complaints and suggestions from guests should be processed quickly and efficiently. Based on the feedback received, corrective measures should be taken to improve service and prevent problems from recurring
7. Continuous improvement	A quality control system should be dynamic and flexible. It is important to analyze the results, identify weaknesses, and implement improvements constantly. This will allow the hotel to remain competitive and ensure high guest satisfaction

A quality control system in a hotel is an important tool for improving the quality of service. It helps the hotel maintain high standards, identify problems, and ensure continuous improvement.

Implementation of an effective quality control system allows hotels to provide a high level of service, which, in turn, increases guest loyalty.

The following are examples of quality control systems used by global hotels:

✓ Marriott Hotel uses the GuestVoice system, which collects guest feedback through various channels (online surveys, social networks, reviews on booking websites). This information is analyzed to improve service and staff training [24].

✓ Hilton Hotels – Hilton CleanStay program to ensure high cleanliness and safety standards. The program includes regular audits and staff training, as well as the use of innovative technologies for disinfecting rooms [25].

✓ The Four Seasons Hotels and Resorts hotel chain is known for its quality control system, which includes regular staff training, guest feedback programs, and a detailed analysis of all aspects of service [26].

✓ Ritz-Carlton is known for its Gold Standards program. They use clear standards and procedures to ensure high-quality service. Also, hotels actively work on feedback from guests and constantly improve it [27].

Hotel services are unique in nature as they are produced and consumed simultaneously. This creates some challenges and limitations for their control. The main factors that may limit the control of hotel services include (Fig. 1.1):
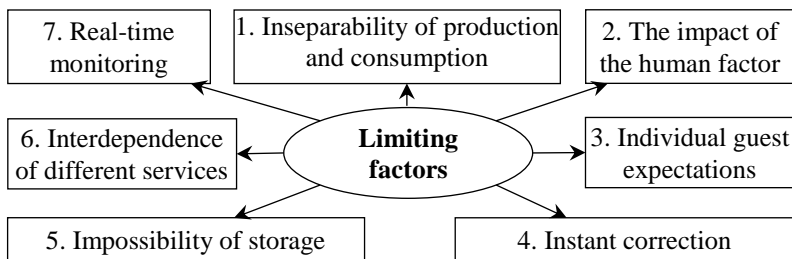
Figure 1.1 – The main factors limiting the control
of hotel services (compiled by the author)

Hotel services are provided at the time of consumption, which means that quality control must be carried out in real-time. This limits the possibilities for preliminary control and testing of services before they are provided to guests.

A significant part of hotel services is provided by staff, and the quality of service depends on employees' skills, knowledge, attitude, and behavior. The human factor always creates room for variation in service quality, making it difficult to standardize and control.

Guests' expectations and requirements can vary considerably. What one guest considers excellent service may be regarded as insufficient by another. This makes quality control subjective and difficult.

Since services are provided at the time of consumption, there is limited scope for error correction. A problem during the service must be resolved immediately, requiring high staff qualification and training.

Hotel services cannot be stored in a warehouse or accumulated. This means that managing supply and demand becomes critical, especially during peak periods when demand may exceed service capacity.

Hotel services often involve the interaction of different services (e.g. reception, cleaning, room service, restaurant). One service's Poor performance can affect a hotel stay's overall guest experience.

Ensuring service quality requires constant monitoring and real-time evaluation, which can be resource-intensive and complex.

A study of the quality of service in hotels worldwide and in Ukraine, in particular, has provided examples of limitations in controlling hotel services (Table 1.2).

Table 1.2 – Examples of restrictions in the control of hotel services (compiled by the author based on sources [28–33])

Problem area	Examples of restrictions
The complexity of standardization	Hotel services are diverse and individualized, making it difficult to create uniform standards for all aspects of service. For example, guests may have different service expectations in hotels of various categories (economy class, business class, luxury) [28–30]

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Problem area	Examples of restrictions
Dependence on external suppliers	External suppliers may provide hotel services (e.g., catering and transport). Quality control of these services can be difficult due to the lack of direct influence on their performance and standardization [28–30]
Influence of external factors	External suppliers may provide hotel services (e.g., catering and transport). Quality control of these services can be difficult due to the lack of direct influence on their performance and standardization [28–30]
Delayed feedback	Receiving and processing guest feedback can take time. Suppose a guest leaves a negative review after checking out. In that case, it can be difficult to respond in a timely manner, and the hotel may lose the opportunity to remedy the situation during the guest's stay [28–30]
Differences in quality perception	Different guests may have different criteria and expectations for service quality. For example, what one guest considers excellent service may be perceived as insufficient by another. This makes defining and maintaining universal quality standards difficult [28–30]
High-quality control costs	Implementing an effective quality control system can require significant financial and human resources. For example, regular staff training, internal audits, and introducing new technologies can be costly [28–30]
Insufficient staff motivation	If staff are not sufficiently motivated or interested in providing high-quality care, even the best quality control systems may not deliver the desired results. Staff motivation is critical for a quality control system [28–30]
The complexity of monitoring all aspects	Hotel services cover various activities, from check-in and room service to food and entertainment. Monitoring and controlling all these aspects simultaneously can be complex and require coordination between different hotel departments [28–30]

Problem area	Examples of restrictions
Technical problems	Even with modern technology, technical issues that make quality control difficult can arise. For example, a failure in a hotel's property management system (PMS) can lead to disruptions in reservations, complaints or other processes [28–30]
Incidents at the reception desk	Suppose there is a problem with booking or checking in guests at the front desk. In that case, it can negatively affect the guest's first impression, and immediate resolution of this incident requires highly qualified staff [28–31]
Room service	Poor cleaning quality can quickly lead to guest complaints. However, housekeeping staff often work independently, making it difficult to monitor their performance [28–31] immediately
Restaurant service	If a guest receives poor service or food of inadequate quality in a hotel restaurant, it can ruin their entire stay. Correcting such situations requires immediate management intervention [28–31]

The table above clearly illustrates the problem areas in controlling hotel services, which are challenges to ensuring a high level of service.

The complexity of standardization is a bottleneck for hotels, as it is impossible to develop universal standards that meet all guests' expectations. It is important to understand the specifics of each market segment and create flexible standards that allow for adaptation to different customer needs.

Dependence on external suppliers is a limitation that affects the perception of the quality of overall hotel services, as external suppliers may have different standards or levels of service. It is important to choose reliable partners and set clear quality criteria.

External factors may be beyond the hotel's control, but they significantly impact its operations. Hotels should develop strategies

for adapting to changes in the external environment, including flexible planning and resource reservation. Delayed feedback can lead to a loss of opportunity to rectify the situation during the guest's stay, negatively affecting the hotel's reputation. To minimize this risk, it is important to implement real-time feedback systems that will allow you to respond promptly to guest complaints and suggestions.

Differences in quality perception make it difficult to maintain a consistent level of service, as different guests may have different expectations. To address this issue, it is important to implement personalized service approaches, consider individual customer needs, and collect and analyze feedback to understand guest expectations better.

High costs for training, auditing, and technology can be a barrier to implementing effective quality control. To reduce these costs, hotels should consider using automated monitoring systems, engaging external auditors only for critical checks, and regularly upskilling staff through online training. Insufficient staff motivation confirms that – even with effective control systems – service quality can suffer if staff are not interested in their work. To increase motivation, you should use tangible and intangible incentives, such as bonuses for good guest reviews, career opportunities, and recognition of achievements.

It's important to have reliable technical support and contingency plans to minimize technical failures' impact on service quality.

Training frontline staff in quick problem-solving skills and high levels of communication is key to avoiding negative guest experiences. Room service is another challenge, as housekeeping staff often work independently, and quality control is challenging. Cleaning checklists and random checks can improve quality and reduce complaints.

Restaurant service is also one of the critical aspects of service, as a negative experience in a restaurant can affect a guest's overall impression of a hotel. It is important to have clear quality standards for restaurant services and the ability for management to intervene quickly to correct situations that arise.

Thus, each problem area requires careful attention and a clear action plan to maintain a high level of service and competitiveness of hotel services. Considering these limitations, a systematic approach to quality control will help hotels meet their guests' needs and improve their stay. The existing limitations highlight the importance of a comprehensive and systematic approach to quality management in the hotel business, including standardization and monitoring, continuous improvement, and adaptation to changing conditions.

1.3. Improving the competitiveness of Ukrainian restaurant business establishments

It is known that the primary reason for the success of any business, including the restaurant business, is the development and further improvement of its development strategy. It is important to clearly focus on the target audience, the types of services provided, and the specifics of the restaurant menu. Therefore, we propose the main directions for improving the competitiveness of Ukrainian restaurant business establishments (Fig. 1.2).

The quality of products and services is the main factor that affects a restaurant's reputation and ensures its competitiveness.
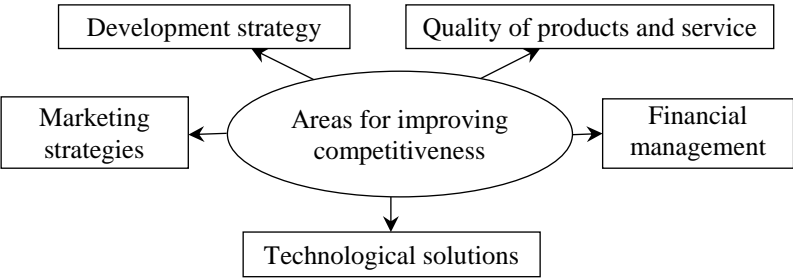
Figure 1.2 – Directions for improving the competitiveness of restaurant business establishments (created by the author)

Delicious food, professional service, and a pleasant atmosphere make a restaurant a desirable location for customers. Restaurants need effective marketing strategies to attract new customers and

retain their existing audience. This can include advertising campaigns, participation in community events, promotions, discounts, loyalty programs, etc.

Effective financial management, including control over the cost of ingredients, staff salaries, and rent, can affect the competitiveness of a restaurant. It is also advisable to consider obtaining financial support through investments or loans.

In today's world, it is important to use technology to improve customer service, resource management, and data analysis. This can include using restaurant management software, online table booking, mobile apps for ordering food, and more.

Thus, the restaurant business's success is determined by several factors, including product and service quality, effective management, marketing strategies, and modern technologies.

Implementing a restaurant development strategy involves several key steps and actions that help ensure the success and competitiveness of the establishment. Therefore, we offer a plan for developing a restaurant development strategy in Ukraine (Table 1.3).

Table 1.3 – Plan for developing a restaurant competitiveness strategy (systematized by the author)

Stages	Actions
Market and competitor analysis	The strategy development process starts with a detailed analysis of the restaurant business market and its competitors. It is important to study the demand for restaurant services, identify the target audience, and assess the strengths and weaknesses of competitors
Defining goals and objectives	Based on the analysis, specific goals and objectives are set for the restaurant. They include expanding the customer base, increasing turnover, improving the quality of service, etc.
Formulating a strategy	Once the goals are set, we develop a strategy that identifies ways to achieve them. We choose a plan to increase our market presence and expand our product range

Stages	Actions
Development of a marketing plan	It includes promoting a restaurant, attracting new customers, retaining the existing audience, using social media, advertising campaigns, etc.
Resource management	To successfully implement a development strategy, managing resources, such as finance, personnel, raw materials, and equipment, is important. This includes cost optimization, staff training, and technology to automate processes
Monitoring and evaluation of results	After implementing a development strategy, monitoring and evaluating the results continuously is important. This allows you to identify problems in time, adjust the strategy and ensure the sustainable development of the restaurant

By implementing the stages of the plan and actions, the restaurant can successfully implement its development strategy and achieve the desired goals.

Marketing strategies play an important role in attracting new customers to a restaurant and retaining old ones. To increase the competitive advantages of the restaurant, we offer the following marketing strategies (Table 1.4).

Table 1.4 – Proposals for restaurant marketing strategies (systematized by the author)

Name of the strategy	Actions
Promotions and discounts	Introduce attractive promotions, such as discounts on certain dishes or special offers for customer groups (discounts for students or pensioners). This will help attract new customers and encourage old ones to return
Loyalty programs	Developing loyalty programs where customers receive bonuses or discounts for each visit to the restaurant will help retain old customers and increase their activity

Name of the strategy	Actions
Online presence	Use modern online channels for promotion: social media, websites, and food ordering apps. Improving an attractive Instagram profile with photos of dishes and the restaurant's atmosphere can attract new customers
Participation in local events and community	Active participation in local events and festivals and sponsorship of events can help attract new customers and increase the restaurant's visibility in the community
Content marketing	Creating interesting and useful content, such as cooking blogs, recipes, wine tips, etc., can attract new audiences and retain existing customers
Reviews and ratings	Maintaining positive reviews and high ratings on various platforms (e.g. Google Maps, TripAdvisor) can positively influence new customers' decision-making when choosing a restaurant

Marketing strategies can be effective both in attracting new customers and retaining old ones, as they stimulate interest and engagement with the restaurant's products and services.

Maintaining positive reviews and high ratings on platforms such as Google Maps, TripAdvisor, and others is a key aspect of successful restaurant marketing. This can have a significant impact on new customers' decision-making when choosing a restaurant, with subsequent positive effects:

"Trust and confidence". Positive reviews and high ratings build trust among potential customers. When people see that others are happy with their visit to a restaurant and rate it highly, they feel more confident in their choice.

"First impressions". Reviews and ratings are often the first source of information for customers considering restaurants to visit. Positive reviews can create positive first impressions, which is an important factor in choosing a place for dinner or lunch.

"Increased attractiveness". Highly rated restaurants attract more attention from potential customers. They are considered more attractive to visitors looking for guaranteed quality and satisfaction.

"Advertising effect". Positive reviews and high ratings can act as free advertising for a restaurant. Other people who see these reviews may be more inclined to try the establishment.

"Increased competitiveness". A restaurant with a high rating has an advantage over its competitors, especially in the gastronomy sector, where reputation and quality of service are important.

To maintain positive reviews and a high rating, a restaurant can use the following strategies:

− ensuring excellent quality of service and food;

− active interaction with customers, responding to their feedback;

− inviting customers to leave feedback and ratings on various online platforms;

− organizing promotions and events for regular customers who may be encouraged to leave positive feedback.

All of these strategies contribute to a positive impression of the restaurant and motivate customers to share their experiences, which helps increase the restaurant's attractiveness to new customers.

The quality of products and services significantly impacts a restaurant's image. These components are the main factors determining customer satisfaction and creating their first impression of the visit (Fig. 1.3).
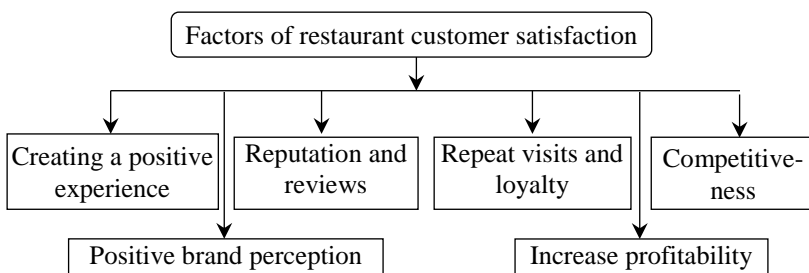
Figure 1.3 – Factors that determine the satisfaction of restaurant customers (systematised by the author)

High-quality food and professional service help create a positive experience for customers. This makes the restaurant attractive for repeat visits and positive recommendations.

The quality of the product and service is reflected in reviews and ratings on online platforms. Positive reviews help to improve the restaurant's reputation and increase its attractiveness to customers.

Customers who have had a great experience in a restaurant tend to return repeatedly. This helps to increase customer loyalty and build a stable customer base.

Restaurants with high-quality products and services are competitive in the market. They stand out from other establishments and can attract more customers.

Product quality and service are key elements in creating a positive perception of a restaurant's brand. They shape customers' perceptions of the establishment and influence their emotions and impressions.

Restaurants with high product and service quality can potentially increase profitability by charging higher service prices and growing turnover.

Thus, product and service quality is key in shaping a restaurant's image. They determine the reputation, customer loyalty, competitiveness, and success of the establishment as a whole.

A positive perception of a restaurant's brand is formed through an integrated branding and customer service approach. Therefore, we suggest focusing on the key areas contributing to creating a positive perception of the restaurant brand (Table 1.5).

Table 1.5 – Areas that contribute to the creation of a positive perception of the restaurant brand (systematized by the author)

Direction	Essence
A unique concept	Improve the restaurant concept through uniqueness. This can include changing the specifics of the cuisine, service features, atmosphere, and design of the premises. Uniqueness helps to stand out from the competition and attract customers' attention

Direction	Essence
Creating a unique experience	High-quality food and professional service are the basis of a positive brand perception. Customers rate the quality of the product, its taste and presentation, and the friendliness and efficiency of the staff
Creating a unique experience	The brand creates a unique experience for customers that includes food, atmosphere, music, location, themed events, and various services (e.g., tastings, masterclasses, etc.)
Emotional connection	Creating an emotional connection with customers helps to strengthen positive brand perceptions. This is achieved through a personalized service approach, customer feedback responsiveness, shared values, and brand identification
Marketing efforts	An effective marketing strategy helps to maintain and enhance positive brand perception. This includes advertising campaigns, community engagement, social media, organizing promotions and events, etc.
Continuous development	The restaurant constantly evolves and improves its services to meet customers' changing needs and remain relevant in the market

The proposed areas help create a positive perception of the restaurant brand, attracting new customers and increasing loyalty and business stability.

To understand which segmentation is more in demand for a restaurant in the face of fierce competition, crisis, and military aggression, it is necessary to rethink which client you need to work with.

The most popular segmentation for restaurant services may depend on the specific market, location of the restaurant, its concept, and target audience. However, demographic and behavioral segmentation is usually crucial and in demand for the restaurant business. Therefore, look at each segmentation type and how to conduct it for a restaurant (Table 1.6).

Table 1.6 – Segmentation of restaurant services (systematized by the author)

View	Essence
1. Demographic segmentation	
Age	A restaurant can segment its audience by age, for example, a youth restaurant for young people or a restaurant for pensioners
Gender	Restaurants focus on a specific gender, for example, restaurants for women or men
Income	Segmentation by income level helps to understand which customers can afford to spend money on higher-end services and menus
Education	The restaurant can work with students or business people, depending on their level of education and needs
Marital status	Family restaurants often focus on families with children who are looking for children's menus and a friendly atmosphere
2. Behavioral segmentation	
Frequency of visits	A restaurant can segment customers by the frequency of visits, for example, regular customers who frequent the establishment and infrequent customers
Food preferences	Segmentation by food preferences allows you to create special menus for vegetarians, vegans, meat lovers, etc.
Lifestyle	Restaurants can work with customers who care about healthy lifestyles, environmental aspects, or cultural events

To conduct segmentation, a restaurant can use the following methods:

✓ Customer data analysis. Collection and analysis of customer data on age, gender, income, food preferences, frequency of visits, etc.

✓ Surveys and focus groups. Surveys and focus groups help to understand the preferences, lifestyles, and needs of different customer groups. These methods include conducting customer

surveys to collect data on their food preferences, frequency of visits, and other parameters and organizing focus groups to discuss thematic aspects.

In addition, it is important to use analytical tools such as CRM systems to collect and analyze customer data, their purchases, and feedback. This allows the restaurant to create personalized offers and promotions for different audience segments.

For example, a restaurant can use additional bonuses for regular customers who visit the establishment with large groups of friends or family. Special offers can also be developed for students or young people focusing on more affordable prices and a fun atmosphere.

Combining these methods will help the restaurant effectively segment its market and provide more personalized services for each audience segment.

For this purpose, survey questionnaires have been developed for individual customer segments.

A. Questionnaire for the Family Clients segment:
1. How often do you visit restaurants with your family?
- Regularly _____
- Several times a month _____
- Several times a year _____
- Rarely_____
2. What aspects are the most important when choosing a restaurant for your family? (Please select all that apply)
- Children's menu and facilities for children _____
- Friendly atmosphere _____
- Spaciousness and comfortable location _____
- Entertainment for children _____
- Reasonable prices _____
- Quality of food and service _____
3. What dishes or cuisines do you value most when dining out with your family?
_____

4. Is it important for you to have special offers or promotions for children or families?
_____

The following questionnaire was developed for the "Youth"/ "Students" segment

B. Questionnaire for the Youth/Students segment:

1. How often do you visit restaurants with friends?
- Regularly _____
- Several times a month _____
- Several times a year _____
- Rarely _____

2. What types of restaurants do you visit most often?
- Bistro/café _____
- Fast food restaurants _____
- Restaurants with different cuisines _____
- Restaurants with live music or entertainment ____

3. Which aspects of the restaurant are the most important to you? (Please select all that apply)
- Youthful atmosphere _____
- Menu with fast food_____
- Reasonable prices_____
- Availability of soft drinks and cocktails _____
- Location and convenient access_____
- Offers for students (discounts, promotions, etc.) __

C. Questionnaire for the segment 'Gourmets/Gourmet Cuisine Connoisseurs':

1. How often do you visit restaurants with special cuisine or gastronomic dishes?
- Regularly _____
- Several times a month _____
- Several times a year _____
- Rarely_____

2. What types of cuisine do you appreciate the most?
- French _____
- Italian _____
- Japanese _____
- Traditional local cuisine_____
- Other (specify)_____

**Table 1.7 – Marketing innovations to increase the competiti-
veness of the restaurant (systematized by the author)**

Title, example	Rationale
1. Customer loyalty system	
Example: A loyalty program with increased cashback or discounts for regular customers	The program encourages repeat customer visits, increasing their dependence on the restaurant
2. Online sales and delivery	
Example: An online food ordering and delivery platform	This will attract new customers, especially those looking for convenience and speed in ordering food
3. Social media and content marketing	
Example: Active presence on social media with posts about new dishes, promotions, and special offers.	Social media helps attract the attention of new customers and retain the interest of those already familiar with the restaurant
4. Expanding the range of products and innovative dishes	
Example: Adding exotic dishes or a vegan/vegetarian menu	New dishes attract attention and expand the restaurant's audience, including those who have not previously paid attention to your establishment

Each example in the table has its advantages depending on the conditions.

We offer a "Loyalty program with increased cashback or discounts for regular restaurant customers".

The name of the program: "Tasty Bonus".

Terms of the program:

1. Increased cashback: Every time a regular customer makes a purchase in a restaurant, he or she receives 10% of the order value in his or her bonus account.

2. Discounts for subsequent visits: After accumulating a certain number of points (100 points) on the bonus account, the customer can receive an additional discount, such as 20% off the next order or free desserts.

Benefits for customers:

✓ Repeat visits to the restaurant to receive cashback and discounts are encouraged.

✓ Customers feel important and valuable to the business, which increases their loyalty.

✓ Opportunity to receive additional benefits for activity and loyalty.

Benefits for the restaurant:

✓ Increase in repeat visits and sales through loyalty incentives.

✓ Improving the restaurant's image as customer-oriented and grateful to its regular customers.

✓ Gathering customer information for further personalised marketing and increasing the effectiveness of offers.

The terms of a loyalty programme may vary depending on the business's goals, target audience, and local conditions.

We offer platforms for online food ordering and delivery:

1. Uber Eats:

Uber Eats is a popular international platform where customers can order food from various restaurants and have it delivered directly to their door.

Rationale: Uber Eats has a large user base and partners in many cities, allowing restaurants to attract new customers and expand their reach.

2. Glovo:

Glovo is an international platform for ordering food and other goods from local shops and restaurants for delivery.

Rationale: Glovo allows restaurants to include their offerings and other services, which can attract a diverse audience.

These platforms can be effective tools for restaurants to expand their audience and increase sales through online ordering and delivery. The choice of platform is influenced by the geographical location of the restaurant, its target audience, and other factors, so it is necessary to discuss this carefully before choosing a platform.

Conclusions to chapter 1

Thus, competition forces enterprises to regularly monitor changes in the market and the cost of resources and improve the quality of

products and services offered on the market to strengthen their competitiveness. It is the unique assets and special competence in important areas of activity for an enterprise that provide the basis for competitive advantages, which are implemented through the strategic units of the enterprise and are the basis of its business strategy.

Approaches to assessing the competitiveness of the hotel and restaurant business are substantiated. It is determined that they have grounds for use due to their compliance with the tasks set by scientists to achieve the research objectives.

In the process of planning the development of hotel and restaurant business, it is proposed to consider not only the assessment of the level of competitiveness, but also the factors that influence this level.

The directions, plan and strategies for increasing the competitiveness of a restaurant are proposed. Platforms for ordering food online and its delivery are envisaged, which can be effective tools for restaurants in terms of expanding their audience and increasing sales.

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CHAPTER 2
IMPLEMENTING INTERNATIONAL STANDARDS ON THE QUALITY OF SERVICE IN HOTEL AND RESTAURANTS

2.1. Concept of service quality

The hotel business attracts Ukrainian entrepreneurs with small initial investments, a quick payback period, constant demand for services, and a high level of profitability of the costs incurred.

The problem of the quality of hotel services is very relevant for hotels in a market economy, because those hotels that do not pay attention to quality assurance are doomed to bankruptcy. Any investment in the modernization of hotels is appropriate only if the hotel will provide quality services that will be in demand among consumers.

The concept of service quality in hotels and restaurants is a comprehensive approach aimed at meeting the needs of customers, exceeding their expectations and creating unforgettable impressions from their stay. It is not just providing services, but creating an atmosphere of comfort, care and an individual approach to each guest.

The quality of service is not just a fashion trend, but a necessary element of the success of any business. By investing in service quality, companies not only increase their competitiveness, but also build long-term relationships with customers [4].

The quality of hotel services must meet established standards. The content and form of the standards are the criteria for quality customer service. The criteria for evaluating the quality of hotel services for the client include the degree of his satisfaction, that is, it is the correspondence between what was expected and what was received. The criterion of customer satisfaction is the desire to visit

and recommend the hotel again and to attract more customers to the hotel, for example among acquaintances and relatives [2].

The main document that defines the relationship between the staff, the administration of the hotel enterprise and consumers is the document – "Rules for the provision of hotel services", which were developed in accordance with the legislation of Ukraine. Regarding the rules for providing hotel services, the quality of services must always comply with the terms of the signed contract, and if the contract is absent or insufficiently substantiated, with the requirements for a certain type of service.

The following factors affect the quality of service in hotels:

− material and technical base, i.e. convenient planning and high-quality decoration of premises, quality of linen, modern tele-communications, furniture;

− the technology of the service itself;

− high professionalism and competence of service personnel;

− service quality management, which involves the development and implementation of service quality standards, control, adjustment, staff training, service improvement through the step-by-step deve-lopment of a well-thought-out effective organizational management structure [8].

Quality management also involves the presence of management systems in the hotel that control the organization and provision of services:

− the very system of personnel selection and training. The hotel administration should organize a personnel service that will ensure the selection of employees with the necessary knowledge and information, who have the skills to provide services, namely of high quality, and constantly monitor their promotion;

− quality control system, standardization of the offered services. When developing hotel service standards, owners and managers should clearly establish the goal of standardization. Also, the standards should be flexible and meet the requirements and wishes of customers;

− the customer satisfaction control system should include the analysis of consumer complaints and suggestions, as well as a comparison of the quality of competitors' services with the quality of the hotel's own service offer.

Effective management of the quality of services in hotels involves the creation of an effective system of strategic planning, constant improvement of the quality of services, compliance with the established norms and standards of service, a system of control of the offered services [13].

In promising scientific research, it is advisable to focus on the development of practical tools for the implementation of European-style service quality management systems in the restaurant and hotel business, which will stimulate the intensive development of the industry in the period of post-war recovery [10].

Under the conditions of active integration of Ukraine into the system of international economic relations, the goal of forming competitiveness in the international market is formed for the companies of the hospitality industry. Achievement of this goal is possible by ensuring a high level of quality of hotel and restaurant services, which will contribute to the intensification of the competitiveness of companies using a system of international standards and rules. However, today the companies of the hospitality industry of Ukraine operate in the crisis conditions of wartime and socio-economic instability, which negatively affects the management of the quality of services. The process of developing an optimized plan for the development of hospitality industry enterprises in an unfavorable economic environment requires the implementation of ISO 9000 standards and a total quality management (TQM) strategy, which are seen as the basis for improving the quality of services in the researched field of activity. Analysis of the latest research and publications.

The problems of the quality of services in the hotel and restaurant industry and the methodology of its management are studied by a number of modern scientists. In particular, it is worth highlighting the works of L. Chepurd and others [1], O. Morgulets [2],

M. Korobkina [2], P. Wofsey [2], V. Ali [3] et al., S. Mahsyar [4], U. Surapati [4], M. Waqanimaravu [5], C. Arasanmi [5], who investigate general theoretical, methodological and practical aspects of service quality management. Studies of methodological concepts for improving quality management systems are implemented by M. Zibarzani [6] et al., A. Parasuraman [7; 8], A. Elshaer [9], A. Marzouk [9], A. Khan [10] et al. At the same time, the issues of ensuring the compliance of product quality with international standards in the field of tourism and hospitality of our country, to some extent, remain fragmentarily studied.

The quality of service is one of the key factors determining the success of hotel and restaurant businesses. In today's conditions of growing competition, changing consumer demands and high customer requirements for the level of service, hospitality enterprises are forced to constantly improve their services. This is especially important in the context of globalization and digitalization, when access to information on the quality of service is becoming more open and accessible to a wide range of consumers [8].

The growing requirements for the quality of service are also due to the fact that a positive customer experience directly affects their loyalty, willingness to recommend the establishment to others, and the overall brand image. In this regard, the study of the quality of service in hotels and restaurants is important and relevant, as it allows you to identify the main problems and find effective ways to solve them [18].

The concept of quality of service has come a long way, closely related to the evolution of the service market. In the twentieth century, increasing competition and the growing role of services in the global economy highlighted the importance of service quality for the success of enterprises [4].

The early stages of the development of the concept of service quality were focused on satisfying the basic needs of consumers. It was an era when the enterprise primarily sought to ensure that products and services met certain standards that guaranteed their suitability for use given in Table. 2.1.

Table 2.1 – From Meeting Needs to Creating Value

Meeting Needs	Exceeding expectations	Value Creation
The early stages of the development of the concept of quality of service focused on meeting the basic needs of customers. Businesses have strived to provide products and services in accordance with standards, ensuring a minimum level of quality	Over time, businesses have begun to realize that in order to achieve competitive advantage, it is necessary not only to meet the needs but also to exceed customer expectations. This meant providing quality services that went beyond standards	A modern approach to quality of service focuses on creating value for customers. This means under-standing their needs and wants, developing customized solutions, and providing a positive interaction experience

Although the early stages of the development of the concept of service quality were less of a foundation, the modern approach to quality is much higher and deeper. Today, quality is not just compliance with standards, but a set of measures aimed at creating maximum value for the client [8].

Over time, this concept has evolved, evolving from simply meeting basic customer needs to a holistic approach that takes into account emotional intelligence, personalization, and creating value for consumers.

2.2. The Role of Emotional Intelligence in Service

Empathy – The ability to understand and feel customers' emotions is a key element of successful service. Empathy allows employees to respond appropriately to customer needs, build trust, and create a positive interaction experience.

Communication – Effective communication is a prerequisite for successful service. Employees must possess clear and understandable communication skills, the ability to actively listen, and provide feedback.

Managing emotions – The ability to manage one's own emotions is an essential component of effective service. Employees who know

how to stay calm and control their emotions, even in difficult situations, can provide calm and professional service.

Personalization of service has become one of the key success factors in modern business, especially in the field of hospitality is shown in the Table 2.2.

Table 2.2 – Personalization as a key factor

Individual approach	Personalization technologies	Ethical aspects
Personalization involves providing a personalized service experience that takes into account the needs and preferences of each customer. This allows you to increase customer satisfaction, increase loyalty, and reduce customer churn	Modern technologies provide enterprises with new opportunities for personalization of service. Through customer data analysis, the use of artificial intelligence, and other tools, businesses can provide customized recommendations, offers, and content	It's important to keep in mind the ethical aspects of personalization. Businesses must be transparent in their use of customer data and ensure its confidentiality

Personalizing service is not just a trend, but a necessity for any establishment that wants to succeed. It allows you to create an emotional connection with customers, increase loyalty and ensure long-term business success.

Chatbots provide instant assistance to customers by answering their questions, providing information and managing problem situations.

Data analytics helps businesses understand customer needs, predict their actions, improve service processes and create customized offers [14].

Online platforms allow customers to place orders, pay for services, receive assistance and communicate with the company at any time and from any place.

Artificial intelligence is used to automate processes, provide personalized recommendations, predict customer needs and improve service efficiency (Fig. 2.1).
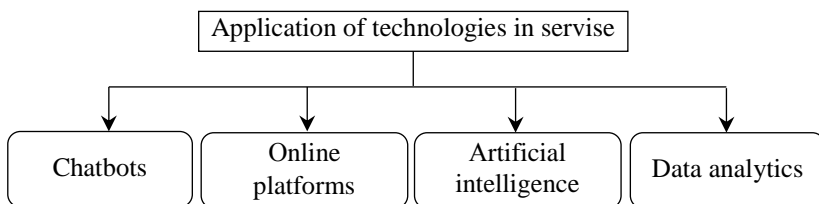
Figure 2.1 – Application of technologies in service
Dzherelo: the author's dismay

Measuring service quality is an integral part of successful hotel and restaurant management. This allows not only to assess the level of customer satisfaction, but also to identify weak points and develop effective strategies for their elimination described in the Table 2.3.

Employee training is not just an expense, but an investment in the company's future. It allows to increase work efficiency, improve the quality of services and strengthen corporate culture.

Employee training is a continuous process. Companies that invest in the development of their employees gain a competitive advantage and achieve greater success [10].

Table 2.3 – Service Quality Measurement

Indicator	Description
Customer Satisfaction Index (CSI)	Measures customer satisfaction with services
Customer Reviews	Collects and analyzes customer feedback on the quality of services
Request processing time	Measures the time it takes to process customer requests
Problem Resolution Rate	Measures the number of successfully resolved customer issues

Training of employees:

✓ Skills training – withhalf-workers must have proper customer service skills, including effective communication, problem resolution, and conflict management;

✓ Developing Emotional Intelligence – Todevelop the emotional intelligence of employees, in terms of emotional awareness, empathy and the ability to create positive relationships with customers;

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✓ Feedback – Providing feedback helps employees assess their skills, identify areas for improvement, and increase their level of competence.

The historical development of the concept of quality of service is associated with the general development of the service market. Since the middle of the twentieth century, the growth of competition and the increasing role of services in the world economy have led to the realization of the importance of quality of service for the successful functioning of enterprises [3].

The first attempts at a scientific approach to determining the quality of service appeared in the 1970s, when it was proposed to consider quality as the compliance of services with specified standards. In the 1980s, the SERVQUAL model was developed, which is based on measuring the difference between customer expectations and their actual experience. This model has become one of the key models for the further development of the theory of quality of service.

In the 1990s, new approaches to quality emerged that took into account the emotional aspects of customer interactions, such as creating a positive impression and satisfying aesthetic needs. At the beginning of the 21st century, the quality of service began to be considered as a strategic factor in the development of enterprises, which requires constant monitoring and improvement [8].

The theory and practice of quality management in its historical development has gone through several stages, each of which has its own characteristics and patterns of formation. The essence of each of the main stages of the development of quality management is considered below [10].

1. Individual quality control was used in enterprises until the end of the nineteenth century. Responsible for the manufacture of products were one worker or a group who could independently control the results of their production activities, their work was determined by given models in the form of drawings, drawings, templates, etc., which testified to the transition of enterprises from the handicraft to the industrial stage of production, since the latter was characterized by the fact that the quality corresponded to the

ability of workers to analyze the compliance of the results of their work with the given models.

2. Shop quality control originated at the beginning of the twentieth century, the impetus for which was the development of industry and a deeper division of labor in the middle of the production process of enterprises. Responsibility for quality was distributed between individual employees and shop managers, the latter were responsible for the quality result of the workshop and determined the general requirements for product quality.

3. Acceptance quality control began to be used at enterprises in the first half of the twentieth century, since the introduction of mass production and an increase in the volume of output products became the impetus for the separation of technical control from production operations. At industrial enterprises, separate technical control services were organized.

4. Statistical quality control has become a solution to the problem of ensuring the quality of production processes at enterprises. Already at the beginning of the twentieth century. the world-famous American scientist W. Shewhart and the American specialist in the field of quality, academician of the International Academy of Quality J. S. Shewhart. Juran developed and put into practice a statistical method of quality control, which was based on the use of a control chart with control limits (Shewhart map). It was envisaged to sequentially plot the results of measurements on a special map in the form of average values, on the basis of which a series of graphic images was developed, with changes that occurred in the process, this helped to determine the departure of parameters beyond the statistical control limits and the detection of non-random deviations.

Also, this stage is characterized by the transition from general quality control to selective quality control, during the latter, control data were selected according to the plan in the production process at the enterprise, which were further processed by the method of mathematical statistics. However, this type of control spread slowly, quality control was carried out within the workshops and could not solve significant quality problems at enterprises.

5. Technical quality control was actively used in the 60s. Twentieth century. In order to achieve the required level of product quality at the enterprises, new structures of technical control services were created, which focused on minimizing the cost of product quality while maintaining energy and material intensity and on increasing the volume of manufactured products. Quality control has become a sphere of specialized activity focused on quality regulation, analysis and identification of the causes of product defects, development of measures to eliminate identified defects and preventive measures, for which special quality management services began to be created [10].

Already at the end of the 40s. Twentieth century. The competitive environment became tougher, the pace of scientific and technological progress increased rapidly, which prompted industry managers to take a different look at product quality. Thus, a logical transition from traditional product quality control to quality management was made, which became a fundamentally new phenomenon, because enterprises set themselves the task of developing and implementing preventive actions to prevent the occurrence of product defects, and not to detect these defects at the time of production.

6. Integrated quality management became widespread in the 60s. The author of the concept was the American expert on quality control A. Feigenbaum. The purpose of the new concept was to orient the entire system of measures at the enterprise to achieve the level of product quality that was planned, this approach accumulated elements of technical and organizational management, which made it possible to increase the level of product quality and at the same time reduce the cost of it. Integrated quality management was a supplement to statistical quality control tools in the form of methods for accumulating information on quality, standardization, certification, labor motivation, etc.

7. The concepts of TQC (Total Quality Control) in the USA and CWQC (Company-Wide Quality Management) in Japan were formulated in the 60s and 70s. Twentieth century and relied on the general methodology of integrated quality management, acting as new specific organizational approaches to quality management at the

enterprise level. The concept of TQC was a quality management system that applies to all areas of activity of enterprises, and provides for the solution of the problem of quality at the enterprise not only by management, but also by structured administrative units specializing exclusively in the field of product quality assurance at the enterprise.

8. Quality assurance based on ISO 9000 standards began in the late 80s. Twentieth century. According to the new methodology, effective and efficient quality management systems are created at enterprises that meet the provisions of the above international standards and act as a kind of guarantee of maximum satisfaction of existing consumer requirements. Since the 90s. Twentieth century industry versions of international standards in the field of quality are being created, international standards of the ISO 14000 series are being developed, in the provisions of which the requirements for the system of environmental quality management at enterprises are fixed.

This stage is also characterized by the active application of the Total Quality Management (TQM) concept at enterprises, the basic principles of which are the basis of international standards ISO 9000, as well as the basis of the model of self-assessment of organizations' activities for compliance with the criteria of quality premiums [1].

9. Integrated quality management systems are characterized by a tendency to develop at the beginning of the XXI century and are based on the synthesis of various models of quality management systems (ISO 9000, ISO 14000, industry versions of international standards in the field of quality management, HACCP systems) used in enterprises. The development of this trend testifies to the integration of the quality management system into the overall quality management system of enterprises in order to increase its efficiency and effectiveness [10].

SERVQUAL model: This is one of the most popular tools for assessing the quality of service. The model evaluates quality based on five dimensions: material elements, reliability, helpfulness, confidence, and empathy. Measurement is done by comparing customer expectations with their actual experience.

SERVPERF Model: This approach is an improvement on the SERVQUAL model and emphasizes measuring only the actual performance of services, without taking into account customer expectations. It is believed that this model gives a more objective assessment of the quality of service.

Critical Incident Theory: At the heart of this theory is the analysis of specific situations that have had a significant impact on customer satisfaction. The critical incident method allows you to identify the most important aspects of service that need improvement [8].

Kano Model: This model divides all the characteristics of the quality of service into three categories: basic (necessary), expected, and exciting (those that exceed customer expectations). The Kano model helps businesses prioritize service quality improvements [4].

Six Sigma: An approach that aims to minimize defects in service delivery and improve overall efficiency. This methodology is based on statistical analysis of processes and is focused on achieving high quality of service by reducing variability [14].

Providing services in hotels is a complex and multifaceted process that includes various aspects of interaction with guests. The hotel business deals with customers who expect a high level of comfort and an individual approach.

The peculiarity of hotel services is their comprehensive nature, which includes not only accommodation, but also the provision of additional services, such as food, transport, organization of events, sports and health services.

The main features of the provision of services in hotels include:

− Individual approach. Hotels must tailor their services to the individual needs of each guest, taking into account their wishes, cultural characteristics and specific requirements.

− Continuity of services. Hotels provide 24/7 services, which requires the staff to be constantly ready to respond to guests' requests at all times.

− Interactivity of service. The quality of service depends on constant interaction between staff and guests, including friendliness, courtesy, professionalism and speed of response [8].

− Intangible nature of services. Hotel services are difficult to measure or evaluate before they are received, making the quality of service a crucial factor in creating a positive impression.

− Quality standards in the hospitality industry are established norms and guidelines that define the minimum requirements for the level of service and infrastructure. These standards can be international, national, or domestic, developed by the hotel itself or by a hotel chain.

− International Standards. The most well-known standard is ISO 9001, which deals with quality management systems and is used in various industries, including the hotel industry. Compliance with this standard provides a systematic approach to service quality management.

− Star classification. In many countries, hotels are classified according to the number of stars, which determines the level of comfort and the range of services they provide. This classification includes requirements for accommodation, meals, additional services and quality of service.

− Internal standards. Many hotels and hotel chains develop their own quality standards, which may exceed generally accepted norms. Such standards may include requirements for room design, staff code of conduct, guest procedures, and more.

− Service Quality Certification. In addition to general standards, hotels can obtain certificates of compliance with specific service quality criteria, such as Green Key Environmental Certification, which defines standards for environmentally responsible hotel management.

