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UKRAINIAN-AMERICAN CONCORDIA UNIVERSITY

Faculty of Management and Business

Department of International Economic Relations, Business & Management

Bachelor's Qualification Work

Implementing a Customer Relations Management (CRM) System in an
international hospitality industry (based on Hotel ORANGE case)

Bachelor student of the 4th year study

Field of Study 29 – International
Relations

Anastasiia Yushchenko

Specialty 292 –

International Economic Relations

Educational program –

International Business

Research supervisor

Lesya Leshchii

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Abstract

In the process of writing the study, we have covered the topic of the introduction of information technology in hotel management. It was found that well-known hotel chains use information technology and CRM systems to optimize their business processes. We also identified the main trends in the hotel market and analyzed hotels that have left Russia, highlighting those that are still operating there despite Russia's aggression against the civilian population of Ukraine.

In the practical part of the study, we investigated the peculiarities of using the CRM system in the Orange Hotel and determined that the company does not use technology deeply enough in all its business processes. Therefore, based on the experience of world hotel chains, we proposed the use of a CRM system that will allow the hotel management to monitor the work and effectiveness of the hotel.

Keywords: technology, management, CRM-system, hotel chain, business process

Анотація

В процесі написання дослідження, нами була розкрита тема впровадження інформаційних технологій в готельний менеджмент. Було досліджено, що відомі готельні мережі для оптимізації своїх бізнес-процесів використовують інформаційні технології та CRM-системи. Також нами були виділені основні тренди на ринку готельного бізнесу та проаналізовані готелі, які залишили росію, виокремленні ті, які там працюють, незважаючи на агресію росію проти мирного населення України

А практичній частині дослідження було досліджено особливості використання CRM-системи в Готелі Оранж та визначено, що компанія не достаньо глибоко використовує технології в усіх своїх бізнес-процесах. Тож нами на основі досвіду світових готельних мереж нами було запропоновано використання CRM-системи, яка дозволить керівництву готелю слідкувати за роботою та ефектністю готелю.

Ключові слова: технології, управління, CRM-система, готельна мережа, бізнес-процес

PHEE-institute «Ukrainian-American Concordia University»

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Department of International Economic Relations, Business and Management

Educational level: **Bachelor's degree**
Specialty **292 “International Economic Relations”**
Educational program **“International Business”**

APPROVED

Head of Department



Prof. Zharova L.V.

MAY, 10, 2024

TASK
FOR BACHELOR'S QUALIFICATION WORK OF STUDENT

Anastasiia Yushchenko

(Name, Surname)

1. Topic of the bachelor's qualification work

Implementing a Customer Relations Management (CRM) System in an international hospitality industry (based on Hotel ORANGE case)

Supervisor of the bachelor's qualification work Lesya Leshchii, Ph.D. in Economics,
(surname, name, degree, academic rank)

Which approved by Order of University from **“25” September 2023 № 25-09/2023-5к**

2. Deadline for bachelor's qualification work submission **“25” April 2024.**

3. Data-out to the bachelor's qualification work. *The information obtained from open sources, Internet resources, scientific articles, etc., as well as the actual data Hotel ORANGE obtained during the internship, its financial statements and other documents*

4. Contents of the explanatory note (list of issues to be developed)

Based on the goal, the following tasks were formed:

- Explore the development of the international hospitality industry in modern conditions and identify new trends and hotel operations in customer service in the hotel business
- Analyze modern management technologies in HORECA and the use of CRM in hotels
- Make organizational and economic characteristics of Orange Hotel and conduct an analysis of the use of client services
- Assess the effectiveness of technology use at Orange Hotel
- Analyze international experience in using CRM systems in hotel chains

- Identify Economic efficiency of the main ways of expanding the client base due to the use of international experience

5. List of graphic material (with exact indication of any mandatory drawings)


___The work consists of three sections, introduction, conclusions - 65 pages in total, contains 7 tables and 30 figures, 63 sources of literature are included in the references.

6. Date of issue of the assignment

Time Schedule

№	The title of the parts of the qualification paper (work)	Deadlines	Notes
1.	I part of bachelor thesis	10.12.2023	On time
2.	II part of bachelor thesis	27.02.2024	On time
3.	Introduction, conclusions, summary	25.04.2024	On time
4.	Pre-defense of the thesis	30.04.2024	On time

Student



(signature)

Supervisor



Conclusions (*general description of the work; participation in scientific conferences/ prepared scientific article; what grade does the student deserve*):

The work is devoted to the current topic - CRM systems in the hotel industry, considering the international aspect. It was carried out based on an internship in a Ukrainian hotel, which is currently under occupation. The student researched this topic in detail. The work contains many illustrative materials. The student worked diligently, considered the supervisor's remarks, was on time for pre-defenses, took part in two mandatory conferences. In general, the work meets the requirements and can be admitted to the defense with the grade "Excellent."



Supervisor

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INTRODUCTION

In a rapidly evolving environment and growing competition, process automation is becoming more of a necessity than a whim of companies. Now almost every industry is trying to implement automation systems to optimize various activities in enterprises. This trend has not bypassed the hotel industry. Accelerating bookings, maintaining good relationships with clients, monitoring processes at all stages of the development and provision of hotel services, analyzing current trends in the hotel business market - all these processes can be automated using specialized software solutions and technologies.

Hospitality technology is evolving rapidly. This is due to the fact that hotel owners have two main tasks: to get as many customers as possible by organizing the maximum number of sales, and to win over the guest by making him a regular guest. It is unrealistic to achieve these tasks without innovative solutions. The fight for every guest, especially in times of crisis, requires hotels to modernize, both in technology and in consciousness.

Currently, it is difficult to imagine how hotels, motels, travel agencies and other companies could function without computer support systems, since computer technologies contribute to the successful development of the tourism and hospitality industry.

There are many benefits to using automated systems. A CRM system makes it possible to move to a qualitatively new level of relationships between a hotel enterprise and clients and suppliers. At the moment, the interaction of a hotel enterprise with clients and suppliers using the Internet is the most technically and economically convenient and justified, so wide application is possible. With proper preparation of an organization for automation, investments in CRM systems pay off and soon begin to show positive results.

Therefore, research into the development of basic business processes in a company is a relevant topic for writing a thesis.

The purpose of the thesis is to study the implementation of a customer relationship management system in the international hotel business.

Based on the goal, the following tasks were formed:

- Explore the development of the international hospitality industry in modern conditions and identify new trends and hotel operations in customer service in the hotel business
- Analyze modern management technologies in HORECA and the use of CRM in hotels
- Make organizational and economic characteristics of Orange Hotel and conduct an analysis of the use of client services
- Assess the effectiveness of technology use at Orange Hotel
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- Identify Economic efficiency of the main ways of expanding the client base due to the use of international experience

The object of the study is the conditions for implementing the Orange Hotel customer relationship management system

The subject of the study is the methodological basis for using the customer relationship management system in the Orange Hotel

Research methods. When writing my thesis, theoretical and empirical research methods were used, which helped me obtain the results of developing proposals for the use of CRM systems in a hotel. Theoretical methods were used in the process of analyzing the literature regarding the essence of CRM systems and its impact on the development of the hotel business and its main trends. Most of the methodological research was done on the basis of an analysis of literary sources, which became the basis for further research. Empirical methods that define in more detail the features of the implementation and use of CRM systems in a hotel were obtained based on an analysis of data from the Hotel Orange.

The information base for the study was the scientific works of Ukrainian and foreign economists devoted to the problems of technology development, SRM

systems, reporting data from statistical resources, international organizations, and Internet resources.

Structure of the thesis: introduction, three parts, conclusions, list of sources used and applications.

CHAPTER 1. ECONOMIC AND LEGAL FOUNDATION OF INTERNATIONAL HOSPITALITY BUSINESS

1.1. Current development of international hospitality industry in modern conditions

Today, the global tourism and hospitality industry is in tough conditions of competition for each client and is forced to react extremely quickly to external changes in business conditions (Cabal, E.M., et al., 2021). Despite the unstable economic and political situation in the world, the hotel and tourism business continues to actively develop throughout the world. The growth of tourism around the world is causing an active expansion of the hotel services offered.

An important aspect of the development of the tourism business is its legislative regulation, because tourism, like any other, is subject to regulation and compliance with established laws in the countries of travel. International tourism uses laws such as the Tourism Industry Act 1992, the Civil Aviation Act 1969 and the Hoteliers Act 1952, which are generally accepted in the global tourism industry and are followed by all representatives of the tourism industry (Marlysa Razaeng & Chang, 2022).

As for Ukraine, the main law regulating tourism activities in our country is the Law of Ukraine “On Tourism”, which states that “the state proclaims tourism as one of the priority areas for the development of national culture and economy and creates favorable conditions for tourism activities” (Law of Ukraine, No. 324/95-BP), and the Law of Ukraine “On Amendments to the Law of Ukraine “On Tourism”, adopted on November 18, 2003, defines the principles of rational use of tourism resources and regulates relations related to the organization and implementation of tourism activities on the territory of Ukraine (Law of Ukraine, No. 1282-IV).

An important role in regulating tourism activities in Ukraine is played by the State Agency for Tourism Development of Ukraine, whose activities are aimed at

implementing state supervision over compliance with the requirements of legislation on tourism activities within the powers provided by law.

The hotel business is one of the fastest growing industries, accounting for 6% of the world's gross domestic product and about 5% of all tax revenues. The development of the hotel business actively stimulates the development of other industries and areas of activity: international business, transport industry, trade, information technology, construction, agriculture, services in the field of beauty and health, production of consumer goods, development of technologies in the field of ecology and safety, innovative spheres and many others (Dagpin, J.C., et al, 2022).

Depending on the “star rating” and classification of accommodation facilities, for every 10 tourists staying in a hotel, there are about three jobs directly and two jobs indirectly related to service (employees of travel companies, transport companies, etc.).

The hotel industry is one of the most attractive areas for business. The global hotel industry today includes about 400 thousand comfortable hotels with more than 30 million beds. At the same time, the total number of rooms has continued to grow over the past 20 years and is increasing by an average of 3-4% per year, which indicates a stable dynamics in the increase in the number of accommodation facilities (Dagpin, J.C., et al, 2022).

In 2020, the global tourism industry faced a serious challenge in its development - a severe crisis associated with the rapid spread of a new type of coronavirus (COVID-2019) across the planet.

Figure 1.1 shows the dynamics of international tourist arrivals for the period from January to March 2020 compared to the same period in 2019.

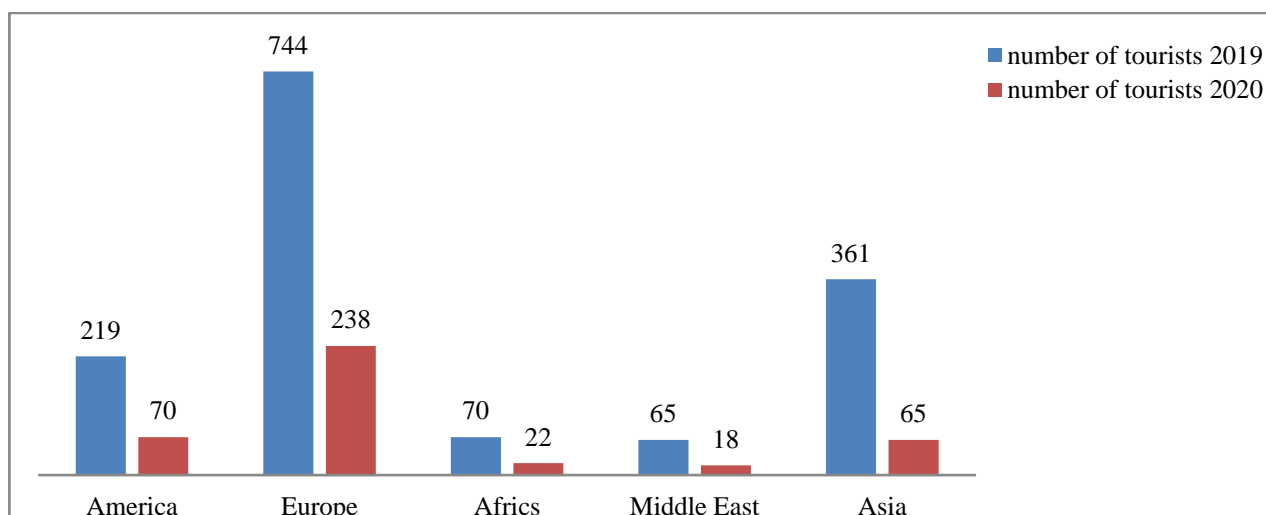


Figure 1.1 Dynamics of international arrivals for the period January-October, million people 2019-2020

Source (World Tourism, 2020)

The largest decline in tourist arrivals was in Asia (-82%), followed by the Middle East (-73%), Europe and America (-68%), and African countries lost 69% of arrivals (1.9 million people).

Terrorist attacks, an unstable political situation, rising prices for hotel services, sharp fluctuations in exchange rates, lack of confidence in the future and other factors have reversed the tendency of tourists to relax in a number of once popular resorts in the world - Turkey, Egypt, Greece, Thailand and other countries.

The hotel business attracts entrepreneurs for many reasons (see fig 1.2.)

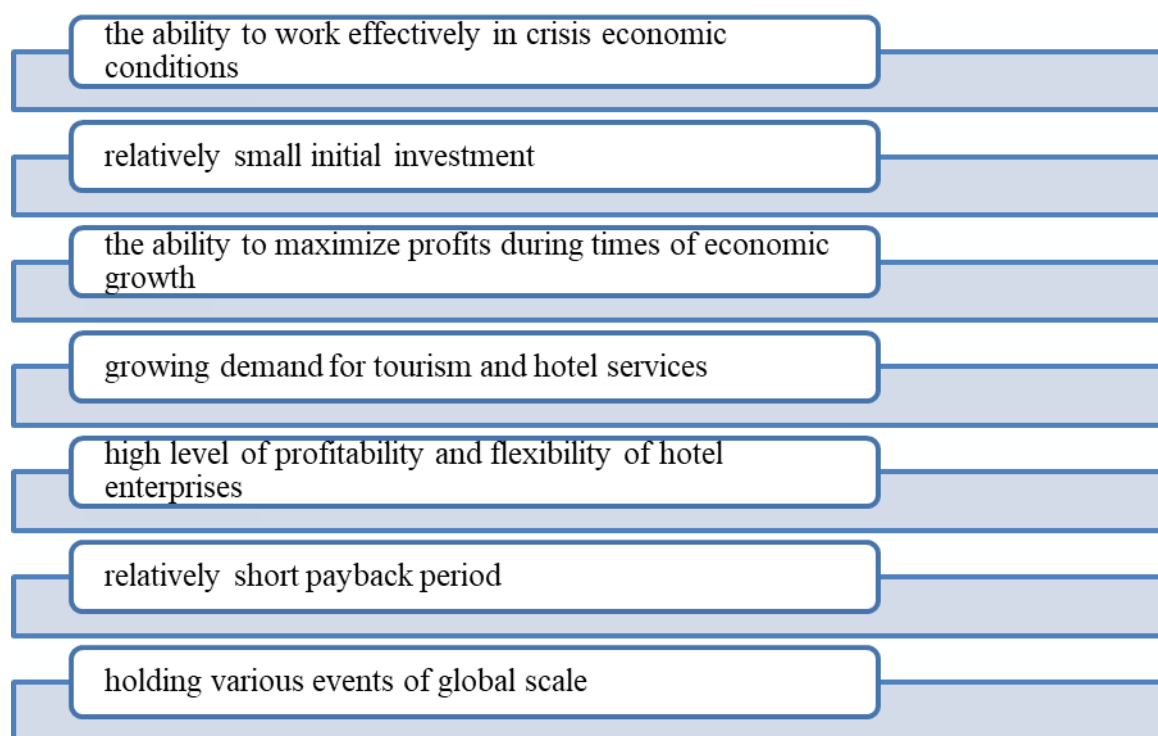


Figure 1.2 – Main reasons of choosing to build hotel business

Sources: (Sandal, J. U., et al., 2019)

Today, the hotel industry market is represented by a variety of means and forms of accommodation that can satisfy various needs and capabilities of customers: hotels, international chains, motels, departmental hotels, boarding houses, sanatoriums, club rooms, boutique hotels, beach hotels, guest houses, mini-hotels, hostels, tourist camps, boats, fleets, bungalows, campsites, tourist camps, private houses and cottages and much more.

The hotel business today is a rapidly developing and promising industry that brings great profits. The main goal of the activities of hotel industry enterprises is precisely profit, which is directly dependent on the quantity and quality of services provided. Each enterprise in the hotel industry strives to increase the volume of sales of its services and encounters a barrier - the presence of fierce competition in the market (Denysenko, M., & O.Budiakova, 2020).