− Evaluating the quality of service in hotels is critical to ensure customer satisfaction and maintain a high level of service. There are several methods that allow you to effectively assess the quality of service.

− Questionnaires and customer surveys. One of the most common methods that allows you to get feedback from guests about their experience at the hotel. Surveys can be conducted in the form of questionnaires completed during or after the stay, or through online platforms and social networks.

‒ Mystery Shopping. This method consists in the use of specially trained persons who, under the guise of ordinary guests, evaluate the level of service, compliance with quality standards and the professionalism of the staff. This allows you to get objective information about the real state of affairs in the hotel.

‒ Analysis of online reviews. Modern technologies make it possible to analyze customer reviews on various online platforms, such as TripAdvisor, Google Reviews, Booking.com, etc. This makes it possible to identify both the strengths and problematic aspects of the service.

‒ Key Performance Indicators (KPIs). Hotels can use a set of specific metrics to measure service quality, such as customer satisfaction, repeat visits, average response time, etc. Analysis of these indicators allows hotel management to identify problems in a timely manner and take measures to eliminate them.

‒ Case studies and incident analysis. Analysis of specific cases or incidents that occurred during service allows to analyze problems in detail and develop recommendations for improving the quality of services.

The application of these methods allows hotels not only to maintain a high level of service, but also to constantly improve it, taking into account the changing needs and expectations of customers.

Evaluation of the quality of service in hotels is a multifaceted process that requires the use of various methods. Each method has its advantages and disadvantages, so it is important to understand when and which method to use is given in the Table 2.4.

The table clearly shows different approaches to evaluating the quality of service in hotels, their advantages and disadvantages.

International service quality standards play a key role in the formation of a high level of service in the hotel and restaurant industry.

They establish certain criteria that establishments must meet in order to ensure maximum comfort and satisfaction of guests' needs [3].

Table 2.4 – Comparison of different methods of assessing the quality of service in hotels

Service quality assessment method	Description	Advantages	Disadvantages
Questionnaires and customer surveys	Collecting feedback from guests through questionnaires or online surveys	Direct feedback; the ability to identify customer needs	Subjectivity of answers; low response rate
Mystery Shopping	Specially trained persons assess the quality of service, masquerading as ordinary guests	Objectivity of assessment; ability to check service standards	High cost; limited number of observations
Analysis of feedback on the network	Analysis of customer reviews on online platforms and social networks	Large volume of data; the possibility of identifying general trends	Impossibility of control over the authenticity of reviews; subjectivity
Key Performance Indicators (KPI)	Use of specific indicators to measure service quality	Clear, measurable indicators; possibility of regular monitoring	The possibility of missing important aspects of service that are not taken into account by KPIs
Case studies and incident analysis	Analysis of specific cases to identify problematic aspects of service	Deep analysis of problems; the possibility of developing specific recommendations	Requires time; does not take into account the overall picture of service quality

Evaluation of the quality of service in hotels is a multifaceted process that requires the use of various methods. Each method has its advantages and disadvantages, so it is important to understand when and which method to use is given in the Table 2.5.

Table 2.5 – Why international standards are important

Advantage of international standards	Explanation
Single movable code	Standards create a consistent language for all market participants, regardless of the region or culture
Increased competitiveness	Increasing standards allows mortgages to compete with competitors and gain more clients
Improved reputation	Certification of compliance with standards confirms the high level of service quality and promotes guest trust
Safety and security	Many standards include safety features that reduce the risk of unsafe situations
Improving the development of tourism	The high level of service in hotels and restaurants attracts tourists and fuels the development of the tourism industry

The table allows you to quickly and conveniently familiarize yourself with the main advantages of international standards.

Basic international standards in the hotel and restaurant industry.

ISO 9001: Quality management systems. This standard establishes requirements for a quality management system that enables an organization to demonstrate its ability to consistently provide products and services that meet customer requirements and applicable legal requirements.

HACCP: Hazard Analysis and Critical Control Points. This standard is used to ensure food safety.

Green Globe: International environmental certification for tourism enterprises. This standard assesses the environmental and social aspects of the company's activities.

Star Rating: Star classification systems of hotels that allow you to assess the level of comfort and quality of services.

Quality management of hotel and restaurant services is positioned as one of the most influential components of the entire management mechanism of a modern company. In today's world, where

competition in the hotel and restaurant business is increasing day by day, quality management is a key success factor.

Satisfied customers are the foundation of any business, and the hotel and restaurant industry is no exception. This can only be achieved by implementing effective quality management systems that cover all stages of service delivery, from the first contact with the customer to the last impression [8].

2.3. Determination of quality standards

Quality standards in the hotel and restaurant business are a set of requirements, norms and criteria that determine the level of service, comfort and safety provided by guests. They serve as a guide for the staff, helping to ensure uniformly high quality of services and meet customer expectations.

There are international quality standards that can be used as a basis for developing your own standards. One of the most famous is the ISO 9001 standard, which sets requirements for a quality management system.

Defining and implementing quality standards is a long process that requires the involvement of all personnel of the institution. However, the results that can be achieved through this are worth the effort.

Defining quality standards is the process of establishing clear criteria that products or services must meet in order to meet customer needs and ensure consistent quality. In the hotel and restaurant business, quality standards determine the level of comfort, service and safety offered to guests.

Defining guest expectations is the first step to success. Analyze reviews, research the competition and gather information about the needs of the target audience. What is important for your guests: comfort, luxury, accessibility?

Define clear quality criteria for each service. For example, for a hotel room, it can be cleanliness, convenience, availability of necessary things. For a restaurant, it can be the quality of food, speed of service, atmosphere.

Establish clear quality standards for all services. Create detailed instructions and procedures for staff to follow. Standards should be flexible enough to accommodate the different needs of guests.

− Information gathering

Regularly collect information about the quality of services. Use questionnaires, reviews, observations, staff evaluations. It is important that the collection of information is systematic and objective.

− Data analysis

Analyze the collected information, identifying strengths and weaknesses. Determine which standards are being met and which need improvement. Pay attention to trends and patterns.

− Implementation of changes

Based on data analysis, implement necessary changes. Correct errors, improve procedures, train staff. It is important that any changes are consistent and effective [14].

Quality management in hotels is a complex process aimed at ensuring a high level of guest satisfaction and maintaining the institution's reputation. The use of various means and tools allows you to effectively control the quality of services and constantly improve it, as shown in the Table 2.6.

Table 2.6 – Application of quality management tools

Quality management systems	Feedback collection tools	Data analysis tools
Modern quality management systems help automate processes, track metrics, analyze data, and implement effective changes. 1. ISO 9001. 2. HACCP (for restaurants)	Use online questionnaires, reviews on websites, mobile applications, you can also introduce suggestion boxes	Modern tools allow you to visualize data, identify trends and obtain valuable results to improve the quality of services

The use of quality management tools in hotels is a necessary condition for success. A systematic approach to quality assurance allows not only to satisfy guests' needs, but also to create a competitive advantage in the market.

Effective quality management in the hotel and restaurant business is one of the most important factors affecting the profitability of the establishment. The quality of services is directly related to customer satisfaction, their loyalty and willingness to recommend the institution to others, as shown in the Table 2.7.

Table 2.7 – Impact of quality management on profit

Increasing guest satisfaction	Cost reduction	Increase in profit
The high quality of services attracts more guests who return again and again. This leads to an increase in sales	Effective quality management systems help reduce the number of errors, correct problems at early stages, which leads to savings	The combination of increased guest satisfaction and reduced costs leads to increased profits and improved financial performance

Quality management challenges:

− Constant changes in guests' expectations – insufficient staff training;

− Changes in technology – lack of a data collection and analysis system;

− Market competition – low level of staff motivation.

− The future of quality management:

− Automation – implementation of automated systems to improve efficiency, data collection and analysis;

− Data analytics – use of intelligent analysis to predict guest needs, optimize services and increase profitability;

− Personalization – provision of personalized services that meet the individual needs of each guest;

− Environmental friendliness – implementation of environmental standards and practices to reduce the impact on the environment.

International service quality standards play an important role in creating high standards of service in the hotel and restaurant business. They set certain standards that establishments must meet to ensure maximum comfort and guest satisfaction [4].

Quality management in the hotel and restaurant business has its nuances depending on the segment to which the establishment belongs. Let's consider some of them:

− Luxury hotels. The main focus is on an individual approach and exclusivity of services. Important interior details, personalized service, a wide range of additional services (spa, fitness centers, gourmet restaurants);

− Business hotels. The main focus is on comfort and convenience for business people. Fast internet, conference rooms, business center are important;

− Budget hotels. The main goal is to provide affordable housing with a minimum set of services. Quality is assessed by the ratio of price and quality;

− Apart-hotels. Combine the comfort of a hotel with the independence of apartments. An equipped kitchen, a laundry room, the possibility of long-term residence are important;

− Fine dining restaurants. Focus on product quality, complex recipes, exquisite service. The atmosphere and presentation of dishes are important;

− Fast food. The main goal is fast service and affordable prices. Quality is assessed by taste, speed of preparation and uniformity;

− Restaurants of national cuisine. It is important to preserve the authenticity of the dishes and atmosphere;

− Thematic cuisine restaurants. Focus on a certain culinary tradition (Italian, Japanese, etc.);

− Cafe. They usually offer a wide range of drinks, light snacks and desserts. Important atmosphere, fast service;

− Bars Focus on alcoholic drinks, cocktails and entertainment. Atmosphere, music, professional bartenders are important.

Quality management in the hotel and restaurant business is a complex process that requires an individual approach to each

segment. Different types of institutions have their own characteristics that influence the choice of quality management methods and tools, listed in the Table 2.8.

Table 2.8 – Specifics of quality management in different segments

Segment	Key aspects of quality
Luxury hotels	Individuality, exclusivity, detail
Business hotels	Comfort, functionality, speed of service
Budget hotels	Value for money, cleanliness, safety
Apart-hotels	Comfort of housing, independence, additional services
Fine cuisine restaurants	Quality of products, complexity of recipes, service
Fast food	Speed, uniformity, availability
Thematic cuisine restaurants	Specialization, atmosphere
Cafe	Atmosfera, a wide range of drinks and snacks
Bars	Alcoholic drinks, cocktails, entertainment

Regardless of the differences in segments, the underlying principles of capacity management remain unchanged: customer orientation, process standardization, capacity control, staff training and turnover collection. However, emphasis is placed in different ways depending on the specifics of the skin segment.

The field of hospitality is constantly developing, putting forward new requirements for the quality of services. In order to remain competitive, hotel and restaurant businesses must constantly improve their processes and implement innovative approaches to quality management, as shown in the Table 2.9.

Table 2.9 – Promising trends in the development of the concept of quality in the hotel and restaurant business

Trend	Detailed description	Example
Personalization	Creation of individual client profiles, dynamic pricing, personalized recommendations	Creation of a mobile add-on that informs the guest of their love even before arriving at the hotel

Trend	Detailed description	Example
Technologies	Development of robots, artificial intelligence, augmented and virtual reality	The use of robots for cleaning rooms, chatbots for customer service, virtual tours of the hotel
Durability	Environmental technologies, local products, social responsibility	The use of solar batteries to supply energy to the hotel, and cooperation with local farmers to supply food
Contactless technologies	Online registration, mobile apps, process automation	Possibility of opening room doors using an additional mobile phone, contactless payment
Individual evidence	Unique views, local flavor, personalized service packages	Organization of themed parties, culinary master classes, excursions around the place
Safety and health	High standards of hygiene, regular disinfection, non-contact technologies	The use of ultraviolet lamps for surface disinfection, the availability of antiseptics in urban areas

Additional trends that are important to understand:

− Growing a healthy diet – promoting vegan, vegetarian and gluten-free herbs;

− Development of the concept of "smart places" – integration of hotels and restaurants into the ecosystem of smart places;

− Individual prices – creation of packages of services for independent mandrivniks;

− Gnuchki plans: Proposition of Gnuchki and personalized living plans.

The new hotel and restaurant industry is associated with constant, thorough service, personalization, innovative technologies and a focus on sustainable development [12].

Projects that can adapt to these changes will be successful and in demand.

The automation management paradigm is understood as the totality of vectors for implementing the system's functions of global enterprise management, which means adapting the strategy for the purpose of the organization, as well as They are in practice using additional methods for planning capacity, its operational management and its continuous improvement.

At the current stage of development of companies in the hotel and restaurant industry, the category of services is surrounded by the concepts of reliability and efficiency.

At the same time, the quality of service in the hotel and restaurant industry is important to manage and control, which is due to the corruption of outdated management methods and ineffective behavior of personnel, lead to a low level of maintenance and disruption of the technological process of service delivery [8].

On the basis of such an algorithm, stable key problems in the control department are identified, including the presence of units that may result in poor service performance by staff and residents; ineffectiveness of communication processes; evaluating performance based on activity rather than performance; single-function hotel/restaurant management; Ignoring new management technologies.

Today, new trends in increasing the competitiveness of companies in the hotel and restaurant industry are being actively formed in the minds of the crisis phenomena of instability and crisis:

- globalization and market integration;
- service economy;
- deep personalization of service;
- development of innovative digital technologies [16].

Implementation of robotic software products, developments in mobile marketing and tools of artificial intelligence, for the development of the minds of advanced implementation and mandatory for the development of international standards, to ensure the necessary advancement of the marketsti hotel and restaurant services, consistent with significant economic development and maintaining a competitive position in the market [19].

The distributor of international standards in the ISO 9000 series is the ISO (International Organization for Standardization), which is a worldwide federation of national standardization bodies (member committees).

ISO 9000 series standards occupy a leading position in the international market, and the system for managing the system behind them is seen as a minimally necessary level of development for the company. The remaining version of the given standard is ISO 9001:2015.

Ukraine has adopted identical DSTU ISO 9001:2015 fluid control systems. As a representative of international evidence, as a result of the implementation of the international quality standard ISO 9001, the company's activities are optimized directly by division, internal organization and minimizing the number of managerial losses [18].

It is clear that the introduction of a power management system based on the ISO 9001 standard leads to a simplified system for the implementation of services and an increase in their capacity, optimization of corporate policy, and improved effective communication Information about employees, the formation of rational management decisions.

Effective battery systems, complementary to current market benefits, are integrated into the definition of global battery management (TQM). The ISO 9001 series of standards is based on a model of a paint management system that is close to the TQM ideology (Fig. 2.2).

As a result of the established TQM practice, the quality standards are based on all the basic principles of quality management: focus on the employee; leadership of care; deprivation of health workers; process approach; system concept of management; continuous optimization; forming management decisions based on facts; Mutually productive communication. All the requirements of the ISO 9001 standard are based on these principles.

According to Hotel Matrix information, the average demand for the Ukrainian hotel market in 2023 is characterized by an increasing trend (Fig. 2.3), which indicates the effectiveness of the implementation of international standards domestic food industry, hotel and restaurant upply.
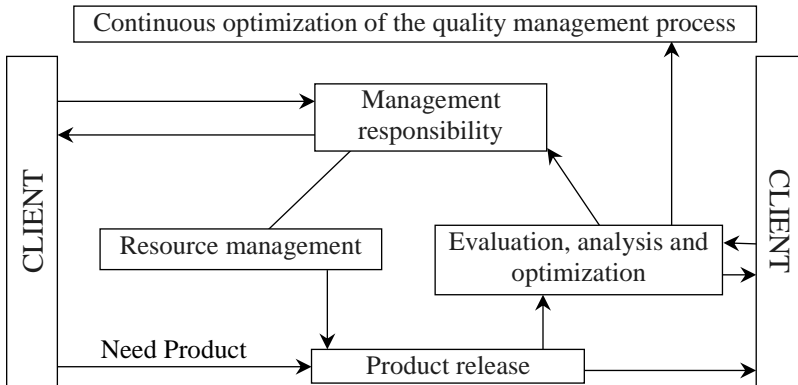
Figure 2.2 – A process-based quality management
system model Dzherelo: the author's dismay
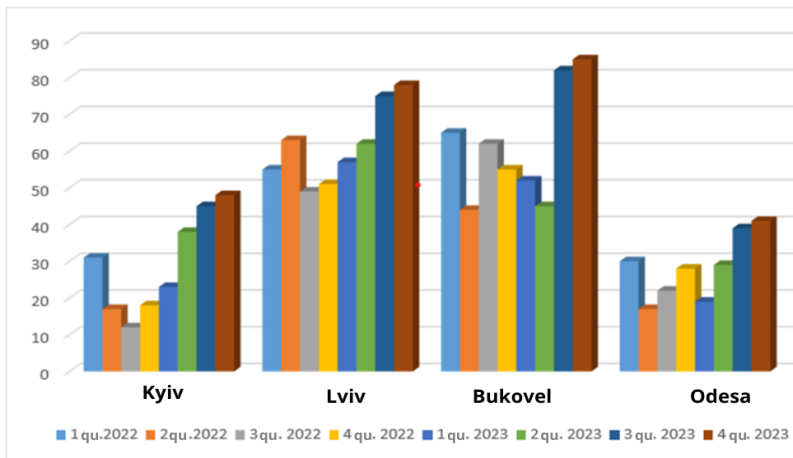
Figure 2.3 – Dynamics of the average level of
inventory on the hotel market of Ukraine

Dzherelo: systematized by the author based on [11].

In general, service standards in hotels and restaurants can be divided into three groups:

− standards that can be identified by a number of criteria (number of guests, repeat booking requests, etc.);

− standards, which may be reflected in time-hour standards (for example, limiting the hourly resource for registration, calling as much as possible);

− those characteristics that can be assessed by experts or colleagues [13–17].

The specifics of the main methods for monitoring the quality of service are presented in Table. 2.10.

Table 2.10 – Characteristics of methods for assessing the quality of services/products in the hotel and restaurant business

Method	Advantages	Disadvantages
Expert assessments	It gives objectivity to the thoughts of experts; anonymity; subject to a vice; the possibility of assessing the rizik for the minds of insignificance	The risk of unreliable estimates; spend a lot of time on preparation and implementation of all stages carried out
"The Dark Guest"	Allows you to identify the points of wasted and inaccessible gains; creates low unique service advantages; reveals shortcomings in the service; creates an effective motivation system; will ensure strict control over the established standards of service and additional sales	Vartisnity; labor is significant; complexity of standardization of the service sector through the specifics of its nature
Customer Efforts Quarrel	A reliable indicator of the credibility of the transformation of purchasing behavior; gives clear indications about areas that require thorough attention; clumsy in implementation	Does not form an informative assessment of the client's overall satisfaction; Number of segmentations

Method	Advantages	Disadvantages
Typology E. R. Quedotta – N. Turgeon	Allows you to predict the assessment of the cost of newly created services; make estimates of various categories of experience	Does not respect the assessments of various elements of service in the interconnection
SERVQUAL	Does not require special preparation; Identifies the main areas of reduced business activity; Demonstrates the result in the initial graphic form	The need for a detailed assessment of the service quality criteria and a reference service organization adopted as the quality standard; The illusory reach of the super-brightness of the service
Net Promoret Score	Ease of implementation; Possibility of classifying the client base; Development of profitability and development of the company; Possibility of comparison with the performance of competitors	The NPS system is not specific enough, without plans to follow up on the results of the training
Customer Satisfaktion Research	The level of satisfaction with a particular process, product, or service is assessed company and the highest level of customer satisfaction	Subjectivity and ambiguity; focus on short-line satisfaction; always correlates with the client's behavior
Be careful	Allows you to carry out investigations independently of the readiness of subjects who are careful to achieve the recording of individual parameters – for example, verbal and non-verbal behavior	Pre-emptiveness of the guard; pardons in assessments; disposability of security settings; the need for large resource expenditures (time, human, material)

Method	Advantages	Disadvantages
Asleep and questionnaire	Low quality, low quality of experience; forms the ability to feed a large number of people; low-cost; The possibility of new independence; Vidutnist vplyu on opituvanyh; combination with other methods (monitoring, interview); Possibility of regular analysis and reverification tributes	High reliability, low rate of filling out question-naires; standardization of approach to all respon-dents; if the interviewer has the required qualifications; low level of control over the interviewer's work

Dzherelo: systematized by the author based on [7].

The skin company in the hotel and restaurant industry may strive to implement a comprehensive and organic monitoring of officials, including the number of employees, to minimize the level of their negative pressure, and also to design information There is no field for a real assessment of the company's power resources.

In synergy, such approaches require clear coordination between staff and the implementation of the operational system of service performance indicators for further control. At the same time, control over the cost of services in the research sector is an element of government regulation of the market, which is implemented by protecting the rights of residents and developing international tourism activity, stimulating economic stupa edge [7].

A comprehensive approach to managing the range of services in a hotel and restaurant industry is essential for success. The advancement of scientific research, the development of modern technologies, the development of human capital and government support will allow Ukrainian enterprises to increase competitiveness in the light market and promote the development of the tourism industry edges.

Conclusions to chapter 2

It is important to note that the standards of the ISO 9000 series, together with the ISO 9001 standard, represent the most effective model for today's power management in the hotel and restaurant service industry.

For the successful integration of the Ukrainian hospitality industry into the international market environment from competitive advantages, it is necessary to implement the rules in accordance with the ISO 9001:2015 standard, as well as the methodology x promotion of the hotel and restaurant business among domestic companies.

Nutritional standardization of tourism and hotel market subjects is gaining strength in a new clear level with the obligatory victorious international standards or their related provisions.

The choice of the optimal strategy for the innovative development of hotel and restaurant business companies is determined by the need to introduce current scientifically-based digital technologies in conjunction with the benefits of international standards.

The evidence of the activity of current companies in the developed regions of the world confirms that the use of progressive technologies in the current sector of the hotel and restaurant business and the use of innovative technologies can provide get more employees, increase the level of sales of good products and services, ensure trust and customer loyalty, create a positive image pledges to the hotel and restaurant business.

In order for further scientific developments in the sphere of hotel and restaurant services to be solved, the urgent problems of the weak position of the main and additional services of companies in Ukraine will be eliminated ohm the shift in the level of their yakost.

The problem of poor supply of services in the hotel and restaurant industry in Ukraine remains relevant, especially in view of seasonal fluctuations and growing competition.

The current problem of poor service provision in the hotel and restaurant industry will require an integrated approach, which includes both scientific research and practical approaches. By conducting in-depth research and developing effective tools, the

quality of services can be significantly improved and the stable development of galus can be ensured.

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CHAPTER 3
JUSTIFICATION FOR THE USE OF BLOCKCHAIN TECHNOLOGY IN THE HOTEL BUSINESS

3.1. Historical background of blockchain development

The introduction of the digital economy implies a deep restructuring of existing business models and processes of companies in the market. However, in the hospitality industry, especially in Ukraine, the use of digital and integrated technologies is often limited to basic automation (e-booking, cashiering, online booking, QR code menus, etc.), as well as the provision of telecommunication services and the use of social media for marketing.

Of the numerous technological trends identified by analysts, five are the most important for the hotel and restaurant business in Ukraine. Therefore, a detailed analysis of each technological trend is required to identify its benefits, as well as the obstacles and risks associated with its implementation in the Ukrainian hospitality industry. Traditional technologies of the HORECA sector, which were relevant 10 years ago, no longer meet the modern requirements of technological development.

Therefore, it is important to study the main global trends in developing digital technologies and their possible impact on the hotel business in the HORECA sector in Ukraine. This will allow us to consider the implications of each trend on hospitality enterprises in more detail, taking into account the possibilities and conditions of their implementation in the Ukrainian market [1].

Nowadays, the term 'blockchain' is most often associated with cryptocurrencies, but its application covers a variety of industries, such as logistics, education, medicine, real estate, and others. Blockchain is an information storage technology used by private

companies to control the movement of funds in their accounts and by public institutions, such as educational institutions, to protect the personal data of their students from fraud [1].

Blockchain is a revolutionary technology that allows all data to be stored safely, securely and transparently using a network of computers. This database is used to conduct cryptocurrency transactions and to store information for many other purposes. The digital ledger of the blockchain network consists of chains that contain information about all transactions. The transaction history forms blocks in which all data is arranged in chronological order. The storage of this information is supported by a large number of computers around the world [3].

The blockchain network, due to its organised blocks, is protected from any external interference, since this would require the consent of all its participants. Thus, blocks of information form a system that works on the exchange of virtual money without intermediaries. All participants have access to the full history of transactions. The first blockchain network was created in the early 90s of the twentieth century by scientists Stuart Haber and W. Scott Stornetta. The scientists were working on the development of protection of digital documents against forgery. The system used a cryptographically secure chain of blocks to store time-stamped documents, and in 1992, Merkle trees were added to the design, making it more efficient and allowing multiple documents to be collected in one block. However, this technology was not used, and the patent expired in 2004, four years before Bitcoin was born.

In 2004, computer scientist and cryptographic activist Hal Finney (Harold Thomas Finney II) introduced a system called RPoW, Reusable Proof Of Work. The system worked by taking a non-exchangeable or non-fungible Hashcash-based proof of work token and in return creating an RSA-signed token that could then be passed from person to person. Finney's RPoW system solved the problem of double spending by keeping ownership of the tokens registered on a trusted server that was designed to allow users anywhere in the world to verify its validity and integrity in real time.

Bitcoin was launched on 3 January 2009, when the first bitcoin block was mined by Satoshi Nakamoto, who received a reward of 50 BTC. The first recipient of Bitcoin was Hal Finney, who received 10 BTC from Satoshi Nakamoto in the world's first Bitcoin transaction on 12 January 2009.

In 2013, Vitalik Buterin, a programmer and co-founder of Bitcoin Magazine, said that Bitcoin needed a scripting language to create decentralised applications. Unable to reach an agreement with the community, Vitalik started developing a new distributed computing platform based on the Ethereum blockchain, which implemented a scripting feature called smart contracts.

Smart contracts are programs or scripts that are deployed and executed on the Ethereum blockchain and can be used, for example, to perform a transaction when certain conditions are met [4].

This digital technology is also used to record other types of information that are not related to cryptocurrencies. The blockchain network has no central controlling authority. All users of the network have the authority to control transactions. The absence of control by the government, corporations, or one person is called decentralisation. Therefore, people conduct transactions exclusively among themselves without intermediation, such as the banking system, which is so familiar to many people.

Blockchain technology is used not only in cryptocurrency transactions, but also in various other industries, such as education, logistics, medicine, and others. This technology is constantly evolving and improving, which suggests that it will expand its application in the future.

In logistics, blockchain is used to protect data on all operations in the supply chain from possible fraudulent interference. This allows for greater control over the efficiency, accountability and transparency of operations.

In the healthcare sector, blockchain provides secure storage and monitoring of medical records, as well as tracking the quality and distribution of medicines. This technology also helps to protect personal data from possible fraudulent activities.

In addition, in the real estate sector, blockchain technology is used to protect data on all transactions during the purchase and sale of real estate.

Blockchain technology consists of the following elements (Table 3.1).

Table 3.1 – Components of blockchain technology (made by the author according to [3])

Name of the elements	Purpose
Blocks	They contain information about transactions and also have links to the previous block, creating a data chain. Such a chain of information is simultaneously stored in many places, which makes it impossible for any external interference or changes to be made to the databases
Transactions	This is information about transactions between two or more persons, which is grouped into blocks to form chains
Nodi	These are nodes – computers with software that support the blockchain network. They create new blocks of data, handle transactions, transmit information, and store copies of all transactions. A node in the blockchain can be a person who has the appropriate software on his or her computer
Consensus	This is the principle of the blockchain network, which ensures the consistency of data between nodes (nodes) and confirms the accuracy of information in the blocks. Thanks to the consensus algorithm, the blockchain system does not require centralised supervision by third parties
Hash functions	Convert information into a fixed-length character string. These cryptographic algorithms create a unique "hash" – a series of characters for each block – and protect it from any fraudulent actions. To date, no one has managed to break this encryption, as each new block contains the data of the previous one
Cryptographic digital signatures	They are used to confirm the authenticity of crypto-currency transactions

There are several types of blockchain: public; private networks; blockchain consortia; and hybrid blockchain (Fig. 3.1).
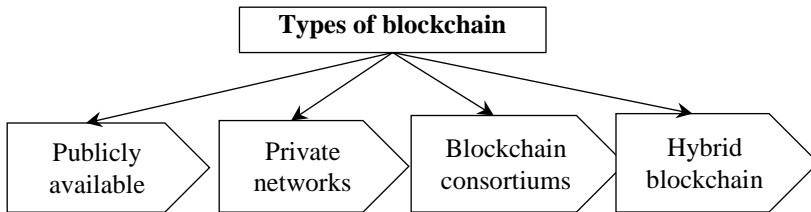
Figure 3.1 – Types of blockchain
(made by the author according to [3])

Public blockchains are quite popular among users since they allow to remain anonymous online. Anyone with access to the Internet can become a member of a blockchain network.

The private type has restrictions on participation and is used by private entrepreneurs for their own purposes: supply chain management, data exchange, or control of financial transactions.

In consortia, the network is managed by a group of individuals or organisations that work together and verify transactions. This type of network includes private enterprises, government agencies or other organisations.

A hybrid network includes features of both private and public networks, combining security and transparency of transactions. Hybrid data blocks can be either open to the public or provide limited access. This type of network is configured according to specific business activities.

Blockchain technology is based on basic principles that reflect its advantages:

− the blockchain is a distributed ledger and will function until the last active network node;

− all network participants have access to the history of blockchain transaction chains, and no one has full control over it;

− there is no hierarchy in the blockchain network, i.e. there is no master among all the many network nodes;

− by its very nature, the blockchain is able to provide a unique combination of openness and security of user data. A high degree of reliability is achieved through advanced encryption methods;

− data in the blockchain network cannot be deleted or replaced, as it is confirmed by a multitude of network nodes;

− blockchain technology provides absolute transparency, as access to information about all transactions is open, and anyone can verify its authenticity.

The blockchain network is a 'trust' system, as transactions are carried out directly between its participants, automatically verified and confirmed by many network nodes and do not require intermediaries, which completely eliminates distrust in one intermediary organisation. As a result, this leads to a significant reduction in the cost of a transaction by reducing transaction (commission) costs, and also leads to an increase in transaction speed due to reduced time costs [5]. Like all technologies, blockchain has its advantages and disadvantages (Table 3.2).

Table 3.2 – Advantages and disadvantages of blockchain technology (made by the author according to [6])

Advantages		Disadvantages	
Title	Essence	Title	Essence
Transparency	All blockchain data is publicly available, meaning that any user can trace the chain of transactions from the beginning of the network	Low energy efficiency	The data is stored on the computers of all participants, so the registration of transactions has to process large amounts of information. This requires high computer power and leads to significant energy consumption in the system
Reliability	Existing data is recorded on many user computers, which reduces the	Attack 51%	If an attacker concentrates 51% or more of the blockchain's computing power in their

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Advantages		Disadvantages	
Title	**Essence**	**Title**	**Essence**
	risk of failures and hacker attacks. Even if dozens of computers fail simultaneously, the existing information will not be affected		hands, they can disrupt the network (a hypothetical situation). A successful attack would not be able to obtain a private key or forge a signature, but it would allow the same coins to be sold twice
Security	As the system adds blocks in chronological order and links them to a common hash, an unbreakable chain is formed, in which it is impossible to remove or change links	–	–
Minimum commissions	Instead of centralised intermediaries (banks), transactions are registered by miners. There are a lot of them and competition between them is high, which makes it possible to keep fees low	–	–
Independence	Transactions take place without intermediaries, meaning that companies, banks and the state cannot interfere in the process	–	–

Despite the fact that blockchain technology is quite young, it has made significant progress. Businessmen speak in favour of the technology and claim that it will bring dramatic changes in the world.

3.2. The usage of blockchain in the hotel business

The modern hotel industry is estimated to be worth approximately five hundred billion US dollars. The development of blockchain technology and the attraction of new crypto investors may prove beneficial for this sector, not only due to the overall value of the hotel business in the world, but also due to significant foreign exchange transactions that continue to develop the cryptocurrency system [7].

Independent hotels are increasingly dissatisfied with the high commissions charged by online travel agents such as Booking and Agoda. The cost of hotel services largely depends on the transactions related to: booking rooms, paying for additional services.

Hotels include additional fees in the price of these transactions, which consist of intermediary services such as room booking websites, taxes, and banking costs. This leads to an overestimation of the price of hotel services compared to their real value, but the use of cryptocurrencies can help to unify these additional costs and fees [8].

Today, there are examples of successful integration of crypto-currencies into the hotel business and related organisations. One of the largest players in the rooms' booking industry, Expedia, has announced its readiness to accept Bitcoin as a method of payment for its services, which is an important step in the integration of crypto-currency into the hotel economy. An interesting example is the Lockchain.co project, which offers a complete rejection of interme-diation from booking sites and banking institutions in favour of a new blockchain ledger system. This system includes all the booking data of the hotels cooperating with the project and uses crypto-currency as a means of payment, which significantly reduces the cost of hotel services due to the absence of commissions. The project also already has a partnership with a hotel chain of more than 7,000 hotels.

Another example of the use of these technologies in the tourism sector is the Concierge (CGE) project, which is based on blockchain technology on the NEO platform. It is a mobile application for users planning a holiday. This application allows you to book hotels in any country in the world without a commission and pay for your reservation with both money and cryptocurrency [9].

The analysis of the development of blockchain technologies suggests that in the near future these technologies will be even more actively used in the hotel business, which indicates a trend towards innovative implementation in the hotel industry.

The modern hotel industry is developing rapidly and is actively using the capabilities of technology, in particular in the area of analysing customer feedback, which becomes the basis for future room bookings. Currently, about 70% of users choose hotels based on reviews and ratings. Online platforms conduct an in-depth analysis of user preferences and provide them with useful information and discounts [10].

It is also worth paying attention to the impact of social media on the hotel's foreign trade: guests can make reservations and receive special offers via Twitter, Facebook and other platforms.

Some hotels are already using blockchain technology, which could completely transform the travel industry. Blockchain will ensure the reliability and consistency of booking data and loyalty programmes for travellers. In addition, social media, such as Instagram, allows users to receive lucrative offers and real-time notifications, which is important for interacting with guests and increasing the attractiveness of the hotel.

The main trend for hotels that are active in social media is the development of unique presence strategies that allow them to stay ahead of the competition. This includes the use of special mobile applications within the hotel for the convenience of customers. Such innovations and analysis of online operations are becoming the basis for the provision of hotel services in the modern hotel industry [11].

There are many unique applications of blockchain in the hospitality industry, such as: identification; market targeting; eliminating overbooking problems; transparency and security of transactions;

payment facilitation; verification and reliability of reviews; customer tracking; supply chain control; improvement of loyalty programmes; smart contracts; elimination of intermediation; lost bag tracking; direct booking; efficient inventory management; updating online content.

Blockchain technology in the hotel business is being implemented in the following areas:

Simplifying customer identification (digital identification). Blockchain makes it easier to accurately identify customers. With the use of this technology, customers will not have any problems identifying themselves and will not have to show ID when booking flights or hotels, obtaining travel permits, entering airports or checking into hotels.

Blockchain allows you to register a person in a biometric system (fingerprint system), thus eliminating the need for paper IDs. In addition, thanks to the digital identity of the blockchain, the problems of theft and forgery of identification data and important personal data can be eliminated. Furthermore, thanks to this technology, birth certificates, passports, driving licences or any important personal documents can be registered. Thus, this technology helps to identify the identity of a person through certain codes controlled by the client himself, and with the help of this technology, authorities can track any traveller [13].

Market orientation. Due to blockchain, customers can securely store their favourite activities, culinary and travel preferences. They can also share their travel experiences through reviews of restaurants, accommodation, and entertainment. This technology allows hotels to respond to the changing needs and desires of customers accurately and reliably. Moreover, it helps to identify the strengths and weaknesses of competitors, and then improve the quality of services and increase competitiveness [14, 15].

Avoiding duplicate bookings. Since the introduction of blockchain technology, duplicate bookings are not an issue and a thing of the past. During the holiday and vacation seasons, when there is a high demand for centralised payment methods, the problem of duplicate bookings or overbooking is especially relevant. Multiple

bookings for the same property is one way in which the problem of centralisation can manifest itself. The decentralised nature of the blockchain, which prohibits any form of denial of service or single point of failure, is one of its main features [16, 17].

Transparency and security of transactions. By using crypto-currencies, the blockchain makes it possible to conduct financial operations or transactions. The use of cryptocurrencies guarantees the security and traceability of transactions. Acceptance of crypto-currencies also reduces the risk of dealing with counterfeit money [18, 19].

Verification and authenticity in reviews. The best way to assess the quality of hotel services is through customer reviews, which must be authentic and verified. Therefore, false, misleading, and offensive reviews are one of the biggest challenges faced by both hotels and customers. But using blockchain completely eliminates any false reviews, whether they are written by customers, hotels, or travel agencies. With blockchain, there is no false data. All information, reviews, and prices are transparent, truthful, accurate, and with a high degree of reliability. They are even accessible to the whole world, and the information cannot be deleted, changed, or hacked. Therefore, the reviews will be genuine and from real customers [20, 21].

Tracking of arriving customers. This technology allows hotels to track customers who have booked rooms in real time, from the moment they leave home, arrive at the airport, until their flight departs, and until they arrive at the hotel. This results in more accurate, efficient and faster check-in processes.

Monitoring and tracking of food supply chains. The quality of supply chain management can be improved with the help of block-chain. The blockchain allows restaurants and hotels to easily and accurately monitor and track food supply chain systems, from the farm to the end point, using a barcode applied to the food that records all the stages the food has gone through and which has been recorded on the blockchain. Thus, ensuring the quality and safety of food. Thanks to this technology, hotels can deal with trusted food suppliers, and customers can check and see the source of the food

they eat, thus increasing their confidence and satisfaction with the quality of food. In other words, blockchain helps to implement the HACCP system accurately. In addition, if it is confirmed that a certain disease is spreading or poisoning is occurring due to a certain food product, the blockchain can be used to track and seize this product in seconds [22].

Improving loyalty programmes. Blockchain allows hotels and airlines to improve their loyalty programmes by offering rewards to their customers in the form of loyalty points and tokens. This technology helps hotel organisations to identify all customer needs, wants and preferences accurately and immediately identify all customer needs, wants and preferences and then provide them with something that will satisfy them and ensure their loyalty.

Hotels offer loyalty points to their regular customers; to those who always write positive reviews about the hotel and its services; to those who recommend others to stay at the hotel; and to those who participate in improving the quality of services. This technology allows customers to freely sell, buy and exchange their loyalty points with others. Loyalty points and tokens increase competition between hotels to improve service quality and attract more customers. Customers can also redeem their loyalty points and tokens at restaurants, airlines and other organisations [23].

Concluding smart contracts. With the help of blockchain, it is possible to conclude accurate, documented, secure and fast smart contracts between hotels, travel companies, travel agencies, tour operators, as well as providers of any service or product, such as food suppliers. Franchise and management contracts can also be concluded between hotels and management companies. In addition, the process of the process of checking into a hotel can be completely eliminated by entering into accommodation contracts with customers, allocating rooms to them and issuing digital keys upon payment. These smart contracts have legal status and contractual terms similar to well-known traditional contracts.

As soon as a contract is entered into any transaction, it is immediately recorded on the blockchain and then becomes effective.

These smart contracts facilitate payments, simplify the sale of hotel rooms, and improve the quality of transactions between hotels and other parties such as travel agencies.

Eliminating intermediaries. With this technology, customers will not have to book through travel intermediaries, the booking will be made directly through the hotel, and hotels will not be controlled by travel agencies. Travel agencies cannot exaggerate the prices of airline tickets, hotels and entertainment programmes; they cannot mislead tourists. Nor can they pressure or slander hotels or customers.

This technology also eliminates or marginalises the role of banks, as transactions are made directly with bitcoin, and hence costs are reduced (Barkel et al, 2021).

Lost luggage tracking. Despite the significant progress made by airlines in handling customer luggage, they still face problems related to lost bags, and a lot of time, effort, and money is lost - for both customers and airlines. But with the adoption of blockchain, the location and status of lost bags can be tracked easily and accurately until they reach their owners at the hotel or airport [24] using a code that is attached to the luggage and constantly scanned.

Ticketing and booking. This technology facilitates accurate and easy booking and issuance of tickets, and eliminates the black market and ticket speculation.

Simplifying payments. Blockchain facilitates all types of local and international payments between hotels, customers and other businesses. It replaces traditional methods such as credit cards, banks, and exchange offices. Payment is made using the cryptocurrency Bitcoin. Payments in bitcoins will create a strong competitive advantage in the market, as well as be more secure and traceable.

The global hotel industry generated $8.81 trillion in 2018 from the US global network, which means that you can imagine the amount of money received by parties and intermediary companies in the form of bitcoin payments, by intermediary companies in the form of commissions and fees that can be saved using blockchain.

Marketing and advertising. With the introduction of the blockchain, there is no longer a need to sign contracts with hundreds of marketing and advertising companies, that has got their own rules and prices, and thus hotels can offer, advertise and sell their services without the need for traditional intermediaries.

Ensuring tax compliance. Blockchain technology will allow hotels to ensure compliance with tax laws by accurately tracking and calculating taxes owed, and the latter can be paid using smart contracts (NTT DATA, 2019).

Effective inventory management. Inventory management in the hospitality industry is a major challenge. But with a help of blockchain, hotels can manage their inventory efficiently and easily, for example, reporting the number of rooms available, the size of food and beverage stocks, or the number of seats on an aircraft. Managing inventory with this technology reduces costs, especially because it eliminates the traditional intermediaries that control the inventory management process in the travel industry (Dogru and others, 2018; Sathishkumar, 2021).

Updating online content. Constant and timely updating of hotel website content is extremely important due to the need to keep customers informed of everything new, as well as to ensure that they receive correct and complete information first-hand. With this technology, hotels can update their content with ease and accuracy, for example, brand changes; any updates in service types and methods; any new service facilities and videos; any new facilities or videos (Raluca-Florentina, 2022).

Facilitating cooperation with security authorities. Blockchain facilitates cooperation between hotels and security authorities regarding any required paperwork, passports, documents or reports, and helps maintain borders and public safety, as well as prevent crime and illegal immigration through digital identification stored on the blockchain (NTT DATA, 2019).

3.3. Improving hotel security with blockchain technology

Blockchain technology has the potential to change the way hotels provide economic and other security for their guests and optimise their operations (Table 3.3).

Table 3.3 – Areas of hotel security using blockchain technology (systematised by the author)

Name of the direction	Implementation
Payment security	The use of cryptocurrencies or tokens on the blockchain to pay for hotel services (reduces the risk of fraud and illegal transactions, as blockchain transactions have a high level of security and verification)
Guest authentication	Blockchain guest identification increases the security of hotel entrances and individual rooms. Guest information and keys can be stored on the blockchain, preventing unauthorised access
Access control	Managing access to different parts of the hotel, such as the spa, fitness rooms, swimming pools, and others. The guest can gain access through a mobile app that interacts with the blockchain for authentication
Saving guest data	Security of guests' personal data, such as credit card numbers, stay history and other sensitive data. This will help prevent data breaches
Track expenses and invoices	Tracking guest rooms enditures and invoices helps to avoid conflicts and unauthorised transactions.
Supply chain manageme	Improved management of the hotel's supply chain, including product quality control, defect elimination, traceability and safety
Booking management	Ensures the security and reliability of the room booking process, making it impossible to change or delete reservations without proper authorisation.
Improving accounting and analytics	It helps the hotel to improve accounting and analytics of its activities, which helps to reduce the risk of financial irregularities and improve management
Ensuring the reliability of reserves	The blockchain's system of 'distributed ledgers' can ensure the reliability of backups and avoid data loss

To choose the direction of technology implementation, we draw up a plan that will allow us to optimise the hotel's operations and select the most effective ones (Fig. 3.2).
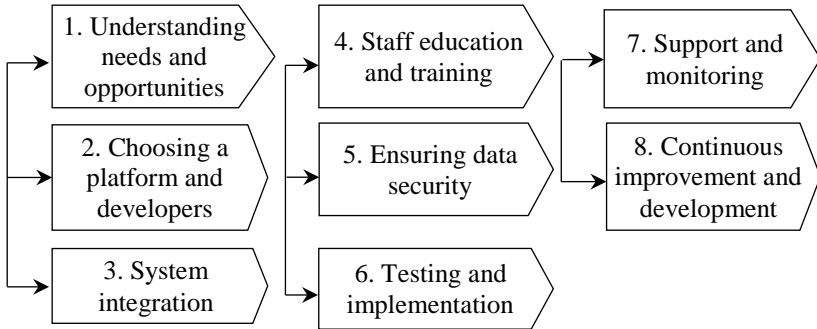
Figure 3.2 – Optimization plan for the hotel using
blockchain technology (author's presentation)

The first step is to find out what specific needs and opportunities are associated with the implementation of blockchain technology. This may include booking management, guest loyalty management, data security, etc.

The second step involves choosing a blockchain platform that best suits the needs of the hotel, working with developers who have experience in this area. It can be an internal development or cooperation with third-party companies.

The third step is integration with existing hotel management systems, such as a reservation system, guest accounting, payment processing, etc.

In the fourth stage, hotel staff, including administrators, financial managers, and technicians, are trained on blockchain to understand its benefits and processes.

Considering that one of the main advantages of blockchain technology is data security, so the fifth stage requires the hotel to take measures to protect guests' personal data, including encryption and other security measures.

After the development and integration of the blockchain solution, the sixth stage is to test it to verify its effectiveness and reliability. Successful implementation testing can be carried out in stages.

After the seventh stage of implementation, the hotel provides ongoing support and monitoring of the blockchain system, as well as identifying and resolving any possible problems.

Based on the fact that blockchain technology is constantly evolving, at the eighth stage, hotels are constantly monitoring the news and implementing new features and capabilities in line with business needs.

In general, the implementation of blockchain technology in the hotel business requires a lot of effort and planning, but it can lead to improved economic and other security, process optimisation and a better guest experience.

The operation of a blockchain system in a hotel to protect personal data may include the following aspects (Table 3.4).

Table 3.4 – Ways to protect personal data in a hotel using a blockchain system (author's development)

Process name	Procedure
Decentralised data storage	All data, such as guests' personal details, transactions, stay history and other sensitive data, is stored in a distributed blockchain network on different nodes. This means there is no single central point of access to this data, making it less vulnerable to hacking or unauthorised access
Data encryption	Personal data stored on the blockchain can be encrypted for additional security. Only the owner of the personal data and relevant authorised parties will have access to the decrypted data
Access control	Blockchain can be used to manage access to guests' personal data. Consumers of hotel services can have control over what data is made available to them and how it is used through smart contracts and digital signatures
Authentication and identification	The blockchain can be used to authenticate hotel guests and staff, providing security and access control. Identification can be performed through digital identifiers stored on the blockchain
Audit and tracking	Blockchain provides the ability to audit and track every action with data. This allows you to detect unauthorised or illegal access to data and respond to them in a timely manner

Process name	Procedure
Preventing data leaks	Blockchain can help avoid data leaks by ensuring secure storage and transmission of information, as well as restricting access to it
Guest loyalty	Guests can receive rewards or bonuses through blockchain-based loyalty programmes, thus storing their personal data on a secure platform
Permission to process data	Blockchain can help guests give permission for their personal data to be processed, allowing the hotel to use that data in accordance with the agreement and the guest's consent

Thus, blockchain can provide a high level of protection of personal data of guests in the hotel business, reducing the risks of security breaches and unauthorised access to this data.

Implementation and effective operation of a blockchain system in a hotel to protect personal data requires the following resources (Figures 3.3–3.9).
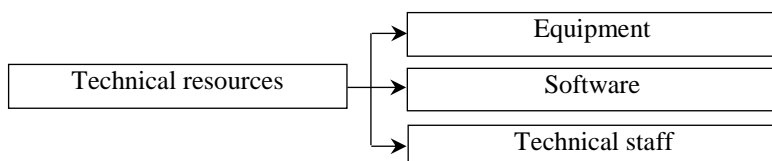
Figure 3.3 – Required resource capacity (technical)
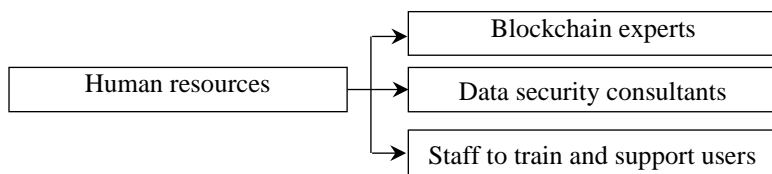
Figure 3.4 – Human resources for blockchain technology

The necessary network infrastructure and hardware to deploy and maintain blockchain nodes. Servers, blockchain software, databases,

and tools for developing smart contracts. A team of developers, network administrators, and other professionals who can install, configure, and maintain the blockchain system.

Blockchain experts: professionals with experience in the development and implementation of blockchain technologies.

Consultants: security specialists who can help ensure the security of personal data on the blockchain.

Training staff: instructions and support for guests and staff using the blockchain system.

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┌──────────────────────────┐      ┌──────────────────────┐
│   Financial resources    │─┬──> │        Budget        │
└──────────────────────────┘ │    └──────────────────────┘
                             └──> ┌──────────────────────┐
                                  │    Security costs     │
                                  └──────────────────────┘
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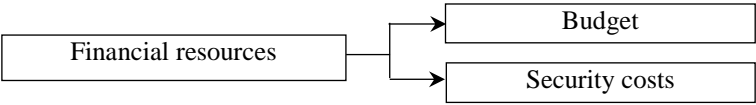
Figure 3.5 – Financial resources for the technology

A huge part of the costs is associated with the development, implementation and maintenance of a blockchain system.

Ensuring data security requires financial resources for encryption, auditing and other security measures.

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┌──────────────────────────┐      ┌──────────────────────┐
│      Legal support       │─┬──> │     Legal advice     │
└──────────────────────────┘ │    └──────────────────────┘
                             └──> ┌──────────────────────┐
                                  │   Compliance with    │
                                  │     regulations      │
                                  └──────────────────────┘
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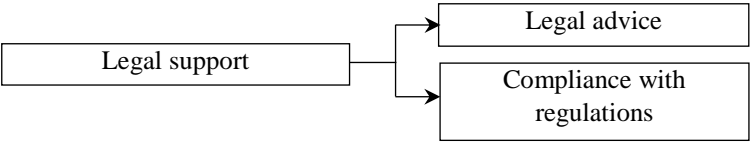
Figure 3.6 – Legal support for the technology

Legal advice: Work with lawyers who understand the legal aspects of blockchain technology and regulation in this area.

Compliance includes meeting regulatory requirements for privacy and security.

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┌──────────────────────────┐      ┌──────────────────────┐
│  Training and education  │─┬──> │    Staff training    │
└──────────────────────────┘ │    └──────────────────────┘
                             └──> ┌──────────────────────┐
                                  │  Guest consciousness  │
                                  └──────────────────────┘
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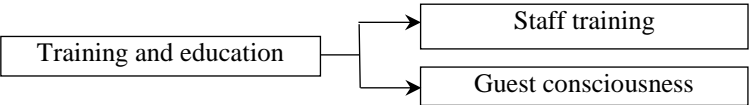
Figure 3.7 – Training and education for technology

Training of hotel staff on the use of the blockchain system and data security.

Guest awareness ensures that they are informed about the use of blockchain and security measures for their personal data.

Strategy development and implementation	→	Strategic planning
	→	Pilot projects
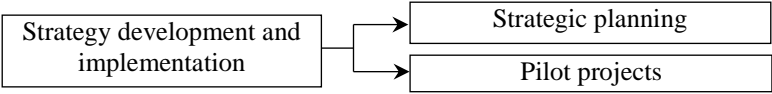
Figure 3.8 – Strategy development and implementation for the technology

Strategic planning involves the development of a detailed blockchain implementation strategy, including goals and steps.

Pilot projects involve launching them to test their effectiveness and gain experience before fully scaling the system.

Communication and connectivity	→	Communication with guests
	→	Interaction with partners
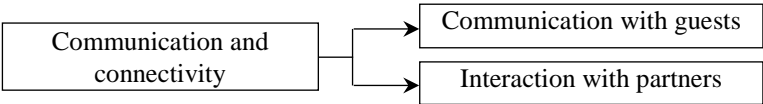
Figure 3.9 – Communication and connectivity with technology

Communication with guests involves explaining the benefits and security of the blockchain system to guests. Interaction with partners takes place through communication with other hotels, partners and regulators that may be part of the blockchain ecosystem.

The last resource is 'Monitoring and Support', which involves continuous monitoring and support of the system to identify and resolve issues.

The above resources will contribute to the successful implementation and optimal functioning of the blockchain system for personal data protection in the hotel. It is important to note that the costs and resources may vary depending on the size of the hotel, the amount of data and the complexity of the blockchain solution.

Determining the cost of implementing a blockchain system in a hotel can be quite a challenge, as it will depend on many factors, such as the size of the hotel, geographic location, hotel needs, and the level of complexity of the implementation. It's also important to keep in mind that the cost of a blockchain solution can vary from one vendor to another. A general estimate of the costs of implementing a blockchain system in a hotel is shown in Table 3.5.

Table 3.5 – Methodology for calculating the costs of implementing blockchain technology

Stage name	Essence
1. Developing and configuring a blockchain solution	The cost of developing and implementing a blockchain solution can range from several thousand dollars, depending on the complexity of the project and requirements
2. Technical resources	Hardware, software and infrastructure require investment, which will also depend on the size and needs of the hotel
3. Personnel	Expenses for developers, network administrators and other technical specialists
4. Security and compliance	Expenses for encryption, security audits, testing and compliance
5. Staff and guest training	Expenses for training hotel staff and creating information materials for guests.
6. Pilot project and testing	The cost of launching pilot projects and testing before full implementation
7. Legal advice and compliance	Expenses for legal advice and regulatory compliance

The estimate provided is a general one and may vary depending on specific circumstances. Therefore, it is a simplified example and actual costs may be higher or lower depending on the specific circumstances and requirements of the hotel. It is also important to keep in mind that costs may vary from one project to another, and each project has its own unique characteristics.

Blockchain can be useful for hotels in improving the accounting and analytics of their operations, as well as reducing the risk of financial irregularities and improving management in the following aspects (Table 3.6).

Table 3.6 – Prospects for ensuring hotel security from the introduction of blockchain technology

Process	Essence
Transparency and reliability of data	Blockchain provides immutability of data, which means that once information is entered into the blockchain, it cannot be changed or deleted without corresponding authorised entries. This helps to increase the reliability and integration of financial information

Process	Essence
Process automation	Smart contracts on the blockchain can automate many financial processes, such as payments to suppliers, settlements with guests, and asset management. This reduces the risk of human error and increases the efficiency of operations
Supply chain management system	Hotels can use blockchain to track suppliers and goods that are part of hotel services. This helps to ensure the quality and reliability of supply
Analytics and reporting	Blockchain can store data on transactions and events related to hotel operations. This data can be used to generate detailed financial and analytical reports that help make better management decisions
Access control and authentication	The blockchain can be used to secure access to financial information and authenticate users, which reduces the risk of unauthorised access
Asset and inventory tracking.	Blockchain can help hotels keep track of assets and inventory, which reduces losses and allows for more efficient use of resources
Decompressing financial transactions	Blockchain allows financial and monetary transactions to be carried out without intermediaries, which can reduce fees and transaction costs
Risk management and data analytics	Data analytics based on blockchain information can help hotels identify trends and risks, which helps them respond in a timely manner

The introduction of blockchain can significantly improve financial accounting, analytics and management of a hotel, reduce the risk of financial irregularities and improve the overall efficiency of hotel management. However, it is important to properly design and implement such a system, as well as ensure its security and regulatory compliance.

The efficiency and security of payments in hotels and restaurants can be achieved through various technologies and approaches:

− Electronic payment systems: The use of electronic payment systems, such as credit cards, debit cards, mobile payments and other electronic means of payment, allows for fast and convenient transactions. These systems provide data encryption and protection against unauthorised access;

− blockchain technology for payments: can be used to ensure the security and efficiency of payments in hotels and restaurants. A smart contract system can automate payment processes, enabling fast and secure transactions between guests and establishments;

− NFC (Near Field Communication) technology: NFC technology enables contactless payments, which provides convenience and security for customers. Guests can pay their bills using their smartphones or other NFC-enabled devices without using physical cards or cash;

− Data encryption and data protection: to ensure payment security, it is important to use data encryption and other data protection measures. Hotels and restaurants should comply with payment security standards such as PCI DSS to protect their customers' data;

− Monitoring and analysing payments: to maintain efficiency and control over payments, it is important to have a monitoring and analysis system in place. It helps to identify any anomalies or suspicious transactions that may be a sign of fraud or inappropriate transactions;

− Biometric technologies for payment authorisation: the use of biometric data, such as fingerprints or face recognition, can improve payment security. These technologies help ensure that the payment is made by the card or account holder.

Overall, a combination of these technologies and approaches can ensure efficient and secure payments in hotels and restaurants, providing convenience for customers and protecting their personal information and financial data.

Transparency in the supply chain in the hotel industry can be achieved through various tools and approaches:

− the use of blockchain allows for a transparent supply chain management system. Every step in the chain, from raw material

suppliers to end users, can be recorded on the blockchain. This ensures a high degree of trust and the ability to check the history of any product or service;

− the use of a monitoring system based on distributed data storage allows for multi-level control of all aspects of the supply chain. Each participant in the system can track the movement of goods, the status of orders and other important parameters in real time;

− the use of electronic data exchange systems (e.g. EDI – Electronic Data Interchange) allows automating the processes of ordering and exchanging information between supply chain participants. This reduces the risk of errors and ensures data accuracy;

− the use of RFID (Radio-Frequency Identification) and IoT (Internet of Things) technologies allows for real-time tracking of the movement of goods and monitoring their condition. For example, RFID tags on packages can be scanned at every step in the supply chain, and IoT sensors can measure the conditions of storage and transportation of goods;

− the dissemination of open data and the use of international standards in the supply chain helps to create a single and understandable format for the exchange of information between all participants. This helps to reduce bureaucracy and increase process efficiency;

− regular audits and inspections in the supply chain help to ensure compliance with quality standards, ethical norms and other parameters. This helps to maintain a high level of quality and trust in the supply chain.

In general, transparency in the supply chain is achieved through a combination of technologies, data exchange systems, standards and control mechanisms that allow supply chain participants to effectively communicate and track all processes.

Tracking the quality of goods and services at each stage of their production and delivery can be done using various control methods and tools:

− at the first stages of production and supply, it is important to have clear quality standards for goods and services. This can be ISO, GOST or internal corporate standards. Certification and audits help to verify that products meet these standards;

− the use of RFID (Radio-Frequency Identification) and IoT (Internet of Things) technologies allows you to track the movement of goods and monitor their storage and transportation conditions. For example, RFID tags on packages can contain data on quality certificates and other important information;

− manufacturers and suppliers may have quality monitoring and control systems that allow them to check the quality of goods at every stage of production and delivery. This may include testing on production lines, tracking quality indicators and ensuring compliance with specifications;

− using a QMS, such as ISO 9001, helps to establish quality control and continuous improvement processes.

These systems include procedures for audits, internal reviews and action plans to address quality issues;

− analysis of data on the quality of goods and services at various stages of production and supply helps to identify trends, problem areas and opportunities for improvement. A large amount of data can be collected and processed using modern information systems;

− maintaining open and effective communication with suppliers is a key aspect of quality tracking. Regular feedback, on-site audits and joint quality improvement initiatives help to ensure that goods and services are of high quality at every stage of the supply chain.

These approaches help maintain a high standard of quality of goods and services at all stages of their production and supply, which is important for meeting customer needs and maintaining the brand's reputation.

Blockchain can be used to store customer feedback and ratings on the quality of hotel services with several advantages:

− blockchain is a decentralised system where data is stored on different network nodes, making it less vulnerable to manipulation or change. This ensures the reliability and consistency of the information stored in the blockchain;

− since the data in the blockchain is public and verifiable, it creates an open and transparent mechanism for storing reviews and ratings. Each member of the network can verify the truthfulness and authenticity of the review;

− blockchain allows the use of cryptography to authenticate and sign data. This means that reviews and ratings can be digitally signed to confirm the authorship and non-disclosure of data;

− information stored on the blockchain is immutable. This means that once a review or rating has been added to the blockchain, it cannot be deleted or changed. This helps to build trust in the data and avoid falsification;

− blockchain can allow customers to store their reviews and ratings in a secure, anonymous format, protecting their personal data from unauthorised access.

In general, the use of blockchain to store hotel reviews and ratings allows for a reliable, transparent and secure system that improves service quality and trust between customers and hotels.

The above examples reflect only some of the possibilities of using blockchain technology in the hotel industry. As technology advances and awareness of its potential grows, we can expect to see further expansion of blockchain applications in this sector.

Unfortunately, information on the implementation of blockchain technology in Ukrainian hotels is not widely available or accessible. Ukraine, like many other countries, is only just beginning to explore and implement this technology in various industries, including the hotel business.

However, the growing interest in blockchain in Ukraine is fuelling opportunities for future adoption of the technology in the hotel sector. Potential applications of blockchain in the hotel industry in Ukraine could include reservation and booking management, guest loyalty programmes, enhanced data security, and supply chain optimisation.

Following global trends and market needs, Ukrainian hotels may be interested in implementing blockchain solutions to improve efficiency, security and quality of service.

Conclusions to chapter 3

In summary blockchain technology is used not only in the field of cryptocurrency transactions, but also in various other industries, such as education, logistics, medicine, and others. It is constantly evolving and improving, which makes it possible to expand and apply it in the future.

It has been established that the blockchain network, due to its organised blocks, is protected from any external interference, as this would require the consent of all its participants. Thus, the blocks of information form a system that operates on the exchange of virtual money without intermediaries.

The influence of social networks on the hotel's foreign trade is determined, so that guests can make reservations and receive special offers through Twitter, Facebook and other platforms.

The influence of social networks on the hotel's foreign trade is predicted, which will allow guests to make reservations and receive special offers through Twitter, Facebook and other platforms.

The directions of hotel security using blockchain technology and a plan for optimising the hotel in 8 stages have been developed.

The use of blockchain technology to store customer feedback and ratings on the quality of services in hotels is proposed, with the advantage that blockchain can allow customers to store their feedback and ratings in a secure, anonymous format, protecting their personal data from unauthorised access.

Ways to protect personal data in a hotel using a blockchain system are developed, resources that will contribute to the successful implementation and optimal functioning of the blockchain system for the protection of personal data in a hotel are identified.

It is proposed to use biometric technologies in the hotel for payment authorisation: the use of biometric data, such as fingerprints or face recognition, which will increase the security of payments.

Regular feedback, on-site audits and joint initiatives are in place to help ensure high quality goods and services at every stage of the supply chain and to maintain open and effective communication with suppliers. This is a key aspect of blockchain quality tracking.

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CHAPTER 4
IMPROVING THE ACTIVITIES OF ACCOMMODATION FACILITIES THROUGH THE INTRODUCTION OF SOCIAL INNOVATIONS

4.1. Social innovations in the hotel business as a key factor in the development of inclusive tourism in Ukraine

In today's world, the strategy of corporate social responsibility is becoming increasingly important for the successful functioning of organizations, especially in the hospitality industry. Service should be not only commercial, but also socially oriented, which involves active consideration of social problems and customer needs.

In today's conditions, social needs to ensure the accessibility of services for all groups of the population, including people with disabilities, the elderly and families with children; the use of environmentally friendly practices that reduce the negative impact on the environment; educating employees about the importance of social responsibility so that they can provide services that take into account the social aspects and needs of customers; feedback from customers and Openness in communication about social initiatives and achievements, which helps to create trust on the part of customers, are key to the successful development of the hotel business [6]. Therefore, the problems and prospects for the development of social innovations are actively studied by scientists from different countries, since these issues are of great importance for the sustainable development of society.

A significant contribution to the development of the theory and practice of social innovations, which allows us to understand their importance for social development and economic stability, was made by the works of D. Domansky, A. Unchet. The influence of social

innovations on the development of communities and their role in solving social problems was studied by G. Mulgan. Scientific works of L. V. Boyko, O. O. Golovko, O. M. Nabatova and L. I. Fedulova, G. Y. Krul, M. P. Malska contain a thorough analysis of the essence, basic concepts and types of social innovations. The authors define social innovations as innovations that improve social processes, interaction between different groups of the population, and solve current social problems.

In particular, Boyko M. V. analyzes the impact of the hotel business on the socio-economic development of regions. Golovko O. M. researches the problems of management of hotel enterprises and their social responsibility. Krul G. I. focuses on the role of the hotel business in the formation of tourism infrastructure and its social aspects. Malska M. P. examines the impact of hotel services on social life and engagement with local communities.

Important aspects related to innovations that can significantly affect the development of the Ukrainian economy, contributing to social stability and a general increase in the standard of living of the population, were studied by: Halchynskyi A. S., Heyets V. M., Golikov V. I., Dolishniy M. I., Zakharchenko V. I., Miklovda V. P., Poyda-Nosyk N. N., Prodius I. P., Revenko A. P. and others.

The concept of "social innovation" refers to new approaches or methods that are introduced in order to solve social problems and improve the quality of life of people. Social innovation can manifest itself in different areas, such as education, health, ecology, social services, etc. It is important that these innovations are adapted to the specific social conditions and needs of the community, contributing to sustainable development and social progress.

Social innovations reflect a wide range of phenomena in social life, since they can arise in different areas: education, health, ecology, economy, culture, among others. These may include new approaches to solving social problems, the development of new services or technologies that improve people's quality of life [6].

In addition, social innovations can also be aimed at improving social justice, integrating vulnerable groups, and ensuring equal access to resources and opportunities. It is important that these

innovations are adapted to the specific conditions and needs of the society in which they are implemented.

Different approaches are used to classify social innovations [7]. According to the level and volume of innovations, it is possible to distinguish global innovations, regional and local. According to the level of novelty, social innovations are divided into:

− epoch-making, resulting in profound social transformations, transition to a new mode of production, socio-cultural system;

− basic, manifested in radical technological changes, changes in the way of organization of production, socio-cultural and state system;

− improving innovations aimed at the development and modification of basic innovations, their dissemination in various fields;

− pseudo-innovations, which are associated with the wrong ways of human ingenuity, aimed at partially improving and prolonging the agony of outdated technologies, social systems and institutions;

− anti-innovations, which characterize those innovations that are reactionary in nature, cause a reverse movement in a particular area.

The variety of approaches to the classification of social innovations is associated with their multifacetedness.

Modern trends in world socialization require increased attention to the service of people with disabilities and low-mobility groups [8]. This is due to the commitment to inclusion and ensuring equal opportunities for all. Service should take into account the needs of these groups, offering tailored services that ensure accessibility and comfort. It is also important to consider that inclusivity not only improves the quality of life of people with disabilities, but also contributes to strengthening social ties and increasing society's sensitivity to diversity. Awareness-raising, staff training and implementation technologies can significantly improve the experience of serving and integrating these groups into society [9].

In modern conditions, service should be as focused as possible on ensuring the social problems of people in order to implement the concept of a business social responsibility strategy. The introduction of innovative technologies, in particular social ones, will contribute to the stabilization of competitive advantages in the service market

due to the expansion of the target market, which can include both individuals with disabilities and mobile groups [10–11].

The issue of accessible tourism as a means of rehabilitation of persons with special needs is considered by leading Ukrainian and foreign experts, in particular [12–14]: Darcy S., Dixon J., Butler G., Rogerson K., Kravchenko O., Kolyada N., Belousova N., Viktorova L., Lepsky V., Naumenko L., Borisova I., Berezovsky V., Makarenko S., Perfileva M. and others. At the same time, there is almost no study of the best practices of inclusive tourism abroad and their implementation in the tourism market of Ukraine.

The introduction of new approaches and solutions, innovative adaptation of the infrastructure of the hotel and restaurant business in Ukraine, staff training, the creation of special packages of services will not only improve the service for people with disabilities, but also contribute to the overall development of tourism infrastructure, improving the image of Ukraine as a country that cares about all its citizens and guests. Therefore, social innovations in the hotel business can be considered a key factor in the development of inclusive tourism in Ukraine [6].

An important role in ensuring the availability of the service environment is played by the state as a guarantor of meeting the social needs of its citizens. Ukraine is no exception, as it has a number of legislative and regulatory acts regulating the social sphere in the country, as well as a certain social infrastructure that ensures and contributes to the further development of social processes.

In particular, Ukraine has ratified a number of international legal acts in the field of protection of the rights of persons with disabilities, which are mandatory. The main provisions of these acts were transformed into national legislation.

The main legislative acts regulating the protection of the rights of people with disabilities in Ukraine include, first of all, the Constitution of Ukraine, as well as the Laws of Ukraine: "On the Fundamentals of Social Protection of Disabled Persons of Ukraine", "On Rehabilitation of Disabled Persons in Ukraine", "On Planning and Development of Territories", "On Protection of Consumer Rights", "On Transport", "On Urban Electric Transport", "On Road

Traffic"; Decrees of the President of Ukraine "On Priority Measures to Create Favorable Conditions Life of Persons with Disabilities", "On Measures to Solve Urgent Problems of Persons with Disabilities"; Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Program for Ensuring Unimpeded Access of People with Disabilities to Residential and Public Facilities" [15].

One of the innovative trends in modern service that can solve the problem of service accessibility for customers with disabilities is the introduction of the "Universal Design Concept".

For a long time, various countries have tried to introduce this concept into all aspects of society, enshrining it in legislation. The positions of their governments regarding the development of international policies taking into account the needs of people with disabilities, the design of buildings, transport policy, infrastructure, everyday life, and areas of standardization were reflected in the documents of the United Nations, the European Union, and the Council of Europe.

Today, the policies of many countries are based on a universal design strategy that supports the requirements for the realization of rights, independent living and the integration of all segments of the population, including people with disabilities.

The term "tourism accessible to all" is enshrined in international regulations. In 1991, the UNWTO General Assembly adopted a resolution entitled "Creating Tourism Opportunities for Handicapped People in the Nineties", the text of which was subsequently updated in 2005 in Dakar (Senegal) and entitled "Tourism accessible to all" (Resolution A/RES/492(XVI)/10).

Most of the international documents and commitments related to the implementation of universal design have been signed and ratified by Ukraine. However, increased attention to these issues took place after the signing and ratification of the UN Convention on the Rights of Persons with Disabilities, and thanks to the activities of public organizations of people with disabilities, which launched educational activities among all institutions. The UN Convention on the Rights of Persons with Disabilities defines universal design as the design of objects, environments, programs and services that is designed to

make them as usable as possible for all people without the need for adaptation or special design. All countries that have signed and ratified this document agreed with this definition and approach to universal design. In 2011, this interpretation was enshrined in the Law of Ukraine "On the Fundamentals of Social Protection of Disabled Persons in Ukraine".

Universal design (or inclusive design) really aims to create products and environments that are accessible and understandable to all people, regardless of their physical abilities, age, or other factors [16].

Universal design provides for the satisfaction of the needs of any client of a service organization on the basis of equal use, flexibility, simplicity and ease of use, perception of information regardless of the sensory capabilities of users, tolerance of errors on the part of the client, ensuring a low level of physical effort when using the service.

So, the basic principles of universal design include: accessibility, flexibility in use, simplicity and clarity of information and services, risk minimization, safety of use, aesthetics.

Principle 1: Equitable use. The principle of equality and accessibility of the environment for everyone is the provision of the same means for all users: in order to avoid the impersonation of certain groups of the population. The design should be useful and easy to perceive and use by people with different levels of ability:

− the design should take into account the fact that the product will be used by people with different physical and cognitive abilities;

− any separation of user groups or "labeling" should be avoided;

− privacy, security and reliability, should be available to all users.

Principle 2: Flexibility of use. The design should provide a wide range of individual settings and capabilities, taking into account the needs of users:

− the design should meet many different preferences and capabilities of users;

− the user must choose how he can use the product;

− ensuring that the product is adapted to the user's pace.

Principle 3: Simple and convenient use. The design should ensure simplicity and intuitiveness of use, regardless of experience, education, language level, and age of users:

− it should be clear how to use the product for any person, regardless of personal experience, knowledge, linguistic skills, or level of concentration at the moment;

− aligning the design with the intuition and expectations of users;

− taking into account different levels of education.

− placement of information taking into account its importance.

Principle 4: Perception of information despite users' sensory capabilities. The design should contribute to the effective delivery of all necessary information to the user, regardless of external conditions or the possibilities of perception by the user:

− providing important information in various ways – visual, verbal, tactile;

− providing an appropriate contrast between more important and related information;

− the most important information should be presented as clearly as possible;

− facilitating the process of understanding instructions and guidelines;

− ensuring compatibility with various technologies and means used by persons with disabilities (compensatory and assistive devices);

− design should facilitate the transfer of effective information regardless of environmental conditions or the characteristics of the user's perception.

Principle 5: Tolerance of errors. The design should minimize the possibility of risks and harmful consequences of accidental or unintentional actions of users:

− providing a warning about danger or possible error;

− The most frequently used elements should be the most accessible. Hazardous elements must be isolated, removed, or secured;

− prevention of the possibility of unconscious actions on the part of users when performing tasks;

− ensuring that there are characteristics that are error-resistant or automatically correct;

− blocking unconscious/unintentional actions in a task that require vigilance.

Principle 6: Low level of physical effort. The design is designed for the use of insignificant physical resources of users, for a minimum level of fatigue:

− the user must act as efficiently and comfortably as possible in the proposed format or use the product with a minimum of effort;

− minimization of repetitive actions;

− minimizing the need for long-term physical effort by the user.

Principle 7: Availability of the necessary size and space when approaching, approaching and manipulating, regardless of the physical size, condition and degree of mobility of the user:

− providing the necessary size and space for easy access, manipulation and use of the product by any user, regardless of their height or physique;

− taking into account the degree of mobility (mobility) of the user and the possibility of using auxiliary and compensatory means;

− ensuring the visibility of important elements and unhindered access to them by any user, regardless of whether they are standing or sitting (for example, in a wheelchair);

− prediction of different hand sizes and squeezing forces of users;

− providing sufficient space for the use of assistive devices or a personal assistant.

The key areas of "barrier-free tourism" in the post-war period in Ukraine can be considered medical and health and recreational tourism [13]. Taking into account the "Strategy for the Development of Tourism and Resorts in the Poltava Region for 2019–2029" [14], in which the main place belongs to the use of the existing potential of the medical and sanatorium-resort base of the region to ensure the psychological, physical, mental and social health of a person, in particular in the direction of rehabilitation after covid and the

consequences of martial law in Ukraine, the following was chosen for researcha unique sanatorium-and-spa institution – the Gogol sanatorium, located on a plot of 23 in the city of Myrhorod, Poltava region.

4.2. Analysis of the external and internal environment of the sanatorium "M. Gogol"

Among the regions attractive to consumers of inclusive tourism, the Poltava region occupies a prominent place, which has all the prerequisites for this: a favorable climate, natural potential, interesting tourist routes. According to the Department of Ecology and Natural Resources, the nature reserve fund of Poltava region has 388 territories and objects with an area of 142 473.3 hectares, which is 4.95% of the area of the region. In total, there are 30 territories and objects of national importance, the area is 64 648.92 hectares, including 20 reserves, 10 are botanical gardens and parks. The rich natural resources of Poltava region give a powerful impetus to the organization of sanitary and spa treatment and mass recreation, including for people with disabilities. The basis for the resorts is mineral waters with various medicinal properties, which are found in Myrhorod, Velyka Bagachansky, Novi Sanzhary, Kremenchuk, Khorolsky, etc. areas. On the territory of the region there are operating sanatoriums-preventoriums, recreation centers and other accommodation facilities.

The architecture of the Poltava region is also represented by monuments of different styles and forms, some of which should be considered unique. In most cases, these are buildings for religious and public purposes, which were built in the XVIII–XIX centuries.

Thus, the brightest objects of Ukrainian Baroque architecture are the Transfiguration Church in the village of Velyki Sorochyntsi, Myrhorod district, and the Trinity Church in the village of Dykanka (1780). The era of classicism is represented in many noble estates of cities and villages of the former Poltava province. St. Nicholas Church (1794), bell tower (1810) and triumphal arch (1820) in the Kochubey estate (Dykanka) have survived to this day.

The architectural principles of classicism can be traced in the development of such cities as Kremenchuk, Poltava, etc. [19]. Among the buildings, the ensemble of the beginning deserves special attention XX century, where you can see attempts to search for the Ukrainian national architectural style. For example, the brick Church of the Intercession in the village of Plishyvets, Hadiach district (1906), which repeats the features of the famous Zaporizhzhya wooden nine-bath Trinity Cathedral in the city of Novomoskovsk, Dnipropetrovsk region. The representative of Ukrainian Art Nouveau architecture is the building of the Poltava provincial zemstvo, which was built in 1902–1908 (now it is Poltava Local Lore museum) and the Cathedral of the Nativity of the Virgin in the village of Kozelshchyna. About 80 events are organized annually in the Poltava region, including festivals, exhibitions, fairs of various levels. The most famous example of event resources of the international level is the "Sorochinsky Fair" in the village of Velyki Sorochintsy. In 2019, this event gathered more than 700 thousand people visitors from Ukraine and other countries of the world, including about 20 foreign delegations, 300 employees Mass media [22].

Also, events of the national, regional and local levels are organized and held annually in the Poltava region. The latter focus on the local population, but these events attract the attention of tourists from other regions of Ukraine. Significant events in the region are also the regional festival of kobzar art "I would take a bandura" (Velyka Bagacha district), the regional festival "Viburnum Festivities" (Pyriatyn district), the international gastro festival "Poltava dumpling" [22].

Summing up, we can say that Poltava region has rich recreational and tourist resources, including natural, natural-anthropogenic, architectural, biosocial and event and all the prerequisites for the successful development of recreational, cultural and educational, event, rural (green) types of tourism, including "barrier-free tourism".

To analyze the prospects for the development and potential of inclusive tourism in the Poltava region, a SWOT analysis was carried out (Table 4.1), which reflects the intensity of the manifestation of each factor with the subsequent establishment of mutual influence.

Table 4.1 – SWOT analysis of the development of inclusive tourism in the Poltava region

Strengths	Weaknesses
− Favorable natural and climatic conditions; − a large number of objects of historical and cultural heritage; − availability of recreational areas; − significant transit potential; − developed transport infrastructure; − friendly population	− Insufficient accessibility of hotel websites; − lack of well-adapted hotel rooms; − lack of professional personnel capable of solving accessibility problems; − lack of reliable information about the level of specific problems that a disabled person may face; − lack of accessible restaurants, bars, and other facilities; − lack of adapted toilets in public places; − inaccessible streets and sidewalks; − lack of technical means and equipment for persons with disabilities
Possibilities	**Threats**
− growth of investment attractiveness; − increasing international technical assistance; − improving the level of service; − special preferential programs to attract tourists with special needs	− political instability; − monopolization of markets and lack of competition, which limits the development of small and medium-sized businesses; − the possibility of epidemiological diseases; − the continuation of martial law in the country and the economic crisis associated with the war

As a result of the SWOT analysis, a set of factors that hinder the development of inclusive tourism in the Poltava region and requires a thorough study has been identified.

As for accommodation facilities, according to the State Statistics Service, as of the beginning of 2023, there are 78 hotels of various

levels of comfort in Poltava region. The number of rooms in the hotels consists of 1 330 rooms. Owners of private housing, according to experts, can provide another 4 000 places to accommodate tourists. As a rule, apartments are rented from householders without the relevant documents, which is not a guarantee of the provision of high-quality services, therefore, there is no accounting of consumers of overnight services, as well as the payment of taxes.

The general characteristics of the capacity of the number of rooms in Poltava region are given in Table 4.2.

Table 4.2 – General characteristics of the capacity of the number of rooms in the Poltava region

Characteristic	Indicator
Average capacity of collective accommodation facilities	78 units
Number of rooms in hotels and similar accommodation facilities	1 330 units
Number of persons staying in collective accommodation facilities	164 452 people
Number of overnight stays in collective funds	307 215 units
Average length of stay of persons in collective	1.9 units
Capacity utilization rate of collective funds	0.29 days

Compiled by the author based on the materials: [17].

Taking into account the order of the Cabinet of Ministers of Ukraine "On the approval of the plan of measures for 2023–2024 for the implementation of the National Strategy for the creation of a barrier-free space in Ukraine for the period until 2030", the order of the chairman of the Regional State Administration of the Poltava Region dated October 28, 2021 No. 720 "On the implementation of the "National Strategy for the Creation of a Barrier-Free Space in Ukraine for the Period Until 2030" in the Poltava Region" an Action Plan was developed [19].

Social innovations will be actively implemented directly in the means of accommodation of the Poltava region, if financial opportunities are available: for people with visual impairments, tactile tiles, information tables and markings in Braille, audio pointers will be used; for guests with hearing impairments –

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duplication of important sound information with texts, sign language translation, multi-level reception desks using induction loops; for customers with disabilities – suitable rooms equipped with furniture using "universal design".

Sanatorium named after "M. Gogolya" is a unique sanatorium-resort facility located in the city of Myrohorod on St. Myrhorodskih Divisions, 24 [22]. The sanatorium received the name of the great writer quite deservedly: Myrhorod, where the sanatorium is located, was one of N.V.'s favorite places. Gogol, immortalized in immortal works. The area of the sanatorium meets the requirements of sanitary-epidemiological rules and hygienic standards regarding the levels of natural and artificial radionuclides, the content of chemical and biological substances potentially dangerous for humans in the air, soil, negative physical factors and other factors.

On the territory of the Poltava region, treatment and recovery are carried out by several sanatoriums, among them competitors in the Myrhorod region for the sanatorium named after "M. Gogolya" there are sanatoriums: "Myrgorod", "Psyol", "Khorol", "Birch Grove", "Sosnovy Bir", "Slava" [22].

The study of the external environment and the competitive environment of the accommodation facility made it possible to determine that the main competitor of the sanatorium in the provision of social services is the sanatorium "Slava" in Myrhorod, which from July 2023 is participating in an experimental project on the provision of services to the elderly and disabled from among internal of displaced persons with funds from the state budget in accordance with the Resolution of the Cabinet of Ministers of Ukraine dated 21.03.2023 No. 248. Services for the provision of shelter, supported living and social adaptation in the sanatorium "Slava" are provided from July 12, 2023 with funding from the state budget.

The social institution provides 3 services: supported living, shelter and social adaptation. Department of supported living and social adaptation (3-story building), which consists of 68 rooms and is designed to accommodate 136 people, 2 people per room. The room has a shared bathroom and toilet (tray, sink, toilet). There is a TV and a refrigerator in the hall on each floor.

The asylum and social adaptation department (a 6-story building with an elevator), which consists of 52 boxed rooms for 2 people per room and is designed to house 208 people. The 2-room box has a separate bathroom (a separate room with a half-cotton bath and a room with a sink and a toilet).

The experimental project will last until December 31, 2024. Along with this, the sanatorium named after "M. Gogolya" has its own unique features:

− two residential, medical and canteen buildings are united into a single unit by underground passages;

− own pumping station with Myrhorod healing water;

− beautiful, well-kept territory of 23 hectares;

− solid medical and diagnostic base;

− a comfortable climate, which is even a health factor in itself;

− professionalism, attention and friendliness of the staff;

− honorary diploma "The best sanatorium-resort complex of Ukraine" 2003.

The six-story residential buildings of the sanatorium can accommodate 260 guests at the same time in rooms of different categories, each of which is equipped with all the necessary equipment, as well as a VIP cottage with 7 VIP rooms. The price policy of rooms is given in table 4.3.

Table 4.3 – Pricing policy of the sanatorium in 2024 [18]

Number type	Price per person/day from 01.01.2024	
	Adults	Children
"Standard" one-room double	753	628
"Standard improved" one-room double	835	696
"Semi-Luxe" one-room double	1 134	–
"Semi-Luxe" two-room double	993	827
"Semi-luxury" two-room single room	1 449	–
"Suite" two-room double	1 150	959
"Suite" two-room single	1 659	–
"Enhanced suite" two-room double (3-story cottage)	1 654	1 379
"Improved suite" two-room single (3-story cottage)	2 814	–

The infrastructure of the sanatorium includes:
- dining room, bar, cafe;
- mineral water pumping station;
- swimming pool, SPA;
- sauna + phytobar, massage;
- gym;
- gymnasium, PE;
- sports grounds;
- billiards;
- tennis, table tennis;
- beach, boat station (boat, water skiing);
- parking (paid);
- shop and bar, movie concert hall;
- dance hall + video bar;
- beauty salon;
- playground for children;
- library, excursions;
- taxi, exchange office;
- a modern complex of long distance telephony;
- rental of sports equipment, rental of household appliances.
- conference halls for organizing business, educational and educational events.