Next we propose show statistics of new hotels for the last 3 years (see fig. 1.3)

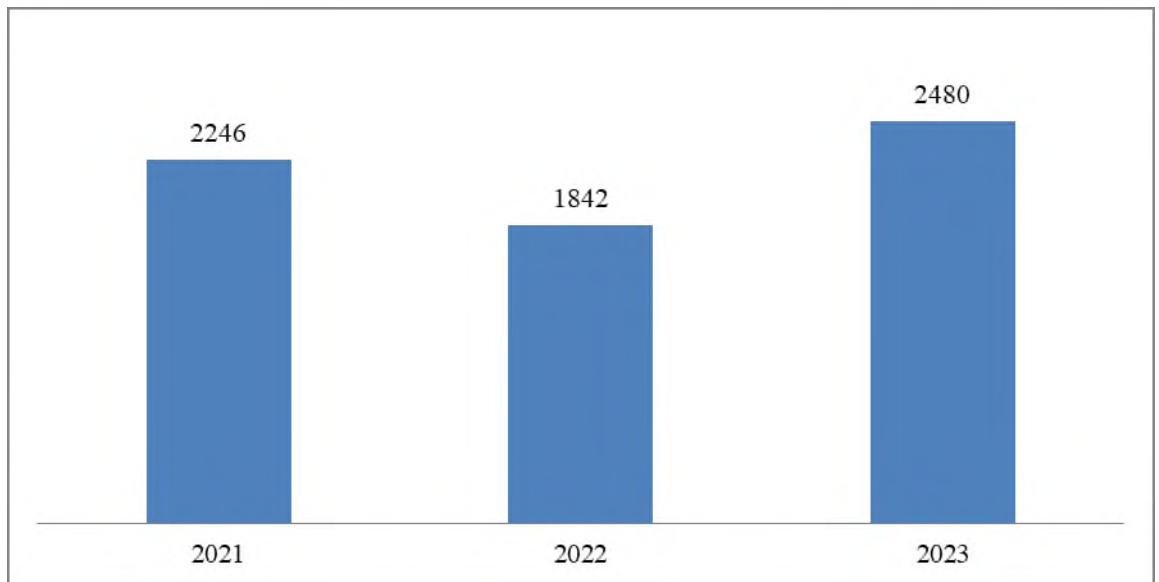


Figure 1.3 – Dynamic of new opened hotels for the 2021-2023 in whole world
Sources: (Number of hotels, 2023)

A huge number of different factors influence the competitiveness of a hotel: its geographical location, the size and variety of rooms, star quality, infrastructure, innovative technologies used in the hotel, the cost of a single room, material and technical equipment, the uniqueness of hotel services, the qualifications of staff, the presence of attractions nearby with the hotel and other important factors. However, not only these factors are significant for tourists at present. For real success of a hotel, new, completely unique ideas are always needed. Competition is the highest stimulating factor for the emergence of fresh innovative ideas. In this case, the following principle of successful business is unconditional: what was invented yesterday is no longer relevant today.

To maintain the competitiveness of a hotel enterprise, it is necessary to clearly define the content and sequence of specific actions to achieve set goals, which in a broad sense determines the process of planning and forecasting the activities of hotels.

Competent planning and rational use of all kinds of resources available to a hotel enterprise (material, human, scientific and informational, organizational, temporary, intellectual and other types of resources) allows us to look into the future of the business, develop a strategy and tactics for the production and economic

activities of the hotel enterprise and , as a result, leads to the intended goal with a more effective result.

In conditions of fierce competition, each enterprise strives to conquer its economic space and target audience. The competitive strategies of enterprises are not only maintaining their position in the market and stable operation, but also further development and improvement of the business.

To manage the process of functioning of a hotel enterprise, it is necessary to constantly renew it and maintain it in the state specified by standards and technical conditions, to ensure the rhythmic provision of services of a certain quality.

Managing the development process of a hotel enterprise has the goal of changing its condition, transforming it to a predetermined level that corresponds to or exceeds the highest global achievements of the hotel industry (Melnychuk Yu, et al., 2021).

The basic law of marketing states that any service (or product) supplied to the market must exactly meet the needs of the consumer. Another law of marketing states that there is no single market; the market always consists of separate segments, each of which contains buyers with specific needs. This raises the problem of adapting each service to a particular market segment. All this, of course, applies to enterprises providing hotel services. Although the process of specialization of hotels and their adaptation to various segments of the tourist market is still far from complete, nevertheless, it can already be argued that the era of universal hotels designed for any traveler is becoming a thing of the past. More and more hotels specialize in very specific market segments.

Today, there are noticeable current changes in the priorities of various players in the hotel industry from large players to small hotels and hostels in the development and improvement of their own networks, an increasing number of participants are appearing in the hospitality market, and business is democratizing. Companies try to attract not only wealthy clients, but also offer their services to clients with average incomes. Thanks to changes in the external and internal political

and economic environment, new trends are emerging in the tourism and hospitality market (Bosovska M. Et al., 2019).

It is necessary to note the following current trends in the development of the global hotel industry (see fig. 1.4).

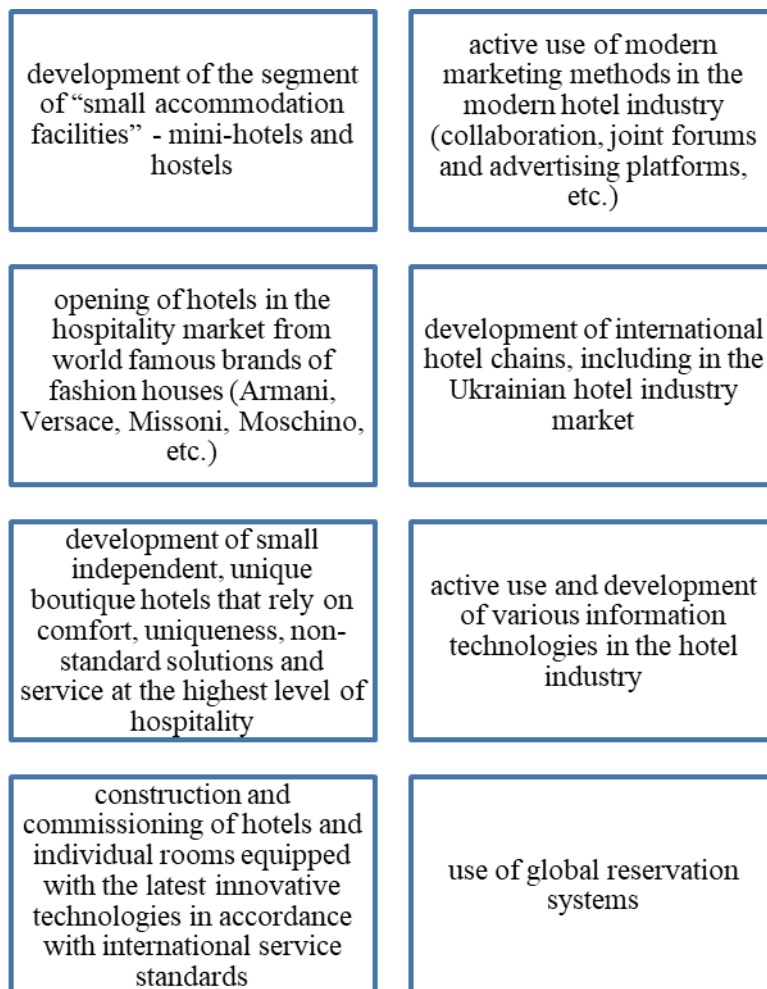


Figure 1.4 – Trends in the development of the global hotel industry in 2022

Sources: (Hotel Development, 2022)

However, the hotel industry, like any other business, in modern conditions is undergoing a number of significant problems, including those associated with the economic crisis and an unstable political situation. Based on the author's study of a number of EU hotel enterprises, it is possible to identify the main mistakes when planning and running a business:

- insufficient knowledge of the hotel market, its capacity, main development trends, competitive environment;

- lack of qualified personnel in the market;
- errors in strategic planning – lack of consideration of business strategies in the long term of the hotel enterprise, focus on quickly making a profit;
- lack or incompleteness of quality information in the field of hotel industry research;
- incomplete knowledge in the field of legislation and legal aspects regarding the project being implemented;
- vague or incorrect goals of business projects;
- errors in production deadlines;
- neglect of third-party assistance in the absence of the necessary knowledge in the field of financial planning and legal assessment; knowledge and technologies that can give the necessary impetus at the start of the project;
- errors in the supply of necessary materials, inaccuracies in concluding contracts with service providers;
- incompleteness of calculations of the main economic and financial indicators: profitability, net present value, profitability index, break-even point, payback period, etc.
- errors in the construction of the organizational structure and incorrect distribution of powers of the management personnel of the hotel enterprise;
- mistakes in marketing policy, incorrect choice of target audience, lack of a clear promotion and implementation plan, lack of elaboration of direct and indirect sales channels;
- errors in the chosen methods for forming the cost of services and products, incorrect pricing policy;
- lack of a mechanism or model for making decisions on the behavior of a business entity in the main types of markets to achieve planned goals;
- errors in determining the profitability of production and certain types of products and services of a hotel enterprise;
- lack of reserves for reducing the cost of products and services;

- incompleteness of justification for the decision to provide new types of services in the hotel enterprise;
- underestimation of the advantages of competitive enterprises;
- errors in calculations of the necessary material, intellectual, labor, temporary, organizational resources required for successful business;
- lack of developments in the field of studying the economic risks of a hotel enterprise;
- inflated, ambitious forecasts;
- Irrational use of investments (Breiera M., et al., 2021).

Thus, we can conclude that the main mistakes and difficulties in the development of entrepreneurial activity in the field of hotel business are associated with the immaturity of strategic and economic planning. Despite intensive propaganda, many entrepreneurs have no interest in innovative technologies; most of them are aimed at making quick profits “here and now.” There is still a high level of corruption, bureaucracy, and insufficient legislative framework in the field of development of innovation activities. At the same time, the successful conduct of hotel activities is a complex, responsible and multifactorial process that requires the manager to have a set of knowledge and skills in various areas of the economic activity of a hotel enterprise: the legal foundations of the hotel business, financial and investment analysis, accounting and management accounting, marketing, personnel management, statistics, innovation management, economics and business management, hotel management, organizational culture in the field of hospitality and other areas (Dyshkantyuk O.V., et al., 2021). Rapid changes in the hospitality industry require new impulses to strengthen their position in the competition, because using only the reserves lying on the surface does not guarantee a stable income, functioning and development of the business. Analysis, research and use by a hotel enterprise of current global trends in business activities affects the improvement of the quality of service, increasing the competitiveness, image and reputation of the hotel enterprise, making it attractive and unique for customers.

1.2. New trends and hotels operation in customer service in hospitality business

In the modern era of scientific and technological progress, which has affected almost all spheres of public life, innovation and new technologies are of particular importance in the hotel business. After all, their use affects the highly competitive struggle of hotels for their clients.

With the development of technology, online booking has become popular, the breakthrough of which occurred thanks to booking.com, which became a truly effective means of selling hotel services and other online booking sites were created in its guise (Abdullateef, A. O., 2011).

Booking makes it possible to both reserve and pay for hotel services around the clock, any day, and the process of transaction and assignment of services to the client occurs in real time. Moreover, most often, thanks to online booking on Booking, there is an opportunity to save money for both hotels and clients: these are frequent discounts, depending on the season and sometimes up to 30% (Dudarenko, V. O. & Prymak, T. Yu. , 2017). The Booking website simplifies the search for a suitable person significantly, since it collects and constantly updates information about available rooms in hotels around the world.

Leading specialists in the hotel industry are faced with tasks, among which the main one is to attract as many regular customers as possible and make a profit from these services. It is almost impossible to achieve such goals without the introduction of new technologies, so the introduction and use of new service technologies in the hotel business is a fairly pressing problem, as it helps improve the quality of customer service and the efficiency of hotels in general.

Today, the innovative activities of the hotel business are based on activities in 2 areas (Dimitriou, C. K. & Blum, S. C., 2015):

- The scope of ensuring material and technical conditions for the provision of services to consumers.
- The scope of increasing the range of services provided to clients.

Most modern hotels and hotels, in order to increase the attractiveness of their services and create additional benefits in the eyes of clients, anticipating the wishes of the guest, introduce additional products that can increase the loyalty of clients of a particular hotel, among them (fig. 1.5).

For example, in recent years, in hotels of well-known Western brand chains, the so-called “inclusive service for each guest” has been introduced and successfully applied, which assumes that certain systems for remembering the client’s preferences are installed in the rooms (the music he listened to; a comfortable microclimate and brightness lighting; temperature of water in the bathroom and air in the room). As practice shows, this innovation allows us to increase customer loyalty and their satisfaction with service (Abdullateef, A.O., et al, 2010; Alshourah, S, 2012).

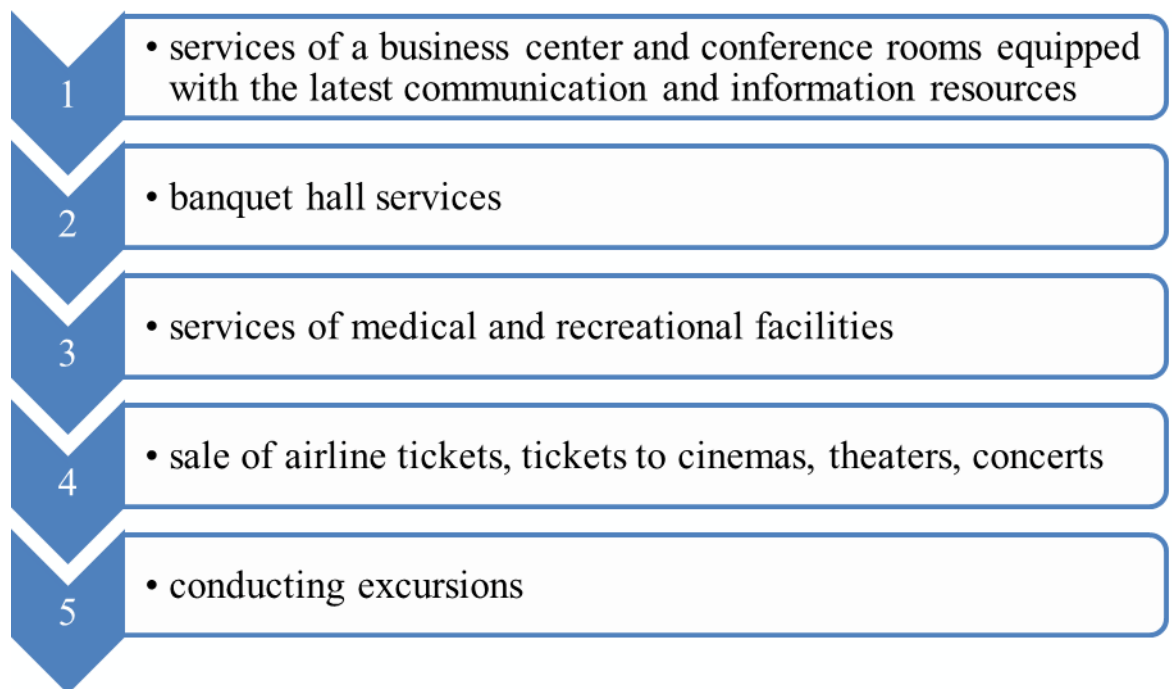


Figure 1.5 – Additional benefits for customers in hotel business

Sources: (Kumar A., et al., 2020)

The introduction and use of the above additional services is influenced by 3 main factors:

1. The relationship of a particular hotel to a certain category determines the formation of material and technical equipment and a set of additional services that the hotel provides.

2. Carrying out hotel activities in a certain market segment - determines the direction of innovative development regarding detailed accounting of the demand for services of regular hotel customers.

3. Hotel specialization – aimed at the development and implementation of new technologies that contribute to the competitiveness of the hotel service, which determines its specialization.

Today, one of the main innovations in the hotel business is the use of Internet technologies that allow a potential client or hotel staff to go online and find all the relevant information about it. It is on the Russian market that the most popular such products are Opera Fidelio and Eptome PMS, which have a well-implemented access system and the ability to expand the required set of electronic management tools using third-party products for each specific case (Ammari N, & Nusair, K, 2015).

The basis of CRM technology is the accumulation of information about the client and the management of this data (Bhat S., A., & Darzi, M. A., 2016; Boulding W., et al., 2005). Customer databases allow you to study in detail the hotel's target audience, predict demand for services, and implement an effective marketing policy (Ahearne M., et al, 2012).

With the development of the hotel industry and the increase in the number and variety of hotels, their visitors become

It is difficult to make a choice, which is a prerequisite for the active use of Internet marketing. Yes, in the struggle for clients, hotels are becoming more and more competitive, and in order to win it, you need to be in trend and use new information technologies. Innovation is considered a driver of economic growth and a source of competitive advantage for companies (Khalilova-Chuvaieva, Yu. A. & Corokina, N.S., 2019).

A promising direction for improving the efficiency of an accommodation facility is the automation of communication processes between visitors and staff. Major hotel chains such as Hyatt, Starwood, Marriott have recognized the growing advantage of consumers using mobile messaging apps and have introduced their chatbots as channels of communication with customer service. The use of this technology makes it possible to process up to 90% of requests without personnel intervention and save significantly (Media Concepts, 2016; Cossa, 2017). Edward, a virtual concierge, has rolled out to 12 Radisson Blu hotels in the UK. He almost completely relieved the workload of the employees whose duties included correspondence with guests. Edward can talk about hotel services, help order room service, provide recommendations to tourists on choosing a restaurant, and accept a complaint from a client (Lenta, 2016).

High competition among hoteliers encourages them to look for more and more innovative and sophisticated technologies that could increase the attractiveness of their hotel and the quality of the services provided. Therefore, innovative technologies have now reached a high level, which is explained by the fact that electronic distribution together with reservation systems, organized into a single management complex, allows online management of reservations through several sales channels at once. Consider, for example, business hotels that prefer to use 2 reservation systems simultaneously: global (GDS), which is a good tool and channel for hotel advertising, and alternative (ADS) (Mhlanga, O., & Tichaawa, T.M., 2016).

One of the most important innovative technologies is a promising solution for hotel chains, working on SaaS technology - Libra OnDemand CRM, which was implemented by Libra Hospitality in 2009 and which is now successfully operating. The main characteristics of this program are the following (Michelotti et al., 2018):

- Full management of the hotel's sales and marketing department. Includes maximum automation of tasks for commercial department employees and facilitates the planning of business meetings, telephone conversations and automatic scheduling of managers.