Health services in the sanatorium: six types of inhalation; ozokeritoparaffinotherapy; electric heater; bischofit compresses; singlet oxygen therapy; electro mud therapy; four types of air massage baths; one manual massage zone; phytotherapy; psycho-therapy; clay therapy; aromatherapy; exercise therapy; terrenkur.

In the sanatorium, dietary meals are provided three times a day. It is provided according to the system of the so-called custom menu. For those who live in rooms of the "apartments", "superior suite" and "luxury" classes, meals are served directly in the VIP hall. Individual diet selection by a professional nutritionist is possible.

The composition and area of functional groups of premises (reception and lobby, residential, above-floor service, household service and trade enterprises, catering enterprises, administrative premises, economic and production premises) were analyzed. Based

on the results, a conclusion was drawn about their compliance with the standards.

A qualitative analysis of the activity of the sanatorium was conducted, which will provide the necessary material for further quantitative analysis. Potential internal strengths and weaknesses of the sanatorium named after "M. Gogol" can be characterized from the point of view of geographical attractiveness, competence, financial sources, applied medical technologies, staff professionalism, level of service, cost of services, ergonomics, patient counseling, etc.

In order to study expert opinion and obtain the necessary representative information for the analysis of strengths and weaknesses, questionnaire technology was used. Consumers, marketers, employees of the sanatorium named "M. Gogol". Questionnaires were processed separately for different groups. In total, more than 150 people were interviewed.

According to the survey, the presence of natural healing factors (mineral waters, climate, landscapes), as well as the specialization of the sanatorium (treatment profiles) and geographical location, namely its distance from the potential client – customer of services, are decisive in choosing the sanatorium. In addition, a great influence on the consumer of the sanatorium named after "M. Gogol" provides a price policy and a variety of recreational services.

Activities of the sanatorium named after "M. Gogol" is quite complex and is strongly dependent on external factors that affect the characteristics of its internal environment. The external environment of the region as a whole forms the opportunities that the sanatorium named after "M. Gogol" can use to improve their characteristics (strengths). In order to form a more accurate idea of the place of the sanatorium named after "M. Gogol" on the market of sanatorium-resort services of the Poltava region, a SWOT analysis was conducted (Table 4.4).

Along with positive opportunities, negative factors-threats may appear in the external environment. In the best case, taking advantage of their strengths, the managers of the sanatorium named after "M. Gogol" can neutralize the identified threats.

The main risk factors affecting the activity of the sanatorium named after "M. Gogol" are: high competition in the market of sanatorium-resort services; aging of the material and technical base of the sanatorium; shortage of highly qualified personnel; financial risks; legal risks; political risks.

Opportunities of the sanatorium named after "M. Gogol" under certain conditions can be his strengths. As a result of the development of regional programs and the support of sanatorium-resort activities by authorities, there is an opportunity to attract investments to the sanatorium named after "M. Gogol" and increasing the potential flow of vacationers.

Table 4.4 – Matrix of SWOT analysis of the sanatorium

Strengths	Weaknesses
Attractive location on the river bank; Quality medical services; Extensive experience in the market of sanatorium-resort services; Convenience of access roads; Own parking lot; Own beach	A small list of additional services; Old number stock; Low level of service from the service personnel; Low level of comfort; Weak advertising campaign; Poor occupancy in winter
Possibilities	**Threats**
Increasing the level of service and the quality of services provided; Expansion of the range of provided additional services; Renovation of the room stock; Improving the qualifications of personnel Attracting additional potential groups of consumers; Increasing demand for domestic tourism	Instability of the socio-economic and political situation; Low level of income of the population; Strengthening the positions of competitors; Uncontrolled loading of the sanatorium

At the same time, it should be noted that the resort and recreation industry, as the most socially oriented sphere of public production, requires larger investments to form a modern resort infrastructure, and the payback period for investments can be quite long and does not always bring high income.

4.3. Recommendations for the use of elements of accessibility and universal design for the organization of the external and internal space of the sanatorium

The development of inclusive tourism in the Poltava region requires significant complex changes on the part of authorities, public organizations and enterprises [24].

The main recommendations for the development of inclusive tourism in the Poltava region are as follows:

− at the level of the state and local authorities – development of own state websites in accordance with international standards of accessibility;

− provision of the necessary infrastructure, availability of objects of tourist attraction;

− provision of financial benefits to private investors for the implementation of social programs and projects;

− partial financing of travel for people with disabilities, as well as implementation of international standards;

− creation of the Program for the Development of Inclusive Tourism in the Poltava Region;

− conducting marketing research and developing a set of measures to promote inclusive tours at the regional and national level;

− development of unique routes, leisure and animation programs and events for people with disabilities;

− consulting services for people with limited life opportunities regarding accessible cities, cultural objects, transport, hotels;

− at the level of public organizations;

− creation of a search engine that offers an accessible means of booking hotels, specially designed to provide fully self-sufficient online booking for people with visual, motor, sensory and intellectual disabilities.

In addition to the above, in accordance with the order of the CMU of April 25, 2023 No. 372-r "On the approval of the plan of measures for 2023–2024 for the implementation of the National Strategy for

the creation of a barrier-free space in Ukraine for the period until 2030", order of the head of the Poltava Regional State Administration of the region dated 10/28/2021 No. 720 "On the implementation of the National strategy for the creation of barrier-free space in Ukraine for the period until 2030" in the Poltava region" [2] developed "Recommendations on the application of elements of accessibility and universal design for the organization of outdoor space sanatorium named after "M. Gogol".

In particular, the following is proposed:

1. Provide places for parking vehicles for persons with disabilities using the international symbol of accessibility (Fig. 4.3.1). Designation of designated parking spaces for drivers with disabilities is carried out by installing signs and applying regulatory markings.
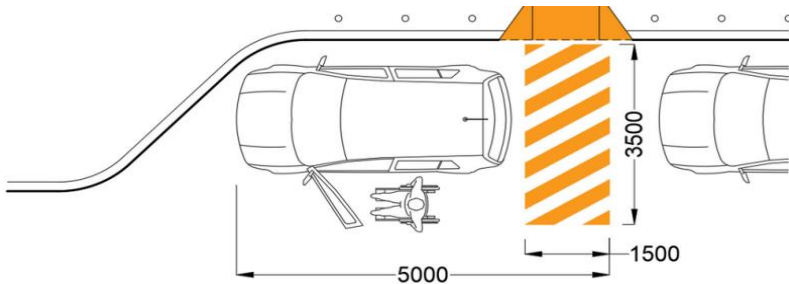
Figure 4.1 – Dimensions of the allocated parking space
for persons with disabilities on the territory of the sanatorium

2. Install doors with automatic opening (on the photo elements) or with forced opening through a switch installed next to the door at a height of 0.75–0.8 m or 0.3 m (for opening the door with a foot, crutch or cane).

3. Consider the possibility of arranging an inclined lift on the territory of the institution. The diagram and an example of the installation of an inclined lift in the adjacent area are shown in fig. 4.2.
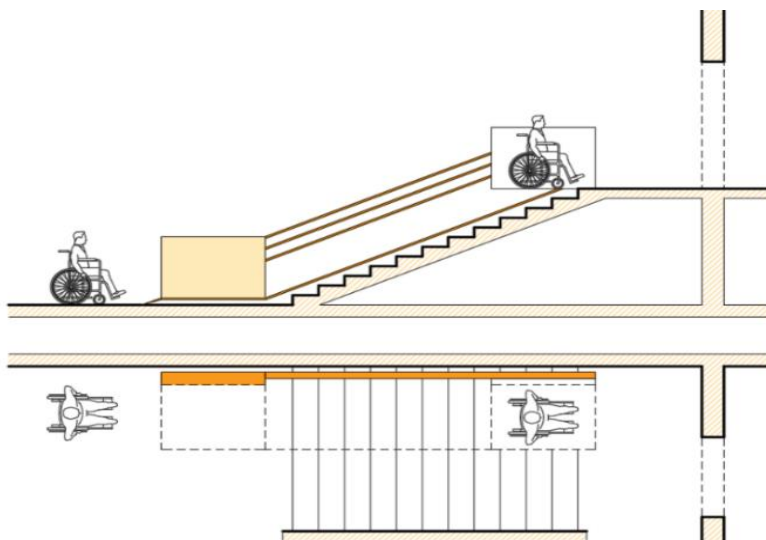
Figure 4.2 – Scheme and example of
the installation of an inclined lift

4. Install doors with automatic opening (on the photo elements) or with forced opening through a switch installed next to the door at a height of 0.75–0.8 m or 0.3 m (for opening the door with a foot, crutch or cane). Glass door panels should have contrasting markings – in the form of stripes, circles, arrows, etc.

5. Install tactile elements of accessibility on the territory of the institution. Tactile elements of accessibility are a system of safety, orientation and information acquisition devices that are perceived by touch and are designed to provide guests with visual impairments with the necessary and sufficient information for independent orientation in space. Tactile accessibility elements are divided into tactile strips and tactile information pointers. Tactile strips are intended for warning about obstacles on the paths of movement on pedestrian paths outside and inside buildings, as well as for informing about the beginning and end of movement, change of direction, places of receiving information.

6. At the entrance to the building/on the territory of the sanatorium, place a mnemonic diagram that contains basic information for independent orientation in the space of blind and visually impaired guests and displays in tactile form and in Braille the plan (diagram) of the floors of the building, evacuation routes, the surrounding area, individual locations of the facility.

7. When arranging the garden and park zone of the sanatorium, take into account the principles of "universal design".

Principles of universal design that can be used when planning a park zone on the territory of the sanatorium:

Equal use – zoning of the park area, flat entrances and driveways, the angle of inclination and the width of the paths allow easy movement in a wheelchair, comfortable benches, proper lighting, etc.

Flexibility in use – sports area, places for picnics, benches along the paths, shelters in case of rain are arranged in different locations of the park, places that take into account the needs and capabilities of different users, etc.

Perception of information regardless of the sensory capabilities of users – signs indicating the distance, clear icons and markings, color zoning of paths, etc.

Tolerance for mistakes – installation of handrails on bridges to prevent falls into water, installation of flower pots to ensure falls on stairs near children's playgrounds, use of natural landscape (mowed lawn, contrasting material on the side of paths, handrails, fences), etc.

Low level of physical effort – smooth path surfaces, flat entrances to different areas of the park, use of different level flower beds and water tanks, use of bench design that will allow users to maintain a neutral body position.

The presence of the necessary size and space – enough space to stop in front of the ramp for those who use wheelchairs, the presence of space in the rest areas, etc.

Among the measures proposed for the introduction of elements of universal design in the organization of the internal space of the sanatorium, it is possible to single out:

1. The need to ensure access to information and means of communication.

The UN Convention on the Rights of Persons with Disabilities notes the special importance of accessibility in the field of information and communication for people with disabilities. Access to information includes the right to seek, receive and disseminate information and ideas relating to human rights, civil, social, political and economic issues. Information accessibility for people with disabilities should take into account the degree and type of functional impairment: how to ensure, for example, access to information and communication for deaf people. Key to this issue is adherence to the principles of accessibility and recognition of sign language, culture and identity of the deaf. Providing information accessibility for this population group can be the preparation of information and materials in sign language.

The Constitution of Ukraine guarantees everyone's right to freedom of thought and speech, to the free expression of their views and beliefs; the right to freely collect, store, use and disseminate information orally, in writing or in any other way of your choice. The right to information is also guaranteed by the Laws of Ukraine: "On citizens' appeals", "On information", "On access to public information" and other normative legal acts. Thus, the Law of Ukraine "On Information" establishes that every citizen has the right to freely receive, use, distribute, store, and protect information necessary for the realization of his rights, freedoms, and legitimate interests.

According to this law, information is any information or data that can be stored on physical media or displayed in electronic form. The state guarantees all subjects of information relations equal rights and opportunities to access information, and no one can limit the rights of a person in choosing the forms and sources of its receipt, except for certain specified cases.

Recommendations regarding the organization of communication with clients with limited mobility of the sanatorium:

✓ Provide consumers of hotel services with the opportunity to choose the method of communication (by phone, e-mail, through the feedback form on the website).

✓ Communicate and provide information for customers in a way that is convenient for them according to communication needs.

✓ Monitor compliance by the institution's staff with requirements for data processing, ensuring confidentiality.

✓ Provide clear instructions to staff on how to communicate with customers in general and with their needs in mind.

Effective communication in a hotel depends on the skills possessed by the staff, because it depends on the staff's understanding of the wishes of the visitors.

The communication needs of clients and their coding are given in table 4.5.

Table 4.5 – Communication needs and their coding

№	Communication needs	Conditional marks	Icon
1	Simple language	SL	
2	Braille text	Br	
3	Sign language translation	SL	
4	Written communication	W	
5	Information printed in large print	P	
6	Electronic messages	@	

2. Recommendations regarding the organization of visual accessibility elements:

✓ Information plates must be made according to the principles of universal design.

✓ Information plates should be combined with tactile elements, i.e. They should have textual and graphic information in the tactile form of flat-printed text and Braille. They are placed on the wall at a distance of 0.3 m to the right or left of the entrance to the room (on the side where the door handle is placed) at a height of 1.2–1.6 m.

They can be installed on a special riser horizontally at an angle of 25–40 at a height of 0,9 m from the floor.

Recommendations for using internal information pointers:

− navigation pointers (pointers intended for orientation), to be placed consecutively, in the visibility zone relative to each other. The content of the pointers is clear and concise. The background should be matte, without reflections and reflections. Lighting from all sides;

− the need to equip the consumer registration information desk (arrangement of a lowered section of the desk, installation of a special purpose portable induction loop with a reception area radius of 1.2–5 m near the electronic information terminal).

3. Recommendations regarding the arrangement of bathrooms and shower cabins in the institution.

In the consumer registration area, it is necessary to provide a bathroom for a visitor in a wheelchair according to the following requirements:

− the dimensions of the toilet cabins must be at least 1.65 m wide and 1.8 m deep;

− the door must open outwards, with a minimum width of 850 mm, open easily;

− the presence of an additional horizontal handle on the door from the inside at a height of 80–100 cm from the floor and 20–30 cm from the edge of the door;

− the lock on the door can be unlocked with one hand;

− toilet seat 45–50 cm above floor level (at the level of the wheelchair seat);

− the handrail must be at least 900 mm long, at a height of 840 mm – 920 mm. Handrails 30–40 mm in diameter, separated from the mine wall by 40 mm. Free space in front of the toilet is at least 800 mm in width and 1100 mm in length;

− a mirror (the lower edge is no higher than 1 m above the floor level);

− purchase a vertical dryer "Xilium", which will ensure Principle 1: equality of use and Principle 6: low physical effort, convenient for everyone, especially visitors with reduced mobility;

− buy a "Lavabomobile" washbasin, the sink of which has an electronic height adjustment. This solution makes it convenient to use for people in wheelchairs, for people of small stature, children or those who want to use the washbasin while sitting. Manufacturer: Donnini Gian Paola Stuttgart, Germany (winner of the "Universal design consumer favorite 08" exhibition prize);

− to install a light switch "M-SMART" size 161×161×32 mm, which is potentially suitable for use in public places, in accommodations for people with special needs.

4. Universal design requirements for the reception area and sanatorium furniture are given:

− there should be a two-level reception desk, convenient for both a seated employee and a visitor who can sit or stand;

− to create the possibility of a frontal approach for wheelchair users, free space for legs must be provided under the worktop;

− information stands can have different designs and configurations. It is important that the surface of the countertops contrasts with other surfaces of the rack;

− availability of upper shelves and hanging drawers for documents, which are suitable for people of different heights and with different functional capabilities;

− use of ergonomic furniture, the height of which is adjustable;

− accessibility for people with hearing impairment: installation of an induction loop ensures high-quality transmission of a sound signal from a microphone, radio announcement system, TV, any other audio source to cochlear implants and hearing aids switched to the "T" mode ("induction coil"). At the same time, a microphone of any type is connected to the device. In the area of the information desk and near the electronic information terminal, special purpose portable induction loops with a reception area radius of 1.2–5 m should be provided.

5. Basic schemes for arranging an inclusive room, shower area and bathroom are provided.

The establishment must provide a room for a room for persons with disabilities. An inclusive number must have:

− furniture of universal design;

− free space near the bed for wheelchair maneuvering and aisles;

− arrangement of an emergency call button near the bed;

− a lowered hanger for clothes;

− work table with free space for legs;

− automatic door opening button;

− a bathroom and a bathroom using universal design requirements.

Bathroom: the size of the shower cabin is 1.5×0.9 m, space should be provided in front of the cabin for maneuvering a wheelchair. The pallet (glide) for draining water must be at the same level as the floor (it is not allowed to equip cabins with pallets on the rise). The shower cabin should be equipped with a folding seat at a height of 0.45 m, combined horizontal and vertical auxiliary handrails at a height of 0.85 m. The mixer tap and shelves should be within reach from the folding seat. The entrance to the cabin should be equipped with a screen.

Dressing room: the dimensions in the plan are not less than: width – 1.65 m, depth – 1.8 m. It is necessary to provide: free space for placing a wheelchair, clothes hook, crutches and other accessories; handrails at a height of 700–800 mm (200–300 mm above the toilet seat); free space for legs under the washbasin; the mirror is at the right height; a toilet with a bidet function or a hygienic shower next to the toilet; trap (floor drain).

6. The design of an inclusive number for the enterprise has been developed.

From April 1, 2019, during the construction or reconstruction of accommodation facilities, there must be universal rooms.

The amendments to the norms "Inclusiveness of buildings and structures" [20] contain a mandatory requirement – during the construction or reconstruction of hotels, design at least 10% of living spaces as universal, which will take into account the needs of each person, in particular, persons with disabilities and other groups of the population with reduced mobility. According to the new norm, at least 10% of living spaces in hotels, motels, boarding houses, and camping sites must be designed as universal, taking into account the accommodation of any categories of visitors, in particular, persons with disabilities who move around in wheelchairs.

The interior design of the inclusive room of the sanatorium hotel is designed in the style of "minimalism" using the concept of universal design. Minimalism is one of the most common styles in modern interior design. This is a style for fans of simplicity, brevity and uncluttered space, for those who appreciate the rationality of things. Minimalism is characterized by asceticism, accuracy of proportions with clear lines, simplicity of finishing and the smallest amount of furniture and decor.

The "minimalism" style attracts attention with the conciseness, precision and brightness of the compositions, and its main principle is the integral interior design using the most necessary and important elements. This style requires natural, natural building materials, a minimum amount of furniture in the premises and a minimum of decorative elements.

Modern automated systems help to optimize the process of designing and developing interior design. For example, one of the most famous CAD tools "AutoCAD" is used to create accurate 2D drawings and 3D models, including space planning, furniture placement, lighting systems and other design elements. The Revit building information modeling platform provides the ability to create integrated 3D models of all aspects of a building, including structure, systems, interior and landscape. The program for creating virtual 3D tours and room models "Matterport" allows visitors to "walk" through the restaurant online even before it opens. With the help of the tools "3ds Max", "SketchUp", "Sweet home 3D", visualizations and prototypes of the interiors of institutions are quickly created.

Therefore, the implementation of modern CAD systems in the design and construction process allows to increase the efficiency of the design process, helps to create effective and functional spaces, ensure a high level of quality and reduce project risks.

The 3D visualization of the designed room interior was developed using the Sweet Home 3D graphic editor – a convenient open source program for creating an interior design, with the possibility of viewing in 3D (figure 4.3).

The door in the room is offered with a width of 0.9 m, a magnetic stopper is attached to it for fixing in the open form; open outwards to

ensure the convenience of moving a person in a wheelchair. On the door from the "self-closing" side, an auxiliary handle is attached parallel to the door handle for the entire width of the door.
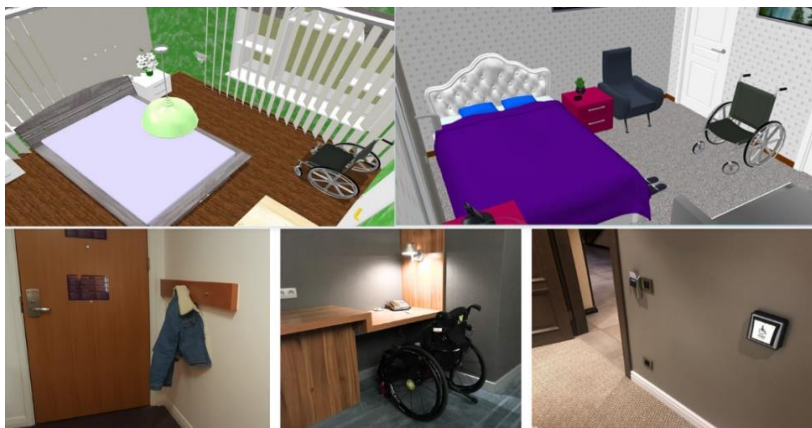
Figure 4.3 – 3D visualization of interior design elements
of inclusive rooms in the graphic editor "Sweet Home 3D"

The room has a vestibule that is not separated from the living area of the room and a separate room for the sanitary and hygienic unit. In the center of the room there is a double bed. Rounded shapes. The bed should be strong, stable, 50–60 cm high and quite spacious. The mattress is orthopedic and it is advisable to place it in a rubberized cover. Given that the bed is located next to the wall, a handle should be attached above it (at a low height) so that the client can hold on to it when trying to turn from side to side. There should be extra pillows on the bed. An additional blanket in the closet should lie at a height of no higher than 1.2 m.

Near the bed there is an emergency call button, sockets and switches. To the left of the bed is a comfortable chair, to the right is a tripod floor lamp. To the left of the bed, almost the entire area of the wall is occupied by a panoramic window, which provides the room with a lot of daylight. The low windowsill-shelf is decorated with translucent tulle and blackout curtains, providing a comfortable daytime rest in the room.

A separate functional area of the room is a place to place things and clothes necessary for use. To the left of the entrance there is a place for a suitcase 40 cm high, hangers-loops for outerwear at a height of 1.2, switches – 80 cm. There, the place for luggage turns into an open wardrobe for greater comfort for visitors. The wardrobe has two sections, the first with shelves, the second with a bar and hangers. The height of the cabinet is 1.6 m. The L-shaped desk completes the line of the functional area.

Under the table, next to the wardrobe, there is a refrigerator and a pouf for sitting, on the table opposite the bed – a TV, above the table there is a button for calling the staff and an outlet. The desk has a rounded turn of the table top. The height of the table is 80 cm.

The room is heated thanks to the air conditioning system located in the entrance part of the room. The walls are decorated with natural white decorative plaster with concrete imitation. The walls are covered with wooden panels to protect the surface of the walls.

On the ceiling is a decorative structure made of plasterboard with point additional light, in the center of the room there is a chandelier for general lighting, which makes it possible to illuminate the room well. The ceiling is also painted white.

The floor has a combined coating – parquet for the entrance and carpet covering the area with the bed and the entrance to the bathroom.

The entrance to the bathroom is located on the side of the room. To ensure more comfortable conditions for entering and exiting the bathroom, the door opens in both directions.

The interior of the sanitary unit is simple, but utilitarian. Elements of an inclusive bathroom: a thresholdless shower area, a stationary seat and handrails near the shower head and faucets in the shower area, handrails on both sides of the toilet, a hand wash basin with the possibility of height adjustment and free legroom under it, a mirror with the possibility of adjusting the angle of inclination.

The toilet has two types of handrails, one static attached to the wall, the other mobile, which can be raised and lowered as needed. To the left of the toilet is a place for crutches. The area with the sink is lined with mosaic tiles. Next to the wash basin there is a dispenser

with soap, a vertical drying rack for towels and an inclined mirror. The walls are made using white waterproof paint and blue mosaics.

The floor has a heated structure, the top layer is a white square tile. Lighting is provided by a general light chandelier. Emergency call buttons are located near the bathtub, sink, and toilet. The entrance door and bathroom door have perforations at the top for air ventilation.

The design project of the interior of an inclusive room involves the use of the following principles of universal design:

− equal, simple and convenient use of equipment, flexibility of use of premises (entrances, exits, rounded forms of furniture, sanitary ware);

− perception of information and availability of errors is conditioned by appropriate markings and emergency call buttons for personnel;

− insignificant level of effort and universal parameters for using interior equipment (door handle, sockets, switches).

Environmental comfort is created by the physical characteristics of the room's interior that are optimal for the body – a combination of temperature, humidity, sunlight, and air currents.

In the institution, it is also suggested to pay attention to the introduction of additional services:

− support services for clients with limited mobility, visual impairments, intellectual disabilities if necessary);

− sign language translation services;

− in the cafe of the sanatorium: availability of a menu translated into Braille for the group of consumers with visual impairments; a bar counter with a lowered section.

When choosing furniture for the cafe of the sanatorium, preference should be given to products of universal design. Furnishing elements should contrast with surrounding objects and adjacent surfaces. Tables must have a free space under the tabletop with a height of at least 700 mm and a depth of at least 600 mm, which will ensure free access for a wheelchair user. The presence of free space for legs under the tabletop is one of the main requirements for an inclusive table.

Therefore, the use of universal design in the sanatorium will provide a number of advantages:

− will form an inclusive society that takes into account human diversity, ensures equality and inclusion of all groups of hotel service consumers in society on equal terms; ensures respect for the capabilities of each person;

− will reduce stigma and discrimination by providing more opportunities for vulnerable groups;

− it will help people to be more independent of outside assistance, mobile and socially included;

− it will reduce the economic burden for the government of special programs and services designed to provide assistance to individual citizens and groups;

− takes into account the needs of all users in various industries, excludes future irrational costs, which is economically beneficial for the government and business;

− will make the sanatorium attractive and comfortable, accessible and convenient, safe for all users.

Currently, there are almost 3 million people with disabilities in Ukraine, of which more than 2 million are children of preschool age, a significant proportion of people over 60 years of age. Their number, both civilians and peasants, will only increase under martial law and after the end of the war. As a result of the development of regional programs and the support of sanatorium-resort activities by Poltava authorities, there is an opportunity to attract investments to the sanatorium named after "M. Gogol". And investment in the universal design of the sanatorium today means an increase in the number of customers and an increase in profits tomorrow.

Conclusions to chapter 4

It was determined that the global pandemic of COVID-19, the war with Russia caused great damage to the world's tourism industry, not bypassing our state as well. In the next few years, there will be a global rethinking of the organization of the work of hotel enterprises, strategies will change depending on the conditions that will develop in the world tourist market. In the future, the hotel and

restaurant business in Ukraine should grow due to the quality and originality of the services provided. The concept of Universal design also belongs to such promising services for implementation in hotel enterprises.

The expediency of introducing the "Concept of Universal Design" into modern service is indicated in order to increase the level of competitiveness of the means of accommodation in the market of hotel services and to solve the problem of service availability for tourists with special needs.

As a result of the conducted SWOT analysis, a set of factors restraining the development of inclusive tourism in the Poltava region was determined.

It was determined that the implementation of the universal design strategy requires significant changes in the design itself ("universal design"). The problem arises from the impossibility of applying this approach by hotel enterprises operating on the basis of reconstructed old buildings. The architectural features of such objects make it practically impossible to transform the planning organization of the building and premises to meet the requirements of universal design.

The design and construction of new facilities on the territory of the sanatorium named after "M. Gogol" with the use of the principles of "universal design", which will reduce social tension in remote areas by involving the local population first in the construction, and then in the maintenance of the sanatorium, which can increase the sales of services of sanatorium-resort organizations.

It has been proven that the integration of the sanatorium named after "M. Gogol" will provide an opportunity to solve common problems and strengthen their interaction with authorities. A further deepening of integration can be the creation of a resort and recreation cluster of the region, which will include other enterprises with service activities, which should affect the replenishment of the Myrhorod district budget and tax payments. Social innovations have been studied as a modern trend that hotel enterprises are picking up, getting the opportunity to satisfy the maximum number of potential customers, including such a segment of consumers as people with disabilities and other low-mobility population groups.

It was determined that in the territory of Poltava region, treatment and rehabilitation are carried out by several sanatoriums, among them competitors in the Myrhorod region for the sanatorium named after "M. Gogol" there are sanatoriums "Myrhorod", "Khorol", "Birch Grove", "Sosnovy Bir", "Slava". However, today the main competitor for the Psyol sanatorium in terms of the possibility of providing social services can be considered the Slava sanatorium in Myrhorod. It is this sanatorium that participates in an experimental project to provide social services to internally displaced persons. The "Slava" sanatorium will be able to simultaneously provide social services for more than 340 elderly and disabled people from among internally displaced persons in accordance with the Resolution of the Cabinet of Ministers of Ukraine No. 248 of 21.03.2023, starting from July 2023.

The practical experience of the social and innovative activities of the leading hotel enterprises regarding the introduction of elements of universal design was studied, which will be applied in the development of measures for the introduction of elements of the universal design of the water baths named after "M. Gogol". Recommendations for the development of inclusive tourism in the Poltava region were provided.

Recommendations have been developed for the design of the external environment of the Gogol Sanatorium in the Poltava region for service users with limited mobility, namely: arrangement of parking spaces using the international symbol of accessibility for persons with disabilities; arrangement of the entrance door in accordance with the requirements of inclusiveness; placement of a mnemonic diagram with information in tactile form and Braille about floor plans of the sanatorium building, evacuation routes, individual locations of the facility for independent orientation in the space of visually impaired guests, etc.

For the organization of the internal space of the researched institution, recommendations are provided for the organization of the reception area; vertical communications; the layout of the inclusive room is given, the interior design project of the inclusive room with 3-D visualization of the interior elements in the graphic editor

"Sweet home 3D" has been developed. It is determined to ensure the principles of universal design during the organization of the proposed events.

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CHAPTER 5
IMPROVING THE QUALITY OF SERVICE AT HOTEL AND RESTAURANT BUSINESS ENTERPRISES THROUGH THE USE OF THE LATEST OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS

5.1. Norms, rules and instructions on labor protection in hospitality establishments when using automated workplaces

In the context of market relations, state activities to protect employees at enterprises are becoming increasingly important (Figure 5.1) [1]. An important issue is the creation of a regulatory framework that meets the economic interests of the employer in creating safe working conditions at enterprises. As an institution whose main task is to ensure an adequate level of safety and working environment, the health and safety service plays an important role in the implementation of the national policy on improving working conditions. A very important task in this area is to change the attitude of employers and employees to issues directly related to occupational safety, as well as to improve the level of training of specialists and employees at all levels.
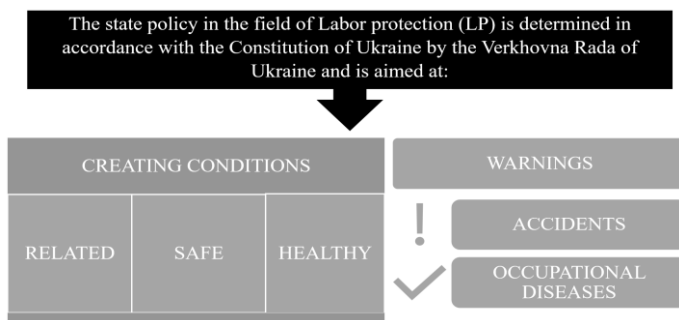
Figure 5.1 – State Policy in the Field of Occupational Safety and Health [systematized by the author] [1]

The hotel industry has a number of features that significantly increase the risk of accidents and injuries. The number of legal acts on occupational safety and health in hotels in Ukraine is generally higher than in other service organizations and corresponds to the following main legislative documents (Figure 5.2).

Figure 5.2 – Key legislative acts in the field of labor protection [systematized by the author]

The approved regulations regulate general issues and are the basis for the functioning of the entire occupational health and safety system of a hotel company. They are drawn up on the basis of standard regulations approved by the relevant authorities, taking into account the specifics of a particular enterprise.

If a hotel employs a large number of employees, it becomes necessary to create a separate occupational health and safety service and develop rules for its activities. In this case, it is quite common to develop a management system and define its main functions, tasks and features. Work involving high risk requires separate rules for admission to such work.

Occupational safety instructions are drawn up for all staff by profession. For guests, the rules of safe behavior, evacuation, etc. are prescribed. When creating labor protection regulations in a hotel, fire safety rules, sanitary and hygienic rules, etc. are applied. An approximate list of instructions includes the implementation of the following regulations (Figure 5.3).

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| | 1. Program (text) of the introductory occupational safety and health briefing and texts of briefings at workplaces |
| | 2. Regulations on the Occupational Health and Safety Management System (OHSMS), which should include the following documents: |

Regulatory legal acts and draft orders on labor protection, which should be at the the enterprise:

2.1. Order on the organization of the occupational health and safety service and appointment of the occupational health and safety officer
2.2. List of labor protection instructions that should be in place at the enterprise
2.3. List of works with increased danger
2.4. Regulations on training on labor protection issues
2.5. List of jobs for which professional selection is required.
2.6. List of occupations of employees who must undergo preliminary or periodic medical examinations.
2.7. List of officials who are required to undergo preliminary and periodic testing of knowledge on occupational safety and health
2.8. List of jobs where the use of women's labor is prohibited
2.9. List of jobs where the use of labor of minors is prohibited
2.10. Composition of the permanent commission for testing knowledge on labor protection issues

Figure 5.3 – Implementation of labor protection
regulations [systematized by the author]

Documentation on labor protection in a hotel should include rules for the use of equipment, i.e. its maintenance and operation. The list of tasks for the day also falls into this category, but this document is intended for everyone, regardless of position. In addition, rules for first aid and fire safety are also drawn up.

Local orders are valid only within the company and are necessary to assign responsibilities and approve rules and regulations. They implement orders and define the responsibilities of individual employees. Other tasks include performing certain actions and functions, such as medical examinations and training. As a management document for health and safety in hotels, one of the main orders is to appoint persons responsible for general health and safety, electrical safety, gas safety and buildings and facilities. It is also used to approve the conduct of knowledge tests and accident investigations.

Logs in a hotel are required to record certain actions and administrative functions defined by rules and internal regulations. The list varies depending on the activities of each enterprise. There are the following journals for accounting and registration of hotel operations (Figure 5.4).

Journals that the labor protection service needs to have:						
registration of accidents that occurred with pupils, students, cadets, trainees, and postgraduate students (form N-N);	registration of accidents that occurred with employees at work (Forms H-1, H-5, NPV);	recording of accident reports;	accounting for occupational diseases (poisonings);	accounting for high-risk facilities;	registration of an introductory briefing on labor protection;	registration of protocols of laboratory tests of working conditions (if necessary)

Figure 5.4 – Logs of accounting and registration of the labor protection service [systematized by the author]

The hospitality industry has its own unique set of health and safety challenges. From a hazard perspective, the overall infrastructure and operations of the hospitality industry can be divided into different categories, such as kitchen, bars, seating area, rest area, machinery, assembly area, parking lot, and other miscellaneous areas. Different hazards are present in these areas, and therefore, it is necessary to take precautions based on the hazard control hierarchy, i.e., elimination, replacement, engineering control, administrative control, and personal protective equipment, which are most effective for hospitality businesses.

That is why automated workstation (AWS) systems have been developed to help managers of hotel and restaurant enterprises. The use of workstations is a topical issue, so the next subsection is devoted to this material.

Engineers or occupational safety and health specialists in the hospitality industry process a large amount of information, and therefore have a significant psychological and emotional burden.

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Based on this, an urgent issue is to facilitate their work, increase productivity and comfort by automating the processes of collecting and processing information, i.e. improving ergonomics [2].

One of the types of automation that is widely used at certain stages of production activities of business entities is robotization [3].

Robots and artificial intelligence (AI) are changing the distribution of tasks among employees, protecting health as they are used to perform physically intensive tasks, reducing risks.

In addition, the growing uncertainty and challenges faced by employees with the introduction of new technologies, increased automation, and the adoption of AI may also directly affect job satisfaction and individual well-being. The relationship between robots, automation, and workers' physical and mental health is complex and has so far received only limited attention in the literature [4].

The International Federation of Robotics (IFR) defines industrial robots as "an automatically controlled, reprogrammable, multipurpose manipulator programmable in three or more axes that can be fixed in place or on a mobile platform for use in automation systems in an industrial environment." The main difference is that AI does not require physical manipulation and involves computer learning, unlike robots. Robots in the hospitality industry are becoming more and more commonplace, ranging from AI chatbots designed to assist in the customer service process to assistants tasked with improving the guest experience. Hoteliers highly value the ability of robots to acquire data and automate processes, as well as reduce operating time and costs.

The leader in the use of robots in the hospitality industry is China (Figure 5.5), where in 2023–2024 the operating stock exceeded 1 million units, of which about 11% were used by accommodation facilities. In the United States, the number of installations increased by 14%, and the hospitality industry is one of the leaders in terms of robot adoption. Figure 1.6 illustrates the number of robots installed per 10,000 employees in the hospitality industry in a number of countries.
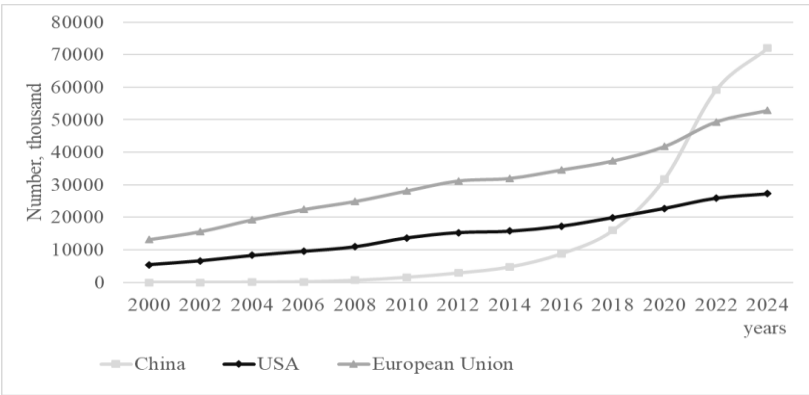
Figure 5.5 – The use of robots in the hotel and
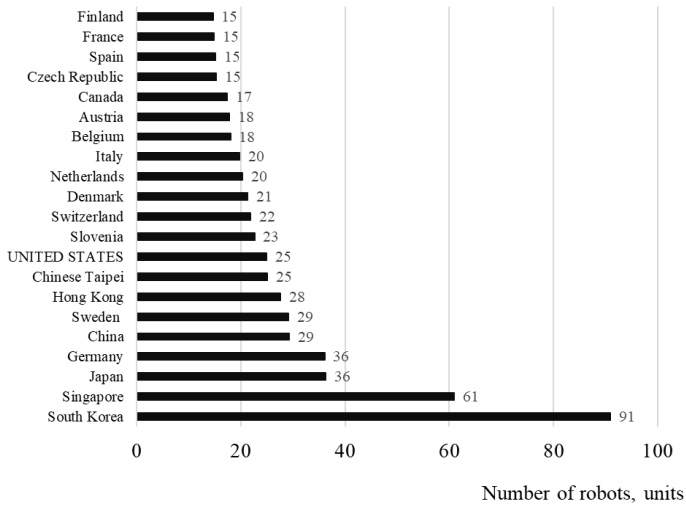restaurant business [systematized by the author]

Number of robots, units

Figure 5.6 – Number of robots installed per
10,000 employees [systematized by the author]

According to the Bureau of Labor Statistics, in 2021, private sector employers in Europe reported an average of more than 5,000 fatal injuries and more than 2.6 million non-fatal injuries and

illnesses in the workplace, with an estimated cost of approximately $167 billion, equivalent to about 3.5% of government budget expenditures.

In 2021, almost all sectors of the economy recorded more accidents than in 2020. In particular, the "hotel and restaurant business" sector recorded a significant increase in the number of accidents (+21%), followed by "administrative and support activities" (+19%) and the "transportation and storage" sector (+15%) [5].

Injuries are typically caused by contact with objects, overstrain and overreaction, falls, slips and trips, and transportation accidents. Intentional safety violations account for only a small portion of cases. They are caused by overconfidence, haste, frustration, and fatigue, as well as inattention and unintentional mistakes. The use of robots in so-called dirty, hazardous, and complex areas of production can reduce the risks associated with the hazards inherent in strenuous, repetitive tasks. Industrial robots can be used to perform physically intensive or hazardous tasks, which are usually associated with an increased rate of injuries and harmful effects on the health of employees.

In Ukraine, suppliers of such equipment offer the Intelligent Hotel solution, a room management system that is a set of software and hardware that organizes interaction between separate systems integrated into a single information management structure based on local and global networks. The systems provide automatic control of the microclimate and lighting, which involves turning lamps on and off and changing their brightness depending on the weather, ambient light, and the presence of people in the room. The script also controls shutters, blinds, and curtains. Thanks to the coordinated operation of engineering systems, a smart hotel is energy efficient and has a long service life. It can be easily upgraded in the future without additional repairs and wiring replacement.

Guests are offered a Multi-Room audio system. It plays music and programs, reads mail, while the sound follows the person in the room. You can set different settings for each zone.

Such solutions take care of the hotel security system and offer a fire alarm system, access control system, audio and video

surveillance of the hotel. Automation monitors utilities (gas, water) to shut off pipes in case of leakage, call the appropriate services and notify the owner. Special scanning devices on all doors will compare incoming biometric information stored in the customer and employee database. Thus, the risk of unauthorized persons entering the hotel is practically reduced to zero [6].

As for the specialized software for organizing an automated workstation (AWS) for a security engineer, there are practically no such offers in Ukraine [2].

Existing systems offer automation of the workplace of the O&M engineer, due to MS Office office packages running in the Windows environment (Figure 5.7).
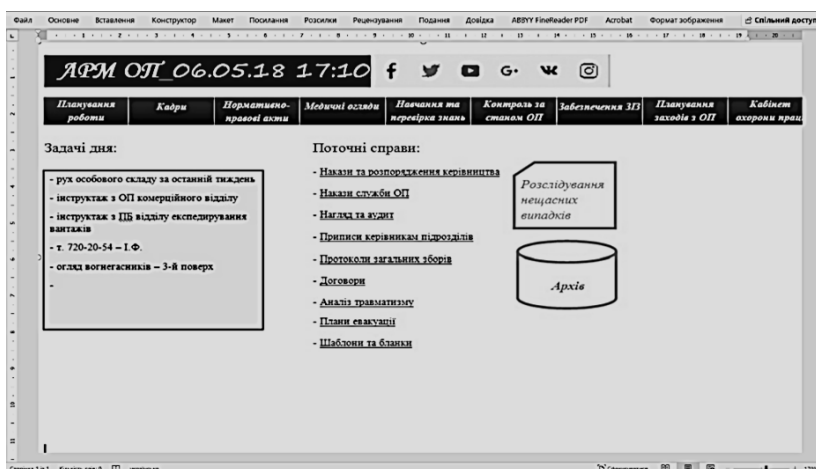
Figure 5.7 – Interface of the automated workstation
program for labor protection [2]

The key element of the interface of the workstation is a WEB-like hypertext document. MS Word auto-figures containing hypertext links located at the top of the document correspond to the main, basic areas of work of the HR specialist. At the bottom of the document are links related to current, daily needs.

The use of robots and specialized automated workstations for occupational health and safety in hotels can significantly reduce the

workload on employees. However, the use of computer programs and robotization of the enterprise requires the use of Web resources, which in turn increases the threat of cyberattacks on the electronic systems of accommodation facilities. Ways to solve the issue of cybersecurity of a hotel enterprise are presented in the next subsection.

5.2. Formation of cyber and economic security systems of the hotel enterprise

The hospitality industry is in the focus of cybercriminals for several different reasons (Table 5.1).

Table 5.1 – Possible threats of cyberattacks in the hospitality industry

№ i/o	Type of threat	Risks
1	Financial	Delivering services with the help of artificial intelligence, chatbots, and other technological tools, hospitality companies are accumulating more and more information. For example, credit card information, passport data, travel routes, personal preferences, etc. Loyalty point balances are under scrutiny, as are credit card statements. In addition to stealing accumulated points, attackers can also obtain more personal information (full name, date of birth) and, as a result, crack more passwords and credentials. Wealthy guests are the main targets for hackers. Access to confidential VIP customer data can open up wide opportunities for fraudulent purchases and phishing attacks
2	Physical	Hackers can break into one regional hotel and gain access to the entire network. Each hotel has many potential entry points for criminals: alarm systems, electronic door locks, Wi-Fi, climate control systems, numerous Internet devices, etc.

№ i/o	Type of threat	Risks
4	Human factor	High employee turnover creates problems with managing authorizations for different employees. At the same time, one mistake by an unsuspecting employee can jeopardize the entire international chain
5	Reputational	The consequences of a cybersecurity failure can be catastrophic. The most obvious is a blow to the brand's reputation. Customers are unlikely to trust a company that has failed to protect the personal data of its guests. In addition, there are legal and financial penalties

Let's take a look at the most famous incidents of cyberattacks on hotel and restaurant companies:

✓ One of the most famous data breaches at Starwood hotels, which began in 2014, exposed 339 million guest records. In 2020, the UK's Information Commissioner's Office (ICO) fined Marriott International, the owner of Starwood, $24 million;

✓ Inter Continental Hotel Group (IHG) was attacked in 2022. The incident began with the compromise of Starwood's data and subsequently spread to the IHG group, which includes more than 6,000 hotels in 100 countries;

✓ Between 2008 and 2010, cybercriminals compromised about 619,000 Wyndham customer records. The data breach resulted in customers losing more than $1.6 million to fraud. The hotel spent more than $5 million in legal fees and vendor fees to fix the data breach.

Today, cybercrime departments respond promptly to any attacks on accommodation clients. However, the practice of such attacks allows us to compile the most common types of cyber threats in the hospitality industry (Figure 5.8).

"The costs and reputational damage associated with security lapses are more costly to a hotel brand than proactively investing in

security solutions and programs before an incident occurs," says Jeff Venza, Chairman and CEO of Venza.
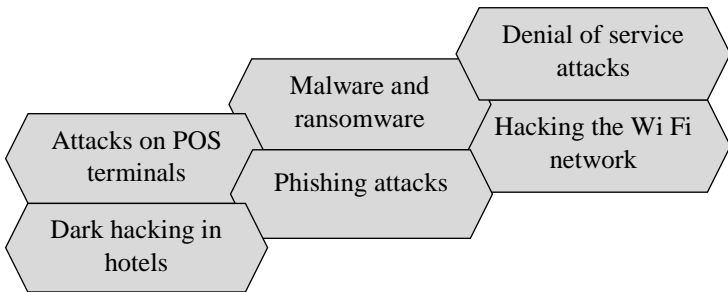
Figure 5.8 – Common security threats in the hospitality industry [systematized by the author]

System intrusions, social engineering, and basic attacks on web applications account for 90% of hospitality breaches. Let's take a look at them and possible ways to strengthen cybersecurity in the hospitality industry (Figure 5.9).
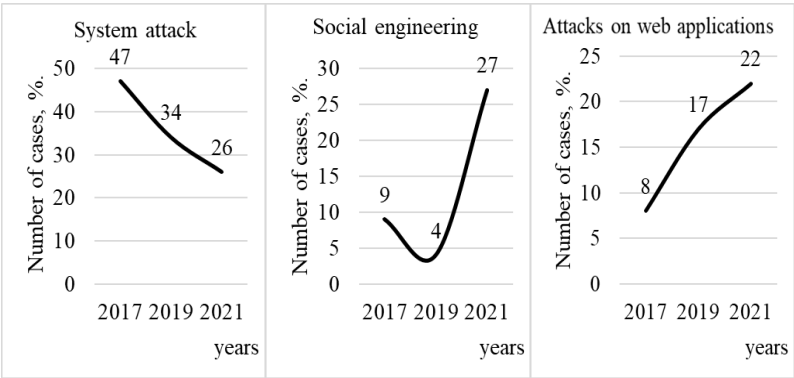
Figure 5.9 – Indicators of major cyberattacks in the hospitality industry [systematized by the author]

Attacks on POS terminals are aimed at direct access to customer credit cards and are the most common in this sector. Hotels may have POS terminals (terminals in restaurants, parking lots, etc.) that offer

multiple entry points for hackers. Unsecured remote access or a weak password on any of them is an avenue for a cybercriminal.

With the onset of the pandemic, the number of attacks dropped sharply. But after restrictions were eased and old spending patterns returned, hacker activity increased again. A total of 4,173 devices were attacked from January to August 2022 (Figure 5.10).
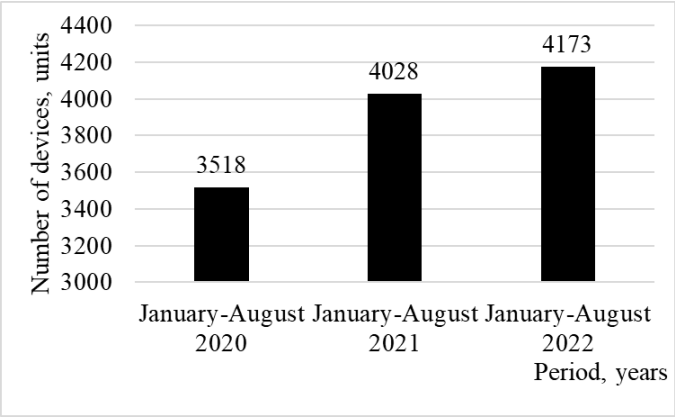
Figure 5.10 – Number of devices attacked by malware in the first eight months of 2020–2022 [systematized by the author]

To protect against cyber threats, venues should follow the following recommendations:

− use PCI standards in all networks, routers and servers;
− use end-to-end encryption, antivirus, and two-factor authentication on POS systems. By encrypting cardholder data, the hotel can prevent hackers from easily accessing it in the event of a network failure;
− cooperate with a reliable data protection service provider;
− monitor possible thefts of POS devices, regularly registering all cases.

Malware infiltrates networks or individual computers by deleting files, stealing information, or installing unwanted software. This category includes viruses, spyware, and so-called Trojan horses.

A computer or network can become infected when users install software, visit infected websites, click on email attachments, pop-ups, or links.

To protect against malware or ransomware, a hotel company should:

− update browsers and anti-virus software;
− regularly back up big data;
− train staff on how to avoid security breaches in the hotel business;
− scan flash drives for viruses before using them;
− be careful when clicking on links and advertisements;
− not to grant administrator rights to software from unknown or unreliable sources.

Phishing emails look like emails from a trusted sender. In such emails, hackers try to lure out confidential information, such as passwords or credit card details, from recipients.

For example, the attack may involve a combination of a phone call and an email. The criminal calls the hotel, posing as a disgruntled customer demanding a ransom. The "customer" offers to share the details of the case via email. The hotel employee opens the next email and probably activates the malicious file. Thus, the hacker gains access to the hotel network.

To protect yourself from phishing attacks, we recommend following these steps:

− install and update software to detect phishing emails;
− train employees to recognize phishing emails (suspicious addresses, poor grammar, spelling, typos, etc.).

A high-speed Wi-Fi network is a must for a modern hotel. Hackers can try to install an unauthorized access point (AP), a wireless access point on a secure network, without the administrator's permission. As a result, criminals can hack into the network from inside the hotel or even from a nearby car.

Another cybersecurity threat in the hospitality industry is "evil lookalikes," fraudulent copies of legitimate Wi-Fi access points. Hackers approach a hotel and try to obtain information about the access point (MAC address, SSID name, and channel number). With

this information, they can create a replica of a real access point. Hotel employees and guests inadvertently connect to the wrong access point.

As a result, attackers can hack into guests' laptops or smart-phones. They can steal personal data and passwords, and infect devices with malware. In addition, if the hotel's database with guest information is not properly protected, hackers can also get it.

You can protect your guests and employees from attacks via a Wi-Fi network in the following ways:

− use of wireless intrusion prevention systems that can search for unauthorized access points by monitoring the radio frequency spectrum;

− encouraging guests to use virtual private networks (vpn), which provide an additional level of security.

A DDoS attack is an attempt to disrupt the operation of a server or network by overloading it with Internet traffic. Hackers use botnets of compromised networks to create a powerful traffic flow. According to cybersecurity and antivirus service providers, the number of DDoS attacks in the first quarter of 2022 increased 4.5 times compared to the first quarter of 2021.

Hotels operate with a variety of computer-controlled devices: heating, ventilation, air conditioning, sprinkler systems, video surveillance systems, etc. These devices can send impulses to infrastructure elements, disabling the entire system. DDoS attacks can disrupt billing, ticketing, or the hotel's official website.

To protect against DDoS attacks, you should:

− use anti-ddos services to detect and eliminate suspicious spikes in network traffic;

− make sure that firewalls and routers have the latest security patches installed and can reject "malicious" traffic [7].

Violation of labor protection rules, both by employees and guests of the hotel, can lead to negative consequences in the hospitality business. The consequences can significantly affect the economic performance of a hotel and restaurant enterprise. Given the above material, it is necessary to pay attention to the formation of a system of economic security of hospitality enterprises. The next subsection is devoted to this issue.

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The issue of economic security for hospitality companies is especially important in connection with new threats and challenges associated with the introduction of martial law in Ukraine [8]. Some of them are listed below:

− impossibility or difficulty to continue operations due to damage or destruction of hotel facilities;

− impossibility to suspend or terminate cooperation between hotel companies and foreign partners due to force majeure or failure to fulfill the terms of the contract;

− a high level of uncertainty in all subsystems of the hotel and spa business;

− a rapid decline in potential consumer demand and economic sustainability for hotel and restaurant services;

− threats to the reputation of hotel and restaurant enterprises;

− threats of raiding and takeovers of enterprises by others;

− migration of the population abroad, i.e. lacks of human resources;

− high inflationary processes;

− failures in banking, financial, transportation, logistics and other systems;

− activities of the hospitality sector in high-risk situations [8, 9].

Effective solution of economic security problems of accommodation facilities requires an approach based on the analysis of the enterprise, identification of the most vulnerable areas and particularly dangerous threats, preparation of all possible scenarios and development of appropriate risk management measures. An integrated approach ensures the optimal combination of organizational, technical and physical measures to prevent and respond to all hazardous situations in a timely manner. The right choice, proper design, installation, and maintenance of security equipment and systems are key. Dynamic changes in the economic security of an enterprise largely depend on the stages of its life cycle. At each stage, the company faces different types of threats to its economic security and different problems that need to be addressed by creating and implementing appropriate strategies and behavioral systems. In addition, taking into account the life stages of an enterprise is crucial

for ensuring strategic management that takes into account the current level of economic security and the ability to ensure it in the future [10].

Let us consider the strategic directions of strengthening the economic security of the hotel enterprise (Figure 5.11).

Capabilities of the enterprise	Introduction of new services	Investing in new business areas	Creating new ideas and projects	Stability and going concern
Continuous development				Financial and economic stability
Stability and going concern	Changing priorities in activities	Attracting long-term credit resources	Changing priorities in market segments	Efficient use of resources
Countering threats	Creating new services	Attracting short-term credit resources, including customer accounts	Saving resources	The company's performance results

Figure 5.11 – Strategic directions for strengthening economic security [systematized by the author] [10]

The main task of economic security is to interact with other sectors of economic security to ensure maximum stability of the enterprise and create favorable conditions for further development by preventing possible risks and negative impact on the company's financial and economic activities. The conceptual basis for the economic security of hotel and restaurant enterprises is the proposals shown in Figure 5.12.

The practice of efficiency of modern enterprises shows that the highest levels of the strategic system of economic security are achieved through the use of innovations. Another important step in ensuring an effective system of economic security is the use of facilitation management.

I. Description of the problematic situation in the field of economic security	II. The mechanism of economic security	III. Measures to implement economic security measures
List of potential security threats, classification and ranking	Definition of the object and subject of economic security	Formation of enterprise security subsystems
Causes and factors of threats	Formulation of enterprise security policy and strategy	Identification of economic security actors and their roles
Negative consequences of threats for a business entity	Principles of economic security	Calculation of assets and determination of methods to ensure economic security
	Goals and objectives of enterprise security	Monitoring and evaluation of the concept implementation
	Criteria and indicators of economic security	
	Creating organizational structures to manage the enterprise security system	

Figure 5.12 – Conceptual framework of economic security of the hotel and restaurant industry [systematized by the author]

The unstable economic climate and dramatic changes encourage companies to be prepared to work hard in high-risk crisis situations, which requires a well-thought-out economic policy and economic security system. Economic security services are especially important in today's environment of increased competition and, if necessary, a high level of responsibility to customers. In order to strengthen the economic security of hotel and restaurant businesses, a number of important measures must be taken to ensure successful economic development and stability, guarantee the preservation of financial and material resources, and adequately respond to changing internal

and external conditions without incurring large losses. Effective planning and implementation of comprehensive measures to ensure the economic security of hotel and restaurant enterprises is a prerequisite for ensuring stable management and development, as well as competitiveness and profitability of their activities [10].

The need to apply certain measures to improve the security of a hotel enterprise is determined by its level. The level of reliability is determined by the scale of measuring the security culture in the hotel industry. The creation of a scale for measuring the security culture in the hotel industry will be considered in the next subsection.

5.3. Creating a scale for measuring security culture in the hotel industry in a pandemic and martial law

The concept of safety culture was introduced in 1986 in the final report of the meeting to review the consequences of the Chernobyl accident [11]. This report stated that "there is a need for a 'nuclear safety culture' at all operating nuclear power plants" [11]. Since then, an exponential amount of scientific research has been devoted to the concept of safety culture. In addition, safety culture has been a popular topic in the workplace for many years.

Safety culture is based on a common conceptual model called the Aggregate Model, which is an integrative and holistic approach. The conceptual framework of safety culture is called the "Integrated Safety Culture Assessment" (ISCA) where the value indicates its practical applicability. The ICCA consists of three main building blocks or domains that interact with each other in a cyclical and reciprocal manner: human, organizational (contextual) and techno-logical. In addition to these three components, there is a distinction between observable and unobservable factors.

Observable aspects are tangible, visible and can be observed in the organization. They relate to what people do, such as safe behavior, and what the organization has, such as a safety policy that can be found in company documents. It covers all objective aspects of the organization related to safety [11].

Non-observable security-related aspects are less tangible, less visible and not directly observable in the organization. They relate to all subjective aspects related to safety, such as what employees think about safety in the company or their attitudes toward safety.

The technological domain covers all safety-related aspects related to the physical work environment, and how these characteristics are taken into account to manage safety in the organization. The physical work environment is defined by the organization's main activities, associated risks and possible accident scenarios, and the corresponding safety measures. The technologies, processes, design, materials, equipment used in the organization are determinative of the risks and possible accident scenarios present in the organization. This area consists only of those aspects that can be observed [11].

The organizational or contextual domain covers all aspects related to security at the company level. It includes observable organizational aspects that reflect the management of security within the organization (e.g., security resources such as money and people, as well as security policies). In addition, it includes organizational aspects that are not observable but reflect the perception of how the organization treats security. This refers to the (internal) security context that is created by company-level decisions [11].

The human domain covers all aspects related to security at the individual level. It includes visible human aspects - safe and unsafe behavior of individuals – as well as invisible human aspects, such as security competence or personal security priorities of individuals in the organization [11].

This framework leads to five areas that together form an organization's safety culture, as shown in the center of Figure 5.13.

The two-way arrows indicate the dynamic interaction between different areas. For example, safe behavior is not a separate domain. The way people act (and interact) should always be considered in the organizational and technological context of the organization. Changes in the organizational and/or technological context will often lead to changes in actual behavior, reflecting the cyclical and reciprocal interaction of the different domains of safety culture.
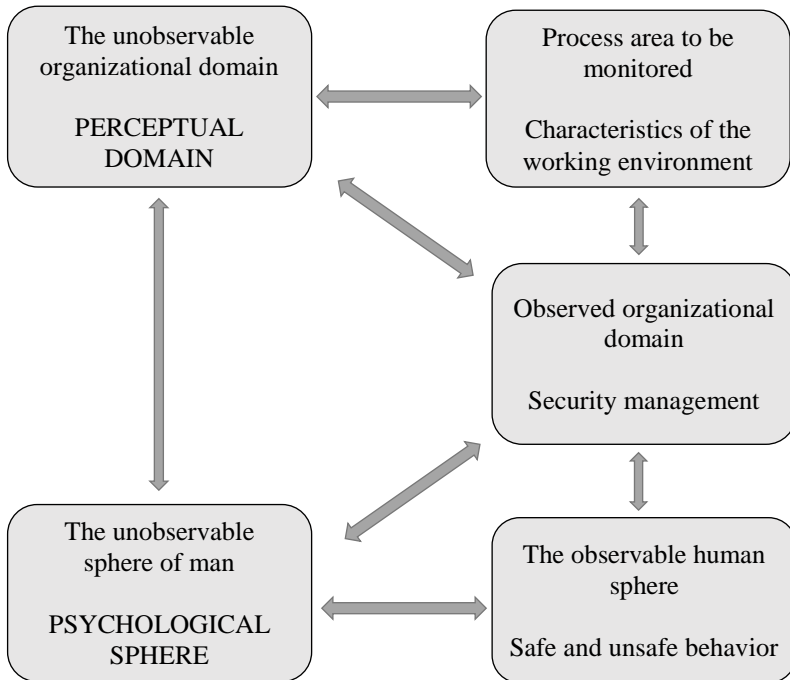
Figure 5.13 – Integrated assessment of
security culture [systematized by the author]

In order to translate the five domains of safety culture into measurable safety outcomes, the overarching domains need to be further broken down into measurable subdomains. Figure 5.13 shows the approach to defining the sub-areas that have been identified by the IECC methodology and that have been used to ensure the usability of the IECC in the workplace.

At the first stage, a literature review of existing tools for measuring and improving security culture was conducted to identify current strengths and limitations [12]. Based on this review, the following recommendations were made for the development of an ICS:

− when assessing an organization's security culture, an integrative view and approach should be used, where human, organizational, contextual and technological factors should be taken into account;

− involvement of the entire organization is crucial, all levels of the organization should be involved in the assessment of the safety culture: the safety department, employees, managers, supervisors, management and external parties such as contractors;

− the assessment should be tailored to the specific needs and context of the organization. developing a tool that can be applied to all sectors and sizes of organizations, a so-called "one-size-fits-all" tool, is neither feasible nor appropriate;

− when diagnosing the security culture in an organization, a variety of methodologies should be used. each methodology has its limitations, and these limitations can be reduced by applying data triangulation.

Based on these recommendations, the general framework of the BCM was defined: an organization's security culture should be assessed in an integrative manner, using a variety of research methods that involve the entire organization and in which the assessment takes into account the specific context of the organization.

During the coronavirus crisis, consumers of hotel and restaurant services preferred independent travel and accommodation and began to choose their own type of vacation. Consumer preferences have changed, and tourists have begun to favor destinations related to rural green recreation and seaside vacations. Medical tourism is another promising sector that increases tourist flows to Ukraine, and demand for this sector is growing steadily [13].

Key representatives of the hospitality industry, in particular international hotel chains, have taken a number of external and internal measures to minimize the impact of the COVID-19 pandemic, including the following:

− rescheduling of room reservations for guests;
− reimbursement of tour expenses;
− optimization of loyalty programs;
− social support for local communities;
− staff reductions;
− unpaid vacations;
− reduction/cancellation of capital investments [14].

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Figure 5.14 – Process for developing an integrated
security culture assessment [systematized by the author]

The measures taken by the government during the pandemic can
be divided into three main categories:

1) ensuring a fair balance between the protection of tourists and
the interests of hospitality workers;

2) ensuring the survival of enterprises in the supply chain, with a
special focus on small and medium-sized businesses;

3) focusing on coordination mechanisms to support and restore
the hotel industry.

According to a survey of hoteliers conducted by Colliers International in conjunction with Vertex Hotel Group in March 2020, about half (47%) of the surveyed representatives of five-star hotels took comprehensive measures to reduce losses: transferring employees on vacation at their own expense, decommissioning of the room stock, reducing marketing budgets, etc.

At the initiative of the Ukrainian Hotel and Resort Association (UHRA), a survey was conducted with 122 hotels with an average of 72 rooms. 93% of respondents confirmed the general decline in the level of revenue of their hotels, in 21% of hotels gross revenue decreased by 25–40%, in one third of hotels – by 40–60%, in 30% of hotels the subsequent reductions amounted to more than 60%, only 4% of hotels showed an increase in annual revenue, and in 3% it remained at the same level.

At the same time, 66% optimized their costs by reducing staff, 2/3 reduced prices for their services, 63% of respondents improved their product and services (repair, repositioning, updating work standards and conditions with suppliers, changing equipment, etc.), 1/3 of respondents have implemented digital and marketing tools, 27% have introduced alternative services (coworking, renting rooms for offices, etc.), 7% have decided to re-profile some of the premises, for example, for renting as gambling facilities [15].

Studies of trends in the global and domestic hospitality industry show that the key trends and tendencies that act as a response to the coronavirus pandemic are as follows: safety and hygiene, contactless payments, voice search, improved food and beverage delivery, use of robots, chatbots, virtual tours, mobile check-in service, environmental friendliness, personalization, smart hotels, artificial intelligence. In the context of the pandemic, flexibility and the ability to quickly adapt to market conditions have become the main factors of survival. The full-scale military aggression by Russia has become an even greater challenge. This issue is discussed in the next section.

The introduction of martial law in Ukraine has had a negative impact on all sectors of the economy, and the hotel and restaurant business is no exception. This situation has forced the hotel and restaurant sector to look for new activators and motivators for

survival and prosperity that will allow it to make effective and at the same time promising business decisions to work in the labor market for the benefit of the state.

The International Organization for Migration (IOM), the United Nations migration agency, has announced a grant competition to support microenterprises and self-employed persons within the framework of the project "SME Development: Economic Integration and Business Recovery of Internally Displaced Persons", funded by the German Ministry for Economic Cooperation and Development (BMZ) through the German Development Bank (KfW). The grant project is primarily aimed at supporting and restoring the hospitality and hotel business, as well as restaurants and catering.

On March 15, 2022, the Verkhovna Rada of Ukraine passed a law providing "additional tax incentives to support businesses in wartime." In total, it includes about 40 tax and other changes. Among those that will help businesses in wartime, large companies will be able to use the simplified taxation system and pay a single tax, as small and medium-sized enterprises do today. For this purpose, the annual turnover limit for an enterprise or company will not exceed UAH 10 billion, and restrictions on the number of employees have been lifted. Private entrepreneurs of the II-III groups may be exempt from paying the unified social contribution for mobilized employees; from February 24, 2022, until the end of 2022, owners of land plots in the conflict-affected areas are exempt from paying taxes; from February 24, 2022, until the end of 2022, owners of land plots in the conflict-affected areas are exempt from paying taxes [16].

Accounting procedures have been simplified by establishing a tax rate of 2% of turnover instead of VAT and income tax. A single voluntary tax was introduced for small and medium-sized enterprises and private entrepreneurs of the first and second groups. "If you can pay it, you can pay it, and if you can't pay it, it's okay," the President said, adding that inspections of companies will be "canceled as much as possible." It is safe to say that the hotel and restaurant sector is going through perhaps the most difficult period in the history of Ukraine's independence under martial law. Since the outbreak of

war, many hotels and restaurants in different cities of Ukraine have been repurposed to temporarily accommodate refugees, prepare hot meals and provide meals for Ukrainian military and volunteers evacuated from various areas where hostilities are ongoing. The facility is also used as a recreation center. The hotels also provide storage facilities for humanitarian goods and cleaning services to help the affected civilian population [16].

Martial law, trends in the management of the hotel and restaurant business and fierce competition in the service market require development in certain regions and the widespread use of strategic planning in creating a favorable organizational, legal and economic environment, providing socio-economic benefits and ensuring the safety of guests visiting different regions of the country.

In order to ensure the effective functioning and development of the hotel and restaurant business, the state, with the support of international organizations, is implementing programs and projects to support this sector of economic activity. Many countries around the world are trying to support Ukraine and help its economy and hospitality sector. People from all over the world are making "charity bookings" of rooms in Ukrainian hotels for any date in 2022, when the occupiers began their large-scale invasion.

Hotel operators are advised to set prices at the level of standard prices during normal times. If a benefactor wishes to make a large donation, the hotel may offer the opportunity to book a room for a longer period. All funds raised in this way are directed to hotel projects in Ukraine.

Conclusions to chapter 5

The study of the state policy in the field of occupational safety and health showed that it is aimed at creating proper, safe, healthy working conditions and preventing accidents and occupational diseases. At hospitality companies, these processes are regulated by engineers and occupational health and safety specialists who process a large amount of information and are therefore subject to excessive physical and psychological exhaustion. To solve this problem, it is

recommended to increase the automation of production processes, one of which is robotization and the use of artificial intelligence, since in Ukraine, special programs based on MS Office are mainly used for this purpose.

The proposal to use robots and automated workplaces, as well as other computer programs and applications, increases the threat of cyberattacks on hospitality companies. In order to address this issue, the following recommendations are suggested: use PCI standards in all networks, routers and servers; use end-to-end encryption, antivirus and two-factor authentication on POS systems; encrypt cardholder data; cooperate with a reliable data protection service provider; monitor possible theft of POS devices, regularly recording all cases; update browsers and antivirus software, back up big data; check flash drives

It is also necessary to create a scale for an integrated assessment of the security culture of a hotel company, which is a prerequisite for ensuring economic stability, competitiveness and profitability even in a pandemic and martial law.

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CHAPTER 6
THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON THE QUALITY OF SERVICES IN THE RESTAURANT BUSINESS

6.1. The main field of artificial intelligence application in the restaurant business

The market of restaurant services is quite large in terms of volume and is constantly developing. There are a large number of players operating in this market and therefore it is characterized by high competition. It is known that the restaurant business is one of the most risky types of business and at the same time it is one of the most profitable. But in order to withstand competition in the market of restaurant services, it is necessary to have competitive advantages. The main competitive advantages of restaurant business enterprises today include the quality of services and their cost.

Today, in the conditions of war and the coronavirus pandemic, it is quite difficult to have competitive advantages. Because most of the restaurants needed to reorganize to a new service format, change the menu, change suppliers, establish new connections, and change the volume of production. And all this had a corresponding effect on the quality of service and the cost of services.

One of the tools that can improve the quality of services and work effectively in the market of restaurant services is artificial intelligence. Artificial intelligence can perform many intellectual functions much faster than a human.

Artificial intelligence is receiving a lot of attention in all industries, and artificial intelligence technologies are a modern trend. Leading global companies pay considerable attention to this issue. It is known that more than 50 countries of the world have created and implemented not only concepts, but also strategies for the develop-

ment of artificial intelligence, in which the general directions of scientific research and business in this field were determined, and Ukraine is no exception [1, p. 21].

From 2022, artificial intelligence has become a common tool in our lives. Innovative technologies are fully represented in many industries as they change the way we live our daily lives. AI has changed the way we live and work. Businesses are thriving due to the positive impact of artificial intelligence, and the changes will not stop anytime soon. The future of AI in business is bright, and the uses for AI in the restaurant industry are endless. This new technology is transforming the restaurant business.

The use of artificial intelligence in the restaurant industry has forced businesses to be proactive and make the changes necessary to keep up with their business. When running a successful restaurant, it's important to stay up-to-date on the latest restaurant technology and strategies. Artificial intelligence has begun to transform the restaurant industry with its highly accurate predictive software that allows restaurants to be proactive in their business.

Loyalty programs are a great way for restaurants to connect with their regular guests. About 69% of guests said that loyalty programs encourage them to visit more often. While traditional loyalty programs are very useful assets for restaurant owners, they may no longer be enough for a thriving business. A big problem that restaurants face every year is the loss of valuable guests. The average restaurant loses 30–40% of its best guests every year. That's because they rely on traditional return campaigns, which primarily take action after they've already lost a guest, and only successfully bring 3–5% of those guests back.

Retaining and treating existing guests has become more important than ever in the restaurant industry. Attracting new customers costs the company 5 times more on average than maintaining existing ones. Implementing a strategy to prevent current customers from leaving before it happens will help increase your restaurant's revenue. A Harvard Business School report states that on average, a 5% increase in customer retention leads to a 25–95% increase in profits. The ideal customer makes repeat visits, but not everyone will

easily become a regular. That's why a proactive approach will put you ahead of your competition time and time again.

With the power of AI, you can have it all. A loyalty program to engage your best guests, and AI-based predictive software to let you know when those guests might need extra attention [2].

Artificial intelligence affects the quality and speed of customer service in the restaurant business. The main directions of artificial intelligence in the restaurant industry are such directions as: chat-bots, kiosks, robots, systems for creating recommendations Fig. 6.1.

Chat bots	• Used to receive online orders and answer questions
Kiosks	• They allow you to quickly order food without communicating with the employees of the establishment
Robots	• They are used for preparing meals, receiving and serving meals
Recommendation systems	• Using the interaction history, the consumer's wishes are predicted

Figure 6.1 – The main areas of application of artificial intelligence in the restaurant business

Source: owne laboration.

To understand the use of chat-bots in the restaurant business, it is first necessary to consider the process of managing a restaurant business. It is known that the restaurant management process is a set of relationships and actions aimed at ensuring the optimal ratio of labor, material and financial resources.

Business processes of the restaurant (Fig. 6.2) can be divided into 3 main processes:

- basic business processes;
- supporting business processes;
- business management processes.

Automation of a group of the restaurant's main business processes is one of the key tasks. The main business processes include: implementation of dishes and drinks according to the menu, provision of service services; supporting processes include administrative and economic support, security support, information support; management business processes include: personnel management, trade inventory management, financial management, quality management, management accounting (Fig. 6.2).
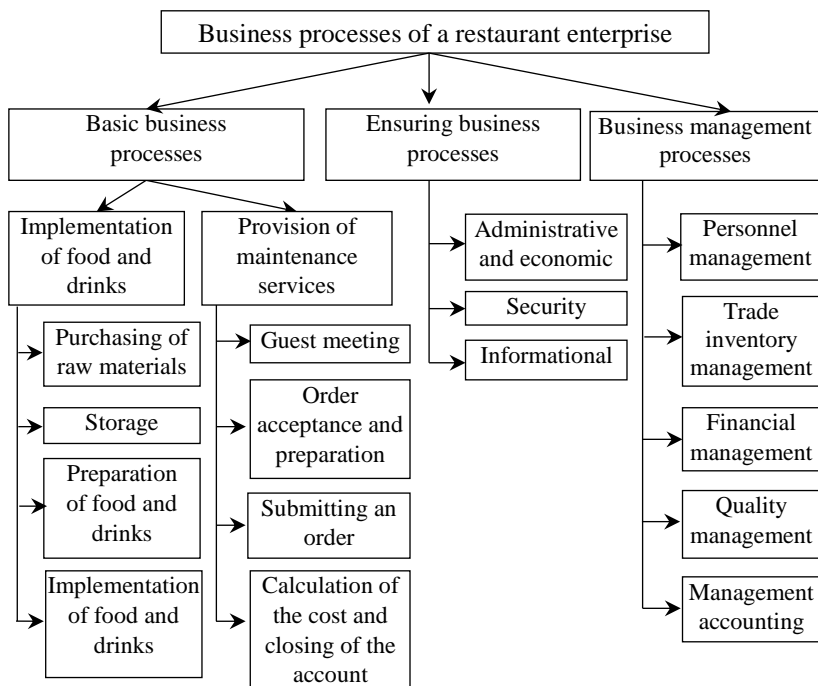

Figure 6.2 – Structure of business processes of a restaurant enterprise

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Automation of all those listed in fig. 2 processes will lead to effective and rational use of the company's available resources and identification of bottlenecks in work. There are IT services on the market that are intended either only for staff or only for consumers of restaurant services and do not provide for internal interaction between them. There are three types of such IT services, Table 6.1.

Table 6.1 – The most common IT services used in the restaurant business

Type of IT service	The name of the IT service	Characteristics of the IT service
The service is intended for one or a network of institutions and involves managing all business processes in one program	Quick Resto	A combination of a CRM system for attracting guests, accounting and analytics tools for profit, and a universal POS system for guest service
	Poster	The program for accounting in cafes, restaurants, accelerates the acceptance of sales, carries out warehouse and financial accounting, displays detailed statistics on the company's activities
	R-Keeper	Performs automation of sales, guest service, kitchen and bar operations and analyzes data from sales and service in different time periods at enterprises. Collected data is used in warehouse and accounting systems
	1C: Enterprise	Implements automation of guest service processes in the restaurant business. Automates individual and network enterprises
The service is intended only for table reservations	Resto Place	Creates a scheme of the enterprise in a convenient designer, which can be placed on the site and take orders. A potential consumer chooses a table he likes and makes a reservation by making a deposit. The fact of booking is recorded in R-Keeper

Type of IT service	The name of the IT service	Characteristics of the IT service
	Empty Studio	A system that allows users to set and, in accordance with needs, manage working hours and online vacancies, also process inquiries and consumer data, add employees to manage orders
Systems that work initially with several establishments. They provide an opportunity only to choose a table in one of the proposed establishments, book it for a certain time, with a certain number of people, view the menu and leave wishes	Le Click	A convenient and understandable service for searching, selecting and online booking of restaurants, ensures the selection and booking of the right restaurant according to an extended set of criteria
	Table Pin	A unique online booking service, the advantages of which are simplicity, speed and expanded options for choosing a restaurant

Source: owne laboration.

The listed IT services optimize the activities of restaurant enterprises in various ways. Some cover all business processes of the restaurant, but do not work with guests in any way, while others, on the contrary, work with guests, that is, they transmit information only about table reservations for a certain date and time.

Thus, restaurant business enterprises need an information system that would be convenient and easy for guests to use, meet their wishes, namely: book a table for the right date and time, order the desired dishes and drinks, and have a guarantee of timely fulfillment of the order. The requirements on the part of the staff should be as follows: ensuring receipt of the order from the consumer and its transfer to other structural units – kitchen, bar, hall, automatic data collection for orders and existing products in the warehouse,

according to the actual occupancy of the halls. Requirements for the program from the side of administration and management – automation of personnel management. A chat-bot meets these requirements.

6.2. Characteristics of chat-bots, self-service kiosks and their impact on the quality of services in the restaurant business

Chat-bots have interface is clearly fixed by the messengers by which it is designed. Authorization and security of user data storage are also implemented on the side of the messenger. In addition, the messenger on which the chat-bot was developed is already installed by many users. For example, Telegram, Viber, Facebook and others. Unlike a mobile app that takes up extra space on your device, it doesn't need to be installed. The chat-bot interface is known to users as they correspond in this messenger. A chat-bot is an analogue of a mobile application, its principle is based on communication using a chat, which is previously programmed by an algorithm as with an ordinary person. The chat-bot is easily integrated into the processes of existing IT services and is a universal assistant for interaction between the restaurant staff and its guests. The bot allows you to fully automate processes from the creation of an order by the consumer to feedback from the consumer in the form of a response upon completion of the order (Fig. 6.3).
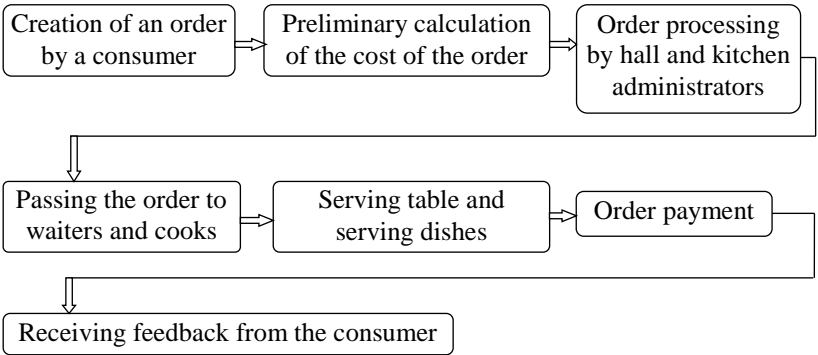

Figure 6.3 – Processes automated by a chat-bot in restaurants

The chat-bot integrates with the restaurant's database, receives up-to-date information about the composition of the menu, availability of ingredients, free seats in the hall and offers possible options to the consumer.

When the customer creates an order, the system receives all the necessary information and passes it on to the hall and kitchen administrator. After its confirmation, the order is automatically transferred to the waiters and cooks, who proceed to its execution. The consumer, for his part, can track the status of the order and have a guarantee that by the time of his visit the table will be ready and the ordered dishes will be served in a timely manner, the waiting time for service will be reduced to a minimum. After closing the order, that is, after paying and receiving the check from the waiter, the consumer can leave his feedback. Collecting feedback from consumers will allow us to adjust and improve the activities of the restaurant business in the future.

The emergence of artificial intelligence chat-bots revolutionized the ordering process in restaurants. An analysis by Toast, a restaurant management platform, shows that establishments using AI-based chat-bots have seen a 20% increase in online orders [3].

By integrating chat-bots with online ordering platforms or their own apps, restaurants can provide consumers with a convenient interface to browse menus, place orders, and even fulfill individual requests. This integration significantly improves the ordering process, simplifying the process and increasing order accuracy.

With the help of AI chat-bots, consumers can conveniently access menus, explore various options, and place orders seamlessly, ultimately increasing restaurant guest satisfaction and revenue.

AI chat-bots can significantly improve restaurant table management by streamlining and improving the reservation process, providing consumers with real-time updates and information, and optimizing the overall dining experience. AI chat-bots can contribute to better management:

✓ Automated bookings: AI chat-bots can handle booking requests 24/7, allowing consumers to make bookings at their

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convenience. This eliminates the need for manual booking processes and reduces the chance of missed bookings.

✓ Instant Confirmation and Reminder: Chat-bots can instantly confirm reservations and send automatic reminders to consumers before the reserved time. This helps reduce no-shows and ensures a smoother flow of guests throughout the day.

Absenteeism is one of the most significant loss of revenue in the restaurant industry, aside from its impact on food and staff costs. With AI, you can even flag those guests who are frequent no-shows to potentially prevent them from making a reservation they don't intend to keep.

✓ Seating preferences: AI chat-bots can collect seating preferences from consumers during the booking process, such as indoor or outdoor seating, booth or table preference, and any special requirements. This ensures that consumers are accommodated according to their preferences, improving their experience.

✓ Real-time updates: Chat-bots can provide real-time updates to guests about wait times, table availability, and queue space. This transparency improves customer satisfaction and reduces frustration.

✓ Virtual waitlist management: Instead of physical waitlists, AI chat-bots can manage virtual waitlists by notifying guests when their table is ready via text message or in-app notification. This saves guests from having to wait in crowded places.

✓ Personalized recommendations: AI chat-bots can use guest data to provide personalized dining recommendations based on past preferences, dietary restrictions and historical eating patterns. It improves the consumer experience by offering food or drinks that they might like.

✓ Language support: AI chat-bots can communicate with guests in their preferred language, engaging diverse guests and making the booking process more accessible.

✓ Integration with POS systems: Chat-bots can be integrated with a restaurant's POS system, ensuring seamless synchronization between reservations and actual seats. This prevents overbooking and double booking.

✓ Upsells and promotions: At the time of reservation, chat-bots can suggest additional offers such as special menu items, wine pairings or desserts, increasing restaurant revenue by offering guests valuable choices.

✓ Collect feedback: After lunch, AI chat-bots can prompt consumers to leave suggestions and feedback. This helps the restaurant to understand areas for improvement and maintain quality standards.

✓ Data analytics: AI chat-bots can collect and analyze data on booking trends, peak times, popular menu items and guest behavior. This information can guide strategic decisions regarding staffing, menu offerings, and marketing efforts.

✓ Effective personnel management. With accurate forecasts of guest flow, AI chat-bots can help a restaurant allocate staff resources more efficiently, ensuring optimal service even during busy times.

Incorporating AI chat-bots into table management can improve customer satisfaction, operational efficiency and increase restaurant revenue. However, it is important to ensure that the chat-bot is user-friendly, reliable and well integrated into the restaurant's technology infrastructure.

Chat-bots with artificial intelligence are transforming the restaurant industry, revolutionizing the customer experience and work. Chat-bots have become indispensable assets for restaurants with improved customer interaction, simplified ordering processes, efficient table management, personalized recommendations, seamless customer support and data-driven analytics. Supporting data points to improved customer engagement, increased online ordering, reduced no-shows, significant cost savings and improved decision-making capabilities. By leveraging artificial intelligence technology and the power of chat-bots, restaurants can improve customer service, improve operational efficiency, and drive business growth in a dynamic and competitive restaurant industry [4].

Oliynyk O. V., Tarasyuk H. M. and Chagaida A. O. conducted a study on the quality of perception of the automation of service processes by young people. Young people rated the characteristics of chat-bots (Fig. 6.4).