- Possibility of collecting analytics separately for each client. Includes tracking data on profitability from each client (number of reservations and nights spent at the hotel, income received and average rate per client, etc.). This allows you to keep in mind the client's preferences and the contractual terms that suit him.
- The ability to manage loyalty and develop methods for rewarding regular customers. It involves a program in which regular customers receive certificates, bonuses and discounts (Akroush M. N., et al., 2011).
- Effective management of events held at the hotel. Includes the ability to plan the load on conference rooms, create a banquet menu, and conduct productive conferences and seminars.

In our opinion, human resources, financial and information technology potential play an important role in the introduction and application of new service technologies in the hotel business.

From the perspective of human resources, the introduction of new service technologies in the hotel business can be facilitated by (Swanson et al., 2020):

- practical-oriented education and identification of theoretical scientific knowledge into a practical form of using it in entrepreneurship by conducting some of the disciplines in hotels;
- new methods of training hotel workers and their faster integration into the team, which allows increasing labor productivity.

From the standpoint of financial potential, it is necessary to apply the following technologies:

1. Identification of new strategic resources and new methods of human resource management, which includes managers' understanding of ways to develop capital, payment terms and reduce losses due to mistakes of hotel workers.
2. A highly thought-out tariff policy and the use of a bonus system for employees to stimulate them to sell new and more expensive hotel services (Antonio T, 2004).
3. Highly efficient management of liquidity, hotel assets and costs.

From the point of view of information and technical potential, new technologies for service in the hotel business can be the following (Wiastuti, et al., 2020):

1. Development of new programs in the hotel business, such as OPERA, Libra Hospitality, Edelweiss, Hotel, Cenium, ERP systems, CRM systems. These programs are designed to be implemented in hotels to optimize business processes. They are information support for the hotel, which allows management to unify management and facilitate work related to the processing of customer databases, work schedules, financial management, etc.

2. Use of global and alternative hotel reservation systems.

3. Using an online video surveillance system.

4. Use of a magnetic lock system.

However, it must be remembered that the introduction of new service technologies in a hotel must pursue certain goals, which currently does not always happen, not to mention the development strategy of a hotel enterprise, which does not always depend on the current market situation and existing promising trends (Boulding, W., et al, 2005).

Thus, in the modern era of scientific and technological progress, in order for any hotel to remain competitive and highly efficient, managers and hoteliers need to develop and implement new technologies to serve their customers, taking into account human, financial and information technology potential. After all, innovation can contribute not only to high labor productivity, but also to high levels of profit.

During Russia's war against Ukraine, global companies massively boycott the occupier's business and leave the Russian market. For some, this is a matter of image, while others cannot work simply because of sanctions.

Many companies still do business in Russia. Among them there are several hundred hotels providing accommodation services: from well-known hotel chains to mini-villas.

One of the world's richest hotel chains, Marriott Hotels, on the one hand, donated more than \$100 million to help Ukrainians, and on the other hand, did not close its hotels in Russia from the beginning of war.

Other American hotel companies also operate in Russia - Hyatt Hotels, Wyndham, Hilton Hotels & Resorts and Radisson - despite the fact that the United States constantly imposes economic sanctions against the Russian Federation.

In addition, there is a long list of countries that remain neutral or do not condemn Russia at all. Now there are more than 70 of them and this list includes Croatia, Sri Lanka, Seychelles, Montenegro, Morocco, Qatar, Saudi Arabia, UAE and many others.

Next, we propose to analyze hotel chain, which leave Russia (see figure 1.6.).

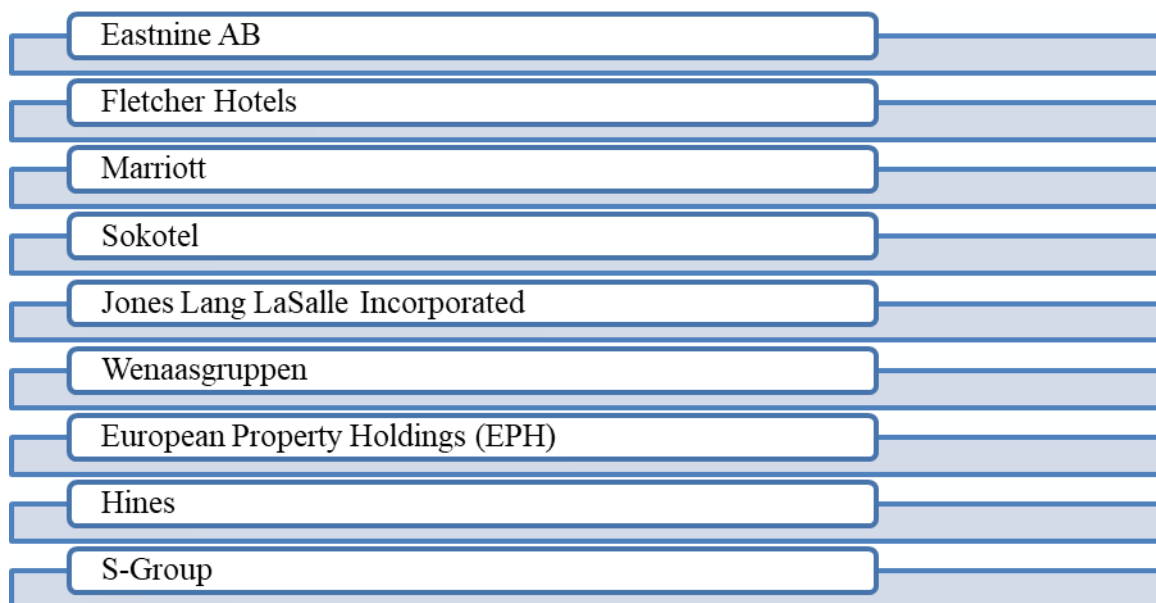


Figure 1.6 – List of hotel chain, which leave Russia because of war

Source: (Leave Russia, 2023)

These hotel chains are among the first to leave the Russian Federation, condemning the aggression against Ukraine, but there are still dozens of large and hundreds of small chains that continue to operate in Russia and help kill Ukrainian civilians.

Full-scale hostilities on the territory of Ukraine in 2022 led to the suspension of the development of the hospitality industry in Ukraine. This is mainly due to

security factors (28), which led to a reduction in capital inflows into the state budget. More state budget revenues for the first four months of the year were paid by hotels and restaurants - almost 370 million UAH, but still this is 24% less than for the same period in 2021 (Zayachkovs'ka H. & Sikula A., 2022).

Restoring the HoReCa sphere will require large capital investments. It will be necessary to rebuild the infrastructure and resume air flights. However, there are many countries in the world that quickly recovered after large-scale hostilities and developed the hospitality industry. It is the experience of such countries that can be taken as the basis for restoring the HoReCa sphere in Ukraine in the post-war period.

Summarizing the above, I believe that one of the driving factors today is the security factor, which will be based on the protection of visitors, as well as the formation of the image of a safe state. After all, it is a well-known fact that the hospitality industry grows where it is safe for people and society.

Today, the best development program for our country and the HoReCa sector as a whole is, first of all, a program for ending hostilities on the territory of Ukraine.

The development of the HoReCa sphere after the war will change in any case. After all, it will be necessary to take into account international standards for high-quality shelter, change the approach to urban planning, and restaurants should have full-fledged evacuation plans for visitors. It is the hospitality industry that should become the locomotive of the post-war renewal of the Ukrainian economy.

1.3. Modern management technologies in HORECA and using CRM in hotels

The United States of America first began to use the practice of applying information technology in the hotel industry. In the sixties of the last century, the three largest hotel chains: Hilton, InterContinental and Sheraton, together with IBM, invested in the development of the first hotel management information system, and gave it the name HIS (Hotel Information System).

Figure 1.7 shows a diagram of automated management of a hotel enterprise.

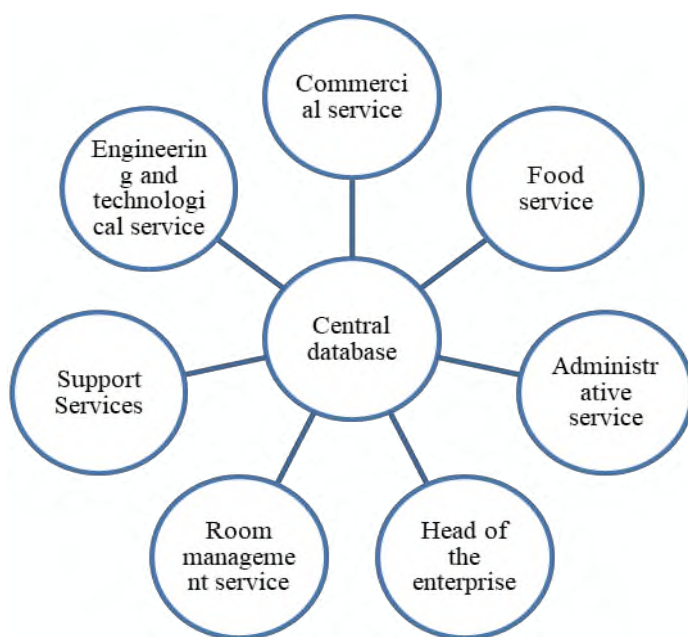


Figure 1.7 – Automation scheme for a hotel enterprise

Source: (Duhovnaya L. L., 2019)

The feasibility of investing in automated control systems for hospitality enterprises in modern conditions is determined by the need to (Chang, H. & Ku, P., 2009):

- achieving competitive advantages;
- increasing operational efficiency;
- optimization of the use and distribution of resources of the hotel enterprise.

Competitive advantage is the maximum increase in sales volumes per guest based on the formation of their consumer loyalty. This indicator characterizes the quality of work of hotel employees with an established base of regular visitors.

Analysis of market segments allows you to competently formulate a hotel brand promotion policy in each of the selected segments and optimally plan a strategy for positioning hotel products in order to obtain the best effect.

Using information about what advantages are typical for a particular regular guest allows the hotel company to apply an individual approach to each of them. This manifests itself in providing exclusive personal service, anticipating their

wishes, developing additional services for them that they are most likely to use. And accordingly, this will bring constant income to the hotel company.

An important factor in increasing efficiency is optimizing the use of hotel resources, saving costs in data processing and efficient organization of key production processes.

Increasing efficiency is associated with optimizing the use of all hotel resources, saving costs when processing information, as well as with the correct organization of basic production processes.

A modern management system is built on an integrated information network, allowing to minimize work and significantly reduce the number of errors that occur when entering data manually (Zavidna, L. D., 2017).

In addition, automation of the information network allows:

- save significantly on wages;
- eliminate operational errors that can lead to additional costs;
- increase the efficiency of management decision making.

Information systems make it possible to process and store a large amount of information and create different types of selection. They are the basis for making management decisions.

The database of guests allows for their segmentation in order to identify the most important guests from the point of view of possible profit, and to study changes in the dynamics of demand and preferences. Thanks to this, it becomes possible to develop individual offers for each guest that best positions the hotel company.

The main resource base of a hotel business enterprise is the number of rooms. And accordingly, to use it more effectively, it is necessary to competently manage the room booking process.

Information technologies allow guests to independently book hotel rooms through the official Internet site, various Ukrainian and international tourist Internet sites, global reservation systems (for example, Booking.com), their own call centers and call centers of tourism operators (Ernst, H., et al., 2011).

An important role in attracting hotel guests belongs to international travel companies operating in global GDS booking systems and not having direct contracts with hotel companies.

Working with travel companies also requires a streamlined settlement process and payment of commissions.

In these cases, management information systems make it possible to streamline these processes automatically, calculate the commission for each room booked, and generate all the necessary reports and data upload files for companies.

The most profitable way for a hotel to book is to book through its own website.

In the last few years, the global volume of bookings through electronic channels has increased hundreds of times. And the growth of Internet use in the e-commerce hospitality sector is the third most popular in the world (The Travel & Tourism Competitiveness Report, 2019).

In the process of accommodation through external booking systems, there is an acute problem of synchronizing the available room stock of a hotel enterprise with the data presented in the databases of “external” booking systems.

In the absence of integration between the enterprise management system and the external Internet booking service, the hotel is forced to manually maintain the allocated number of rooms in external systems.

Based on the situation where the synchronization of the number of rooms between booking systems is not configured, such rooms may turn out to be unsold, since all internal channels are closed to eliminate the situation of “double booking”. It is this problem that domestic hotel enterprises most often face. Modern automated systems make it possible to solve this problem in the conditions of external and internal sales channels.

Hotel staff can constantly monitor changes in room reservations. Reservation monitoring is considered according to the time scheme between placing a reservation request and the client’s check-in date. Monitoring allows you to create a flexible pricing policy for the number of rooms, taking into account the season, room characteristics, demand and other factors.

In order to optimize the occupancy of hotel rooms, only individual units of a certain type of room are booked (luxury, standard, etc.). Manually keeping timely records of room occupancy is very difficult, almost impossible, but modern management systems cope with this task quite effectively.

To maximize the return on your room stock, you can use its assessment for each customer category or market segment to determine the predicted percentage of possible guest cancellations. On this basis, a reserve is formed for rebooking rooms and a waiting letter is entered.

Typical hotel losses from refusal (non-check-in) of guests range from 3–5%. The use of a control system can significantly reduce this figure (Ratkajec S, 2008).

All of the above capabilities of the management system show that the introduction of information technology into hotel practice helps to increase sales volumes, build customer loyalty, increase competitiveness and effectively distribute employees' working time.

Increasing competition among hotel enterprises is pushing to expand the use of automated hotel technologies among domestic hotels of various types.

The most pressing tasks in automating the work of a hotel enterprise are (Fig. 1.8).

But not a single program allows taking into account the wide variety of tasks that guests want to see, and that is why an individual package of services has to be created for each hotel enterprise.

To speed up the process, you need not only a traditional database of the main components of the package, but also a database containing many ready-made options. Such a database should be generated automatically, that is, programmatically. With its help, guests can select services based on specific search criteria. The more criteria, the more effective the search for ready-made service packages, the more fully the guests' wishes will be satisfied. It is in the individualization of service that the success of the hospitality industry lies.

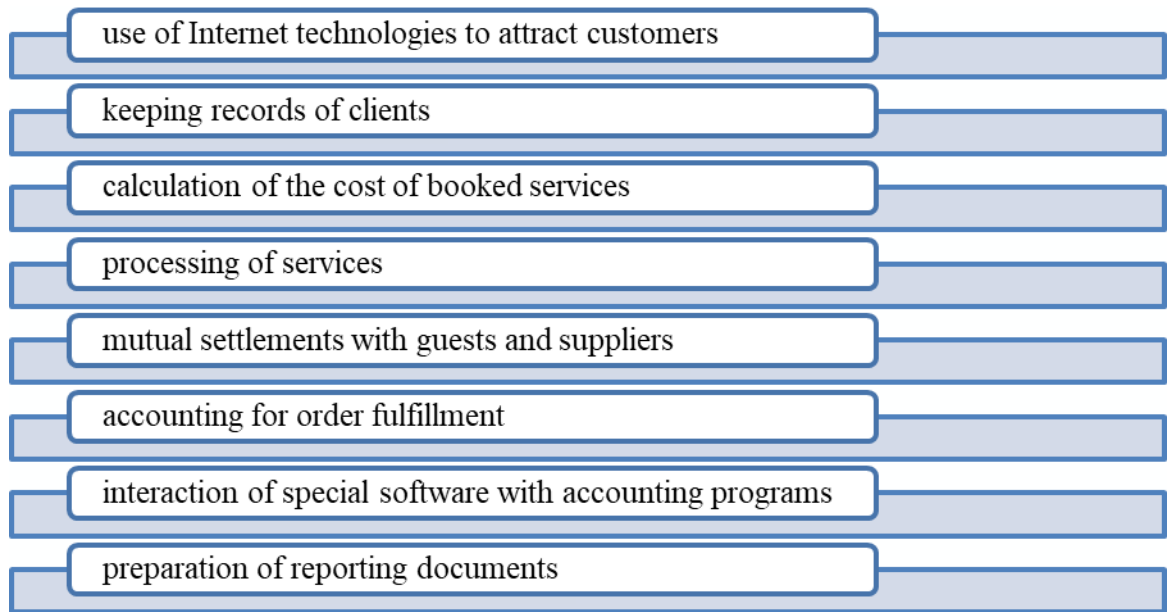


Figure 1.8 – Main tasks in automating the work of a hotel enterprise

Source: (Parvatiyar A and Sheth JN, 2001)

The key factors when developing software products for automation of hotel enterprises is a systematic approach that takes into account efficiency, reliability, safety and sustainability.

Automated hotel systems must meet the following requirements:

- ensure effective management of the number of rooms and tariff policy;
- ensure the possibility of implementing all possible sales channels for hotel services;
- carry out financial control and audit;
- allow management of profit centers (restaurant, bar, fitness, etc.);
- include opportunities for holding events (conference, congress, team building, banquet, etc.);
- contain interfaces with credit card authorization functions;
- contain interfaces with peripheral systems;
- include loyalty programs and participation in bonus programs;
- allow group bookings with a flexible system of individual payments to clients;
- have reliability and fault tolerance;

- provide support and round-the-clock support.

To provide communication services, hotels use programmable automatic telephone exchanges, such as Ericsson, Siemens, Meridian, Bosch, Panasonic and others.

Electronic access control systems – electronic locks – are becoming increasingly common. The most famous lock systems include the American VingCard, the Swedish Timelox, and the Italian CISA.

However, the basis of a hotel automated control system in many cases is a PMS (room management system). Modern PMS contain all the information about the current state of affairs: expected guests, accommodation and their accounts (Chularat K., 2020).

In practice, the most common hotel systems are management systems:

- hotels (PMS – Property Management System): Amadetis PMS, OPERA, Galaxy, Parus-Hotel;
- credit card processing (Credit Card Au-thorization System): Mercury Payment Systems, Heartland Payment Systems;
- Internet reservation (Web Reservation System): Genares, Pegasus IDS Systems;
- financial and accounting (Accounting System): Scala, 1C;
- Restaurant (Point Of Sales): Epitome POS, 1C: Enterprise 8: Restaurant, Parus-Restaurant - Russian development, which needs to be replaced at least in the medium term - both from the point of view of potential non-compliance with legislation and cyber risks;
- events (Sales & Catering): Sky ware Hospitality Solutions Sales and Catering, OPERA Sales & Catering Full Service;
- interactive television (Video Services System): General Satellite, GuestLink.

- Booking.com – is an official platform used by all hotels in the world to search for customers and generate them, which actually helps to automatically check into a hotel, choose a room or other amenities.

Business processes to be automated in a hotel are divided into two blocks: front office and back office.

The front office of a hotel is the structural units, hotel staff and services that interact with guests: reservations and sales, reception and accommodation, support and service, marketing (Dewnarain S., et al., 2019).

However, without internal processes it is impossible to make the stay of people living in a hotel comfortable, so the back office is no less important than the front office.

Back-office processes are implemented by structural divisions of the hotel that do not interact directly with guests, but are involved in ensuring the functioning of the hotel: hotel services production service, accounting department, personnel department, supply department, as well as logistics organization.

The organization of smooth interaction between the hotel's functional departments should be ensured by the hotel's automated control system. Its elements should be:

- database on the server;
- room module (receptionist module);
- administration module;
- accounting;
- restaurant module;
- other additional modules.

Integrated management of all structural divisions of the hotel is provided by an internal local network that unites workstations for individual employees.

The basic element of the hotel automated control system is the room module (workstation of the receptionist), which should (Mena, T.M. & Zaveri, D, 2020):

- manage information with reservation requests (data about the guest, terms and parameters of the reservation, its identifier);

- search for rooms that meet the guest's needs and make a reservation;
- identify and register the guest;
- ensure control of service (cleaning, food delivery to the room, etc.);
- generate information about payment for accommodation and services (maintain the balance of the guest's account);
- warn about the expiration of the period of residence, carry out eviction and settlement procedures.

A typical architecture of an automated control system includes an information storage system, a business intelligence system (MOLAP), and a library of standard forms of analysis and reporting (World Travel & Tourism Council, 2015).

The business intelligence system is carried out using multidimensional analysis, which allows timely receipt of information for marketing and strategic analysis of the hotel's activities in order to increase profits and improve operational efficiency.

Key hotel performance indicators are average selling rate (ADR) and average revenue per room (RevPAR).

The Marriott Grand Hotel uses the Extranet database as a CRM system, which contains absolutely all the information about the hotel. All hotels operating under the Marriott brand are connected to this database and have access. With the help of Extranet, all Marriott hotels can interact with each other and also have access to a huge global brand database. In addition, hotels regularly receive brand news and can also track the activity of specific hotels from around the world on social networks. It also contains information about the work of all departments, operational indicators, and financial reports. In hotel marketing activities, Extranet is considered mainly as a CRM system that contains valuable information about the customer database for each specific hotel (eMarketer, 2023).

An important aspect of managing relationships with clients enters information about guests' birthdays into the CRM system. Hotel managers send congratulations to clients' emails, and also send home-made confectionery products to loyal clients.

This practice has the main purpose of maintaining feedback with the client, and also provides an opportunity to remind guests about the hotel and send special offers.

Using a system such as Extranet allows the Marriott Grand Hotel to significantly increase sales, increase the confidentiality of customer data, and make service even more personalized.

A current online marketing tool for hotels is a mobile application. The mobile application offers guests the services presented in table. 1.1.

Table 1.1

Characteristics of innovative services of a mobile application

Innovative service	Characteristic
Touch ID	This feature uses fingerprint recognition technology to log into your personal account, which guarantees data security
Loyalty program	Guests can see their status in the loyalty program, track current and past bookings
Notifications	The client receives notifications about special offers, increasing status in the loyalty program, and accruing points
Real-time communication	Guests can communicate with hotel staff in real time and formulate their requests in messages
Mobile Key	This innovative service allows the guest to use their phone instead of a key after booking a room through the application, which helps to increase the security of the guest's stay at the hotel.
Early check-in, late check-out	The guest can notify the hotel staff in advance about the need to provide early check-in and late check-out services.

Source (Mena, T.M. & Zaveri, D)

In the hotel industry, apps provide hotel customers with a unique technology experience that many travelers have access to in the palm of their hand.

The study showed that modern automated control systems combine all important control elements into a single process, which allows minimizing profit losses, effectively monitoring personnel activities and increasing the quality of service provision.

CHAPTER 2. ANALYSIS OF THE CUSTOMER SERVICE AND TECHNOLOGIES IN THE HOSPITALITY INDUSTRY BASED ON ORANGE HOTEL

2.1. Organizational and economic characteristics of the Orange Hotel

The Orange Hotel is currently under occupation, and, unfortunately, its further condition and fate are unknown. We will hope that at the highest possible time the territory of Ukraine will be liberated from the occupiers and the hotel will resume its activities.

The main services of the Orange Hotel are:

- accommodation services
- catering and holding various banquets
- excursion services
- beauty services and spa

Hotel Orange was founded in 2008 under the name " Orange Hotel". The number of employees at the Orange Hotel reaches 25 people, not including the founders.

The infrastructure of Orange Hotel includes: a restaurant with a summer terrace, a pub, a meeting room and 4 conference rooms, one of which is ideal for organizing banquets. The Irish pub is located on the first floor and is ready to receive up to 150 guests at the same time in 6 halls. The pub has a beach area for 200 people with two swimming pools, sun loungers, a pier and a playground. Near the hotel there is free parking for 40 cars.

Hotel Orange has 98 comfortable rooms of the following categories: "Admiral Suite", "Apartment", "Classic Double", "Classic Double for people with disabilities", "Grand Standard Double", "Grand Standard", "Standard Twin", " Suite Double. One of the Classic rooms is equipped specifically for people with disabilities. An electric car filling station is available for guests at the hotel

Unfortunately, as of 2023, the Orange Hotel is located in the city of Zaliznyi Port, Kherson region, which is under occupation, and since the beginning of the war in Ukraine, contact with the administration and management of the hotel has been lost. Of course, we hope that very soon this territory will be liberated and the work of the Orange Hotel will be resumed.

Thus, taking into account the development of the hotel of this brand, the territorial location, we can conclude that the Orange Hotel is one of the most promising hotels that provides high quality services, has a significant number of rooms and requires a large number of staff. In this regard, there is a need for a detailed study of the issue of recruitment and advanced training of network workers.

Due to the fact that the Orange Hotel is located in occupied territory, the most new data on its financial condition was obtained for 2021. In order to analyze the financial results of the enterprise, we will construct table 2.1

Table 2.1

Dynamics of financial indicators of HOTEL ORANGE for the period 2019-2021, thousand UAH

Indicator	2019	2020	2021	Change, thousand UAH		
				2021/ 2019	2021/ 2020	2020/ 2019
Revenue, thousand UAH	1909893	1976266	2154130	244237	177864	66373
Cost of good sold , thousand UAH	902581	1080999	1178289	275708	97290	178418
Gross profit, thousand UAH	1007312	895267	975841	-31471	80574	-112045
Running costs, thousand UAH.	299221	329789	359470	60249	29681	30568
Operating income, thousand UAH	648671	594370	647863	-808	53493	-54301

Net profit (loss), thousand UAH.	525471	483303	526800	1329	43497	-42168
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Source: (Orange Hotel, 2021)

Unfortunately, the hotel is under occupation, so the information available is from before the full-scale invasion, for 2021, there is no newer information.

Analyzing the data of this table, we note that the net income from the sale of the company's products increased in 2021 by UAH 177864 thousand, and despite the Coronavirus pandemic in 2020, it grew by UAH 66373 thousand. The main reason for this small increase is the closure of all stores for several months due to the Covid-19 outbreak.

The value of the gross profit of the enterprise increased in 2021 by UAH 80574 in compare to 2020. The financial result from operating activities had a rather sharp rise in 2021, but again had a negative value in 2020, which indicates a deterioration in the company's performance. As a result, the company received net profit in 2021 – UAH 43497 more than in 2020.

Let's analyze the running costs (costs of revenue) for three years of HOTEL ORANGE (see Fig. 2.1)

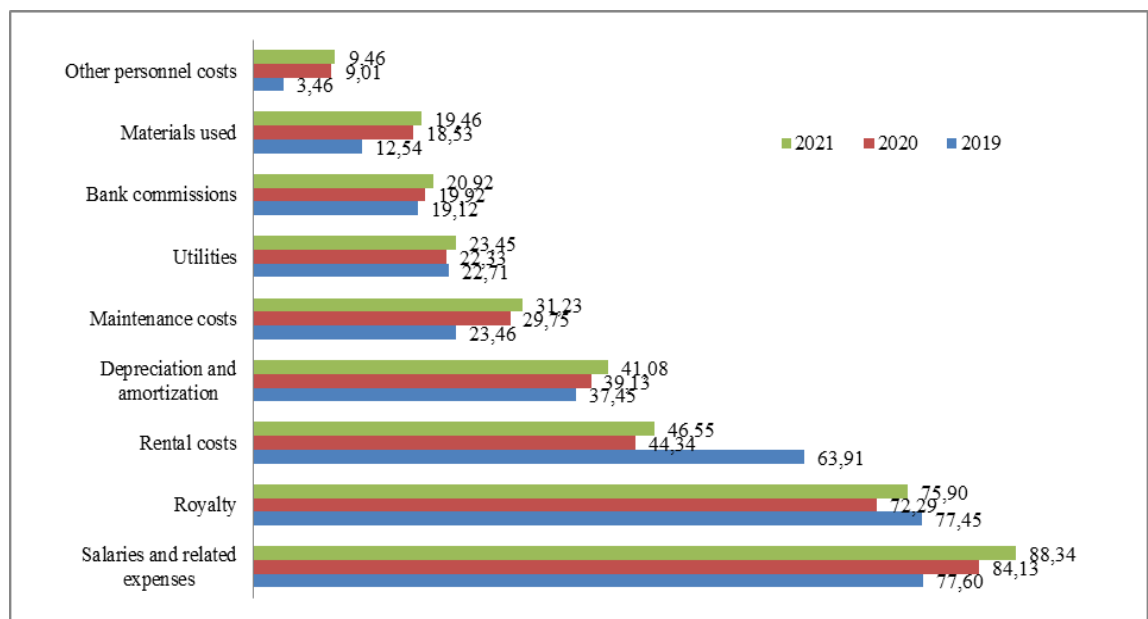


Figure 2.1 - The dynamics of the cost of selling HOTEL ORANGE services

Source: (Orange Hotel, 2021)

After analyzing the indicators of the elements of the implementation costs, we can say that the cost of labor has increased more.

Merchandise retailing sells goods and services for cash without the use of commercial loans and will remain solvent with relatively low quick liquidity.

The absolute liquidity ratio allows you to determine the share of short-term liabilities that the company can repay in the near future, without waiting for the payment of receivables and the sale of other assets. A company will be able to repay debts on time if the payment deadline comes soon. A value above the norm may indicate problems in the company and indicate an ineffective strategy for managing financial resources.

Having made all the necessary calculations, we can conclude that the enterprise is relatively independent, solvent and relatively stable indicators above the normative value as a whole. In 2020, the situation is deteriorating due to the spread of the virus and the need to close hotels. The need to pay wages to employees, the rent of shops, warehouses and the non-inflow of own capital aggravated the situation with the solvency of the enterprise. But the reopening of stores and the stabilization of the situation will again increase financial independence.

Hotel ORANGE is a legal entity from the date of state registration and operates on the principles of commercial calculation, namely: self-sufficiency, self-financing, profitability and responsibility. Currently, the company provides legal services to individuals and legal entities.

The organizational structure of the investigated enterprise Hotel ORANGE is linear.

The entire staff of the enterprise is divided into employees of the main activity, that is, those who are directly involved in legal advice, and non-production personnel employed in service departments.

The main methods of on-the-job training in HOTEL ORANGE are: instruction; internship; discipleship; mentoring. We have analyzed the qualitative indicators of the staffing of the enterprise (Table 2.2.)

Table 2.2

Qualitative composition of employees of Hotel ORANGE for the 2021

№	Education	Work in positions
		Persons
1	Higher education of III-I level of accreditation.	9
2	Education of the I-II level of accreditation.	15
3	They study in technical schools and colleges.	2

Source: (Orange Hotel, 2021)

To analyze the quantitative composition of personnel, it is advisable to calculate the composition of the personnel (Table 2.2).

So, we observe a tendency to the fact that the number of specialists without higher education at the enterprise is much less than the number of graduates. This determines the specifics of the enterprise - more work for specialists with higher education.

Table 2.3

The quantitative composition of the personnel of Hotel ORANGE for the period 2019-2021

Indicator	Value by years		
	2019	2020	2021
1. Average annual number of employees, people.	24	14	26
2. Women	18	8	24
3. Men	6	6	2
4. Specialists	23	13	26

5. Specialists without higher education	1	1	0
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Source: (Orange Hotel, 2021)

There are more women in the company than men. The percentage of benefits is small, but constant. This is due to the fact that the non-production departments are part of the «female», and more women began to appear in blue-collar occupations.

The solution to the problem of the formation and effective use of staffing is possible only with the development of a clear personnel policy of the enterprise and the state. Personnel policy should correspond to the concept of enterprise development and be implemented through personnel strategy and tactics.

Improvement of staffing in the modern conditions of operation of the enterprise Hotel ORANGE is possible only with a gradual transition from passive to active personnel policy, focused on the rational use of personnel potential.

The presence of an appropriate number of employees with certain qualification characteristics is a necessary condition and the main task of staffing an enterprise.

The priority directions of the process of optimizing human resources management using the management concept are:

- improvement of the psychological climate at the enterprise, analysis and possible elimination of the causes that lead to the emergence of conflict situations;
- analysis of the reasons for the desire to free employees from the enterprise and the development of measures to eliminate these reasons;
- improving the quality of workers' health, improving medical care and the quality of recreation;
- analysis of reasons for violation of labor discipline and development of measures to eliminate them;

- stimulating the entrepreneurial skills of employees aimed at improving the results of the enterprise;
- identifying employees with creative potential and taking measures to increase their interest in working at the enterprise.

The implementation of the proposed measures will allow the management of the enterprise to improve the staffing of the enterprise Hotel ORANGE.

The system of motivation of employees in Hotel ORANGE is aimed at stimulating activity, developing their professional, creative and personal potential. The system allows you to receive additional income based on the results of the reporting period (monthly).

2.2. Analysis of the use of customer services

The process automation system at Hotel ORANGE is aimed at intensifying operations in an automatic mode, which implies control of all work processes. To improve the level of quality of services, as well as to monitor the activities of staff, Hotel ORANGE has implemented specialized software products that automate basic business processes: loading planning (arrival and departure of guests), managing relations with guests, monitoring staff work, quality and time of service provision.

In the hotel business, the processes of introducing and replenishing telecommunications equipment, providing wireless access to the Internet, using a key identification system, purchasing and booking rooms via the Internet, maintaining pricing, systems for collecting and processing information through the introduction of IT technologies, including an automated management system, are intensifying.

A typical Hotel ORANGE automation system unites hotel departments that are in operational interaction with each other. Physically, all information is generated and located on the central server of the enterprise and is a database (numbers, clients, reservations, invoices, reports).

Next, we highlight the main directions that help guide the automation system in Hotel ORANGE (Fig. 2.2).

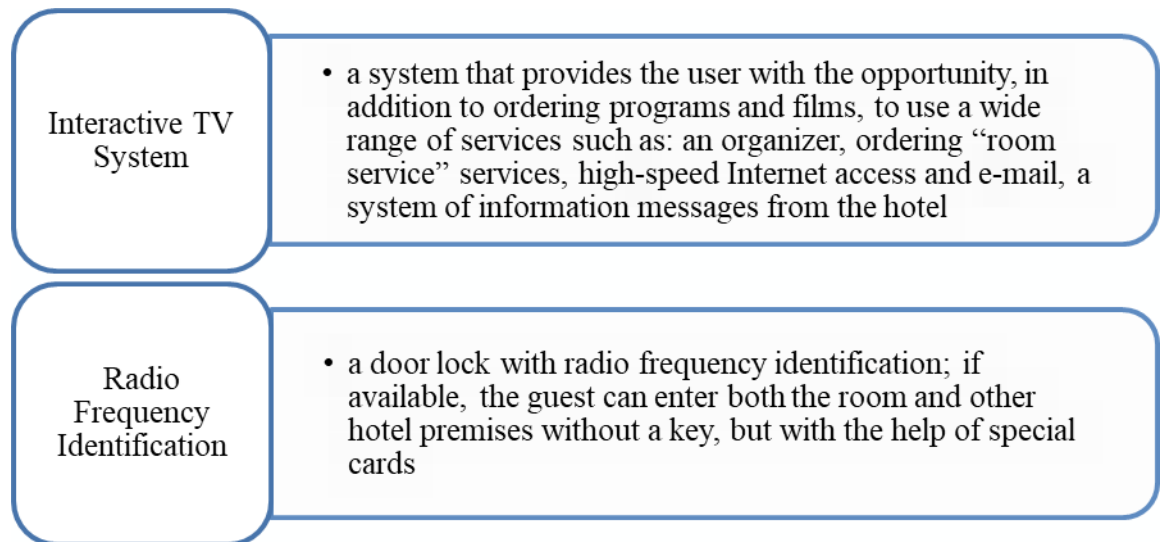


Figure 2.2 – Main directions of automation in Hotel ORANGE

Source: (Orange Hotel, 2021)

The most successful and effective direction of Hotel ORANGE is the dispatching of hotel life support systems. Hotel ORANGE has the Desigo building management hardware system, which is used to automate engineering equipment, namely: heating, ventilation, air conditioning, lighting, access control, fire alarm systems. The entire system of controllers outputs data to a single central control center. In addition, a uniform and transparent building operation plan helps reduce operating costs for all electrical and mechanical installations.