It was established that 88% of respondents believe that chatbots perform simple tasks well and work according to the appropriate algorithm. At the same time, the majority of respondents drew attention to problems with answers to more complex tasks, in which individual wishes of consumers must be taken into account. Young people agreed with the statements that for standard questions, the system can give answers with a small number of errors, but at the same time, information from chat-bots has no influence on the final decision in 31% of respondents and has a moderate influence in 42%.
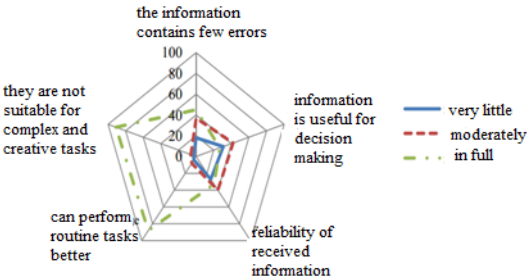

Figure 6.4 – The results of the evaluation of the characteristics of chat-bots, % of respondents [5]

Figure 6.5 shows the results of a survey of respondents about their impressions of using chat-bots.
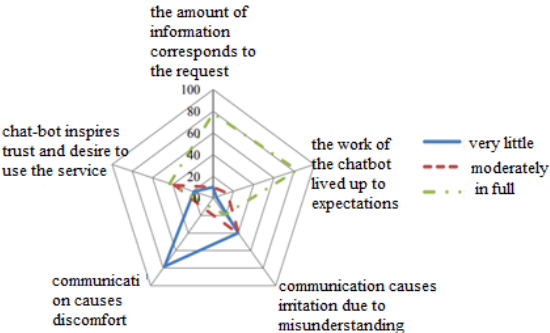

Figure 6.5 – Results of impressions received when using chat-bots by respondents, % of respondents [5]

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The interviewees have a low level of trust and desire for further communication.

Priorities were established, which are managed by enterprises when using chat-bots, Fig. 6.6.
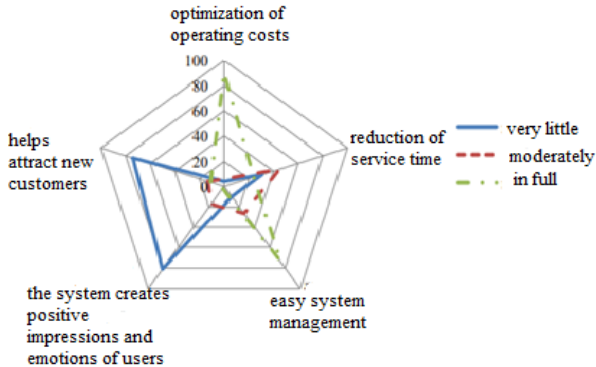
Figure 6.6 – Priorities for introducing chat-bots
at enterprises, % of respondents [5]

Consumers consider optimization of operating costs by companies and easy management and changing of system settings as the main reasons for the introduction of chat-bots. If we take into account the emotional state of consumers, communication with automated systems does not create positive impressions and such a degree of guest satisfaction that will give the company a competitive advantage.

Perfect service to guests will not be a sign of their satisfaction and a positive conclusion about the rest. Consumers do not approve of absolute control, at the same time they seek personal self-improvement, gaining new experiences and emphasizing their own individuality. Another challenge for companies in the hospitality industry is the desire for constant contact with people, and replacing staff with automated systems can break the connection with the brand and erase previous positive memories of the place of stay [5].

Smart kiosks are also one of the main directions of using artificial intelligence in the restaurant business. With the help of smart kiosks,

the quality of service in the restaurant increases. The kiosk has a high speed of processing orders, which allows you to sell more food and drinks, which means increasing the profit rate. The smart kiosk recognizes guests' faces and offers to order their favorite dishes and drinks. In this case, the artificial intelligence is based on what the guest previously ordered. This technology, which works on the basis of order history, has quite positive reviews. It takes no more than 10 seconds to serve one guest at the kiosk. Service in this format can sometimes scare the consumer because of the threat to the security of personal information. But according to the developers of the kiosks, there is nothing to be afraid of. The consumer's data cannot be distributed without his knowledge. Such kiosks do not store photos of consumers. They recognize visitors due to the processing of indicators of the person's geometry. As for linking information about the consumer to the credit card, this procedure does not take place without the consent of the consumer [6].

One of the key benefits of self-service kiosks is their ability to improve the overall customer experience. By allowing consumers to place orders quickly and accurately, these kiosks reduce wait times and minimize the risk of errors.

Consumers can browse the menu, select their preferences and make payments at their leisure, which increases the level of satisfaction.

At their core, self-service kiosks are automated, user-friendly machines designed to perform specific tasks or provide information efficiently.

They typically consist of a touch screen or other input device, a computer processor, and software tailored to the purpose of the kiosk. Some kiosks may also include additional peripherals such as card readers, printers, or scanners to facilitate transactions or collect information.

One of the main advantages of self-service kiosks is their ability to streamline processes and improve interactions with consumers. For example, in a retail setting, kiosks can allow consumers to browse and purchase products, check inventory, or even place orders for out-of-stock items. The processes performed by the kiosks are shown in the table 6.2.

Table 6.2 – Characteristics of self-service kiosks

List of processes	Characteristics of processes
Improvement of the ordering process	Simplify the ordering process, allowing restaurants to serve more guests in less time. Not only does this increased efficiency benefit the restaurant by maximizing revenue, but it also improves the dining experience for guests, who can enjoy their meal without long waits
Customization and personalization	Give guests the opportunity to customize their orders according to their preferences. Whether adjusting portion sizes, choosing toppings or selecting dietary preferences, guests have the freedom to customize their meals to suit their tastes. This level of customization increases guest satisfaction and encourages repeat business
Economic efficiency	They offer a cost-effective solution for traditional ordering systems. By reducing the need for manual labor, these kiosks can lower operating costs in the long run. In essence, this makes them a worthwhile investment for businesses looking to improve efficiency and profitability
Data collection and analysis	Self-service kiosks are equipped with technology that allows you to collect valuable customer data. By analyzing ordering patterns, preferences and trends, restaurants can gain valuable insights into customer behavior and tailor their offerings accordingly. This data-driven approach can help restaurants optimize their menus, pricing strategies and marketing efforts
Accessibility and inclusiveness	Self-service kiosks have an intuitive interface that is convenient and accessible to all customers. With features such as adjustable height, voice assistance and haptic feedback, these kiosks ensure that everyone can enjoy the convenience of self-service ordering, promoting inclusivity and diversity in the food industry

Source: owne laboration.

Self-service touch kiosk technology can be used to optimize work not by replacing employees, but by reducing their workload. Kiosks

can be especially useful during peak hours when staff are overworked. On a busy Saturday night, self-service kiosks can help take guest orders so you can reallocate staff to lagging areas. Of course, at first, employees will need to monitor the kiosks and help guests, using this technology for the first time.

With the help of self-service kiosks, guests control the ordering process and can take their time browsing the menu. If this time shows the guest additional offers, it can increase the average size of the order by 15–20%. An interactive kiosk allows employees to work at their own pace. The kiosk takes orders faster and can upsell with each transaction.

Another benefit of touch kiosks, they give guests a sense of anonymity, allowing them to make amazing orders without being judged.

Interactive kiosks are an opportunity to collect, update and store personal data of guests, with their consent, of course.

With the ability to learn about guest preferences, you can offer products based on previous orders [7].

Restaurant owners can also use the data to congratulate the guest on the holiday, provide a special offer, thereby reminding them of themselves.

In the article by S. T. Priyadarshini, T. Ranjeta presented the results of the study obtained by monitoring the answers of 193 respondents (out of 250), which were collected using a Google form survey for restaurateurs, hoteliers and consumers of the hospitality industry [8]. The age group of respondents was from 18 to 50 years. The survey was based on questions that helped assess the impact of artificial intelligence technologies on various key factors of the hospitality industry, such as guest satisfaction, consumer purchasing power, problems in use, and others Fig. 6.7.

In fig. 6.7 shows that 46.9% of respondents agreed that artificial intelligence is important for business and 27.1% strongly agreed with this statement. A significant number of respondents agreed that AI has an impact on guest satisfaction, as more than half of respondents use AI in their personal lives as well as at work.
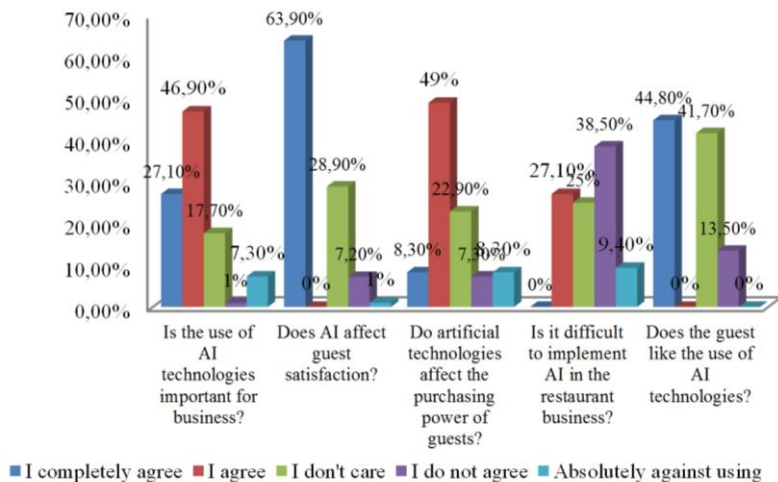
Figure 6.7 – Results of a survey of respondents about
the importance of using artificial intelligence technologies
in the hospitality industry [8]

It is known that the purchasing power of consumers affects the profitability and sustainability of any business, and artificial intelligence helps it in this. As shown in fig. 4–49% of respondents agreed that AI is helping to improve purchasing ability through online reviews, mobile and web apps, chat-bots, etc. While we see that 38.5% of respondents said, that implementing AI gadgets is easy in the hospitality industry, while on the other hand, 27.1% of consumers disagreed. 44.8% of respondents approved the use of AI, and at the same time 41.7% did not approve of the use of AI because they felt a lack of personalized contact, many prefer to interact with real people, although their time is reduced due to the fact that they are not stand in queues or do not wait for the service to be provided to them.

With the help of AI technologies, businesses are better able to handle guest requests and provide support to their employees much more efficiently, reducing the burden on employees while increasing guest satisfaction.

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The financial benefits of using AI for business are obvious. According to a study conducted by Starfleet Research in partnership with Oracle Hospitality, 89% of hoteliers agree that AI significantly reduces operating costs in the customer support function [9]. By integrating artificial intelligence to review the value of exceptional guest service, businesses also have the opportunity to increase positive brand awareness and increase consumer engagement, which should lead to tangible profits. According to the findings of the same study, 86% of managers agree that AI also increases employee satisfaction with their work. AI technologies do this, in particular, by speeding up the processing of everyday routine tasks, such as answering frequently asked questions, allowing employees to focus on more important tasks. It should be noted that new technologies are often additions to, rather than replacements for, the old technologies (and even manual processes) they are intended to replace.

In many large hotels of hotel chains, artificial intelligence reduces the workload on representatives, for example, customer support services, by an order of magnitude [10]. In the early 2000s, the first hotel of the Omena hotels chain (8 hotels) operating on the principle of self-service was opened in Finland. After paying for accommodation in the network, the guest receives a password for the lock to the entrance door and room door on a smartphone, which is valid for the entire stay. In 2014, the Starwood Hotels chain launched a "robot-butler" service. And in 2015, the Japanese hotel "Hennna Hotel" replaced half of the staff with robots, including cleaners, porters and maids. However, by the end of 2018, it became clear that they were not effective enough, so some people returned to work [11]. The concept of hotel operations without employees will allow hotels to optimize their operating costs, but the implementation of such solutions in existing hotels means a complete change in the operation of the facilities.

Digital assistants have already become commonplace when used in the day-to-day activities of enterprises. This term was coined by computer scientist Patrick Henry Winston. As AI becomes more and more successfully applied technology, it stops being called AI and goes by another name, such as voice recognition, speech synthesis, or something else. This fact can be explained by the fact that as AI becomes more necessary, it becomes less visible. According to this

expert, 72% of business managers already use digital assistants. They note that their main advantages are:
 − saving time;
 − reminders about calendar events;
 − focus on task performance.

Business managers of the hospitality industry are quite positive about the possibility of using AI technologies in the activities of enterprises. In fig. 6.8 presents the technologies that enterprise managers use in their activities [12].

The implementation of AI technologies also requires a change in the internal culture of the enterprise. Employees need to understand the benefits of AI and how it can improve not only the guest experience, but the employee experience as well. Staff need to learn to overcome any fears, especially regarding job security, and analyze how AI can optimize their job duties. The implementation of guest service technologies with the support of AI should be included in the overall business strategy of the enterprise, and employees in their own interests, as well as in the interests of the organization as a whole.

It is important to note that one of the advantages of AI is the reduction of time for performing routine tasks, such as those shown in Fig. 9. These data were obtained during the monitoring of the use of digital assistants in the activities of restaurant establishments [13]. The presented data say that more than half of the time is wasted by employees and that AI technologies can significantly increase the productivity of employees.
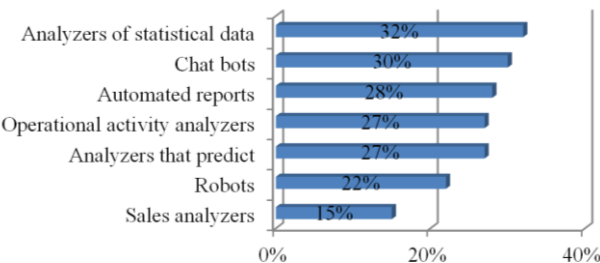

Figure 6.8 – Artificial intelligence technologies used
in the activities of restaurant enterprises [13]

62% electronic transcription	69% accounting	65% costing
78% rationing	60% calculations by the personnel department	82% paper work
49% writing business proposals	79% planning	37%calculation of bonuses and incentives

Figure 6.9 – Saving time when using artificial intelligence [13]

Technologies integrated with the management tools of various hotel departments can adapt over time, allowing the customer to improve their guest experience with each hotel visit. Some companies use chat bots to offer quick responses to guest inquiries that staff can always review and approve or adapt before sending to the guest.

In some cases, this approach has doubled the number of text inquiries a hotel can handle. At one hotel group, a virtual concierge (chat bot) can now handle more than two million guest inquiries per day, equivalent to the work of approximately 7,000 people. Another major hotel chain reports an average response time of just five seconds with an AI-enabled guest communication system.

The understanding of value and the process of value creation by the company is rapidly shifting from the point of view according to which it is the exclusive prerogative of the company, towards giving the consumer the right to determine what his personal experience of relations with this company should be [13; 14].

Guests expect instant answers to their questions at the front desk, and they don't care so much whether those answers are made by a human or a robot with speech support. An interesting fact is that 40% of guests would rather use digital services than talk to a person on the phone. Almost all segments of hotel guests currently feel quite comfortable when using AI technologies. Even some guests are happy to augment these interactions with technological options.

Management needs more and more efficiency and innovation that can be applied in work. The reality of the situation is that the future

success of hotel services is likely to be best served by a combination of these two options, both human and machine, working in harmony with each other, each doing what they do best. Traditional staff functions are likely to remain in place, even as their scope of responsibilities and reporting will change due to the development and use of AI technologies.

6.3. Characteristics of robots, recommendation systems and their impact on the quality of services in the restaurant business

Science and technology are closely intertwined with business today. To date, there is not a single institution where modern technologies are not present. Nowadays, the field of robotics is gaining great development. Robots are gradually entering our lives, providing us with new opportunities and experiences.

By combining the concepts of restaurant business and robotics, you can get a very profitable business, which will be interesting on the one hand, and profitable on the other [15].

Robots play an important role in improving service in restaurants, providing a number of benefits and new opportunities. A robot is a computer-programmable machine. Essentially, they are assembled and built into the desired shape and size, then instructed by a set of codes written by engineers to help the robot navigate its intended tasks. Robots are not intended to replace human labor. Rather, they are designed to reduce the workload on employees as well as speed up withdrawal times.

The use of robotics has its advantages and disadvantages. Let's consider the advantages of using robots. Cost is definitely one of the significant benefits for organizations when it comes to using robotics in the workplace. Costs stop once the item is purchased and maintained. Wages are not paid, there are no vacations, overtime, and so on. Robots can theoretically work 24 hours a day, seven days a week.

Robots will surpass people for sure. Sweat can't get in their eyes; things fall from their fingers or cause them fatigue. Tiny robots are currently used for some procedures because they are ideal for miniature, complex and repetitive work.

Robots can be used in various situations where people may feel unbearable. They can work for long periods of time and in extreme heat or cold without complaining. Robots in the workplace simply interpret that firms can hire workers, which is the perfect prospect for work as soon as it is a machine.

Disadvantages of using robots: Robots could take over half of all occupations in the next couple of years, but it's not clear if we should worry about it. The nature of human employment will probably change, as it did during the industrial revolution.

The essence of the question is how innate and newfangled artificial intelligence will be. While robots are much better at performing pre-programmed actions, humans are still better at unexpected situations, which means robots won't take over some jobs. Even when commercial firms use chat bots, a human is still better than a computer.

Installing robots at the workplace, as before, requires physical labor. Undoubtedly, costs will be associated with training these people to work with robots [14].

Everyone knows that a well-chosen staff is the business card of an institution. In order to serve a restaurant with 200 seats under conditions of intensive loading, it is necessary to have a staff of approximately 3–50 people. The proportions of employees will be as follows: 15% – kitchen and guest hall managers, 50–55% – waiters, bartenders and 25–30% – kitchen support staff. As you can see, personnel costs are not small. In addition, they need to pay a monthly salary, buy a social security package, pay for vacation and sick leave, provide a system of bonuses and incentives for work and other nuances that require constant investment of funds.

In addition, the restaurant constantly needs food expenses. In almost any type of restaurant, the question of buying food is a consumer's decision: if the price is too high, people may refuse to buy. This is a real problem as we are currently seeing significant increases in food prices. For a restaurant business caught between rising food purchase prices and tepid demand, investing in labor-saving technology may be one of the few viable ways to maintain profitability.

Of course, the cost of robots today is high, but if you have the necessary funds and approach the management of the enterprise wisely, believe me, the invested money will definitely pay off [15].

Robotics can improve the quality of service in the restaurant business.

Here are some ways robots can improve restaurant service:

✓ Automation of processes. Robots can automate many routine tasks, such as delivering food, serving tables, taking orders, and cleaning. This allows restaurant staff to focus on the most important tasks, such as serving guests and maintaining food quality.

✓ Improvement of accuracy and speed of service. Robots have high accuracy and speed of tasks. They can deliver food to tables quickly and without errors, which reduces the waiting time of guests and improves the level of service.

✓ Improvement of safety and hygiene. Robots can be used to disinfect premises and surfaces, which is especially relevant during a pandemic. They can automatically clean tables, floors and other surfaces, minimizing the risk of infection.

✓ Improving interaction with guests. Some robots are capable of interacting with guests, such as taking orders, answering questions, and providing menu information. This creates a unique and interesting experience for restaurant patrons and can attract new customers.

✓ Increasing efficiency and reducing costs. The use of robots allows you to reduce personnel costs and improve the efficiency of the restaurant. Robots can work around the clock without needing to rest and can perform tasks faster and more accurately than humans.

Overall, robots play an important role in improving restaurant service by automating processes, increasing accuracy and speed of service, improving safety and hygiene, improving interaction with guests, and improving efficiency and reducing costs [9].

75% of processes in the restaurant business can be automated. In 2018, the one-armed barista Sawyer appeared in the Tokyo coffee shop Henn Na Cafe. It can prepare five portions of coffee in 2–4 minutes. In three years, the employee never went on vacation, did not take sick leave, did not receive a salary. And all because Sawyer is a robot.

Solutions like Sawyer's are increasingly popular, especially amid coronavirus restrictions.

KFC responded to the challenges of the pandemic reality with a new format of the establishment with not one, but several robot employees who literally know each visitor by face – with the help of an image recognition system.

Digital self-service kiosks instead of cash registers. You can pay the bill using biometric identification, Apple Pay or Android Pay, as well as cash at a special terminal.

Restaurateurs suggested guests to shorten the time of ordering dishes as much as possible. The kiosk has a camera that takes a picture of the customer. The system converts the photo into an individual digital code and remembers the visitor in order to offer him only what he likes. Also, the guest can tie the payment to the face, then the next visit he will not need a mobile phone or a bank card, it will be enough to smile at the terminal.

55% of guests cite contactless technology as one of the key factors influencing restaurant choices, according to The Digital Life Index.

Part of the restaurant's kitchen is behind glass: visitors can watch how the order is formed and moves along the conveyor, and then a robot places it in a cell that opens with the help of a facial recognition system. The idea is that it cannot be mistakenly taken by another guest. And to reduce communication with people to a minimum during the pandemic.

There is also a similar case abroad. In early 2020, China's Country Garden Holdings opened its country's first restaurant run only by robots. There are 46 of them in the state.

Thanks to artificial intelligence, they greet visitors, guide them to the place, recommend the dishes of the day, take orders and cook. Robots do everything: store products, select and control the weight of the necessary ingredients, monitor the cooking time. Unless they show empathy and maintain a friendly dialogue with visitors – only in business.

Country Garden spent $29 million on the creation of a new Foodom restaurant.

According to the manager of Foodom, the quality of dishes often depends on the human factor, one may turn out tastier, and the other may fail. Meanwhile, the robots strictly follow the instructions and every dish meets the standard. The management of Country Garden Holdings positively evaluates the experience of the first restaurant, so it plans to open a thousand such establishments throughout China by the end of 2022 [10].

In the restaurant business, robots occupy the following niches: fast food, order taking, robot waiters, robot baristas, robot bartenders, serving food and drinks.

The first candidate for robotics is fast food. This is quite logical – it initially includes the setting for standardization and minimization of the human factor. In some "McDonald's" or KFC, live staff are now playing the role of industrial manipulators, performing the same standard procedures with pre-prepared semi-finished products. The use of robots here simply suggests itself, because their purpose is to exclude routine, repetitive operations from human labor [11].

Fast food chains are dominated by self-service of visitors without waiters. It is not surprising that the following works were the first to be tested in restaurants:
- meat and hamburger flipper;
- pizza picker;
- miller;
- mixing products with high precision.

The use of built-in motion and temperature sensors, advanced video cameras, artificial intelligence developments made it possible to start creating not only assistants for the simplest tasks in the kitchen, but also full-fledged autonomous systems configured to prepare meals. In practice, the robot cook already knows how to not only use kitchen utensils and monitor the progress of food preparation. He still understands how to use the sink correctly, cleans up after himself and generally controls a large number of parameters. Mass implementation of innovations of such a high level is a matter of time and money [12].

So far, even in fast-food fast-food restaurants, not so much cooks are being replaced (there are no cooks as such there, however), but

technical personnel. An example is the Flippy robot assistant based on a collaborative industrial manipulator.

Its main function is flipping burgers. But this is not just a dumb mechanism, but a completely intelligent system that knows how to distinguish a bun from a cutlet. The robot places the buns on the grill and makes sure they don't burn, and also notifies the operator when cheese and other toppings need to be added, but the ability to add them yourself is just a matter of time. Its more advanced version, Flippy 2 cooks a variety of dishes, including chicken wings and fries.

The robot costs $20,000, or it can be rented for $3,000 per month. This can already be compared with the payment of low-skilled labor of a live worker, but the robot does not get tired, does not make mistakes and does not over-fry the patties. The system can be installed overnight without stopping production.

Until recently, "going to work at McDonald's" was considered a symbol of social collapse – low-skilled, poorly paid hard work for those who are not capable of anything else, or are taking the first steps in employment. Unfortunately, even this unattractive niche is being taken away from people. Analysts at Meticulous Research expect the market for food automation (especially robotization of restaurant kitchens) to continue to grow by an average of 9.5% per year until 2027 and reach a volume of about $29.4 billion.

Another obvious niche for robots in the restaurant business is order taking. Here they already compete not so much with people as with self-ordering touch panels. The physical presence of the robot at the cash register is, by and large, a visual marketing "feature", because a microphone on the counter is enough to receive a voice order. But people like to address the interlocutor with eye contact, and the comfort of the visitor is the income of the establishment.

Today, robot cashiers and robot order takers are still inferior in versatility to flesh-and-blood cute girls, at least in the ability to perceive human speech in a noisy cafe space. However, when did this stop business? An experimental McDonald's in Texas has completely eliminated direct customer interaction with staff and automated the processes of registration, payment and ordering.

Waiter robots look very futuristic, but their role is rather decorative. Several restaurants refused to continue using them after trials – of course, they attract technologists with their appearance, but in

reality they do a poor job of delivering orders, especially liquids – they flatten during maneuvers that are not yet smooth enough in most models.

In general, this is still a niche solution for establishments that are designed for customers who are so enthusiastic about new technologies that they are ready to tolerate spilled soup for them. However, for most visitors, it is much more comfortable to be served by people. After all, most of the restaurant's charm is the service. You can also order food to go home.

Robot-baristas and robot-bartenders for making and selling drinks are also still rather technology demonstrators and attention-grabbing factors. They will not replace the atmosphere of a classic pub, although, unlike waiters, technically they do even better than people – at least they pour accurately, honestly and do not dilute drinks.

And anyway, an automatic coffee machine of any sophistication and a manipulator with a dispenser is not exactly what visitors want to see behind the bar counter. At least for now.

A new trend is a modular automatic restaurant that works without human intervention at all. Well, as a "restaurant"... Rather, it is a "Chicken with shawarma" format, only in the role of a traditional "Ashot" – an automatic system of food preparation and serving.

Automation in such establishments takes orders, prepares main dishes and even washes dishes. It's called the "box restaurant" and it's becoming more and more popular. The productivity of such restaurants is hundreds of servings per hour, so they can work in a busy place without requiring rest or replacement of staff, but only periodic loading of consumables. (It seems that no one has yet managed to adapt unmanned drones for this, but it just suggests itself.)

An example is the Mezli "restaurant" (actually a container kiosk) in San Francisco. Inside it are refrigerators, robots and "smart" ovens – the user forms an order on the screen and receives it in the delivery window. The menu is quite rich – falafel, fried vegetables, spicy lamb, chicken and other dishes. Such a point produces 75 portions per hour, people only load products into the refrigerator once a day. The cost of dishes is from $7, in the future – online delivery (we are also waiting for unmanned drones here) [11].

There are food and drink delivery robots that have both advantages and disadvantages. Most of the advantages when it comes

to food delivery robots is that they are much faster compared to human workers. They also tend to be more accurate, efficient and consistent in the results they produce.

On the other hand, people can make a lot of mistakes. If one of the workers is having a bad day, you'll see their results become inconsistent and people may end up with the wrong order.

You can choose from a variety of different food delivery robots that have all the benefits you're looking for, including enhanced intelligence, high efficiency, and the ability to navigate narrow aisles and deliver food to the right table every time.

One of the main limitations when it comes to robots is their lack of emotional intelligence. They can't connect with your customers on a personal level and give them the kind of restaurant experience that many people enjoy. They also can't handle complex requests, such as someone who needs to prepare a meal because of an allergy.

With all technology, things can sometimes fail. When you have less people, robot failure can cause serious problems because customers will be stuck waiting for a long time to try to get their orders [12].

In the restaurant business, robots can replace such employees as: cooks, dishwashers, waiters, bartenders, administrators, security guards, cleaners, musicians, see table 6.3.

Table 6.3 – Characteristics of robots that replace staff of restaurant business enterprises

The name of the automated staff	Characteristics of robotics
Robot cook	The most interesting discovery in the world of automated kitchens is rightly considered to be multifunctional robot chefs. For example, the IBER GOURMET robot chef, in addition to cutting, grinding, crushing, grinding, rubbing, chopping ice, mixing, whipping, melting, kneading dough, can perfectly prepare various cold and hot dishes, both simple and sophisticated. The advantages of Fua Men are the speed of cooking, the exact adherence to the recipe and the very clear movements of the machine when slicing products and frying them. Fua Man can prepare more than 80 set meals per day

The name of the automated staff	Characteristics of robotics
Robot dishwasher	In addition to dishwashers, there are various robotic dishwashers. For example, the Panasonic device or the HRP 2 humanoid robot is not only capable of safely washing dishes, but also performs a number of other functions. The dishwasher robot from Panasonic Kitchen Assistant Robot can help cooks by performing simple operations on the stove with the dishes being cooked on it, for example, add salt, remove scale, put the pan on the fire, etc. All these devices significantly speed up the cooking process food, thereby saving customers from long-term waiting for an order
Robot waiter	The main advantage of robotic waiters is the speed of customer service and productivity. For example, in the Dalu Rebot Restaurant, six robot waiters are able to serve up to a hundred people in a short period of time. The restaurant is an incredible success among visitors. On the technical side, these robots are equipped with touch screens, with which customers place orders. Their microcircuits are capable of memorizing and processing information very quickly. In the latest version of the Yumbo robot, which is very similar to the I-FAIRY robot from Kokoro, the robot moves around the hall on special wheels with a built-in tray. Other technical specifications are not yet known, but the developers claim that the robots use ultrasonic detection sensors to avoid obstacles and prevent collisions
Robot bartender	A robot bartender can be a unique acquisition for a restaurant. These devices are presented in a wide assortment, both simple and multifunctional. An example of simple robot bartenders can be the invention of the Japanese company Mr. Asahi – Beer robot. He is able to pour drinks with the help of two manipulator hands. During its development, the robot learned to spend about 2 minutes pouring one glass of beer, which saves about 13 minutes of time for each restaurant visitor

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The name of the automated staff	Characteristics of robotics
Robot administrator	As administrators or managers, various automated devices with programmed control and a convenient interface, which allow people to access the necessary information, serve. For example, telepresence robots AVA from iRobot (Avatar) or QB at a price of about $15,000 could manage a restaurant, meet customers, create suitable recreation conditions for them and provide necessary information about the establishment
Cleaning robot	Cleaning robots are very economical to use. By their structure, these robots are multifunctional and are able to clean the premises much faster than humans. The Readybot robot will take care of the kitchen and the entire room: it can collect garbage on the floor, put dishes in the dishwasher, arrange plates, wipe the kitchen stove or the surface of furniture. This device can replace several cleaners at once, as it works twice as fast as a person
Robot guard	The robot reacts to extraneous sounds and instantly finds the intruder behind them. Captures it on camera and starts broadcasting the video to the owner's mobile phone in real time. At the same time, he throws a sticky net on the thief, and then waits for help

Source: owne laboration.

Thus, the concept of robotic restaurants is quite relevant today. Entrepreneurs are trying to save on literally everything in order to survive in the economic crisis. Salary is a fairly significant item of expenditure, taking into account additional social bonuses and insurance. If you take into account that the percentage of thefts in restaurants and cafes often times exceeds this fund, then the costs of restaurant robotics look comparable. It would seem strange to use robots in the restaurant business, but modern discoveries in the world of robotics suggest the opposite. Automation of production will not

only speed up and facilitate the restaurant's work process, but also reduce costs and attract consumers.

There are known confirmed facts [16] about changes in the quality of services after the introduction of robotic technologies into the service processes of restaurant establishments. Regarding the quality of service in the restaurants "Foodom" (China), "Spyce" (USA) and "Henna Café" (Japan), a comparison of guest reviews was made before and after the introduction of robotics. The quality of the service was analyzed using an averaged 10-point rating system based on the following indicators: level of consumer satisfaction, originality of the service, speed of service, general level of service. The results of the study are shown in fig. 6.10.
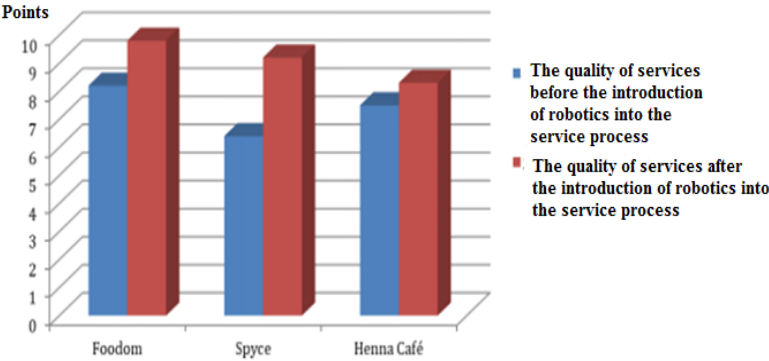
Figure 6.10 – The impact of the introduction of robotics on the quality of services in the restaurant business

Therefore, the introduction of robotization improves the quality of services in restaurants, contributes to the growth of the degree of satisfaction of consumer needs and the originality of the idea. According to the requirements of guests, the main advantage of such establishments is the introduction of virtual and augmented reality technologies, which allows visitors to experience skydiving with goggles, travel to exotic and inaccessible places of our planet, or monitor the technological process of preparing dishes while waiting for their order [16].

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The generation of global data about service consumers is growing at an unprecedented rate. Companies are using artificial intelligence and machine learning to use this data in innovative ways. An ML-powered recommender system can effectively use consumer data to personalize the user experience, increase engagement and retention, and ultimately increase sales.

For example, in 2021, Netflix reports that its recommendation system helped increase revenue by $1 billion per year. Amazon is another company that benefits from providing personalized recommendations to its customers. In 2021, Amazon reported that its recommendation system helped increase sales by 35%.

A recommendation system is an algorithm that uses data analysis and machine learning techniques to suggest relevant information (movies, videos, items, food, drinks) to users that they may find interesting.

These systems analyze large amounts of data about users' past behavior, preferences, and interests using machine learning algorithms such as clustering, collaborative filtering, and deep neural networks to generate personalized recommendations [17].

Recommender systems can predict the wishes of visitors to the establishment. Analyzing data about the appearance, mood, age of the buyer, his past purchases and preferences, the system can guess his wishes. It can also save the order history and "favorite order" template in the guest profile.

Depending on the products or services offered by the company, different recommendation systems may apply. Some examples of different systems:

Collaborative filtering

Collaborative filtering focuses on similarities between different users and items. Consumers who share similar interests are more likely to be interested in other similar products. These similarities can improve recommendations to all users within the dataset and continue to learn as new products enter the market.

For example, if Sasha likes football and buys a pair of cleats, and Oleg likes football, then, most likely, Oleg will also be interested in these cleats.

There are several types of shared filtering:

✓ User-to-product filtering is the simplest of all filtering methods, where the algorithm will look for similar products that the consumer has previously purchased or liked. Genre, price, product category, etc. are categories that affect filtering.

✓ User-to-user filtering works by finding consumers who share similar interests and offers products and services based on what a similar user has chosen. Such an algorithm requires high computing power and resources, as the algorithm will need to compare all users in real time.

✓ Content-based filtering. The Content-Based Filtering recommendation algorithm evaluates the similarity of products. The recommendation system will offer the user products with similar classifications that he has previously interacted with.

For example, if the last three movies you watched included a comedy genre, the system will recommend other similar comedy movies or shows. Such guidelines are also required for product images that use image processing or natural language processing to match items that appear to have similar names or descriptions. Similarity-based recommendations will suffer from the cold start problem. The cold start problem occurs when there is insufficient data on benefits. A recommender system can't exactly offer great options during initial implementation on a platform because it takes time to gather and learn.

Hybrid filtering

Hybrid filtering uses both shared filtering and content-based filtering, taking advantage of each other.

Several studies comparing the performance of hybrid filtering systems with collaboration and content systems have shown that hybrid systems have better accuracy.

Combining both algorithms can eliminate many problems, such as the cold start problem, and help collect data quickly. Many of our favorite sites like Google, Youtube, and Netflix use hybrid filtering in their recommendation systems [18].

It is known that with the help of the recommendation system, it is possible to provide guests with suggestions in restaurants, regarding the choice of dishes on the menu and the appropriate diet. The system uses optical character recognition (OCR) technology and a transformative deep learning model, the Learning to Rank (LTR) model, to provide food recommendations. Having received a single RGB image of the menu, the system can rank dishes according to the search key (for example, calorie content, protein level). Thanks to the transformer property, the system can also classify invisible food dishes. Comprehensive experiments are conducted to test the methods on a self-generated menu dataset known as the MenuRank dataset. Encouraging results with accuracy ranging from 77.2% to 99.5% demonstrated the great potential of the LTR model in solving food recommendation problems [19].

Conclusions to chapter 6

So, of course, from our research, we can conclude that artificial intelligence affects the quality of services in the restaurant business. The quality of services improves due to faster and more accurate execution of operations, analysis of a large array of data and creation of recommendations for the optimal implementation of a certain action, operation or process for both consumers and staff of institutions. But for restaurant businesses, it is not possible to completely replace staff with artificial intelligence, because guests often need to communicate with a person, not a machine, and feel emotions that can only be received from a person.

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CHAPTER 7
THEORETICAL APPROACHES TO THE MANAGEMENT OF INNOVATIVE PROJECTS IN THE HOTEL BUSINESS

7.1. Theoretical foundations of innovation activity and stages of formation of innovation theories

Innovative activities and the implementation of innovative projects have helped many companies in various sectors of the economy to achieve competitive advantages. This process is not easy, but the results of implementing an innovative project make it possible for a hotel and restaurant company to generate profit and a sustainable competitive position, despite its specifics. The war in Ukraine has suspended the innovation process in many socio-economic sectors. Therefore, the main requirement for the successful and rapid recovery of Ukraine's economy after the war will be the implementation of innovative projects, in particular in the hotel and restaurant business.

The study of innovation activity and management of innovative projects in the hotel and restaurant business should begin with the definition of the term "innovative development".

Its emergence was driven by the research of many Ukrainian and foreign scholars on the cyclical nature of economic development.

Ukrainian economist M. Tugan-Baranovsky, while studying crisis phenomena in the economy, found that after the crisis (depression phase), there is a significant accumulation of free bank capital looking for investment markets. This is evidenced by the growth of bank reserves and the low interest rate on loans that has been maintained for years. The transformation of free credit capital into the mainstream of the real economy causes a revival and recovery. His work "Industrial Crises in Modern England, Their Causes and

Effects on National Life", which was translated into German (1901) and French (1913), became a classic of world science [1].

M. I. Tugan-Baranovsky analysed various approaches to explaining the cyclical nature of production development and concluded that the obstacle to continuous cumulative development of production is not so much external limiting factors as internal properties of the economic system, which, in fact, generate the cyclical nature of its development. Such properties are cyclical patterns in the reproduction of the country's fixed capital. The conclusion about the properties of cyclical patterns in the reproduction of the country's fixed capital was made on the basis of both theoretical analysis and thorough statistical studies of the peculiarities of the development of the English industry. He showed that the industrial cycle is fully reproduced by the price of iron: as trade picks up, the price of iron rises, and the crisis and reaction are expressed by the loss of this price. This dependence is explained by the fact that iron is the most important material used to build machines, tools, rails, ships and generally tools of production and transport. The demand for iron and its price can be used to determine the expansion of a country's fixed capital stock [2].

M. I. Tugan-Baranovsky's cycle theory explains why there are separate periods during which large amounts of borrowed capital are first accumulated and left unused, and then rapidly invested.

The classical theory of innovation development is presented in the works of W. Sombrard, W. Micherlich and J. Schumpeter. In his 1909 article "The Capitalist Entrepreneur", Zombart emphasised the crucial role of entrepreneurship in economic development and noted that in order to achieve profits, entrepreneurs should use technical innovations in their activities. In his Economic Progress (1910), W. Micherlich also emphasised the crucial role of entrepreneurs and innovations for economic development. However, the issue of innovation was not central to the works of these scholars.

Joseph Alois Schumpeter was the first to systematise the ideas about the role of innovation in economic development scattered among the studies of his predecessors and create a practical theory. The term "innovation" was first used by him in his work "Business

Cycles" (1934), but the concept of innovation was set out much earlier – in his work "The Theory of Economic Development" (1912), where he used the term "new combinations", in which the scientist personified the form and content of development.

According to J. Schumpeter, innovation is the implementation of a new combination of resources (productive forces) that can meet new needs. Schumpeter identified five types of innovation:

1) a new or improved product;

2) a new production method;

3) a new sales market;

4) new management methods (organisational forms);

5) new raw materials, materials or components.

He believed that the main mechanism of economic development is competition based on innovations, which leads to "creative destruction" of already established industries and markets, as well as the creativity of a person, an innovator-entrepreneur capable of translating new ideas into effective economic solutions [3].

Based on the ideas of J. A. Schumpeter, German scientist Gerhard Mensch in his work "The Technological Pat: Innovations Overcome Depression" (1975) proposed his own classification of innovations by the degree of importance. He identified three main types of innovations: basic, improving and pseudo-innovations.

He divided basic innovations into technological ones, which create new industries and new markets, and non-technological ones (changes in culture, governance, and public services).

A basic innovation is a defining technological innovation with its industrialisation. Basic innovations create new industries in the economy, as well as jobs and income, respectively.

Improving innovations – develop or improve existing areas of activity. In this case, processes or products emerge that are more advanced than their predecessors in terms of quality, reliability, application possibilities or efficiency of production or use of materials. Pseudo-innovations are aimed at partial improvement of outdated equipment and technologies and usually slow down technological progress, as they mostly either have no effect for society or have a negative effect [4].

The American economist P. Drucker, based on the works of J. Schumpeter and on the analysis of the economic situation in the United States in the 1980s, concluded that there was an "atypical Kondratieff cycle", when, during the decline in the development of traditional industries, there was not stagnation but economic growth caused by the growth of entrepreneurial activity.

P. Drucker's conclusions were based on his observations of the development of entrepreneurship on the "Western model" (USA), which was more risky and developed at a much higher rate. The conclusions drawn by this scientist linked entrepreneurial and innovative activity and became the basis of the theory of innovative entrepreneurship, or the so-called "acceleration theory", which is the fourth stage of development of the theory of innovative activity.

From the perspective of competition, innovation, according to M. Porter, is interpreted as the result of unusual efforts that allow an enterprise to achieve a level of advantage when it can only sustain it through the introduction of continuous improvements [5].

Representatives of the modern scientific school have also not developed an unambiguous approach to defining the essence of innovation as an economic category. During the 1990s, the opinion was formed that investments and innovations are of the same nature, and therefore the concepts of investment and innovation activities and methods of calculating the efficiency of investment and innovation projects were equated. Currently, we can observe differences in the definition of such categories as "novelty", "innovation", "innovation" (Table 7.1).

Table 7.1 – Interpretation of the concept of "innovation"
(compiled by the author according to [1, 3, 5–7])

Authors and followers of the approach	Definition
M. Tugan-Baranovsky, J. Schumpeter, P. Drucker, M. Porter, La Guerre, Y. Yakovets and others	Evolutionary: innovation is seen as a change, an update that occurs in a product, technology, system, method

Authors and followers of the approach	Definition
D. Tidd, D. Bessant, C. Pavitt, B. Twiss, B. Santo, Ukrainian economists I. Shkola, I. Budni-kevych, O. Lapko, D. Chervanov, L. Neikova, etc.	Dynamic or process: innovation is understood as the process of imple-menting, mastering and using new solutions; the process of changing and improving a product in a particular economic area
X. Riggs, W. Hippel, R. Fathutdi-nov, S. Pokropivnyi	Objective or static: innovation is defined as the result of an inno-vation process in the form of a new technique (product), technology, new method introduced to the market

These approaches allow us to consider innovations from different perspectives, depending on what is a priority – the process of implementation, the end result or the contribution to development.