Innovations at Hotel ORANGE bring additional revenue, provide competitive advantages in the market, increase market share, reduce costs, improve the service process, and increase the efficiency of individual departments and the hotel as a whole.

Resource innovations represent the introduction of an electronic hotel management system and a resource planning system. In Hotel ORANGE, resource innovations are presented by Inter Hotel, which offers comprehensive hotel IT automation software, that is, its software product and service in a complex. This

application helps Hotel ORANGE keep records and analyze visitors, make payments to guests for certain services, and create a database of regular visitors.

To intensify its work, Hotel ORANGE uses a new automated management system “OPERA Enterprise Solution”, which includes a wide range of modules (Chen I. J., & Popovich K., 2003; Ashqar, R.I., et al, 2023).

OPERA Enterprise Solution (Opera, 2024) is a fundamentally new solution for hotels that has no analogues on the market from the world leader in the production of automated management systems - Micros-Fidelio Corporation. Unlike traditional hotel systems, OPERA Enterprise Solution is the most comprehensive management solution available for both independent and chain hotels. OPERA Enterprise Solution offers a new concept of work and improved guest service, combining such undoubted advantages as speed, reliability, functionality, and ease of use.

OPERA Enterprise Solution - consists of modules that can easily be configured and added depending on the wishes of a particular hotel. This program contains the following automated services (Fig. 2.3).

The new convenient mobile solution of the OPERA Enterprise Solution system, OPERA – Palm, allows staff located almost anywhere in the hotel to do all the necessary operations (check-in and check-out of guests, checking room status, event management and much more). The latest technologies of OPERA Enterprise Solution provide the hotel with a unique opportunity to work both in client-server application mode and through the Internet - browser (“Thin Client”). The OPERA Enterprise Solution system application allows customers to make reservations directly from the Internet page.

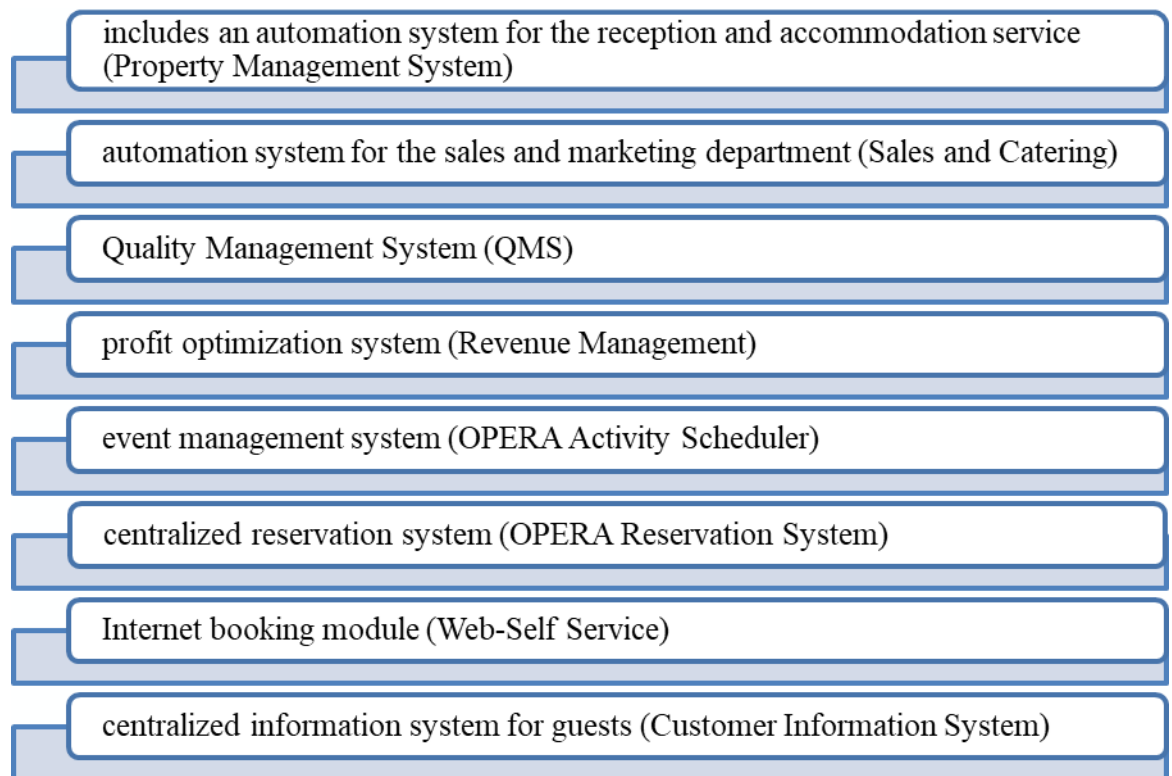


Figure 2.3 – Main modules of OPERA Enterprise Solution in Hotel ORANGE

Source: (Orange Hotel, 2021)

The central element of the OPERA Enterprise Solution is the automation system for the reception and accommodation service (Property Management System - PMS). The benefits of the OPERA PMS management system can significantly increase the level of productivity and profitability of the hotel. The system is easily customizable to suit the individual requirements and wishes of the guest, is very easy and simple to use, and allows hotel management to always have the most accurate and up-to-date information both in the individual hotel and in their networks. At the same time, all enterprises are managed through a single Oracle database.

Sales and Catering (S&C) automation system – allows management, sales and hotel reservations departments to exchange customer information, invoices, room availability, current rates and overall control of all business activities.

The Quality Management System (QMS) is a rapid response system for guest requests that allows management to check that employees are responsive to their assigned responsibilities and automatically notifies management of delays in performance before a complaint is made. from a guest. The Preventive Maintenance

module allows you to set a schedule for scheduled maintenance work to prevent unplanned, costly repairs. OPERA QMS allows you to enter information not only from a computer at the employee's workplace, but also remotely using OPERA Palm, a pager, or a touch-tone telephone.

The profit optimization system based on OPUS 2 (Revenue Management) is fully integrated with OPERA ORS and PMS, allowing you to manage Hotel ORANGE revenue in one database. Key features include sophisticated group analysis that enables rate management as well as hotel-within-a-hotel revenue management. In addition, the system has an interface with the OPERA S&C system to analyze the effectiveness of certain services and increase profitability.

The event management system (OPERA Activity Scheduler) keeps all services and activities of Hotel ORANGE under complete control. This system allows you to track all the information about clients, including a list of services they used, notes from service staff and their medical data, and allows you to create and provide each guest with a kind of program upon arrival. And if the guest cancels his reservation, all other wishes will also be canceled.

Centralized reservation system OPERA (OPERA Reservation System - ORS). This is the only system for monitoring the occupancy of all hotels included in the hotel chain. OPERA ORS allows you to have a complete and unique picture of availability, as well as book immediately at Hotel ORANGE. Moreover, both a reservation department employee located in the central office and a traveling sales manager anywhere in the world can book a hotel room or conference room. Combining the benefits of centralized booking with advanced system functionality, ORS is a powerful tool for sales and reservation managers to increase the number of bookings and, accordingly, reach new levels of profitability.

The centralized customer information system (CIS), fully integrated with the centralized reservation system, collects and processes data on all guests, tour operators, groups and companies, creating a single database. CIS offers flexible tools for working with regular customers, and also allows you to centrally calculate rates and then apply them to selected hotels.

OPERA Xpress is a simplified version of the hotel management system. All necessary options and functionality of the system can be selected from the OPERA PMS options. At the same time, you can significantly reduce costs by choosing those options that correspond to the business processes taking place in Hotel ORANGE, as well as using one system for several hotels.

The OPERA Enterprise Solution system supports more than 350 interfaces, including an interface with a restaurant management system, telephone systems and tariff systems for telephone calls and Internet services, an automatic minibar system, a customer account management system, pay television systems, electronic lock systems, a credit authorization system cards, accounting systems. Now, when conducting a night audit operation, there is no need to interrupt work. The system continues to function as usual, and reports can be generated at any time during the working day.

Built on the powerful Oracle Report Writer database, OPERA Enterprise Solution's reporting module offers most of the core management reports as well as a variety of custom reports. The system provides automatic control of the process of accepting individual and group preliminary applications for hotel accommodation. In addition, the classification of rooms into categories is very important for the functioning of Hotel ORANGE. This allows you to simplify and better organize the process of completing preliminary requests for accommodation and setting tariffs, as well as issuing information about the availability and condition of rooms. The system provides an effective and fully automated system for monitoring the condition of the room stock. The status of each room is indicated (basic rate, category, characteristics, location). At the same time, a constant record of free and occupied rooms is kept. This allows you to avoid such misunderstandings as a guest checking into an uncleaned or already occupied room. Guest accounts are maintained automatically and can always be displayed. Payment for accommodation is credited to the appropriate account during the night audit.

The program called "Guest Story" is of great importance. Information about all guests is stored in the system for several years. It can be used to register guests,

allows you to identify “special” guests - VIP guests or, on the contrary, unwanted ones.

The system takes into account all necessary balances and controls all financial flows of Hotel ORANGE. Hotel accounts are managed by a special program. With its help, the system opens, manages, directs and carries out other necessary operations on any accounts. All information matches the accounting system automatically, which saves a lot of time.

So, we have established that it is advisable to implement the OPERA Enterprise Solution automation system with a wide range of modules. Currently, the OPERA Enterprise Solution program helps Hotel ORANGE management manage the hotel and optimize its costs.

The implemented OPERA Enterprise Solution ensures the smooth and efficient operation of Hotel ORANGE. Energy efficiency is achieved primarily through automation of lighting and microclimate. Sensor statistics and the use of electrical appliances can be used to optimize electricity consumption. The ability to control all application systems using a smartphone or tablet makes it even more attractive.

2.3. Assessing the effectiveness of using technologies in Orange Hotel

The main advantage of the OPERA Enterprise Solution program is that it reduces costs, ensures the comfort of ORANGE guests and efficient operation and increases profits several times.

We suggest exploring the order processing system in which Hotel ORANGE sales managers work and through which all company sales are generated.

Before the booking order goes into processing, Hotel ORANGE managers agree with the client on all the details regarding timing, type, target audience, etc. A visualization of the order is shown in Fig. 2.4.

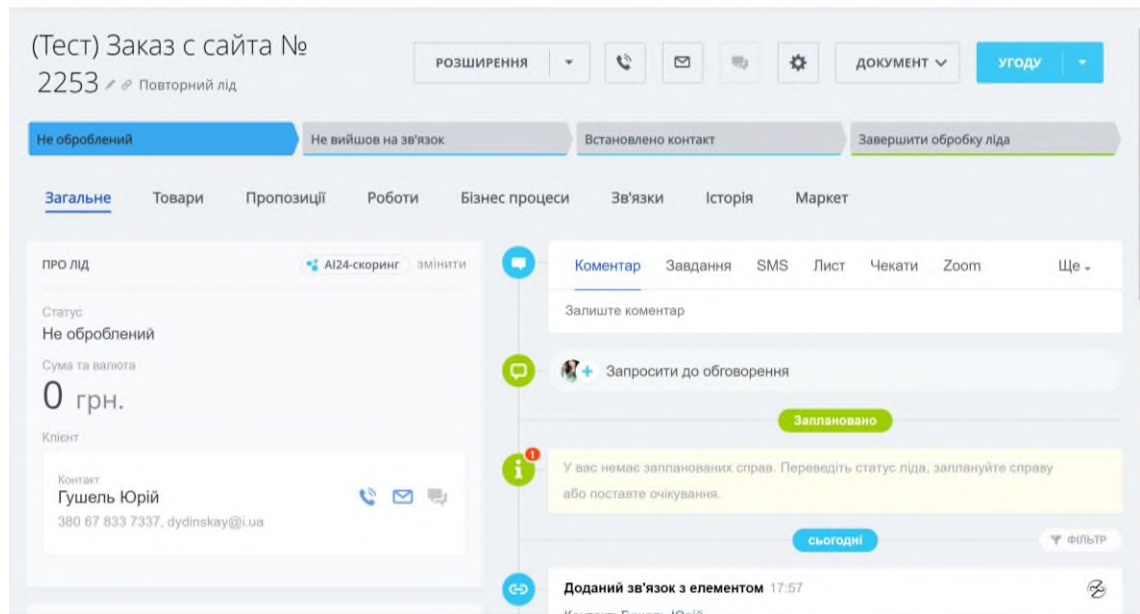


Figure 2.4 Visualization of the Hotel ORANGE room reservation order

Source: (Orange Hotel, 2021)

Next we will study lead generation, that is, the number of people talking about the hotel on the Internet on the Instagram page or on Facebook. Leads represent a potential client's interest in our hotel's services and the ability to convert the client into a potential client. A list of leads is generated automatically on the day the room reservation is received (Fig. 2.5)

Лід	Статус	Справи	Повне ім'я	Дата створення	Відповідальний
roksolanash roksolanash - i2cm (Instagram) - wowin.ua	Не оброблений	Справи відсутні	roksolanash roksolanash	вчора	Олеся Озімбловська
(Тест) Заказ с сайта № 2285 Интернет-магазин wowin.ua	Не оброблений	Справи відсутні	Верна Ольга	вчора	Лілія Ложан
(Тест) Заказ с сайта № 2284 Интернет-магазин wowin.ua	Не оброблений	Справи відсутні	Ільєв Віталій	вчора	Лілія Ложан
Телефонный звонок от 380675284371 Днівко	Не оброблений	23.11.2021 10:44 Вхідний від 380 67 528 4371 для Михайло Ушак	Безіменний	вчора	Михайло Ушак
Телефонный звонок от 380980575324 Днівко	Не оброблений	Справи відсутні	Безіменний	22.11.2021	Михайло Ушак
Телефонный звонок от 380976719342 Днівко	Не оброблений	Справи відсутні	Безіменний	22.11.2021	Оксана Петриниць

Figure 2.5 Hotel ORANGE Lead List for 2021

Source: (Orange Hotel, 2021)

To better understand the date of receipt of leads, they are formed in the calendar (Fig. 2.6).

ПН	ВТ	СР	ЧТ	ПТ	СБ	НД
1 лист	2	3	4	5	6	7
<ul style="list-style-type: none"> n.fedoryshyna n. 0:30 Гість - Відкрита... 5:54 mira_sobolevsk... 7:27 Гість - Відкрита... 7:49 Гість - Відкрита... 8:16 	<ul style="list-style-type: none"> Телефонный зв... 9:09 Володимир Кр... 9:21 Телефонный зв... 10:52 Гість - Відкрита... 11:00 Гість - Відкрита... 12:22 	<ul style="list-style-type: none"> glebaantonina1... 0:51 ilonalatynska ilo... 8:43 (Тест) Заказ с с... 10:43 Гість - Відкрита... 12:39 modeqlm_r_y... 12:50 	<ul style="list-style-type: none"> stiyusarenko_ole... 7:49 (Тест) Заказ с с... 13:36 cfmeyer12 cfm... 15:25 oles101 oles1... 16:09 (Тест) Заказ с с... 16:38 	<ul style="list-style-type: none"> elena_makiako... 10:12 (Тест) Заказ с с... 10:14 Телефонный зв... 13:46 Гість - Відкрита... 14:42 (Тест) Заказ с с... 14:57 	<ul style="list-style-type: none"> pavloshyngelsk... 8:51 (Тест) Заказ с с... 14:02 (Тест) Заказ с с... 15:32 Телефонный зв... 15:43 (Тест) Заказ с с... 18:01 polia_dc polia... 19:57 	<ul style="list-style-type: none"> (Тест) Заказ с с... 10:48 (Тест) Заказ с с... 11:47 (Тест) Заказ с с... 12:12 (Тест) Заказ с с... 14:10 Гість - Відкрита... 14:11
показати все 39	показати все 11	показати все 13	показати все 11	показати все 8	показати все 14	
8	9	10	11	12	13	14
<ul style="list-style-type: none"> Телефонный зв... 12:46 (Тест) Заказ с с... 16:14 	<ul style="list-style-type: none"> (Тест) Заказ с с... 2:01 karthikthandra... 5:49 Гість - Відкрита... 15:49 (Тест) Заказ с с... 16:32 diva_olivka div... 18:56 	<ul style="list-style-type: none"> Гість - Відкрита... 7:43 Subscriber - BI... 10:52 Телефонный зв... 11:03 (Тест) Заказ с с... 12:11 	<ul style="list-style-type: none"> Гість - Відкрита... 8:01 Гість - Відкрита... 9:08 Телефонный зв... 10:11 (Тест) Заказ с с... 11:24 Телефонный зв... 11:42 	<ul style="list-style-type: none"> Гість - Відкрита... 2:07 Гість - Відкрита... 9:46 Телефонный зв... 10:37 (Тест) Заказ с с... 11:11 Телефонный зв... 11:24 	<ul style="list-style-type: none"> Гість - Відкрита... 5:47 galynabarabash... 9:10 Гість - Відкрита... 9:36 Телефонный зв... 13:17 (Тест) Заказ с с... 14:28 kyzu2006 kyzu... 14:39 	<ul style="list-style-type: none"> Гість - Відкрита... 9:10 Гість - Відкрита... 10:12 Гість - Відкрита... 10:16 (Тест) Заказ с с... 11:52 Гість - Відкрита... 12:57
показати все 9	показати все 15	показати все 21	показати все 16	показати все 12	показати все 15	
15	16	17	18	19	20	21
<ul style="list-style-type: none"> Гість - Відкрита... 0:31 bilichenkoana b... 9:18 onlybiz onlybiz... 9:30 Телефонный зв... 11:24 (Тест) Заказ с с... 14:28 	<ul style="list-style-type: none"> mlanovij mlano... 8:44 (Тест) Заказ с с... 9:37 martaandrusiv... 10:02 Телефонный зв... 11:18 (Тест) Заказ с с... 12:23 	<ul style="list-style-type: none"> akimenkolyud... 11:33 miss_sonia... 13:22 vinodsandeshr... 14:11 Телефонный зв... 17:11 Чорна п'ятни... 18:04 	<ul style="list-style-type: none"> Гість - Відкрита... 6:22 Елена Аврамен... 7:55 (Тест) Заказ с с... 9:05 Гість - Відкрита... 9:59 Телефонный зв... 11:10 	<ul style="list-style-type: none"> Гість - Відкрита... 8:30 akimova olenk... 10:28 (Тест) Заказ с с... 10:54 Гість - Відкрита... 11:05 (Тест) Заказ с с... 11:18 	<ul style="list-style-type: none"> Гість - Відкрита... 7:48 Телефонный зв... 9:48 kvitka_irina kv... 11:25 (Тест) Заказ с с... 12:37 (Тест) Заказ с с... 12:37 	<ul style="list-style-type: none"> nataliarybalka1... 9:40 sunnyksenija s... 10:43 Телефонный зв... 11:10 Гість - Відкрита... 12:02 (Тест) Заказ с с... 12:44
показати все 14	показати все 22	показати все 18	показати все 36	показати все 32	показати все 16	показати все 17
22	23	24	25	26	27	28

Figure 2.6 Hotel ORANGE lead list in calendar format for 2021

Source: (Orange Hotel, 2021)

The sales funnel represents the path taken by an ordinary hotel guest (potential client), from attracting his attention to any offer until the very moment of purchase.