Based on the research, we will stage the development of the formation of innovation as a science (Table 7.2).

Table 7.2 – Stages of development of innovation theories [8]

№ s/n	Duration	Characteristics of the stage
1	Second half of the 17th century – 10s of the 20th century	Spontaneous references to innovations and their importance in the economy in the works of individual economists, sociologists, and philosophers
2	1910–1930	Formation of the fundamental foundations of innovation theory
3	1940–1970	Developing and clarifying the teachings of the previous stage
4	1970 – present	A new stage in the development of innovation theories associated with the transition from the 4th to the 5th techno-logical mode

The evolution of innovation theories has gone through several key stages. From the second half of the seventeenth century to the early twentieth century, references to innovation occurred spontaneously

in the works of economists, sociologists and philosophers, where individual researchers began to understand their importance for the economy.

According to Yulia Atamanova, innovation is the introduction by a business entity into the production process in accordance with an innovative project of the result of intellectual, including scientific and scientific and technical, activity, which is registered in accordance with the procedure established by law as an object of intellectual property rights and brought to the level of an innovative product with the implementation of research and/or development work and the manufacture of prototypes, trial batches of products and/or the introduction of experimental production [9].

Y. Pymoshenko defines innovation as "the result of a successful market exchange of ideas for investments for their implementation" [10].

Koval L. A., Romanchuk S. A. understand innovation as a multidimensional phenomenon that acts as the subject and object of special labour activity of people related to creativity, development and introduction of innovations in various spheres of economic and social life in order to obtain a certain effect from the sale, use or consumption of a labour product (services, goods, technologies, etc.) [11].

M. Krupka notes that "innovation is an innovation, the use of which leads to qualitative changes in production in order to obtain socio-economic benefits (effect)" [12]. N. V. Polishchuk believes that innovation is an object of implementation, considering innovation as an idea, practice or product that is perceived as new [13].

The main functions of innovations are intellectual and informational, technical and technological, investment and competitive functions. On this basis, the author identifies the following properties of innovations necessary for their implementation: novelty; significant improvement of the quality characteristics of goods and/or production processes; industrial applicability; economic feasibility of introducing innovations; formal certainty and documentation; presence of intellectual property rights objects in the innovations, the exclusive rights to which are confirmed by title (law enforcement) documents.

The generalisation of various approaches to the types of innovations makes it possible to develop a classification system that contains classification features and types of innovations identified according to them (Fig. 7.1).
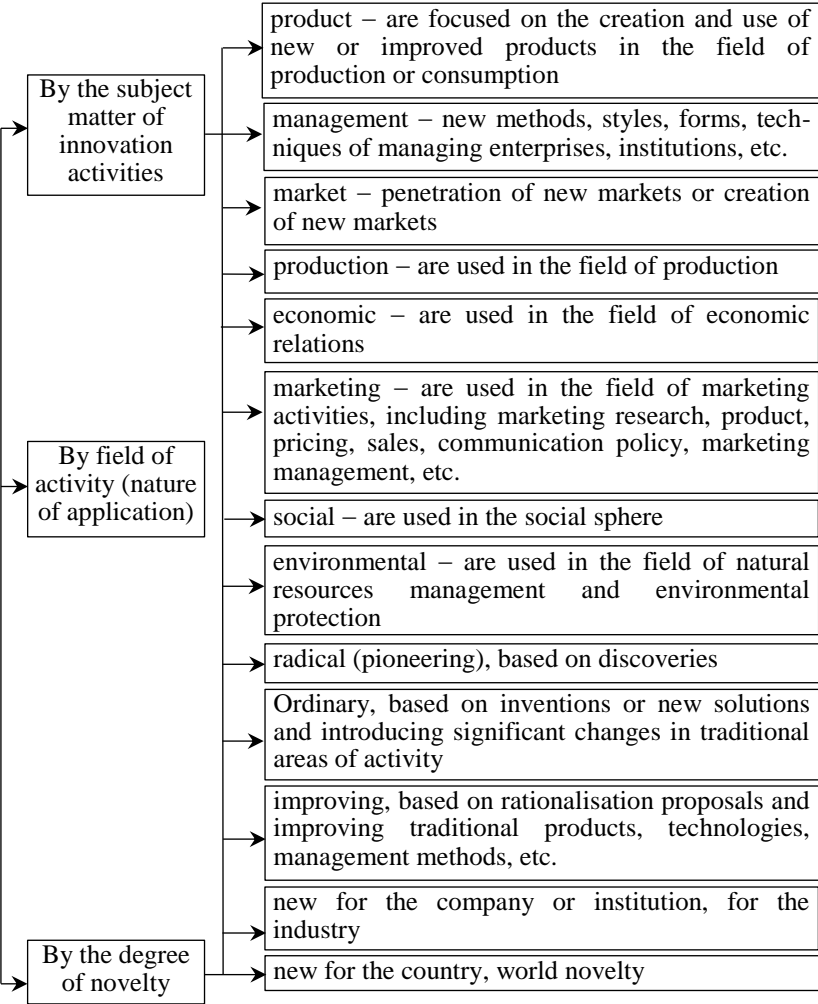

Figure 7.1 – Classification of innovations by areas
(compiled by the author based on [14–19])

Such a classification of innovations allows for a deeper understanding of the essence of innovation activity, revealing its various aspects depending on the selected criteria.

This is important for comprehensive analysis and improvement of both products and services, as well as management approaches, market strategies and production processes.

The division into areas of activity and the degree of novelty helps to better focus on market needs, social demands, environmental challenges and set priorities for an effective innovation policy.

Knowledge of these classification categories promotes a comprehensive approach to innovation, allows to adapt strategies to specific conditions, optimise resources and introduce innovations at all levels – from the enterprise to the state. This increases the competitiveness of organisations, ensures sustainable development and improves the quality of life of society as a whole.

In particular, according to the Law of Ukraine "On Innovative Activity", innovations are considered as the result of innovative activity – newly created (applied) and (or) improved competitive technologies, products or services, as well as organisational and technical solutions of a production, administrative, commercial or other nature that significantly improve the structure and quality of production and (or) the social sphere [20].

Modern economic realities do not limit innovations to the commercial use of the results of innovative activity, as there are non-commercial innovations, such as social innovations. In this case, we should not talk about their commercial but practical use.

Activities related to the creation (development and production), implementation and dissemination of innovations are called innovation [21].

Innovation activities throughout the entire period of development and implementation include both research and development (R&D) and their marketing support (marketing of innovations), in their logical interconnection. R&D is considered to be creative work related to scientific research, conducting studies, experiments in order to expand existing and obtain new knowledge, implementing them in new (improved) products and technologies, management methods, etc., and scientific substantiation of innovative projects [22].

The following types of innovation activities are distinguished:

✓ Innovative activities in the field of technical and technological support of production is a process of quantitative and qualitative renewal of production potential aimed at increasing labour productivity, saving energy, raw materials and supplies, and, accordingly, increasing profits;

✓ innovation in the area of increasing production, improving quality and reducing the cost of products – the process of qualitative improvement of products, their reduction in price, and expansion of the range aimed at better meeting the needs of the population;

✓ innovation in social policy is the process of expanding and improving the scope of services for the population, which is aimed at creating regulatory conditions for work and leisure and, accordingly, increasing labour productivity [23].

The state innovation policy is a set of legal, organisational, economic and other measures of the state aimed at creating appropriate conditions for the development of innovation processes in the economy, stimulating the implementation of the results of innovation activities in production.

The state innovation policy is implemented in the following areas:

− promoting the growth of innovation activity; focusing on priority support for innovations that form the basis of the modern technological process;

− aligning the state innovation policy with effective competition in this area;

− protection of intellectual property and the interests of national innovative entrepreneurship; promotion of regional, interregional and international cooperation in innovation activities [24].

The main principles of the state innovation policy are:

− focus on the innovative way of developing Ukraine's economy;

− defining state priorities for innovation development;

− developing a regulatory framework for innovation;

− creating conditions for the preservation, development and use of domestic scientific, technical and innovative potential;

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− ensuring the interaction of science, education, industry, and the financial and credit sector in the development of innovation;

− efficient use of market mechanisms to promote innovation, support entrepreneurship in the research and production sector;

− implementing measures to support international scientific and technological cooperation, technology transfer, protection of domestic products in the domestic market and their promotion in the foreign market;

− financial support, implementation of favourable credit, tax and customs policies in the field of innovation;

− Promoting the development of innovative infrastructure;

− information support for innovation entities;

− training of personnel in the field of innovation [20].

State regulation of innovation activities is carried out by:

1. Identifying and supporting priority areas of innovation at the state, sectoral, regional and local levels.

2. Development and implementation of state, sectoral, regional and local innovation programmes.

3. Establishing a regulatory framework and economic mechanisms to support and stimulate innovation.

4. Protecting the rights and interests of innovation entities.

5. Financial support for the implementation of innovative projects.

6. Stimulating commercial banks and other financial institutions that lend to innovative projects.

7. Establishing preferential taxation for innovation entities.

8. Supporting the functioning and development of modern innovation infrastructure [20].

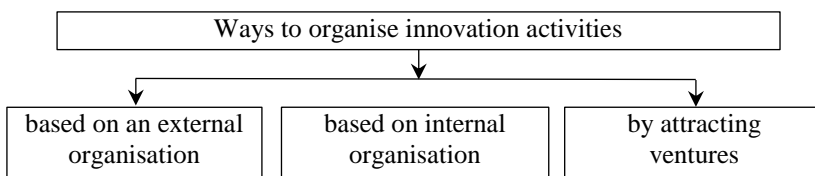The ways of organising innovation activities are shown in Fig.7.2.

Figure 7.2 – Scheme of organisation of innovation
activity (built by the author according to [25])

An enterprise's innovation activities can be based on different organisational approaches, each of which has its own advantages depending on the company's goals and resources. Internally organised innovation activity involves the creation of innovations by the company's own specialised units with clear planning and monitoring of their work, which allows for effective control of the process and preservation of knowledge within the company.

External organisation of innovation activities through contracts involves the involvement of third-party organisations to perform certain tasks, which provides access to external expertise and speeds up the implementation of innovations. At the same time, external organisation through venture capital firms allows for the creation of subsidiaries that attract additional financial resources to implement innovative projects, reducing risks to the core business. Each of these approaches contributes to the company's flexibility and adaptation to market changes.

The main methods of implementing the state innovation policy are as follows (Fig. 7.3).

The legal, economic and organisational framework for state regulation of innovation activity in Ukraine is defined by the Law of Ukraine "On Innovation Activity", according to which an innovation project is a set of documents that defines the procedure and a set of all necessary measures (including investment) for the creation and implementation of an innovative product and (or) innovative products [20].
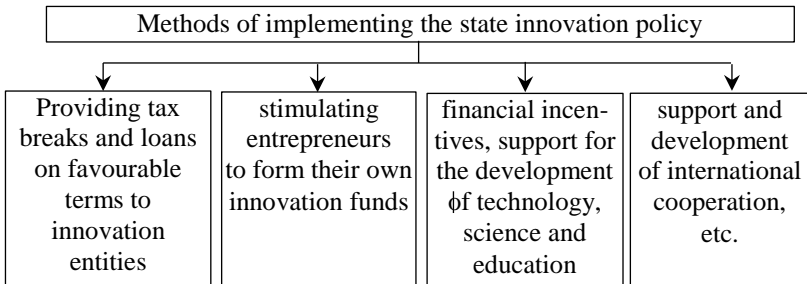
Figure 7.3 – Methods of implementation of the state

An innovative project is a set of works and activities for the creation, production and promotion of new high-tech products, united by a single goal and timed to a certain time, with the indication of the performers, resources used and their sources.

The main features of the innovation project are as follows (Fig. 7.4):
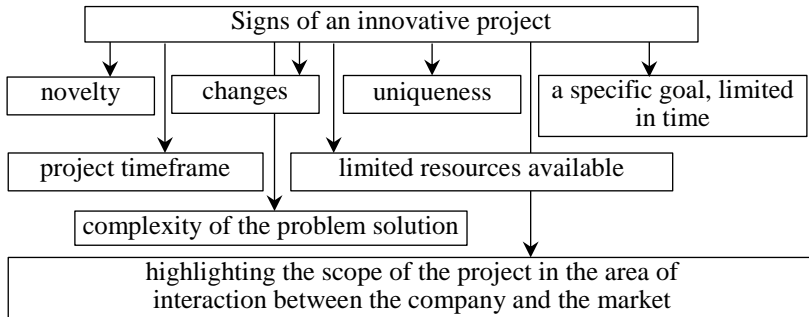
Figure 7.4 – Key features of an innovative project
(built by the author according to [27])

The most important feature that distinguishes an innovation project from innovation activity or innovation in general is the timeframe, i.e. the deadline for the implementation and completion of an innovation project.

We propose to consider the following structure of an innovation project (Fig. 7.5) in order to ensure a systematic approach to its planning, management and implementation. It allows:

− clearly define the stages and tasks of each project element from idea development to implementation;

− optimise resources, i.e. effectively allocate resources (time, money, human resources) and reduce costs by avoiding duplication of tasks;

− assess risks and possible problems at each stage, which helps to anticipate difficulties in advance and develop plans to overcome them, increasing the chances of project success;

− ensure that the project meets the strategic goals of the organisation, which helps to link it to the broader goals of the

enterprise or institution, allowing innovative solutions to be aligned with the development strategy;

− improve the efficiency of communication between project participants, allowing each participant to understand their role and tasks, which contributes to better coordination and avoidance of misunderstandings.

| Formation of target principles (vision, mission, goals and objectives) |
| Researching the need for and possible potential of innovation |
| Identify the resources required |
| Identify limitations and risks |
| Justification of economic indicators |
| Implementation of operational procedures for the development of individual innovations or a complex (set) of innovations |
| Monitoring of project implementation |
| Implementation of individual innovations or a complex (set) of innovations |

Figure 7.5 – Structure of an innovation project
for its successful implementation

Thus, the structuring of an innovation project ensures the logic and consistency of its implementation, which increases the likelihood of successful achievement of the goals.

7.2. Features of the hotel and restaurant business and key factors of its development

The current environment has not changed the essence of hotel and restaurant services, but has significantly affected the service features, variety and quality of hotel services.

The hotel and restaurant business is the production, economic, organisational and economic activity of enterprises of the hotel and restaurant complex aimed at meeting the needs of society in hotel, restaurant and other related services and products in order to make a profit or other socio-economic effect in the market [27].

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The peculiarities of running a hotel and restaurant business are related to services and products, i.e. business objects. These include:

− inseparability of services and products from the hotel and restaurant business entity;

− intangible nature of the combined service and product.

The aggregate service and/or product of the hotel and restaurant business is a complete pool of customer service activities in the course of providing food and accommodation services, which begins long before the physical act of purchase and sale and ends by forming and maintaining the impression of visiting the establishment.

− the complexity, and in some cases the impossibility, of accumulating services and products;

− inseparability from the source of the service and product;

− variability, which is caused by changes in the consumer's mood and mental perceptions of services, as well as by factors such as fashion, situational factors, etc;

− inseparability of demand from non-price factors, with a significant dependence of the volume of demand on the price factors of its formation.

The peculiarities of providing basic services of hotel and restaurant business enterprises in a competitive environment can be summarised as follows:

− the consumer determines the content of the service, forming its dual role: first, the identity provided by the enterprise, and second, its subjective content, which is shaped by the consumer by putting forward his or her own requirements;

− the fact of consumption of services of hotel and restaurant business enterprises involves division into certain stages (information, pre-order, sale, after-sales service), each of which may involve a situation of refusal from consumption, including due to the actions of competitors (targeted and untargeted);

− the sale of a certain volume of services (usually a so-called "check"), unlike tangible products, depends on marketing and

personnel, and there is no clear sequence of application of this component of the service sales process;

− the concept of quality of the total service and/or product of the hotel and restaurant business is formed mainly by the contact group of the business entity in the conditions of the existing material and technical base and means of communication [27].

The development of the hotel and restaurant business depends on a number of factors, the first of which is the factor of public administration. This is due to the fact that hotel and restaurant business enterprises form and provide services that meet the physical, spiritual and moral needs of the population and have a significant consumer demand regardless of the social status of citizens. At the same time, a number of services provided by the hotel and restaurant business enterprises include increased social responsibility to citizens

One of the leading factors in the development of the hotel and restaurant business is the security factor, as tourism and the hotel and restaurant business grow where it is safe for people and society.

Another important factor in improving the efficiency of the hotel and restaurant industry is the social factor. It is an increase in free time among the population (primarily due to shorter working hours and longer annual leave), which, combined with rising living standards, means new potential customers.

The influence of economic and financial factors on the hotel and restaurant business (such as changes in the economic and financial situation, the level of income of the population) is due to the fact that there is a close relationship between the trends in the development of the hotel and restaurant business and the regional economy. As a rule, the level of development of the material and technical base and infrastructure of the hotel and restaurant services sector depends on the economic situation of the region.

A powerful growth factor is the environmental one, which influences the development of the hotel and restaurant business through the prism of consumer satisfaction with service, recreation, fulfilment of desires, through a sense of comfort, the atmosphere of hotel and restaurant services, safety and recreational health effects.

Technological factors related to scientific and technological progress also have a significant impact on the development of enter-prises in the hotel and restaurant industry. The impact of these factors provides opportunities to improve existing and create new types of services, primarily through the use of information technology.

The mutual influence of the factors of the hotel and restaurant business development reflects a complex approach, where different factors influence each other, creating favourable or, conversely, restraining conditions for the industry growth. The main factors of development of the hotel and restaurant business are shown in Fig. 7.6.
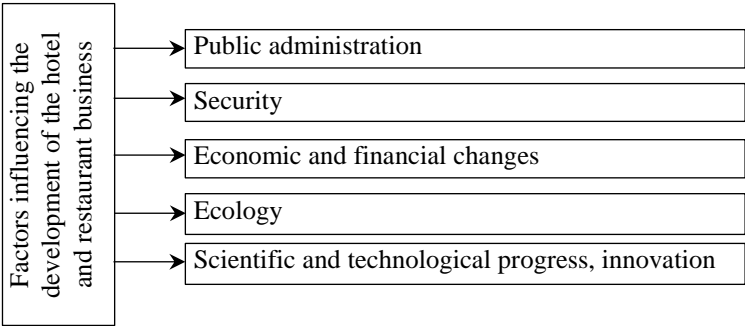
Figure 7.6 – Factors influencing the development
of the hotel and restaurant business

These factors do not act separately, but interact to form a complex impact on the development of the hotel and restaurant business. For example, economic and financial changes encourage investment in new technologies, while scientific and technological progress and innovations stimulate the improvement of service quality. Successful development of the industry is possible only if all these factors are taken into account and harmoniously combined.

The factors that influence the development of the hotel and restaurant business create the basis for the formation of key areas for its further improvement. They define the needs and priorities of the industry, as well as indicate the need to adapt to changing market conditions and consumer demands. As a result, these factors form the

main trends in the development of the hotel and restaurant business, which focus on improving the quality of services, modernising technologies and improving management

The following main development trends can be identified in the hotel and restaurant business (Fig. 7.7).
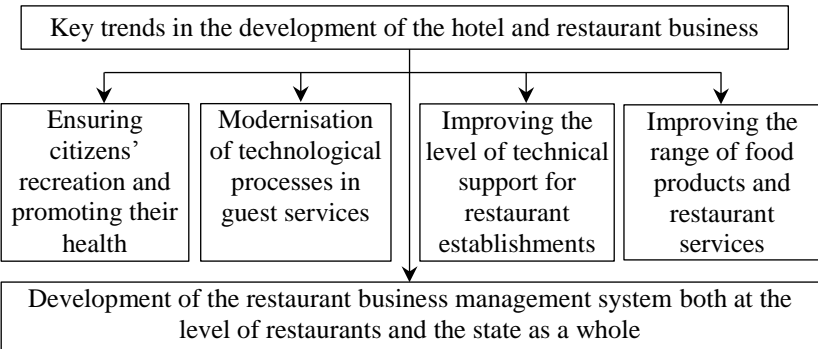
Figure 7.7 – Key areas of development of
the hotel and restaurant industry in Ukraine

The main trends in the development of the hotel and restaurant business focus on several important aspects. One of the key areas is providing recreation for citizens and promoting their health, which points to the need to create comfortable conditions for consumers and provide quality services. The modernisation of technological processes in the guest service sector is essential to increase efficiency and meet the needs of modern consumers. Improving the level of technical support for restaurants ensures competitiveness and high standards of service. Improving the range of food products and restaurant services helps to expand consumer choice and improve product quality. Particular emphasis is placed on the development of the restaurant business management system, both at the level of individual establishments and at the state level.

These trends reflect the importance of a comprehensive approach to the development of the hotel and restaurant business, including technology upgrades, improved services, effective management and customer focus.

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In Ukraine, the majority of hotel managers see the stability of their enterprises in a well-established quality management system that meets international standards. The issue of hotel management quality is becoming more urgent in the context of Ukraine's accession to the WTO and the emergence of competition from foreign hotel chains. The task of Ukrainian hotel managers is to gradually and purposefully adopt more than a century of management experience from foreign hotel companies, taking into account national specifics, and to learn from the examples of leading domestic hotel companies. Quality issues in the service sector are different from production issues. In this area, the key aspects of the quality assurance system are employees, information technology, complaints handling, and a clear formulation of service quality criteria.

In 2022, the hotel industry had 1 842 thousand open hotels worldwide and forecasted a growth of +2 480 thousand global open hotels in 2023, which are leading in the tourism industry. The main leader in the luxury hotel market among Hilton, Starwood Hotels & Resorts, Hyatt Hotels and Four Seasons Holdings Inc. is Marriott International, Inc. in terms of revenue, units and brand value.

In recent years, Ukraine has also seen a positive trend in the number of temporary accommodation and catering facilities (from 50 thousand in 2010 to 71.8 thousand in 2020), but in 2021 there was a relative decline. As for the number of employed and hired workers, the largest growth occurred in 2015–2019, with a sharp decline in 2020 [28].

One of the most important characteristics of the quality of the hotel industry is the level of comfort, which determines the category of accommodation. Currently, there are about 5,000 hotels in Ukraine, of which 197 have a valid certificate, 73 are four-star hotels, 57 are three-star hotels, 14 are two-star hotels, and 16 are one-star hotels [29].

The main reason for the large number of hotels without a category is the lack of desire to be certified for category assignment. For the most part, hotel enterprises with a low level of occupancy are not ready to spend additional funds on the certification procedure, especially since the lion's share of them do not meet the established requirements [30].

The quality system in the hotel business includes a set of structures that perform the functions of quality management and assurance by established methods. Its development mainly consists in first determining which processes and structures should be included in the quality system and what functions they should perform to ensure the required quality of products/services, and then developing all the regulatory documents necessary to perform these functions (Fig. 7.8).

Quality system of a hotel and restaurant enterprise

Effective enterprise management based on marketing	Shaping and implementing corporate culture	Implementation of technical service quality standards
Implementation of functional quality of service standards	Incoming quality control for products and services from suppliers	Initial quality control of services provided in the hotel (restaurant)

Figure 7.8 – Formation of the quality system
of a hotel and restaurant enterprise [31]

Figure7. 8 shows the structure of the quality system of a hotel and restaurant enterprise, which is aimed at increasing management efficiency, improving service and ensuring high quality standards. The main elements of this system include: effective management based on marketing approaches (allows to take into account the needs of guests and market trends; formation and implementation of corporate culture (the basis for maintaining uniform quality standards and staff motivation.

One of the important aspects of the system is the implementation of technical and functional quality of service standards, which ensures that products and services meet the established requirements. In addition, the system provides for incoming quality control of products and services provided by suppliers, which guarantees quality stability at all stages of service. The final element is the outgoing

quality control of services, which helps to confirm the high level of service and meet customer expectations.

This integrated approach to quality management allows a hotel and restaurant company to increase its competitiveness, effectively adapt to market changes and improve the quality of services provided.

7.3. Areas of innovation management in the hotel business

Given the complexity and peculiarities of the hotel business, high competition, the market for hotel and restaurant products is constantly expanding, and the number of people employed in this area is growing.

The high level of competition and saturated market require hotel and restaurant companies to take a creative approach to development by introducing innovations. Innovations in the hotel business are usually implemented in the following areas:

1. Product innovation – offering a fundamentally new hotel product or service, such as a hypoallergenic hotel room or a cave room.

2. Process innovations are innovations in the technology of service delivery, such as the provision of services by robots.

3. Marketing innovations include new approaches to pricing, special offers for customers, and new payment options.

4. Management innovations – creation of new hotel management structures, new requirements for positions, application of new management methods.

5. Innovations in the concept of a hotel enterprise include a new type of hotel, unusual design, style, location, etc.

6. Innovations in the business model – fundamentally new approaches to cooperation with partners and customer interaction;

7. Innovations in the field of information technology (enterprise resource planning systems, real-time online booking systems, etc.).

8. Innovations in the field of multimedia technologies – virtual 3D tours are especially popular lately.

9. Innovations in the field of security – electronic safes and locks, automated fire safety systems, etc.

10. Environmental innovations are measures of the hotel and restaurant business aimed at non-toxic development of natural resources and nature conservation.

H. Tereshchuk draws attention to the use of marketing and geo-marketing technology projects in the hospitality business, in particular, the creation of innovative solutions and the impact on a number of human feelings and emotions: an innovative marketing complex (Seven Sensual Notes) that provides a new vision of marketing (the concept of a "boutique hotel", "musical suggestion", "magic of the hospitality aroma", "Taste the hotel", "fingertip touch", intuition – contemplation – privacy, creation of a branded feeling) [32].

Unfortunately, in contrast to global development trends, Ukrainian hotel enterprises are characterised by low innovation activity due to the high cost of innovative developments and the lack of adaptation of the enterprise to innovations. The underestimation of the management of innovation processes at enterprises, including hotel and restaurant businesses, leads to a decrease in their competitiveness, violation of management principles and methods. One of the most popular developments today is electronic hotel management. Using a web resource, you can get all the necessary information about a hotel at any time; see all the changes that take place in it online; book rooms for guests; and get access to the widest possible range of sales channels. At the same time, the existing infrastructure of the industry does not yet meet the requirements of international standards. Most hotels do not have modern means of communication and communication, conference rooms with appropriate audiovisual equipment and technical means for simultaneous translation [33].

One of the main areas of innovative technologies in the hotel business is the introduction of multimedia technologies, including directories, booklets and catalogues. Today, hotels publish electronic directories and catalogues on the Internet. Electronic hotel catalogues allow you to virtually travel through rooms of various categories, restaurant halls, congress centres, lobbies, view complete informa-

tion about the hotel company, and get acquainted with the range of services provided, the system of benefits and discounts. The use of multimedia technologies makes it possible to promptly provide a potential guest with information about the hotel and thus allow them to quickly and accurately choose the hotel product they need.

In today's world, the planning and construction of hotel and restaurant complexes focuses on saving time, money and energy. To save energy, environmentally friendly innovative technologies are created [34].

Directions for the development and application of innovative processes in the economic activity of the hotel and restaurant business can be realised through:

− expanding the raw material base by using new types of raw materials and semi-finished products (biologically active additives, secondary products of seafood and soybean processing, exotic products, etc.) in the production and decoration of restaurant products;

− progressive industry technologies, the latest technologies and trends in culinary related to the emergence of fashion trends in the restaurant business, consumer reorientation towards healthy eating (creative, eclectic, fusion, vegetarian, etc. cuisine, soy restaurants, etc.);

− developing a range of competitive products with specified consumer properties, high quality and service parameters;

− use of automated monitoring and control systems, highly efficient control and measuring equipment [35].

Innovation management is an essential tool that ensures the effectiveness of implementing innovations in the hotel and restaurant business.

The stages of innovation management include the following:

− search for an idea that is the basis for this innovation. Sources of innovative ideas include consumers, scientists (research), competitors (consumer demand studies), sales agents, dealers, and employees;

− stages of innovation management;

− organisation of the innovation process for a particular innovation;

− promoting and implementing innovations in the market.

The functions of innovation management are:

− continuous adjustment of innovation goals and programmes depending on the state of the market and changes in the external environment;

− focus on achieving the planned end result of the organisation's innovation activities;

− use of a modern information base for various calculations in management decision-making;

− change in the functions of strategic management and planning (from current to future);

− use of all the main drivers of change and improvement of the organisation's innovation activities;

− involvement of the entire scientific, technical and production potential of the organisation in management;

− management based on anticipating changes and making flexible decisions;

− ensuring the innovation process in each segment of the organisation's work;

− conducting in-depth economic analysis of each management decision.

Implementation of the tasks, principles and goals of innovation management requires the development of an innovation strategy (Fig. 7.9).

The formation of the innovation management strategy, as shown in Fig. 7.9, mainly focuses on the implementation of this system within the overall development strategy of the hotel and restaurant business enterprise.

The tasks to be solved by the management of a hotel and restaurant enterprise in the process of implementing an innovation management system:

− determining the type of innovation policy that best suits the company's goals and market position;

− Ensuring that the innovation strategy is consistent with the organisational structure, infrastructure and information management system of the enterprise;
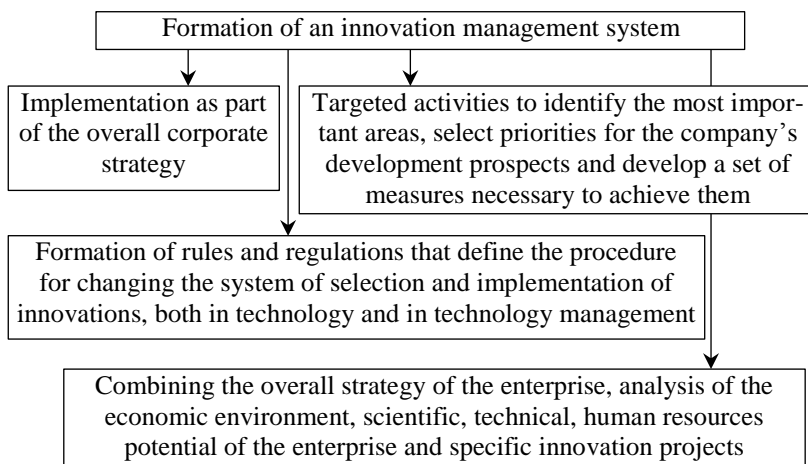
Formation of an innovation management system

Implementation as part of the overall corporate strategy

Targeted activities to identify the most important areas, select priorities for the company's development prospects and develop a set of measures necessary to achieve them

Formation of rules and regulations that define the procedure for changing the system of selection and implementation of innovations, both in technology and in technology management

Combining the overall strategy of the enterprise, analysis of the economic environment, scientific, technical, human resources potential of the enterprise and specific innovation projects

Figure 7.9 – Scheme of formation of the innovation management system of a hotel and restaurant enterprise (built by the author according to [36])

− defining success criteria in the early stages of developing an innovative project;

− selecting the optimal procedure for monitoring and controlling the implementation of an innovative project.

The systematisation of the main areas of innovation activities and processes by the scale of their changes and, as a result, the emergence of new products and processes is shown in Table 7.3.

Table 7.3 – Systematisation of the main areas of innovation activity [37]

Innovations	Characteristics
Significant innovations	Services that are "new all over the world" and whose markets are not yet precisely defined and are not yet large enough. Such innovations involve a high degree of uncertainty and risk in terms of market penetration New activities New services traditional for some social groups that create an opportunity to engage other social and consumer groups (other market segments) in the form of consumption activities

Innovations	Characteristics
A new service for an existing market	New additional service in the same market segment for existing customers consumers that were not previously provided by this service organisation Expanding the range of services offered Adding services to the existing service line that increase the current offer, expanding the range of services
Product improvements	Product enhancement consists of changing certain characteristics of services to provide consumers with better quality or to increase the value of the service (price/quality ratio). The former is realised in the form of faster service or additional features that improve the "appearance" of the service, facilitate ease of use, and ensure homogeneity of the social composition of consumers. The second direction is related to the inclusion of an additional free service in the package of regular services
Changing the style of service	The category includes renovation of a building or premises, new employee uniforms, a new logo or slogan, etc. This innovation in the service sector is quite significant and can be classified as innovation. As a result, a new image of the service and its provider is formed, as well as their new quality characteristics

Table 7.4 shows the characteristics of the types of innovation strategies that can be implemented in the implementation of innovation projects.

Table 7.4 – Types of innovation strategies in the hotel and restaurant business [38]

Types of innovation strategies	Characteristics
Active offensive strategy (leadership strategy)	It involves achieving the goal of becoming the first, leading enterprise in a particular area of activity and sales. It is applied only to one or more individual products where there are favourable conditions for implementing such

Types of innovation strategies	Characteristics
	a strategy (resources, scientific and technical potential). It is very risky in terms of gaining and maintaining market positions and involves significant resource expenditure. However, this strategy can bring significant results and is used by attacking firms. The research conducted in such organisations is aimed at ousting a competitor, taking a dominant position in the industry, and conquering new markets by producing unique products
Moderate offensive strategy (following the leader)	Focuses on rapid expansion of a market niche. The organisation focuses on innovations (products) that have already been recognised by the market. The main feature of this strategy is a "safe trade policy", when the company tries to avoid high risks and possible difficulties in the development of new products with high innovative characteristics. Challenge strategy The goal is to become a leader. In this case, the key problems are: choosing a foothold to attack the leader; assessing its possible reaction and defence. Guerrilla warfare strategy involves a firm conducting trade "raids" to induce competitors to enter into an agreement (coordination of trade activities, division of markets, etc.)
Price leadership strategy	It involves reducing production costs by massively increasing production volumes and rationalising production processes. Merger and acquisition strategy Improving the organisation's market position by merging with user firms, suppliers and competitors and entering the market quickly

Types of innovation strategies	Characteristics
Product differentiation strategy	It is based on the company's continuous improvement, modernisation and modification of a product with a quality design that is better than that of its competitors. The application of this strategy is possible if there are many product characteristics that are distinguished and valued by the consumer, and there is a diverse demand for products in this range. In the product differentiation strategy, the company risks falling behind in production technology and cost reduction, and competing companies may take an attacking position. There is a risk of imitating the unique properties of the product
Strategy for developing and filling market niches	It involves scientific and technical research, active innovation and marketing. It is used with the greatest success in conditions of rapid changes in market conditions and production structure. This strategy is also called the strategy of active R&D and offensive marketing, as it requires thorough market research, organisation of promotional activities, and ensuring organisational adaptation of the enterprise to environmental changes
The strategy used by small knowledge-intensive firms	It is a type of strategy for capturing "market niches". Small knowledge-intensive enterprises operate in the field of the latest high technologies and are called risk or venture capital. Many of them are created either by the scientists developing a new innovative idea or with their direct participation
Strategy of venture capital companies	It is aimed at developing new technological solutions to implement the growth strategy in the form of market intensification and

Types of innovation strategies	Characteristics
	diversification. Corporations tend to create internal venture capital units based on an independent innovative and entrepreneurial group whose activities involve commercial R&D risk. "Internal" venture is the most balanced and yet effective strategy for penetrating new industries. Defensive strategy Focused on maintaining the organisation's stable market position. Defensive strategies include the following: imitation, defence, rapid response, and waiting
Imitation strategy	It is based on the use of already known technologies and their development in accordance with the requirements of a specific market. The firm pursuing the imitation strategy does not incur research costs (except for the costs of acquiring licences) and can therefore achieve significant cost reductions and high sales margins. When using the imitation strategy, the main focus is on the rapid adoption of technology and the launch of a product
Waiting strategy	It is carried out in conditions of uncertainty about the situation and consumer demand. In this case, the firm takes a wait-and-see attitude until the market situation is clarified, and then increases production and sales of the new product. At the early stage of development of any industry, the firm aims to closely monitor this process. Observation allows the firm to obtain information about the requirements for technology and personnel, to determine the industry's prospects for profitability and growth potential, and to assess its own capabilities

Types of innovation strategies	Characteristics
Rapid response strategy	It is characteristic of specialised small firms that work on individual orders and have the ability to quickly reorganise to create a new product

The hotel and restaurant business is one of the most dynamic sectors of the economy, characterised by high competition and a saturated market, which requires constant innovation to remain competitive. The main areas of innovation in the hospitality sector include product, process, marketing and management innovations, as well as innovations in the concept of the enterprise, business model, information technology, multimedia solutions, environmental aspects and security. Creative approaches to developing innovations, such as the introduction of 3D virtual tours, automated control systems and environmentally friendly technologies, open up new opportunities to increase customer satisfaction and optimise service processes.

At the same time, the innovation activity of domestic hotel and restaurant enterprises remains low due to the high cost of innovative technologies and lack of adaptation to them. Insufficient attention to innovation management reduces the competitiveness of enterprises at the international level, and the lack of appropriate infrastructure and modern technologies is a serious obstacle to development. Thus, in order to overcome these challenges, it is important to develop an effective innovation strategy and improve innovation management, which involves the involvement of the entire scientific and technical potential of the enterprise, flexible planning and strategic management focused on the final result.

Conclusions to chapter 7

Thus, the study of the theoretical foundations of innovation and the implementation of innovative projects in the hotel and restaurant business confirms that achieving competitive advantages and ensuring consistently effective activities in this area directly depend on the successful development and implementation of innovative solutions. These innovations may cover a variety of areas, such as

product innovations (new types of services and offers), process innovations (improvement of technological aspects of service delivery), marketing (creative approaches to pricing and positioning), management (updating management methods and structures) and environmental innovations (resource conservation strategies).

At the same time, the development and implementation of innovations in the hotel and restaurant sector largely depend on a combination of internal and external factors. Internal factors include the ability of an enterprise to adapt to innovations, availability of qualified personnel, financial stability, risk appetite and a change in organisational culture in favour of supporting innovation. External factors include market trends, developments in information technology, economic and regulatory conditions, and the level of overall competitive activity in the industry.

In addition, the study found that innovation is a powerful tool for creating unique experiences for consumers, which increases their loyalty and helps expand their customer base. Innovative projects in this area are aimed at creating an original product and providing consumers with high-quality service that meets international standards. However, this requires innovation management, which must ensure flexibility, strategic planning, adaptation to changes in the external environment, and integration of modern technologies into business processes.

Thus, increasing the level of innovation activity in the hotel and restaurant business of Ukraine is an important task for strengthening competitive positions in the international market. The successful implementation of innovative strategies will not only increase customer satisfaction, but also significantly strengthen the position of Ukrainian enterprises in the global arena, in particular through adherence to the principles of sustainable development, environmental responsibility and creativity in business approaches.

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CHAPTER 8
MODERN SYSTEMS OF SEARCH, SELECTION AND MANAGEMENT OF PERSONNEL TO ENSURE THE QUALITY OF THE HOTEL BUSINESS

8.1. The main aspects of organizing the work of the hotel staff

Currently, it is quite important to adapt to changes and innovations introduced and used by enterprises. It is the introduction of new technologies, standards, management concepts that requires adaptation, and the study of the reaction and readiness of personnel for changes is necessary for their successful implementation.

Along with this, compliance with international standards is an integral part of the quality work of the staff, because the integration of Ukraine into the global hotel market requires bringing personnel management in line with international practices. Studies allow us to identify gaps and develop measures to increase the competitiveness of hotel and restaurant enterprises.

Thus, the relevance of the study of the work of hotel staff in Ukraine is due to the need to improve the efficiency of human resources management in the context of the dynamic development of the hotel and restaurant business.

The hotel industry, like any other field of activity, is regulated by labor law. Understanding the legal regulations related to work in hotel and restaurant enterprises is critical for the successful operation of the enterprise and ensuring the rights of employees.

Key legislative acts governing employment in the hotel industry:

✓ The Labor Code of Ukraine last revised: 24.12.2023 № 322-VIII of 17.12.1971: the main document that defines the general labor standards, including labor relations, remuneration, i.e. the Labor

Code regulates the time of work and rest, working conditions, labor protection, social guarantees [1].

✓ The Law of Ukraine "On Tourism" as amended in 2024 № 324/95-VR of 15.09.1995, revision of 16.10.2020: regulates the activities of hotels and other tourism enterprises, determines the peculiarities of the organization of work in this area [2].

✓ The Law of Ukraine "On Collective Contracts and Agreements" dated 23.02.2023 № 2937-IX: defines the procedure for concluding collective agreements that establish additional guarantees for employees [3].

✓ The Law of Ukraine "On Leave" of 15.11.1996 № 504/96-VR: defines the types of leave, their duration, the procedure for granting and payment[4].

✓ The Law of Ukraine "On Labor Protection" dated October 14, 1992 № 2694-XII (as amended on 27.12.2019): defines the obligations of the employer to ensure safe working conditions and health protection of employees [5].

The concept of "personnel" in the scientific literature is defined by different scientists and has several aspects. An example of the main definitions of well-known scientists is given in Table 8.1.

Table 8.1 – The concept of "personnel" in the scientific literature

Author	Interpretation
Michael Armstrong	The totality of all employees of an organization who are involved in the achievement of its goals. Emphasis on the importance of human resources as the main capital of the organization, requiring management and development to ensure effective operation
Dale Elton	It is a team of employees united by common tasks and goals, which needs organization, motivation, training and evaluation to achieve high perfor-mance. The importance of human resource mana-gement as a systematic process involving planning, recruitment, development and retention of employees is emphasized [12]

Author	Interpretation
Henry Mintzberg	A key element of the organization's structure on which its functioning depends. Personnel is considered not only as a resource, but also as an active participant in the decision-making process and implementation of the organization's strategy [8]
Peter Drucker	One of the main assets of the organization that needs strategic management. The importance of an innovative approach to personnel management, focused on the development of competencies, motivation and effective communication within the organization, is emphasized
Doctor of Economics L. I. Levchenko	A set of employees who perform certain functions in an organization and participate in its activities. The importance of personnel management as a system of measures aimed at ensuring the effective work of employees, their motivation, development and social protection is emphasized.
Ph. D. in Economics G. O. Vasilyeva	It is a key resource of the organization that requires constant development and improvement. Emphasis is placed on the importance of personnel training and development as an integral part of effective management of the organization
Doctor of Economics Y. M. Lysenko	A set of individuals who have certain knowledge, skills, experience and are involved in achieving the goals of the organization. Emphasis is placed on the role of strategic personnel management, which includes planning, organizing, motivating, and control
Doctor of Economics V. A. Boyko	A group of workers who perform functions necessary to ensure the smooth running of production systems and require effective management to achieve optimal productivity
Dr. O. P. Gritsenko	A team that needs to create favorable working conditions, support social protection and develop a corporate culture to achieve high motivation and satisfaction of employees

Source: compiled by the author based on [17].