The sales funnel allows the hotel to follow who this buyer is and what motives he pursues. The effectiveness and efficiency of the funnel lies in the time it takes a potential client to find a hotel room. He can decide for a whole month or book a

room in a few minutes, all this depends on understanding his needs and providing him with the service he needs and wants to purchase. The Hotel ORANGE sales funnel is shown in Figure 2.7.

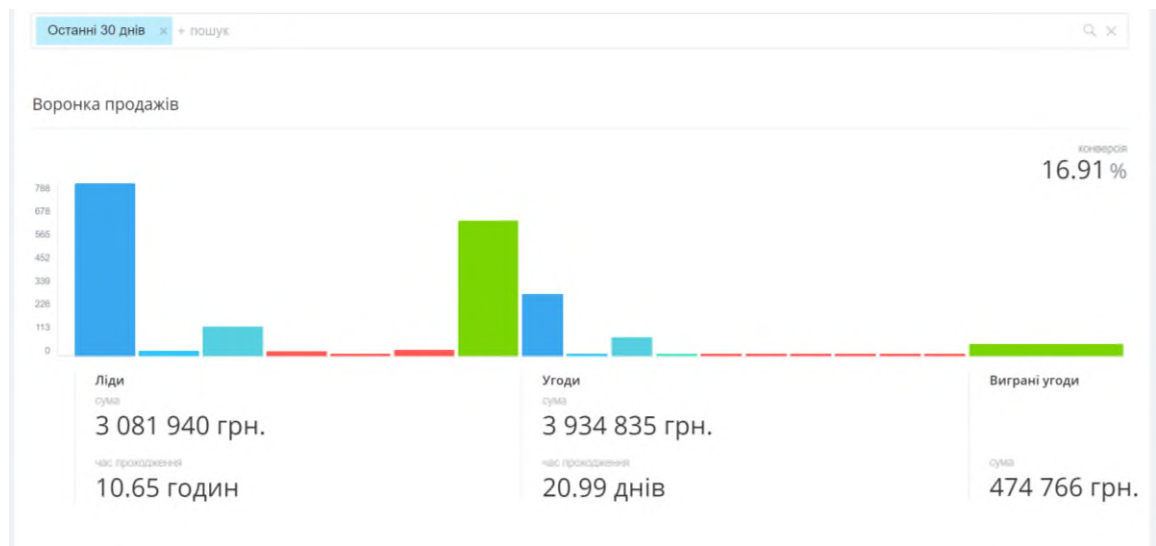


Figure 2.7 Hotel ORANGE sales funnel

Source: (Orange Hotel, 2021)

Also, to see and understand growth, comparisons of sales with the previous period are used (Fig. 2.8).

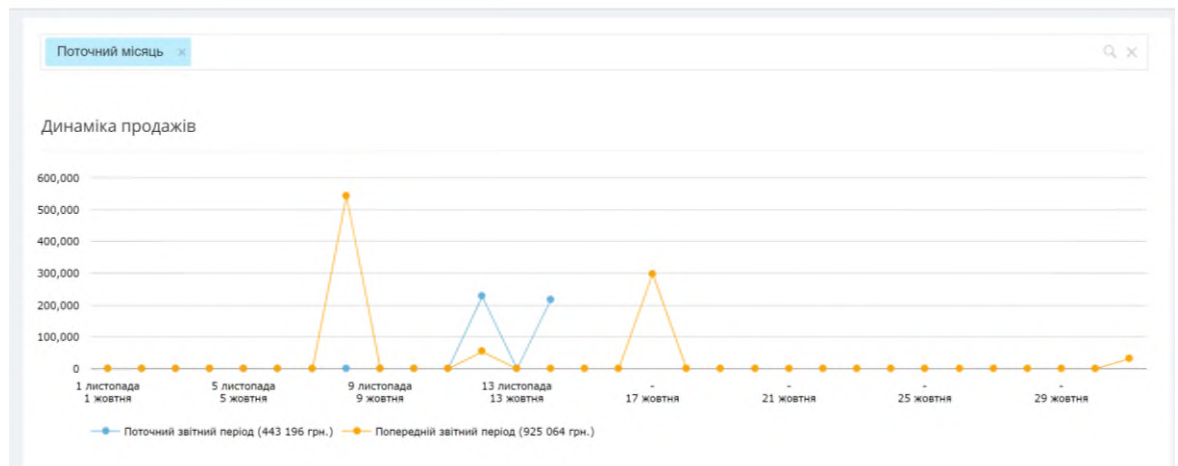


Figure 2.8 Comparative sales analysis of Hotel ORANGE for 2021

Source: (Orange Hotel, 2021)

The ice funnel is shown in Figure 2.9.

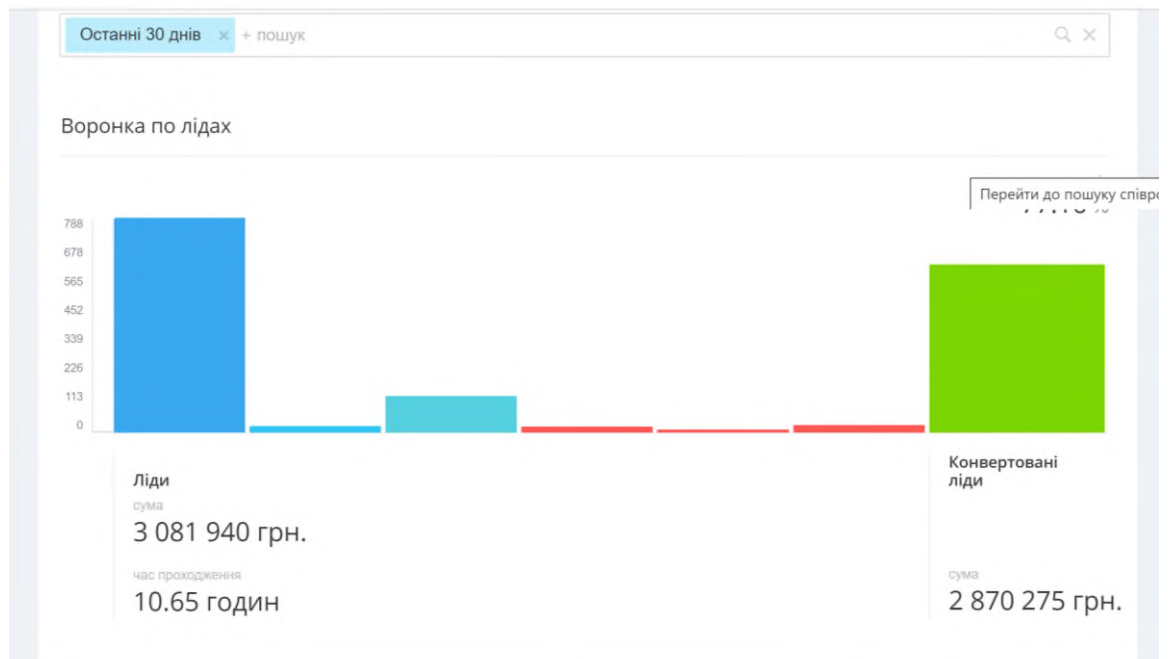


Figure 2.9 Hotel ORANGE ice funnel for 2021

Source: (Orange Hotel, 2021)

Based on the submitted and processed leads, the effectiveness of managers is determined (Fig. 2.10).

Менеджер	Активні	Конверт. в угоди	Неякісні	Втрати	Конверсія
Неактивний Кіселик ііі	1		1	100%	0%
Владислав Бабій	2	2		0%	100%
Лілія Лежан	345	262	16	4.64%	75.94%
Михайло Ушак	90	75	5	5.56%	83.33%
Олеся Озімбловська	347	268	11	3.17%	77.23%
Оксана Петринєць	3	1		0%	33.33%

Figure 2.10 Efficiency of Hotel ORANGE sales managers for 2021

Source: (Orange Hotel, 2021)

Thus, the use of the system we analyzed allows you to quickly process the

company's sales and generate new customers, accordingly increasing sales efficiency.

As an indicator of the effectiveness of the information system, we study the profitability of hotel sales for the period 2019-2021 (sales was made by using OPERA Enterprise Solution) (Table 2.4).

Table 2.4

Hotel ORANGE sales profitability

№	Indicators	Year			Change (+;-)		Change (%)	
		2019	2020	2021	2021/ 2020	2020/ 2019	2021/ 2020	2020/ 2019
1	Net income from sales, thousand UAH	11631	12527	12407	-120	895,9	99,04	107,70
2	To spend on product sales, thousand UAH	8664,3	8953,1	8764,1	-189	288,8	97,89	103,33
3	Net profit, thousand UAH	373,7	133,9	262,2	128,3	-239,8	195,82	35,83
4	Return on sales, %	3,21	1,07	2,11	1,0444	-2,144	197,71	33,27

Source: (Orange Hotel, 2021)

So, we are observing a negative trend of decreasing profitability of sales, which indicates a decrease in net profit and a relative increase in expenses, which is actually negative for the company.

Next, we propose to determine the effectiveness of sales at the enterprise (Table 2.5).

Table 2.5

Hotel ORANGE sales performance indicators

№	Indicators	Year	Change (+;-)	Change (%)
---	------------	------	--------------	------------

		2019	2020	2021	2019	2020	2021	2019
1	Total volume of products sold, thousand UAH.	11631	12527	12407	-120	895,9	99,04	107,70
2	Number of subscription contracts, pcs.	356	303	296	-7	-53	97,69	85,11
3	Number of fully executed contracts, pcs.	351	295	284	-11	-56	96,27	84,05
4	Contract fulfillment, %	99	97	96	-1,4138	-1,2358	98,55	98,75
5	Volume of products sold per 1 employee of the sales department	3877	4175,67	4135,67	-40	298,633	99,04	107,70

Source: (Orange Hotel, 2021)

So, we can observe a negative trend of increasing overdue and unfulfilled contracts, which negatively affects the company's net profit. This reason is the shortage of sales department employees, of which as of 2022 there were 3 people who could not attract

Also negative in the development of sales is the low funding for technology development from management (Fig. 2.11)

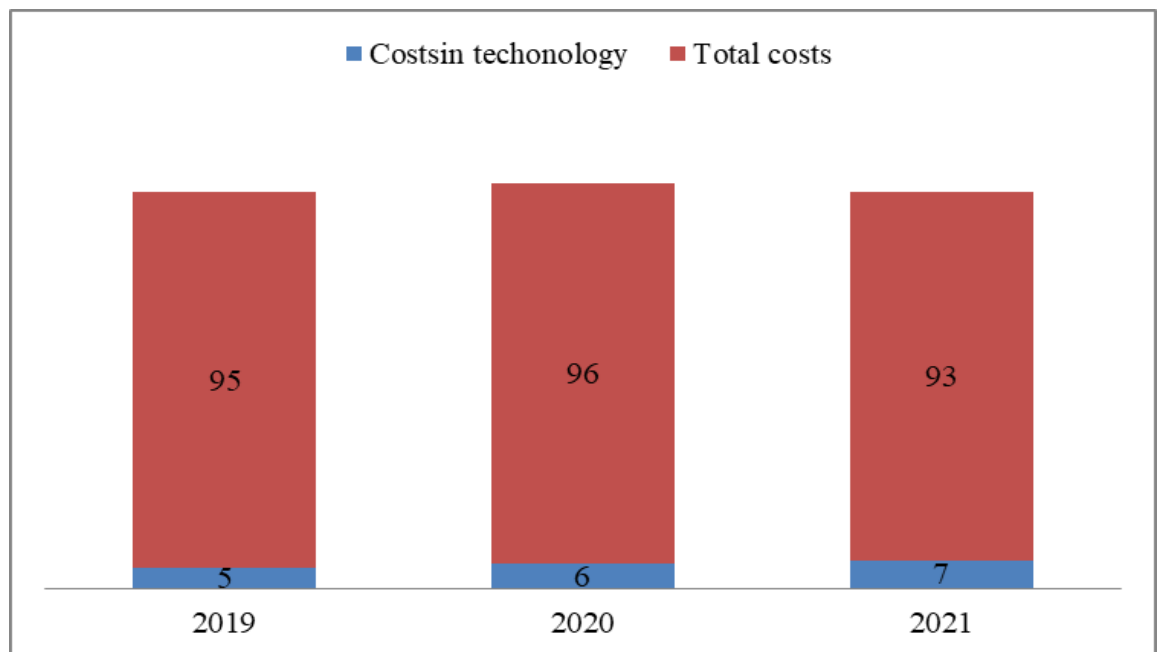


Figure 2.11 Share of costs for Hotel ORANGE technology development in total costs

Source: (Orange Hotel, 2021)

This graph clearly demonstrates one of the problems of ineffective sales of the company - this is meager funding for software updates and technology development, which also negatively affects the promotion of goods among sellers and, ultimately, their sales.

The introduction of IT technologies at Hotel ORANGE is the key to its successful development, meeting the individual needs of guests and stable profits. That is why we propose to invest in the development of information technology in the hotel, which should ultimately give a positive financial result, which we will consider in the next chapter.

CHAPTER 3. DIRECTIONS FOR IMPROVING THE EFFICIENCY OF CORPORATE INFORMATION SYSTEMS WHEN INTRODUCING A CRM SYSTEM

3.1. Analyze in international experience of using CRM system in hotel chains

International hotel chains "Hilton", "Marriott", "Holiday Inn", "Balchug" have significant competitive advantages and are basic for domestic enterprises, which has changed the overall approach to running the hotel business. An analysis of existing innovative organizational, technological, marketing, and personnel management methods among leading international hotel enterprises made it possible to identify the following innovative technologies that have become widespread in hotels in Ukraine (table 3.1).

Table 3.1

Innovative technologies in international hotels

Hotel name	Types of innovative technologies
Hotels of the Marriott group, Bolchug	Automated revenue management system
Ararat Park Hyatt	High-speed, wireless Internet access in all areas of the hotel.
Aerostrat	Reward system for regular customers - depending on number of nights: silver, gold, platinum membership
Cosmos club	Two-level guest reward system - silver (discount for repeat check-in) and gold (for payment of \$5,000)
Marrosott Rewards	Discount card over 300 rewards for returning guests (meal vouchers, free stays, theme park passes); assignment of the "Silver" level after 10 bookings, "Gold" after 50 nights, "Platinum" after 75.
Sheraton Palace	The "Preferred Guest" program, when for every night at a hotel a guest receives points and bonuses, which, after accumulation, can be used to pay for stays in hotels of the chain, purchase air tickets from partner companies, pay for dinner, spa-procedures, buy souvenirs

National together with the company	Marriott Rewards program, assigning the "Silver" level after 10 bookings, "Gold" after 50 nights, "Platinum" after 75. The program has more than 60 partner companies and offers
Le Meriden	more than 300 options for rewarding regular customers for corporate customers of the Business program
Continue table 3.1	
Boltschug Kempinski	Concierge and Meeting Concierge – assistance in organizing events, special prices for renting premises, additional equipment

Source: (35-39)

As follows from the table, domestic hotels are actively introducing management, especially marketing, innovative technologies that allow them to form long-term relationships with clients.

Thus, for hotel chains, loyalty is formed in relation to the hotel brand itself, regardless of where a particular hotel is located. Having a loyal customer base serves as the basis for stable sales even in times of crisis, and is also an important strategic competitive advantage.

Let's look at examples of hotels that are actively implementing new technologies, and they can confidently be called the most innovative hotels in the world.

1. Aloft Cupertino, California, USA. This hotel has introduced a robotic concierge named Bolt, who can bring snacks, drinks, bring a towel to the pool, and help guests throughout their stay. Aloft Cupertino's public areas are also equipped with background sound and video walls.

2. Loews 1000 Hotel, Seattle, USA. Each hotel room is equipped with infrared sensors that respond to body heat and movement. This is done so that the hotel staff knows for sure that there is someone in the room. The minibar in the room will automatically signal the reception staff that replenishment is required. But the most

interesting thing is that at the hotel you can play virtual chess, sitting at an interactive table, and also treat yourself to virtual golf.

3. Henn-na Hotel, Japan. The hotel is partly run by works. A Japanese-speaking robot girl and an English-speaking dinosaur robot will be happy to assist you at the front desk. For registration, each guest can use interactive counters.

4. Aria Resort & Casino, Las Vegas, USA. Here, instead of regular room keys, the guest's smartphone is used. The rooms are equipped with a newfangled system that will automatically detect that you are in the room, open the curtains, turn on pleasant music, and also set a comfortable temperature (40).

In order to keep up with the times and follow trends, it is necessary to keep abreast of news in the innovative world and promptly update the technological base of hotels. Here are examples of modern products for the hotel industry.

ACS Logus HMS (Hospitality Management System) is a powerful and convenient hotel automation tool, created taking into account the specifics of the Ukrainian hotel industry. Logus HMS allows you to build business processes in accordance with the internal features of a hotel, sanatorium, holiday home or hostel.

Logus HMS is not a cloud hotel management system, but a client - server application. It is installed on the hotel server, and for the Ukrainian market currently this use is better and more reliable than a cloud hotel management system with a security system for databases and hosting, the quality and security of which is generally opaque to the hotel.

Unlike the cloud hotel management system, Logus HMS easily interfaces with any peripheral system (for example, fiscal recorders). While the cloud hotel management system directly depends on the availability and speed of the Internet, Logus works autonomously without being tied to the Internet.

The Logus Self Check-In module is designed for the guest to independently select a specific room before checking into the hotel. The guest can view a 3D model of the hotel and room in their mobile application or in the self-service terminal in the hotel lobby, and also select the necessary additional services.

Hotbot.ai – chatbot for hotels in instant messengers. It will help guests easily access all hotel services, plan their leisure time and find out useful travel information in their messenger.

Features of this software showed on figure 3.1.

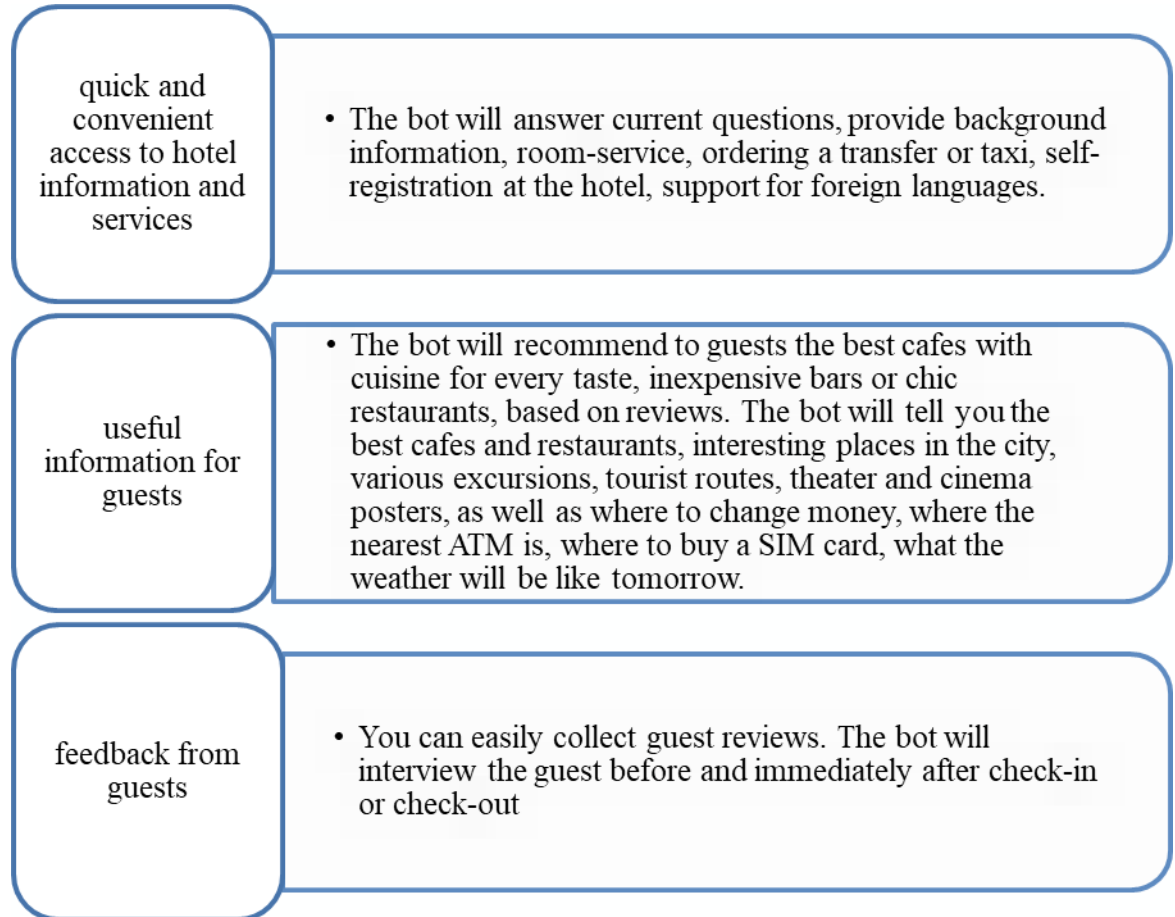


Figure 3.1 – Main features of Hotbot.ai

Source: (41)

Robot JEEVES (Munich technology company Robotise). The Radisson Blu Hotel, Zurich Airport features a robotic assistant, JEEVES, which offers contactless in-room delivery and ensures that all orders and other daily tasks are completed safely, efficiently and reliably. The introduction of JEEVES service work into the team marks the Munich technology company's first international project and paves the way for further expansion abroad. The desire for contactless, premium service in the hospitality industry has increased the demand for intelligent robots (42).

Ytips for electronic tips - catering establishments, hotels and other service enterprises can connect the service for free to receive non-cash tips using a QR code. Both business owners and their employees can use the e-tipping service for free. How it works: the user registers his establishment or himself, if he is a waiter, in the system. Links a bank card, corporate or personal, to the account. the service generates a unique QR code for the user (establishment or waiter). The guest scans the QR code with their phone, enters the tip amount and confirms the payment. At the same time, he can take on a commission so that the waiter receives more. By introducing electronic tips, a business owner will be able to increase staff motivation and evaluate the quality of their work based on payment history. The service will allow waiters to increase the amount of tips, since a guest without cash will be able to transfer the reward electronically (43).

Thus, we can say that at the present stage of development of the hospitality industry around the world, the popularity of using innovative solutions is growing every year. There are reasons for this, because if hotels follow trends, this will have a positive effect on the work of the enterprise as a whole: speed and ease of use of automated systems for hotel employees; meeting the needs of guests; maintaining competitive advantages. It should also be noted that managers of hotel enterprises who have decided to introduce innovative technologies into the organization's activities will need additional time and resources to fully implement the innovation into the enterprise's activities.

3.2. Economic efficiency of the main ways of expanding the client base due to the use of international experience

So, having studied the experience of global hotel chains, we propose to implement an information system in Hotel ORANGE - HubSpot CRM, which is designed to process data on hotel clients who are both current, that is, where they visited the hotel, and potential. In this CRM system, the general database of clients

who have ever stayed at Hotel ORANGE is entered and which is constantly being supplemented. HubSpot CRM provides free tools for Hotel ORANGE.

- ability to create up to 10 thousands contacts without restrictions
- management of agreements and tasks
- email tracking and notification of available hotel rooms
- email templates
- shared access to documents
- integration with the site, live chat, reports, etc.

No matter the size of your business, the HubSpot CRM platform scales to meet your hotel's needs.

Figure 3.2 shows the applications that Hotel ORANGE will use.

FREE MARKETING TOOLS:	FREE SALES TOOLS:	FREE SERVICE TOOLS:	FREE OPERATIONS TOOLS:
✓ Forms	✓ Live chat	✓ Ticketing	✓ Data sync
✓ Email marketing	✓ Basic bots	✓ Email scheduling	✓ Historical sync
✓ Ad management	✓ Team email	✓ Live chat	✓ Default field mappings
✓ Landing pages	✓ Quotes	✓ Shared inbox	✓ App Marketplace integrations
✓ Shared inbox	✓ Calling	✓ Calling	✓ Contact management

Figure 3.2 - Applications that will use Hotel ORANGE

Source: created by the author

HubSpot will contain data about hotel visitors, which can be very easily imported in order to make calls to the database and increase sales. The customer model allows the hotel manager to invite potential customers and develop existing ones. A visualization of the Hotel ORANGE database is shown in Figure 3.3.

MATCHED	COLUMN HEADER FROM FILE	PREVIEW INFORMATION	HUBSPOT PROPERTY
✓	First name	Leslie Ron April	First name
✓	Last name	Knope Swanson Ludgate	Last name
✓	Email	leslie.knope@cocaol... ron.swanson@cocaol... april.ludgate@cocaol...	Email
	Phone number	555-843-8116 555-684-3214 555-879-2050	Choose or create a property
	Street address	68 Street Rd 2 Street Rd 14 Street Rd	Choose or create a property

Figure 3.3 – HubSpot Hotel ORANGE information data

Source: created by the author

All Hotel ORANGE data can be imported in one go. Contacts, hotels, offers, tickets and more in HubSpot at the same time and link them using simple column mapping, no manual associations required (Figure 3.4)

NAME	EMAIL	PHONE NUMBER	CONTACT OWNER	ASSOCIATED COMPANY
Susan Quas	susanquas@demospot.org	--	Unassigned	--
Ethan Eggels	ethaneggels@demospot.org	--	Unassigned	--
Owen O'Malley	owenomalley@demospot.org	--	Unassigned	--
Sean Shoreman	seanshoreman@demospot.org	--	Unassigned	--
Lena Letterman	lenaletterman@demospot.org	--	Unassigned	--
Martha Mirth	marthamirth@demospot.org	--	Unassigned	--
Chris Cain	chrisccain@demospot.org	--	Unassigned	--
Jessica Fischer	jessica.fischer-l7b7hu@demospot.org	934-524-5442	Unassigned	--
Eric Bowen	eric.bowen-oekova@demospot.org	934-524-5442	Unassigned	--

Figure 3.4 – Importing data from HubSpot Hotel ORANGE

Source: created by the author

HubSpot CRM will automatically populate new Hotel ORANGE contact records and deals with additional details from its database of over 20 million companies. All you need is the prospect's business email address. With HubSpot CRM, Hotel ORANGE employees spend less time searching for information about hotel visitors' leads and more time communicating with their customers.

The main advantage of this CRM HubSpot is the speed of processing the customer database, which allows the administrator to see what, which numbers are preferred by customers choosing from the menu and actually predict what else they will need. As for new contacts, they are used for weekly calls and offer to visit Hotel ORANGE. Therefore, it can be argued that HubSpot CRM is designed to generate clients into a single database and is useful for administrators who take data from it about the wants and needs of their clients.

The main modules of HubSpot CRM are Contacts, Hotels, Agreements and Tickets, which are necessary for working with clients and developing their orders.

Contacts Hotel ORANGE is shown in Figure 3.5

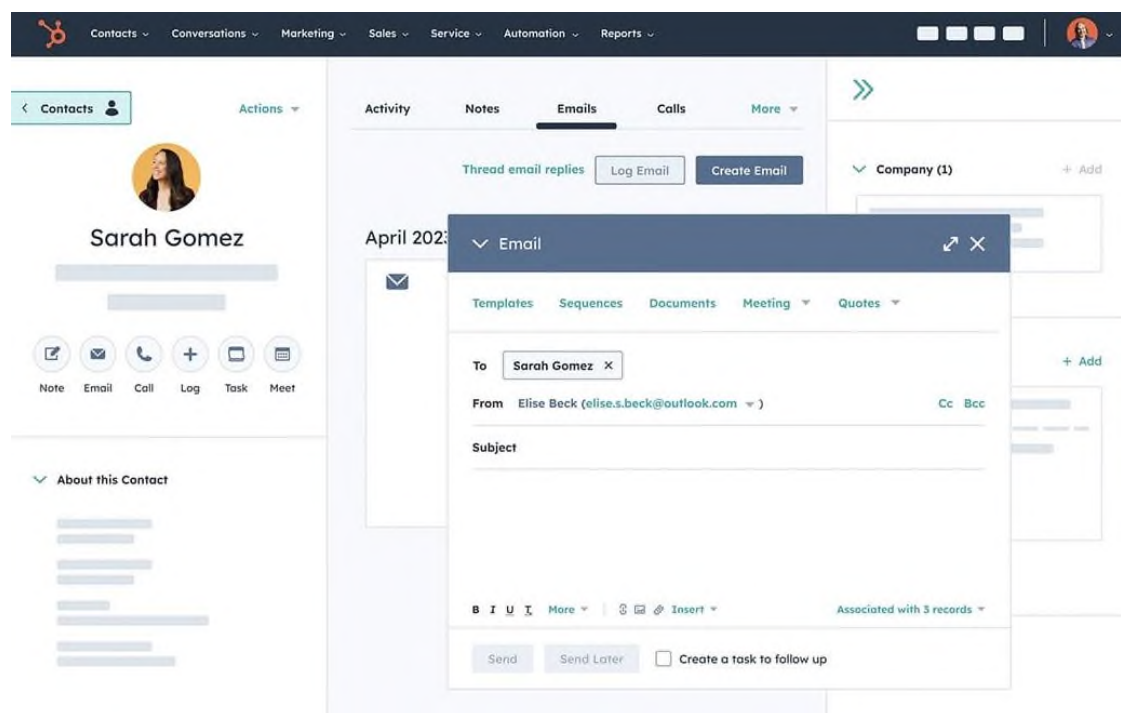


Figure 3.5 – Contacts HubSpot Hotel ORANGE

Source: created by the author

These are potential clients with whom the Hotel ORANGE administrator is communicating or plans to communicate. Those they will call and email to start, continue or maintain a business relationship. Each contact record stores information such as first name, last name, email address, and telephone number. It also contains a history of when anyone last contacted the contact.

That is, this module contains information about all potential and current hotel visitors, whose contacts are used by the administrator to sell hotel services.

The hotel module is wholesale clients of Hotel ORANGE - these are both clients to whom the hotel provides its services (i.e. celebrating corporate parties, birthdays, etc.), and suppliers from whom it purchases products and materials to provide its guests with everything they need . The companies with which Hotel ORANGE cooperates are shown in Figure 3.6.

A hotel record contains information such as the name, domain, industry and telephone number of the company. Other detailed information is also stored here, such as what city the company is located in, number of employees, income information, etc.

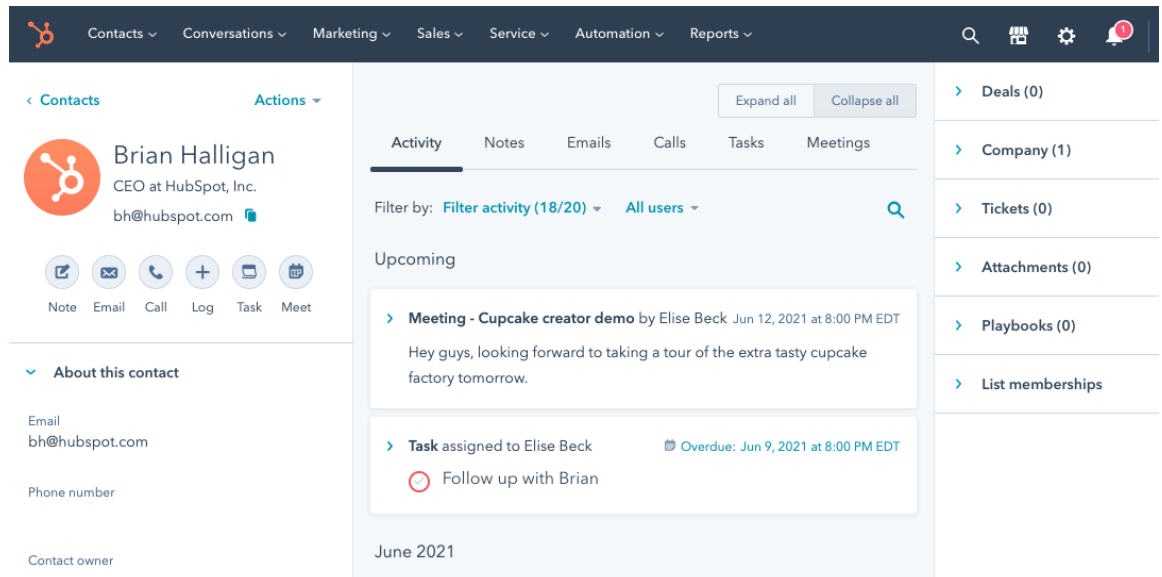


Figure 3.6. – HubSpot Hotel ORANGE Companies

Source: created by the author

The transaction module represents the history of potential clients' hotel visits, that is, which room they chose and when it was. Such information is necessary for them to formulate new offers for hotel services (Fig. 3.7).