Based on Table 8.1, personnel can be defined as a set of people working in an organization, performing various functions and tasks, united by common goals and requiring effective management to achieve high results.

Scientists define personnel as a set of employees of an organization performing various functions and tasks, united by common goals. Personnel management includes the processes of motivation, training, development, social protection and creation of favorable working conditions to achieve high efficiency and productivity.

These definitions reflect various aspects of the concept of "personnel" and emphasize the importance of an integrated approach to human resource management in modern organizations.

The features of employment contracts in the hotel industry are quite specific. This is due to the fact that irregular working hours, work schedules that include night hours, weekends and holidays are often used. Hotel and restaurant enterprises may provide employees with special working conditions, for example, free accommodation, meals, washing uniforms. In some cases, hotel and restaurant enterprises may enter into contracts with employees that provide for special working conditions and pay.

Remuneration in the hotel industry is quite specific compared to other sectors of the economy. Hotel and restaurant enterprises are obliged to pay employees at least the minimum wage established at the legislative level. Hotel and restaurant enterprises may provide employees with payments, for example, bonuses, allowances for length of service, payments for night work, and others. Various remuneration systems are also used, including hourly, daily and monthly wages.

For employees of hotels and restaurants, certain social guarantees are provided:

✓ Vacations: Hotel employees are entitled to paid annual leave, the duration of which depends on the length of service.

✓ Paid time off: Employees are entitled to paid time off due to illness, maternity, childcare, and other reasons.

✓ Occupational health and safety: Employers have a duty to ensure safe working conditions and health protection for employees.

✓ Social Insurance: Hotel employees are subject to compulsory social insurance against industrial accidents and occupational diseases.

Compliance with the legislation on the organization of work in the hotel and restaurant industry is an important factor that affects the successful operation of the enterprise and ensuring the rights of employees. Understanding current regulations, ensuring compliance with them, and establishing an effective HR system are key tasks for any hospitality enterprise.

The organization of the work of the hotel staff is a key factor in ensuring a high level of guest service and the efficient functioning of the accommodation facility. The main aspects of the organization of the work of the staff of the hotel and restaurant enterprise are presented in Figure 8.1.

Staff structure	• Administrative staff • Operational staff
Selection and training of personnel	• Selection • Teaching
Planning and allocation of personnel	• Work schedules • Distribution of duties
Motivation and staff evaluation	• Motivation • Evaluation of work
Use of technologies	• Hotel Management Systems (PMS) • CRM systems • Mobile applications
Ensuring the quality of service	• Service standards • Working with reviews
Compliance with regulatory requirements	• Security • Legislation

Figure 8.1 – Aspects of the organization of the work of the hotel staff

Source: compiled by the author based on [12].

The first aspect of the staff structure is made up of administrative staff, namely the hotel director, who manages all aspects of the

hotel's operations; Deputy Hotel Director, who is responsible for various areas such as operations, marketing, finance, etc.; manager of departments, leading various departments such as reception, room service, catering, meeting rooms, etc.

The operations staff consists of receptionists, concierges, maids, technical staff, waiters, and cooks.

Selection and training of personnel is a thorough process of selecting candidates based on their experience, qualifications and personal qualities. It is mandatory to draw up a training program for new employees, refresher courses, guest service and security training.

It is important to plan and allocate working time, namely the creation of variable schedules to ensure continuous service to guests, a clear distribution of tasks among employees to avoid duplication of functions and ensure efficiency

Motivation and evaluation of staff performance is the driving force in the work of employees. A system of bonuses, bonuses, loyalty programs for staff, organization of corporate events, regular evaluation of employees' performance, feedback, career planning are an integral part of effective work.

The use of modern technologies in the hotel business is the automation of booking processes, room management, guest accounting, customer relationship management, feedback analysis, personalization of service, for quick communication between staff and for the convenience of guests.

Ensuring the quality of service affects the level of comfort of guests' stay and receiving appropriate services, through the establishment and observance of service standards, the implementation of quality control procedures, the analysis of guest feedback, and the prompt response to complaints and suggestions.

Compliance with regulatory requirements, occupational health and safety, compliance with legal requirements in the field of hotel business, consumer protection are mandatory.

The organization of the work of the staff of a hotel and restaurant enterprise is a multifaceted process that includes structuring, planning, training, motivation and evaluation of employees, the use

of modern technologies and compliance with regulatory requirements.

Effective organization of the staff's work allows us to ensure a high level of guest service, which is a key factor in the successful operation of a hotel and restaurant enterprise.

8.2. Traditional and modern models of personnel management in the hotel business

The optimal model of hotel personnel management depends on its size, type, level of service and many other factors. However, there are general principles and models that can be used as a basis for building effective personnel management.

The choice of model depends on the size of the hotel, the type of hotel, and the culture of the company. For large hotels, a divisional-functional or matrix model is better suited. For hotels with a high level of service, it is important to use a staff engagement model. The HR model should be in line with the company's culture and values.

It is important to remember that there is no one-size-fits-all HR model. The model must be flexible and adapt to changes in the industry. It is necessary to constantly evaluate the effectiveness of the selected model and make the necessary changes to its structure [22].

Table 8.2 – Characteristics of traditional models of hotel personnel management

Model	Advantages	Disadvantages	Example
Functional Model	Simple, clear structure, responsibilities are divided by functions	It can be too bureaucratic, inconvenient for large hotels	1. Human Resources Department (recruitment, training, administration). 2. Guest Service Department (Registration, Cleaning, Service). 3. Food department (kitchen, restaurant, bar). 4. Maintenance Department (Repair, Infrastructure Maintenance)

Model	Advantages	Disadvantages	Example
Divisional-functional model	Suitable for large hotels with several departments.	It can be more difficult to coordinate the actions of different departments	1. Departments (restaurant, spa, conference room, hotel rooms). 2. Functions (recruitment, training, maintenance, maintenance)
Matrix model	Flexible, allows you to allocate resources efficiently	It can be difficult to manage, requires highly qualified managers	1. Project teams (groups of employees working on specific projects (e.g., opening a new restaurant). 2. Functional groups (departments responsible for certain functions (for example, the marketing department)
Employee Engagement Model	Increases motivation, involves employees in the decision-making process	Requires a high level of trust and communication	1. Collective meetings (discussion of problems and solutions with all employees). 2. Motivation programs (prizes, bonuses, awards for achievements). 3. Feedback system (collection of suggestions and feedback from employees)
Personnel Development Model	Increases the professional level of employees, increases their value to the company	Requires significant investment in training and development	1. Training programs (courses, seminars, trainings). 2. Mentoring programs (providing experienced mentors for new hires). 3. Career growth (the possibility of career advance-ment)

Source: compiled by the author based on [12].

The above models are just examples. Each hotel should develop its own personnel management model that will meet its specific needs.

Modern models of personnel management in hotels include: traditional model, team model, situational model, innovative model.

The advantages, disadvantages and characteristics of each model are shown in Figure 8.2.

TRADITIONAL MODEL	**ADVANTAGES:** Clear structure and division of responsibilities. It's easier to control the execution of tasks.	The model focuses on building teams that work on specific projects or tasks. Teams can be cross-functional, that is, they can consist of representatives from different departments.
	DISADVANTAGES: The decision-making process can be slow. There may be a lack of flexibility and innovation.	
TEAM-BASED MANAGEMENT MODEL	**ADVANTAGES:** Increased flexibility and innovation. Promotes better communication between departments.	The model focuses on building teams that work on specific projects or tasks. Teams can be cross-functional, that is, they can consist of representatives from different departments
	DISADVANTAGES: It can be challenging to coordinate work across teams. It requires clear guidance and coordination.	
COMPETENCY-BASED MANAGEMENT MODEL	**ADVANTAGES:** Ensures high quality of tasks. Helps to identify and develop talents among the staff.	The model focuses on the competencies and skills of employees. Each employee performs tasks in accordance with their competencies, and not in a fixed position
	DISADVANTAGES: Requires continuous training and development of staff. It can be challenging to adapt for larger hotels.	
PARTICIPATORY MANAGEMENT MODEL	**ADVANTAGES:** Increases staff motivation and engagement. Promotes the development of leadership skills in employees.	The model assumes the active participation of employees in decision-making. It promotes the involvement of staff in management processes and stimulates their motivation
	DISADVANTAGES: It can be challenging to coordinate the decision-making process. Requires a high level of trust between management and staff.	
RESULTS-BASED MANAGEMENT MODEL	**ADVANTAGES:** Clear criteria for evaluating performance. Contributes to the achievement of specific goals and outcomes.	The model focuses on achieving specific outcomes and goals. Employees receive clear tasks and performance indicators by which their performance is evaluated
	DISADVANTAGES: Can create high levels of stress among staff. Requires clear planning and monitoring.	
CULTURE-BASED MANAGEMENT MODEL	**ADVANTAGES:** Contributes to the formation of a close-knit team. Increases staff loyalty and satisfaction.	The model emphasizes creating a corporate culture that supports the overall values and mission of the hotel. Personnel management is carried out through the formation and maintenance of the desired corporate culture
	DISADVANTAGES: It takes time to create and maintain a corporate culture. It can be difficult to change an established culture.	

Figure 8.2 – Characteristics of modern
models of personnel management

Source: compiled by the author based on [12].

Personnel management at hotel and restaurant enterprises abroad, in comparison with domestic ones, has its own characteristics and models, which are developed taking into account the cultural, economic and legislative characteristics of different countries. Let's consider several key foreign models of personnel management in a hotel enterprise (Figure 8.3).

AMERICAN MODEL OF PERSONNEL MANAGEMENT

ADVANTAGES:
High performance.
Innovativeness and manufacturability.

DISADVANTAGES:
There may be a high level of stress among the staff. A focus on results can lead to high employee turnover.

1. Result-oriented. Employees are evaluated based on their achievements and performance. High attention is paid to key performance indicators (KPIs).
2. Innovation. New technologies and management methods are being widely introduced. For example, the use of modern PMS (Property Management System) systems.
3. Flexibility. Flexible work schedule, the possibility of remote work and a project-based

EUROPEAN MODEL OF PERSONNEL MANAGEMENT

ADVANTAGES:
High level of staff satisfaction and loyalty.
Good working conditions.

DISADVANTAGES:
High costs for social guarantees.
Less flexibility compared to the American model.

1. Social orientation. Much attention is paid to ensuring social guarantees, working conditions and work-life balance.
2. Personnel development. Continuous training and professional development of employees.
3. Collective agreements.

JAPANESE MODEL OF PERSONNEL MANAGEMENT

ADVANTAGES:
High staff loyalty.
Continuous improvement of processes.

DISADVANTAGES:
Little flexibility.
There may be difficulties in adapting to rapid market changes.

1. Lifetime employment. A traditional model of lifetime employment that ensures the stability and loyalty of employees.
2. Team approach. Teamwork and a high level of collectivism.
3. Kaizen. The concept of continuous improvement.

SCANDINAVIAN MODEL OF PERSONNEL MANAGEMENT

ADVANTAGES:
High level of staff satisfaction and loyalty.
Good working conditions.

DISADVANTAGES:
High costs for social guarantees.
Lower productivity is possible due to a short working week.

1. Work-life balance. Flexible work schedule, support for family values.
2. High social standards. Extended social guarantees, attention to the health and well-being of employees.
3. Democratic governance. Supporting employee participation in decision-making.

CHINA'S MODEL OF HUMAN RESOURCE MANAGEMENT

ADVANTAGES:
High discipline and organization.
Stability in work.

DISADVANTAGES:
Little flexibility.
There may be difficulties with the implementation of innovations.

1. Hierarchical structure. Clear hierarchy and subordination.
2. Collectivism. The importance of teamwork and shared responsibility.
3. Stability and discipline. High discipline and focus on stability.

Figure 8.3 – Foreign models of personnel management in the hotel business

Source: compiled by the author based on [17].

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Each of these HR models has its own characteristics, advantages, and disadvantages. The choice of model depends on many factors, including the size of the hotel, its location, corporate culture, and the specifics of the market.

It is important to consider these factors when developing a workforce management strategy to ensure that the hotel operates efficiently and provides a high-quality guest experience.

Hospitality staff must be knowledgeable about hotel services, knowledgeable about new technologies, and able to provide personalized service.

Hospitalities can adopt digital technologies to improve the guest experience, such as mobile apps, online booking systems, and e-check-in systems.

The choice of HR model depends on many factors, including the size of the hotel, its strategy, corporate culture, and the specifics of the market. It is important to consider that effective HR management requires a comprehensive approach and can incorporate elements of different models to achieve the best results.

The modern hotel business is in constant motion, caused by changes in the needs of guests. Guests have become more de-manding, informed, and technologically savvy, which requires hotels to take new approaches to staff organization.

The key changes to guest needs are shown in Figure 8.4.

Environmentalism and social responsibility	Individualization
Key changes in guest needs	
Experience	Digital technologies

Figure 8.4 – Key Changes in Guest Needs

Individualization. Guests expect a personalized experience and personalized service tailored to their personal needs and preferences.

Digital technologies. Guests actively use digital technologies to book rooms, get information, communicate with staff and order services.

Experience. Guests want a memorable hotel experience that goes beyond standard service.

Environmental friendliness and social responsibility. Guests pay attention to the environmental friendliness and social responsibility of hotels, choosing businesses that adhere to environmental standards and support social initiatives [24].

The impact of changes in the needs of guests on the organization of staff work in the hotel and restaurant business has left its mark on staff training and development, savvy technology, emotional intelligence, communication skills, and social responsibility.

The staff of hotel and restaurant enterprises must have a high level of emotional intelligence, be able to communicate effectively with guests in order to understand the needs of guests and provide them with quality service and understandable information.

Accommodation facilities must be creative and innovative in their service delivery to satisfy discerning guests and create a memorable experience, adhere to environmental standards, and support social initiatives to meet the needs of environmentally conscious guests.

Changes in the needs of guests have a significant impact on the organization of staff in the hotel industry. Hotels that adapt to these changes, implement innovative technologies, and train their staff in new skills will gain a competitive advantage and increase guest satisfaction.

Personnel management in Ukrainian hotels faces a number of problems and challenges that affect the efficiency and quality of guest service in accommodation facilities.

Major Issues and Challenges [23]:

1. Shortage of qualified personnel:
   - ✓ Talent drain. Young and skilled workers often go abroad in search of better working conditions and higher salaries, which leads to a shortage of personnel in the hotel industry in Ukraine.
   - ✓ Low level of education. Despite the presence of specialized educational institutions, the level of training of graduates often does not meet the requirements of the modern hotel business, which forces employers to spend additional resources on staff training.

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2. Low level of motivation and employee satisfaction:
   - ✓ Low wages. In many Ukrainian hotels, staff salaries are not competitive compared to other industries or foreign hotels, which reduces employee motivation.
   - ✓ Insufficient system of incentives. Many hotels do not have effective systems for recognizing and rewarding employees, which leads to a decrease in their motivation and productivity.
3. High Employee Turnover Rate:
   - ✓ Frequent layoffs. A high turnover rate leads to a constant need for new hires, which increases recruitment and training costs.
   - ✓ Lack of career prospects. Limited career opportunities in the hospitality industry in Ukraine force many employees to look for other development opportunities.
4. Low level of professional culture:
   - ✓ Lack of service standards. Often, Ukrainian hotels do not have clear standards of customer service, which affects the quality of services provided and guest satisfaction.
   - ✓ Lack of preparation. Many employees do not have the proper training and experience to perform their duties at a high level, which negatively affects the operation of the hotel as a whole.
5. Challenges related to the war:
   - ✓ Security. Ensuring the safety of employees and guests in conflict zones is critical, requiring additional resources and efforts.
   - ✓ Staff relocation. Hostilities lead to massive displacement of the population, which creates additional difficulties in ensuring that there are enough workers.

To solve problems and challenges that affect the efficiency and quality of guest service in hotels, it is advisable to offer ways to solve them.

First, expanding cooperation between hotels and educational institutions to train personnel that meet modern industry requirements, namely investing in education and training.

Secondly, the improvement of working conditions, namely the introduction of competitive salaries and incentive systems to increase employee motivation and satisfaction.

Thirdly, creating opportunities for career growth and professional development of employees.

Fourth, develop and implement clear customer service standards to improve the quality of services.

Fifth, implementing safety measures to protect employees and guests in conflict zones

The proposed measures can help Ukrainian hotels improve the efficiency of personnel management and ensure a high quality of guest service even in difficult economic conditions.

Numerous domestic and foreign scientists are engaged in the study of the work of hotel staff. Let's consider the main areas of their research:

Hotel Personnel Management [23]:

✓ Methods of recruitment, training, motivation and assessment of personnel (L. Nechaeva, O. Shapovalova, R. Brymer).

✓ Organizational structure and division of responsibilities (A. Mazaraki, T. Tkachenko).

✓ Corporate Culture and Its Impact on Work Performance (G. Gottlieber, C. Cameron).

✓ Competencies and professional development of personnel [22]:

✓ Formation of professional competencies (L. Poplavska, A. Chaika).

✓ Systems of training and professional development (T. Sokol, H. Rogers).

✓ Management of career growth (N. Vedmid, M. Maliuha).

✓ Staff Motivation and Satisfaction [24]:

✓ Theories of motivation in the hotel business (F. Herzberg, V. Vroom).

✓ The Influence of Motivation on Labor Productivity (T. Vesnina, S. Nikitin)

✓ Staff satisfaction survey (J. Haskett, W. Sasser).

Conflict and Stress Management [24]:

✓ Causes and Ways of Conflict Resolution (M. Poplavskyi, O. Honcharuk).

✓ Methods of Prevention and Overcoming Stress (G. My-khailichenko, I. Shkola).

✓ Innovative approaches in personnel management:

✓ Implementation of HR technologies (K. Knodel, N. Vedmid).

✓ Managing Diversity (J. Griffin, R. Morgan).

The research carried out by scientists allows us to identify current problems, trends and effective practices of hotel personnel management.

The implementation of HR technologies in the hotel business is an important area of research, which is mentioned by scientists Kateryna Knodel and Natalia Vedmid.

The main aspects they study are the automation of HR processes, namely the introduction of specialized HR systems for recruitment, adaptation, staff training, the use of electronic databases, and electronic document management.

Today, the use of Big Data and analytics technologies is relevant, i.e. the collection and analysis of personnel data (productivity, turnover, satisfaction, etc.), forecasting personnel needs, and identifying risks.

The use of interactive technologies is an integral part of modern hotel enterprises, including the introduction of distance learning systems, webinars, the use of gamification, virtual reality in personnel management. It is these methods that provide quick and effective training.

The development of mobile HR applications, access to HR services via mobile devices, employee self-service (time tracking, applications, etc.), speeds up the search for personnel, saves time on the selection of candidates [16].

The implementation of cloud HR solutions, access to HR systems through cloud services, the ability to scale and flexibility also bring the work of searching for candidates to a new convenient level for staff.

Knodel and Bear's research shows that the use of HR technologies can increase the efficiency of hotel personnel management, in particular, in terms of recruitment, training, motivation and analysis of employee performance.

The study of automation of HR processes in the hotel business is an important area that scientists are studying. The main aspects they focus on are:

✓ Implementation of specialized HR systems (Automation of recruitment, adaptation, staff training; integration of HR systems with other business systems of the hotel).

✓ Use of electronic databases (maintenance of personal cards of employees in electronic format; the possibility of prompt access to information about personnel).

✓ Workflow automation. (Transition to electronic document management (orders, applications, reports, etc.); reduction of paper-work and increase of its efficiency).

✓ Implementation of time tracking systems. (Automated accounting of hours worked, vacations, sick leave; integration with payroll systems).

✓ Application of mobile HR applications. (Ability to access HR services via mobile devices; employee self-service (submitting applications, viewing schedules, etc.).

Research in this area shows that the automation of HR processes allows hotels to optimize work with staff, increase management efficiency, and improve the interaction between employees and the HR department.

The development of mobile HR applications is an important area of research studied by scientists in the context of hotel personnel management. The main aspects they focus on are:

1. Increasing the availability of HR services:
   ✓ Ability to access HR information and functions via mobile devices.
   ✓ Ensuring the continuity of interaction between employees and the HR department.
2. Employee Self-Service:
   ✓ Applying for vacation, sick leave, training.
   ✓ View individual data (work schedule, hours worked, etc.).
3. More Effective Workforce Management:
   ✓ Prompt receipt of employee data.
   ✓ Ability to manage HR processes remotely.

4. Increased Employee Engagement and Satisfaction:
   - ✓ Convenient access to corporate information, news, announcements.
   - ✓ Communication and feedback with the HR department.
5. Integration with other systems:
   - ✓ Interaction of mobile HR applications with HRIS, ERP, CRM and other business systems.
   - ✓ Synchronization of data and provision of a single information space.

Studies show that the implementation of mobile HR applications allows hotels to improve the efficiency of personnel management, provide better interaction with employees and improve their engagement.

The implementation of cloud-based HR solutions is another important area of research that scientists are studying in the context of hotel staff management.

The main factors they focus on are the availability of HR systems through cloud services, which will make it possible to use HR functionality without the need to install it on local servers, as well as access to HR systems via the Internet from any device.

Studies show that the use of cloud-based HR solutions allows hotels to optimize staff management, increase their efficiency and flexibility, and reduce IT costs.

Diversity management in the hospitality industry is an important area of research mentioned by scholars Jeffrey Griffin and Richard Morgan.

Understanding the diversity of personnel, namely age, gender, ethnic, cultural diversity of employees and taking into account individual differences, values, beliefs, has a positive effect on recruitment.

Creating an inclusive organizational culture and creating an atmosphere of respect, trust and mutual support, and encouraging open communication and exchange of ideas is positive for the rapid adaptation of personnel and their training.

Ensuring equal opportunities among hotel staff and preventing discrimination in hiring, promotion, remuneration, development of

career prospects for all categories of staff will affect positive and rapid adaptation.

Research by Griffin and Morgan shows that managing a diverse workforce can increase employee loyalty, satisfaction, and productivity, as well as the adaptability of hotels to change.

Modern methods of personnel management in the hotel industry include the use of various technologies, strategies and tools aimed at improving work efficiency and meeting the needs of both employees and consumers.

The main methods of personnel management in the hotel industry:

1. Digital and Automation [24]:
   ✓ Human Resources Management Systems (HRMS). Using HRMS to automate hiring processes, time tracking, payroll management, and bonus accrual. This reduces the administrative burden on the HR department and ensures the accuracy of the data.
   ✓ Online learning platforms. Interactive learning platforms and webinars help employees to constantly improve their skills and keep abreast of the latest service standards.
2. Flexibility and Adaptability [18]:
   ✓ Flexible work schedules. The introduction of flexible schedules and the possibility of remote work for some positions (e.g. administrative staff) reduces stress and increases employee satisfaction.
   ✓ Cross-functional teams. Forming cross-functional teams to deliver projects helps ensure flexibility and rapid adaptation to change.
3. Staff Engagement and Motivation [16]:
   ✓ Recognition and rewards programs. Implementation of recognition and incentive programs to motivate employees. These can be cash bonuses, certificates, awards, or even simple thanks.
   ✓ Employee satisfaction surveys. Conducting regular surveys to assess employee satisfaction and identify possible problems.

4. Development and Learning [15]:
   - ✓ Career development. Creating clear career paths and opportunities for advancement within the company.
   - ✓ Trainings and education. Ongoing training in customer service, stress management, leadership development, and more.
5. Inclusivity & Diversity [17]:
   - ✓ Inclusivity programs. Implementing programs to support diversity and inclusion in the workplace, which contributes to creating a supportive and comfortable environment for all employees.
   - ✓ Support for equal opportunities. Ensuring equal opportunities for all employees, regardless of their personal characteristics or social status.
6. Psychological Support and Wellbeing [18]:
   - ✓ Stress management programs. Implementing stress management and mental health support programs to reduce stress and improve the overall well-being of employees.
   - ✓ Healthy lifestyle. Encouraging a healthy lifestyle through sports activities, healthy eating, and other initiatives.
7. Performance Management [24]:
   - ✓ Setting clear goals. Setting specific, measurable, achievable, relevant, and time-bound (SMART) goals.
   - ✓ Regular feedback. Providing regular feedback and evaluating employees' performance to identify strengths and weaknesses.

Modern methods of personnel management in the hotel business are aimed at creating a favorable working environment that supports the development, motivation and well-being of employees, which in turn improves the quality of customer service and contributes to the success of the enterprise.

Human Resource Management Systems (HRMS) have become indispensable tools for modern hotels. They automate processes, simplify the work of the HR department, and increase the efficiency of personnel management. However, choosing the optimal HRMS is a daunting task, as there are many different systems on the market with different features and prices.

Key criteria for comparing HRMS [22]:

✓ Recruitment and training. Automation of the process of posting vacancies, resume screening, interviews, online training.

✓ Remuneration. Payroll accounting, payments, bonuses, tax deductions.

✓ Vacations and sick leave. Accounting for vacations, illnesses, sick leave, layoffs.

✓ Evaluation of employees. Employee evaluation system, feedback collection.

✓ Analytics. Collection and analysis of personnel data, creation of reports.

✓ Integration. Integration with other systems (e.g. accounting, booking systems).

✓ Price. The cost of a license, subscription fee, additional modules.

✓ Interface. User-friendliness, intuitiveness, customizability.

✓ Support. Quality of technical support, speed of response to requests.

✓ Security. Protection of employee data, protection against unauthorized access.

✓ Scalability. The ability to expand the functionality of the system as the hotel grows.

In the past, HR professionals could only dream that most routine tasks could be solved with a few clicks. In the era of full digitalization, more and more automation services are appearing in the IT market. The implementation of HR systems has become an inevitable reality.

Popular HRMS for Hospitality [24]:

✓ DData HRMS Creatio: A powerful HRMS helps save company time and resources through the full automation of HR processes and the use of artificial intelligence elements.

✓ Oracle HCM: HRMS with a variety of functions, suitable for hotels with a developed HR structure.

✓ HURMA People: A comprehensive HRMS with a variety of features and an affordable price.

The main points to pay attention to when choosing an HRMS:

1. Identification of needs and expectations from HRMS.
2. Comparison of different systems according to key criteria.
3. Testing multiple systems before making a decision.
4. Make sure the HRMS is appropriate for the size and specifics of your hotel.
5. Pay attention to data support and security.

It is important to understand that HRMS is not a panacea, it is only a tool in the work of the hotel industry. The effectiveness of using HRMS depends on the correct implementation and training of employees.

It is very important to understand the scope of HR systems. As a rule, the needs of the HR department are growing every year. That is why it is worth determining whether the product and its developers will be able to meet future needs.

Choosing the right HRMS will help improve HR efficiency, reduce costs, improve employee engagement, and ensure the successful development of your hotel.

The war in Ukraine, which has been going on since 2022, has made significant changes in all spheres of life, including the hotel business. The years 2023–2024 are marked by a number of challenges affecting the personnel management of hotel enterprises:

1. Shortage of Skilled Personnel:

Emigration: A large part of the hotel industry workers have gone abroad in search of security and better working conditions.

Decrease in the flow of new specialists: The war and the uncertainty of the future have reduced interest in training in the hotel business.

Lack of experience: Many of the remaining employees do not have enough experience in the hospitality industry.

2. Financial Difficulties:

Decrease in profits: The war and the unstable economic situation have led to a decrease in the number of tourists and a decrease in hotel occupancy.

Reduced wages: Hotels find it difficult to maintain high wages due to declining profits.

Lack of investment: Investors are reluctant to invest in the hospitality industry due to the uncertainty of the future.

3. Psychological stress:

Impact of war: Constant stress, anxiety, and fear of shelling affect the psychological state of employees.

Overload: Employees are forced to do more work with fewer people.

Instability: The uncertainty of the future and constant change create a sense of instability and uncertainty.

4. Lack of Sustainable Development:

Uncertainty about the future: War and economic crisis create uncertainty about the future of the hospitality industry.

Lack of investment: Investors are reluctant to invest in the hospitality industry due to the uncertainty of the future.

Decrease in demand: Decrease in demand for hotel services due to the war and economic crisis.

5. Challenges for Human Resource Management:

Attracting and retaining skilled workforce: Hotels need to look for new ways to attract and retain skilled workers.

Maintaining morale: Hotels need to create a supportive atmosphere for employees to maintain their morale.

Providing psychological assistance: Hotels should provide employees with the opportunity to receive psychological help if necessary.

Overcoming these challenges requires hospitality businesses to be flexible, creative, and make new decisions. Investments in training and development, providing employees with opportunities to improve their skills and learn new skills are relevant.

8.3. Innovative methods of recruiting in the hotel business

For staff adaptation, it is important to create favorable working conditions and ensure comfortable working conditions, flexible work schedule and additional benefits. Through the use and implementation of new technologies to automate processes and increase work efficiency, the search, adaptation and training of personnel is fast and efficient.

Creating a strong company culture influences the formation of a cohesive team with a high level of morale.

The hotel business in Ukraine faces serious challenges, but thanks to flexibility, creativity and the introduction of new solutions, there is an opportunity to overcome these problems and ensure the successful development of the industry.

Onboarding is the process of integrating a new employee into a company, which aims to help them quickly adapt to the work environment, understand the corporate culture, master their responsibilities and feel comfortable in a new team [17].

Effective onboarding in a hotel enterprise is the key to quick onboarding. A new employee becomes productive faster and confidently performs his duties. At the same time, the likelihood that a new employee will quickly want to leave the company decreases, that is, there is a decrease in personnel turnover [22].

The new employee feels like a valued member of the team, which has a positive effect on their motivation and performance by increasing satisfaction.

A confident and competent employee provides the best quality of guest service, which will improve the quality of service.

Effective onboarding will help create a close-knit team of motivated and competent employees who will ensure a high level of guest service and successful development of the hotel.

To date, there are a sufficient number of innovative recruiting methods in the hotel business (Table 8.3).

Table 8.3 – Characteristics of innovative recruiting methods in the hotel business

Method	Advantages	Disadvantages
Use of online platforms and social media	Wide audience coverage, the ability to access a large database of resumes, the possibility of targeted advertising	The ability to compete with other hotels, the need to invest in advertising and profile support
Attracting candidates through the network	Ability to find talents from employee recommendations, reducing the cost of recruiting	The possibility of limited audience coverage, the need to develop a network of contacts

Method	Advantages	Disadvantages
Use of innovative technologies	The ability to assess the skills of candidates in an interactive format, increasing the efficiency of selection	Possibility of high cost of technology implementation, the need for specialists to work with technology
Creating an attractive image of the employer	Increasing candidates' interest in vacancies, reducing the cost of recruiting	The need to develop an employer brand strategy, a long time to form a positive image
Attracting talent from out-of-the-box sources	Opportunity to find talents with non-standard skills, increase the diversity of employees	The possibility of problems with adaptation to new working conditions, the need for special training programs

Source: compiled by the author based on [22].

The choice of the optimal recruiting method depends on the specific needs of the hotel and the vacant positions. Its effectiveness depends on the combination of different methods and on the quality of their implementation. It is necessary to constantly analyze the results of recruiting and make adjustments to the strategy.

By implementing innovative recruiting methods, hotels can find more talent, improve the efficiency of candidate selection, and build a cohesive team of motivated and competent employees.

Characteristics of various tools for searching for personnel of a hotel enterprise are given in Table 8.4.

The choice of the optimal tool depends on the specific needs of the hotel and the target audience. It is recommended to use a combination of different tools to increase the effectiveness of recruiting.

Through the effective use of recruiting tools, hotels can find more talent, increase the efficiency of candidate selection, and build a cohesive team of motivated and competent employees.

Table 8.4 – Characteristics of the different tools for the search of hotel enterprise personnel

Tool	Advantages	Disadvantages	Cost	Audience outreach
Online job search platforms (Indeed, LinkedIn, CareerBuilder)	Large audience coverage, a wide range of search filters, a user-friendly interface, the possibility of targeted advertising	High competition among vacancies, the possibility of low-quality resumes, paid use of some functions	Free and paid plan	Large Audience Reach, Specialized Audience (LinkedIn)
Social media (LinkedIn, Facebook, Instagram, Twitter)	The ability to interact with candidates in an interactive format, the ability to create a positive image of the employer, the possibility of targeted advertising	Not all candidates are actively looking for jobs through social media, there are fewer specialized features for recruiting than on online platforms	Free	Wide Audience Reach, Specialized Audience (LinkedIn)
Recruiting Agencies	Access to a wide range of candidates, specialization in certain fields, the ability to conduct in-depth screening of candidates	High cost of services, the need to conclude a contract	Paid services	Specialized audience, depending on the specialization of the agency
Job Exhibitions	The opportunity to find candidates with certain skills and experience, the opportunity to meet candidates in person	Limited audience coverage, high cost of participation	Paid participation	Specialized audience, depending on the theme of the exhibition

Continuation of the Table 8.4

Tool	Advantages	Disadvantages	Cost	Audience outreach
Employee recommendations	Ability to find reliable and motivated candidates, reducing the cost of recruiting	Limited audience coverage, possibility of conflict of interest	Free	Limited audience reach
Artificial Intelligence	Automation of the recruiting process, increasing the efficiency of candidate selection, the ability to analyze large amounts of data	High cost of implementation, the need for specialists to train and support the system	Paid services, depending on the functionality of the system	Large audience coverage

Source: compiled by the author based on [18].

Recruiting is constantly changing, and social media is becoming one of the most effective ways to find the best talent. An effective social media recruiting strategy allows you to find candidates you wouldn't be able to find with traditional recruitment.

Social media recruiting is a recruitment process that uses social media platforms to accurately identify and interact with relevant candidates for vacant positions [18].

Social media recruiting allows you to reach a wider audience and expand your candidate base than traditional recruiting.

To find quality candidates, you need to go where candidates go – social media. Simply posting vacancies on websites is no longer enough to find the best candidates. For example, 73 % of millennials have found their current jobs through social media, and this trend will continue.

Overall, recruiting through social media can reduce a company's recruitment costs, unlike traditional recruiting.

Social media is becoming an increasingly popular tool for recruiting. A comparative description of the most effective social networks for finding personnel in the hotel business is given in Table 8.5.

Table 8.5 – Comparative characteristics of the most effective social networks

Social network	Advantages	Disadvantages	Audience outreach
LinkedIn	A specialized platform for professionals allows you to find candidates with certain skills and experience, the ability to use targeted advertising, and additional functions for recruiting	Not all candidates actively use LinkedIn, paid use of some features	Professionals from various fields, especially in the hospitality industry

Social network	Advantages	Disadvantages	Audience outreach
Facebook	Large audience coverage, the ability to use targeted advertising, and a user-friendly interface	Not all candidates are actively looking for jobs through Facebook, there are fewer specialized features for recruiting than on LinkedIn	Wide audience coverage, including students and new professionals
Instagram	The ability to visually present the hotel and vacancies allows you to attract candidates with specific interests	Not all candidates are actively looking for jobs through Instagram, there are fewer specialized features for recruiting than LinkedIn	A predominantly young audience can be effective in attracting staff to lower positions
Twitter	The ability to quickly disseminate information about vacancies, a convenient tool for communicating with candidates	Not all candidates are actively looking for jobs through Twitter, there are fewer specialized features for recruiting than LinkedIn	Predominantly professionals from specific industries, can be effective in attracting managers and marketing professionals

Source: compiled by the author based on [18].

The choice of social network depends on the specific needs of the hotel and the target audience. It is necessary to create an attractive profile of the hotel on a social network that is in line with the values and culture of the company.

Through the effective use of social media, hotels can find more talent, increase the efficiency of candidate selection, and build a cohesive team of motivated and competent employees.

Headhunting in the hotel business is a hiring strategy that aims to attract highly qualified and experienced employees who are already employed by other companies. This approach allows you to get the best specialists who can significantly improve the quality of service and the efficiency of the hotel.

Headhunting methods in the hotel business include the identification of target candidates, while it is necessary to research the market, study the labor market and identify key players in the hotel business. This includes analyzing competitors and identifying specialists who may be valuable to the hotel. It is worth attending networking events, professional events, conferences, seminars and exhibitions where you can meet potential candidates and establish contacts with them [19].

Creating attractive offers, namely competitive conditions, are advantages of attractive working conditions, which include not only a competitive salary, but also additional bonuses such as career advancement, training opportunities, flexible working hours, and other privileges. The formation of a positive image of the hotel as an employer will be influenced by an active presence in social networks, the publication of employee success stories and other PR activities.

Interviews and tests are used to evaluate candidates. Conducting in-depth interviews, including behavioral and situational questions, to assess candidates' professional and personal qualities and using various assessment techniques, such as psychometric tests, can help identify the best applicants. It is advisable to check references from previous jobs to confirm the qualifications and reliability of the candidate.

Integration of new employees, onboarding programs, is relevant when developing an effective induction program, which includes training, acquaintance with the corporate culture and support from management and colleagues. Assigning experienced mentors to new hires will help you adapt to your new job faster.

Headhunting in the hotel business requires a strategic approach and the use of a variety of methods to attract the best specialists. The implementation of this approach can significantly increase the level of service and competitiveness of the hotel.

The modern hotel business requires non-standard approaches to staff assessment in order to measure not only technical skills, but also soft competencies that affect the quality of guest service. Let's take a look at some innovative methods for assessing staff in hotels:

1. Gamification [12]:
   - ✓ Simulation games. Creating games that simulate real-life guest service situations allows you to evaluate employees' reactions, problem-solving skills, and communication skills.
   - ✓ Online platforms. The use of online platforms for conducting games, which allows you to evaluate employees in an interactive format and get data on their performance.
   - ✓ Awards and competitions. Implementation of a reward system and competition between employees, which increases motivation and interest in skills development.
2. Evaluation with 360-degree feedback[18]:
   - ✓ Gathering feedback from colleagues, managers, and guests. Collecting feedback from different parties allows you to get a complete picture of the employee and his impact on the team and guests.
   - ✓ Use of online questionnaires and platforms. Collecting feedback through online questionnaires and platforms allows you to increase the anonymity and honesty of reviews.
   - ✓ Analysis of data and feedback. The use of special programs for data analysis and feedback, which allows you to get an objective assessment of the employee.
3. Assessment with Artificial Intelligence (AI) [24]:
   - ✓ Analysis of data from hotel management systems. Using AI to analyze data from hotel management systems (e.g., reservation system, guest service system) to evaluate employee performance.
   - ✓ Automated skills assessment. Using AI to automatically assess employee skills through online tests and simulations.
   - ✓ Performance forecasting. Using AI to predict employee productivity and identify the right areas of development.
4. Evaluation using virtual reality (VR) [24]:
   - ✓ Guest service simulations. Use VR to create guest service simulations, allowing you to evaluate employees in real-world conditions without the risk of errors.

- ✓ Trainings in VR. Using VR to conduct guest service training, allowing employees to acquire the necessary skills in an interactive format.
- ✓ Assessment of communication skills. Using VR to assess the communication skills of employees in situations of communication with guests.

5. Evaluation using Neuro-Linguistic Programming (NLP) techniques [22]:
- ✓ Analysis of language samples. Using NLP to analyze employees' language patterns (e.g., conversations with guests, peer feedback) to assess their communication skills and emotional intelligence.
- ✓ Definition of communication style. Using NLP to determine employees' communication style and their ability to adapt to different types of guests.
- ✓ Assessment of psychological stability. Using NLP to assess the psychological resilience of employees and their ability to work in stressful situations.

It is important that the choice of the optimal assessment method depends on the specific needs of the hotel and the target audience. It is necessary to implement assessment methods in conjunction with other HR management tools, such as training and development. It is important to ensure the objectivity and honesty of the assessment in order to motivate employees to develop and improve their skills.

Innovative assessment methods allow hotels to gain more information about their employees, identify their strengths and weaknesses, which allows them to develop effective training and development programs, increase motivation and increase team efficiency.

It is necessary to choose innovative solutions that meet the needs of the hotel industry. It is necessary to innovate gradually, without trying to change everything in one day. It is recommended to involve employees in the process of introducing innovations.

We consider it necessary to assess the effectiveness of the implemented innovations and make the necessary adjustments. The implementation of innovative solutions in hotel personnel management helps to increase productivity, employee involvement, improve the quality of service and increase competitiveness.

Conclusions for chapter 8

In the modern hotel business, search, selection and personnel management systems are crucial for maintaining high quality services. Below are the main conclusions regarding modern approaches in this area:

Automation of processes: The use of specialized programs (HRMS – Human Resource Management Systems) and platforms for personnel selection allows you to automate the processes of searching, selecting and training employees, which saves time and resources. Such systems process resumes, assess candidate skills, and allow preliminary interviews to be conducted online.

Integration with other business processes: Modern systems can integrate with other modules, such as booking management, customer support and timekeeping. This allows the hotel's HR department to quickly respond to changes in staffing needs depending on room occupancy and seasonal changes.

Personalization of training and development: Thanks to intelligent personnel management systems, employees receive individual training and development programs. This increases their involvement and professional level, which positively affects the quality of guest service.

Analytics and forecasting: Using analytics tools allows hotels to forecast staffing needs, determine employee performance and identify areas for improvement. This contributes to the long-term stability of the hotel and the maintenance of high service standards.

Improving corporate culture and reducing employee turnover: Human resource management systems that include social tools and motivational programs help create a positive team atmosphere, increasing employee loyalty and reducing employee turnover.

Improving the quality of customer service: Due to the fact that modern HR systems facilitate the selection of the most qualified and motivated employees, the hotel business gets the opportunity to maintain a high level of customer orientation and respond promptly to the needs of guests.

Modern personnel selection and management systems are a key tool in ensuring the quality of hotel business. They allow not only to

increase the efficiency of management processes, but also to create a favorable working atmosphere and optimize the work of the entire team.

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ЯКІСТЬ ПРОДУКЦІЇ ГОТЕЛЬНО-РЕСТОРАННОГО ГОСПОДАРСТВА: ТЕОРЕТИЧНІ ТА ПРАКТИЧНІ АСПЕКТИ

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