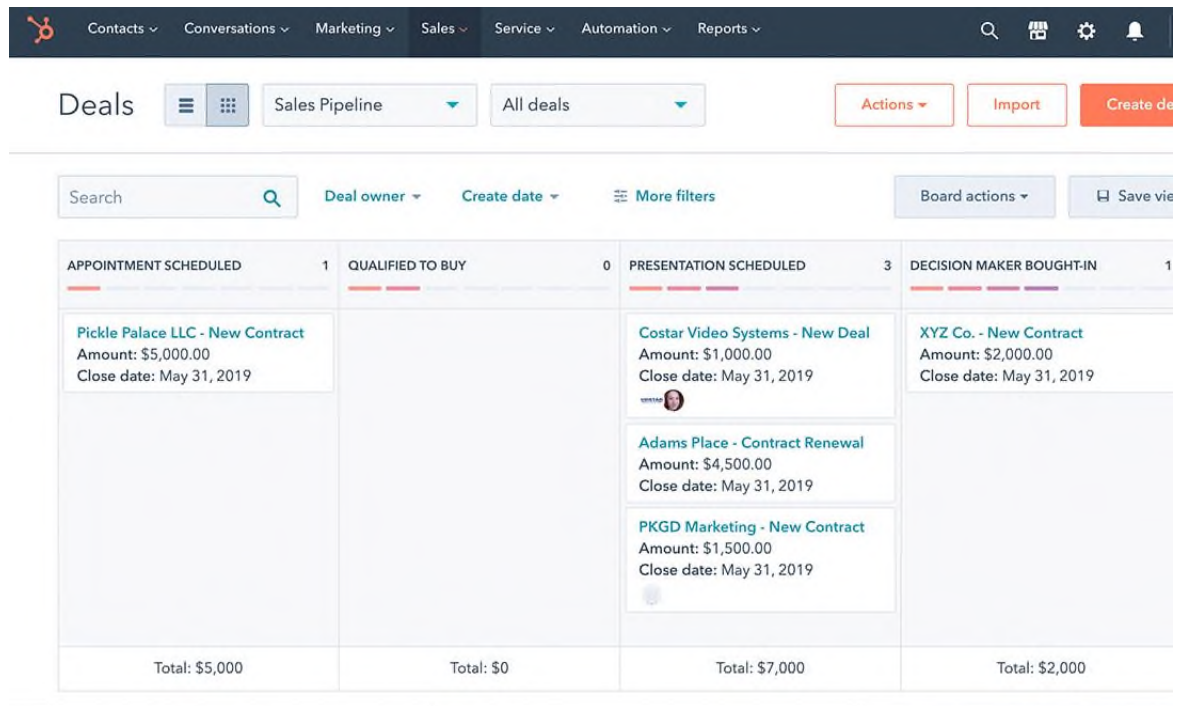


Figure 3.7 – HubSpot Hotel ORANGE Agreements

Source: created by the author

Transactions are used to manage the sales process and track Hotel ORANGE's revenue. The stages of the transaction are implemented through stages, starting from the beginning of the sales process and ending with the actual successful sales or not (i.e., whether the client has increased in the hotel or not). The transaction record stores the amount of potential sales when sales are expected to close, driving the sale in Hotel ORANGE.

Each agreement can only be associated with one company, but can be associated with multiple contacts. That is, a hotel's suppliers can be both its clients and suppliers. Hotel ORANGE tickets are shown in Figure 3.8.

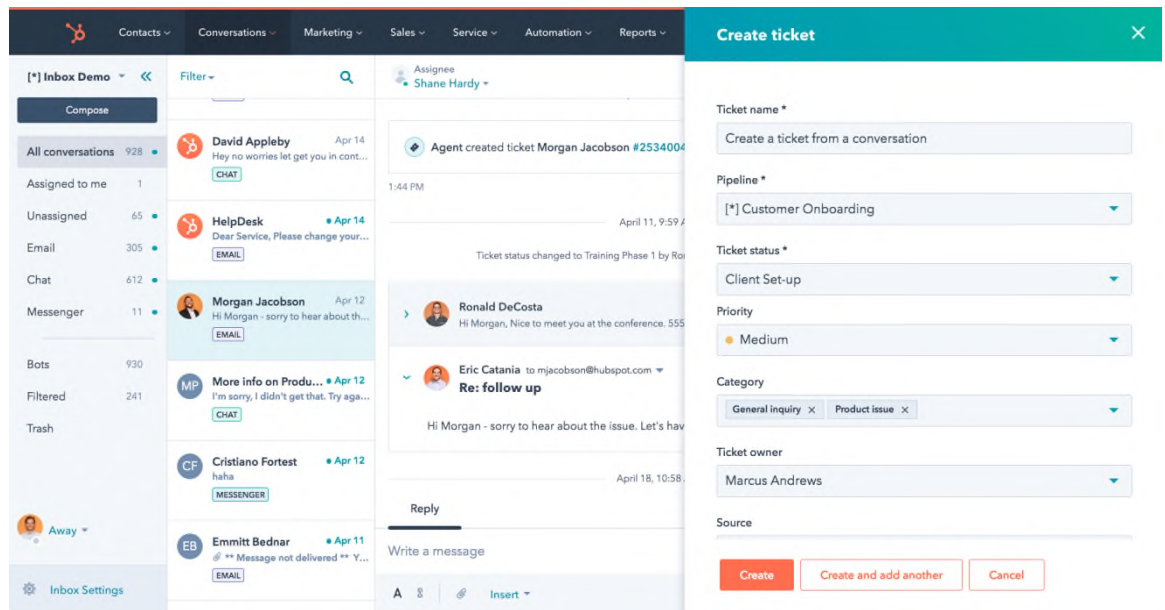


Figure 3.8 – Tickets HubSpot Hotel ORANGE

Source: created by the author

Tickets store information such as the source of the request, the time of the first response from the hotel administrator, the time the request was closed, etc. Tickets can be associated with any contact, company, and agreement.

So, the use of the HubSpot CRM system positively influences the coordination of the activities of the management and administrator of Hotel ORANGE, who, having a contact base and the history of their sales, can formulate certain offers for their clients who need it. The HubSpot CRM system will have a positive impact on the hotel's sales volume and will help the administrator to actively sell the hotel's services to both current and potential clients and replenish the database with new clients.

In the previous sections, we explored that the HubSpot CRM system is a generated customer database that will be used by hotel administrators, into which they enter contacts from various sources. So, in order to increase sales, we propose to create a Digital Shelter, which will operate on the basis of the HubSpot CRM system and will stimulate sales via the Internet, through which it will supplement the company's customer base and increase the cost of one customer's check.

Next, let's move on to a detailed description of our idea Digital Shelter, which in my opinion will become more popular than various online services for booking rooms. In the modern world, when most people have switched to online shopping, Hotel ORANGE should also integrate this idea into its activities. The online hotel will allow customers to place an order via the Internet at home and virtually see the rooms that the hotel has. Digital Shelter is not a simple online booking service, but a virtual Hotel ORANGE, which is available in a smartphone. It is the reservation that will be tied to the hotel and the client will see fresh photos of the rooms, with daily updated breakfasts, so that the client can see the dynamics of the hotel.

The practical implementation of Digital Shelter in Hotel ORANGE should include four main stages (Fig. 3.9.).

So, the main stage will be the development of the application, which is one of the most important stages in the creation of Digital Shelter, for which it is necessary to provide the financial resources of Hotel ORANGE.

The measures we propose should have a positive effect on the financial result of the hotel and increase sales volumes.

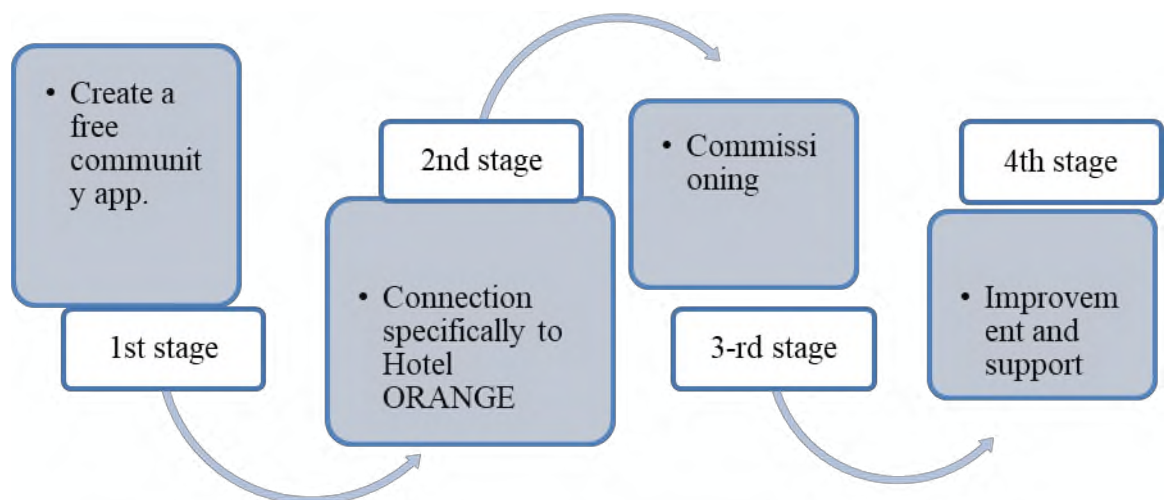


Figure 3.9 – Main stages of implementation of Digital Shelter Hotel ORANGE

Source: compiled by the author

So on average through Digital Shelter Hotel ORANGE. can attract from 5 to

60 clients, the average purchase price of which will be 1200 UAH (average cost of a hotel room), taking into account the constant demand and other factors influencing the purchase. Considering that the demand for Hotel ORANGE services is constant throughout the year, I calculated the average cost of the check. Including such negative factors as the war in Ukraine and high inflation, we determine that Digital Shelter will attract a maximum of 10 people per day (Fig. 3.10).

So, having analyzed the projected sales volume of Digital Shelter and Hotel ORANGE, it is clear that the costs of creating Digital Shelter will be recouped already in the future (the costs of creating Digital Shelter are 45 thousand UAH), and the total annual profitability of Digital Shelter is about 142 thousand UAH . To reach Hotel ORANGE's profitability curve, it takes 1 to 2 months, because during this period, advertising on Google will already begin to generate new customers, traffic to the hotel's social networks will increase, which, accordingly, will have a positive impact on the financial result of Hotel ORANGE.

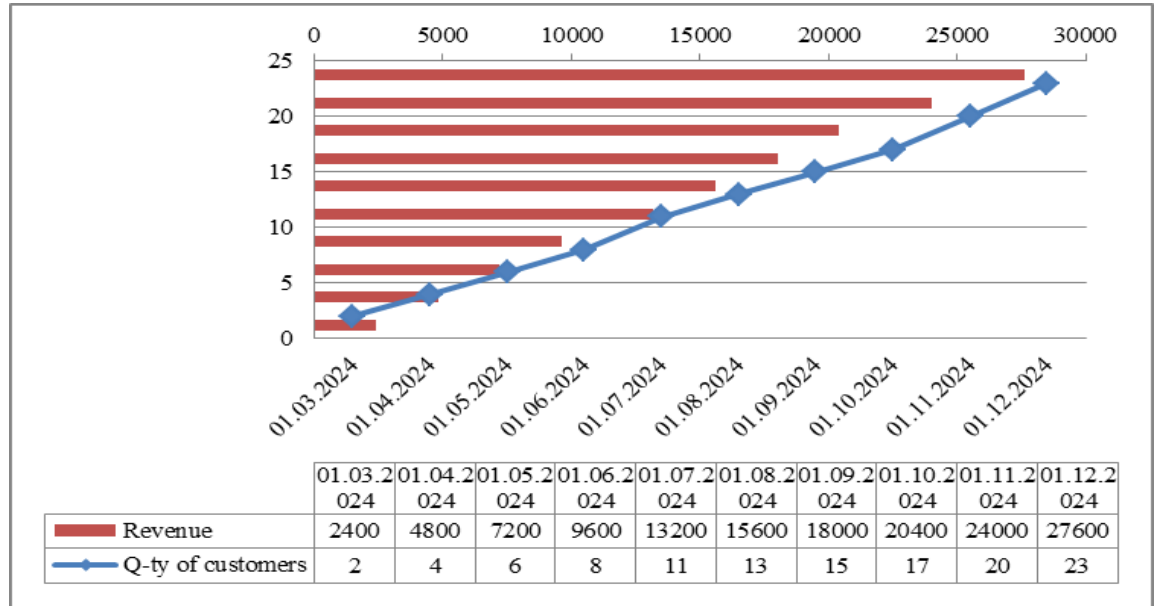


Figure 3.10 Projected sales volume of Digital Shelter

Source: compiled by the author

As a result, we will examine the effectiveness of creating a Digital Shelter by comparing its costs and the estimated income that Hotel ORANGE will receive

within 10 months (Fig. 3.11).

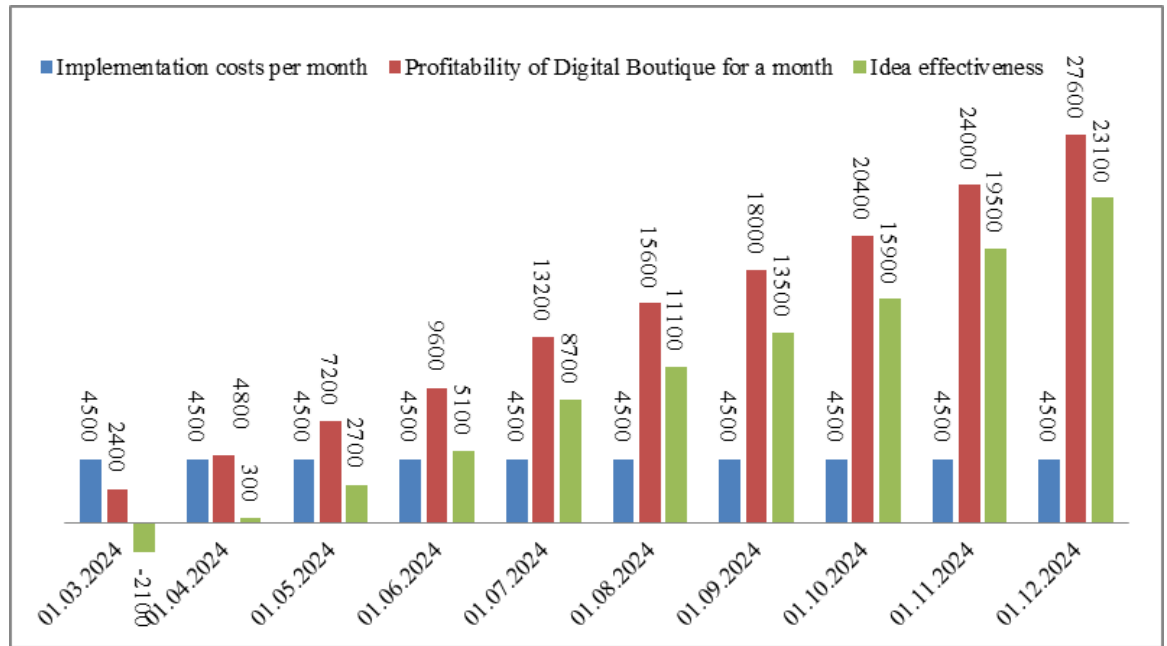


Figure 3.11 – Estimation of the profitability of creating a Digital Shelter and Hotel ORANGE

Source: compiled by the author

So, analyzing the data in Figure 3.3, we see that the costs of creating a Digital Shelter will be recouped already in the first two places. It is the effectiveness of the project for the year that will amount to UAH 97.8 thousand of the company's net profit, which Hotel ORANGE will receive only from the creation of the Digital Shelter and sales through it.

The proposed idea of creating a Digital Shelter based on a CRM system will not only help optimize business processes and save Hotel ORANGE money, but will also increase the efficiency of the hotel's innovative activities and strengthen its position in the Kherson region.

CONCLUSIONS

In this thesis, we analyzed the implementation of a customer relationship management system in the international hotel business using of the example of Hotel ORANGE.

An important aspect of the development of the tourism business is its legislative regulation, because tourism, like any other, is subject to regulation and compliance with established laws in the countries of travel. The hotel business is one of the fastest growing industries, accounting for 6% of the world's gross domestic product and about 5% of all tax revenues.

Today, one of the main innovations in the hotel business is the use of Internet technologies that allow a potential client or hotel staff to go online and find all the relevant information about it. With the development of technology, online booking has become popular, the breakthrough of which occurred thanks to booking.com, which became a truly effective means of selling hotel services and other online booking sites were created in its guise.

The study showed that modern automated control systems combine all important control elements into a single process, which allows minimizing profit losses, effectively monitoring personnel activities and increasing the quality of service provision.

The Orange Hotel is currently under occupation, and, unfortunately, its further condition and fate are unknown. We will hope that at the highest possible time the territory of Ukraine will be liberated from the occupiers and the hotel will resume its activities.

Unfortunately, as of 2023, the Orange Hotel is located in the city of Zaliznyi Port, Kherson region, which is under occupation, and since the beginning of the war in Ukraine, contact with the administration and management of the hotel has been lost. Of course, we hope that very soon this territory will be liberated and the work of the Orange Hotel will be resumed.

So, we have established that it is advisable to implement the OPERA Enterprise Solution automation system with a wide range of modules. Currently, the OPERA Enterprise Solution program helps Hotel ORANGE management manage the hotel and optimize its costs.

The implemented OPERA Enterprise Solution ensures the smooth and efficient operation of Hotel ORANGE. Energy efficiency is achieved primarily through automation of lighting and microclimate. Sensor statistics and the use of electrical appliances can be used to optimize electricity consumption. The ability to control all application systems using a smartphone or tablet makes it even more attractive.

So, having studied the experience of global hotel chains, we propose to implement an information system in Hotel ORANGE - HubSpot CRM, which is designed to process data on hotel clients who are both current, that is, where they visited the hotel, and potential. In this CRM system, the general database of clients who have ever stayed at Hotel ORANGE is entered and which is constantly being supplemented.

In order to increase sales, we propose to create a Digital Shelter, which will operate on the basis of the HubSpot CRM system and will stimulate sales via the Internet, through which it will supplement the company's customer base and increase the cost of one customer's check. The proposed idea of creating a Digital Shelter based on a CRM system will not only help optimize business processes and save Hotel ORANGE money, but will also increase the efficiency of the hotel's innovative activities and strengthen its position in the Kherson region.

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