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Issue

Article



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ON THE IMPORTANCE OF INFORMATION TECHNOLOGY FOR MAKING EFFECTIVE MANAGEMENT DECISIONS

Abstract: *The article examines the right to a favorable environment in the light of the state's economic policy, namely;*

- *the problem of aligning the Eurasian Economic Union and One Belt, One Road;*
- *Management and information technology: inevitability and efficiency;*
- *Managing organizational change in the face of complexity and uncertainty in the digital environment.*

In addition, the authors examined the effectiveness of improving the regional socio-economic development management system, public-private partnerships as a tool for implementing the region's socio-economic policy, the potential for structural modernization of the North Caucasus macroregion's economy using public-private partnership mechanisms, and a study of labor market development trends in the Northwestern Federal District, including the sustainability of entrepreneurship development in Russia.

Key words: *macroregions, instrument, implementation, socio-economic policy, public-private partnership, market, federal districts, digital environment, information technology, environment.*

Language: English

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Introduction

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Modern society finds itself on a developmental platform characterized primarily by the volume of

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information, its storage and processing methods, management techniques, and intensive computerization and digitalization in all areas of its functioning. The actual implementation of information and communication technologies (ICT) is acquiring global importance, supporting the improvement of the competitiveness of the regional, district, and national economies, as well as increasing the efficiency of work in every area of human activity.

Management is an activity aimed at coordinating the functioning of entities (a specific individual, groups of people, production of goods or services, finance and risks, tourism and hospitality, information, education, scientific research, etc.) to achieve their goals. The key value-based principles of management are presented in Figure 1. Information

technology in modern conditions is the unifying foundation of the management process, as it helps more effectively obtain and process data for assessing the situation and making management decisions. The functioning of each entity (economic entity) involved in the management process requires continuous information support, allowing them to assess the state of the external and internal environment, coordinating their actions as circumstances change. Only with timely and complete information can a person make optimal management decisions that meet the criteria of objectivity and validity.

In recent years, the volume of information circulating has increased significantly, driven by digitalization and the spread of the internet.



Figure 1. Management principles

Main part

In today's world, specialized software is widely used to systematize and summarize information in any human activity. The programs used offer numerous functions, and each user selects the most suitable solution based on the specifics of their work, the types, and volume of information. Despite the rapid development of the IT sector (information technology (IT) and systems, informatization, information and communication technologies, and breakthrough technologies) in recent years, the insufficient level of personnel training (requiring a comprehensive

scientific and technical education, significant initial costs, and the need for mathematical support and modeling for their implementation) in the field of creating and implementing information systems and IT technologies, and the imperfections of the regulatory framework affecting informatization, are directly related to the development of IT technologies in Russia. Currently, the continuous and widespread adoption of modern IT technologies is a common thread, expanding the toolkit of management as a form of management activity. It's already clear that modern software not only digitizes the multi-functional

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activities and actions of any company or organization in real time and at the right moment, providing information and metadata for storage in the form of a large data array (Big Data), but also calculates and optimizes the collected information, and then identifies detected and corrected "difficulties," recommending solutions.

The IT sector encompasses a wide range of categories, areas, initiatives, and practices related to methodological and advanced technologies for the creation, processing, storage, and management of various types of data (big data), based on the use of precision and computer technologies and the fundamental principles of restricting both the transmission and receipt of information, taking into account fundamental information security

requirements. We live in a time when digital (information and computer) changes have experienced exponential growth. And the process of digital transformation has moved from a catchy slogan to reality. Current trends in information technology characteristics are reflected in Figure 2.

IT technologies are assigned to solve missionary tasks and problems related to the effective organization of information processes based on modern achievements and current advantages and successes in the field of computer and information technologies, as well as other revolutionary and high-tech processes, breakthrough communications, software and the practice of applying skills and competencies.



Figure 2. The trend foundation of modernity

The IT sector's capabilities are aimed at addressing the complexities associated with the structural formation of information processes, with the goal of reducing the costs of time, labor, energy resources, and materials in virtually all areas of human life. Information technologies interact with and are often components of spelling services, management, production, and socioeconomic processes.

Today, every area of the management system (production or services, industry and tourism, human resources management, education, research and development, etc.) is impacted by significant technological challenges and opportunities brought about by digitalization and the profound transformation of the economy and society as a whole.

Advanced and revolutionary technologies encompass not only organizational and management processes but also business management, as well as all functional components of any human activity.

The application of information technology in human resource management is broad and multifaceted. Its implementation is found in virtually all HR functions, enhancing their effectiveness. Innovative roadmaps for company development in the HR field (flexible approaches, speed of management decision-making, etc.) include the use of information technology and involve the collection, compilation, systematization, and processing of information related to personnel activities. At the same time, information support is based on information, understood by most

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researchers as "a set of useful data that is the object of collection, registration, storage, transmission, and transformation." From the perspective of an economic entity, information support is one of the most important resources enabling the assessment of the current situation and making the right choice from a variety of possible options. Consequently, information support directly impacts operational efficiency and can provide additional competitive advantages. Information has diverse characteristics and sources. Therefore, information support for HR management requires the following: information has several diverse characteristics and sources. In this sense, when supporting information for people management, it is necessary to: determine the type of information required; select the most appropriate sources of information; select the methods and

channels for obtaining information; ensure the prompt receipt of data; organize the secure storage of the obtained data; summarize and systematize the information obtained; organize the effective use of information by decision-makers.

Information support is a set of activities aimed at providing management with timely and reliable information. To ensure the effective functioning of information support, an appropriate organizational structure is created and various tools are used, including communications, computers, and other devices.

Of particular importance is the use of information technology in personnel management, which is a multifaceted activity (Figure 3), covering many areas.



Figure 3. HR Elements

Successful companies today must be flexible, customer-focused, and able to pivot quickly. In these circumstances, effective human resource management is crucial to business success. HR professionals create systems for professional development, staff development planning, and employee growth. This helps employees remain motivated, positive, and

driven, contributing to the company's success. Furthermore, HR professionals help develop a culture and organizational climate in which employees are competent, caring, and committed to providing excellent customer service. At the same time, virtually all HR functions have changed due to transformational changes and digitalization.

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At this stage of development, the use of information technology is very popular and offers promising implications for HR management. Innovative technologies require fewer and fewer material resources and increasingly rely on human intelligence. New technologies and the improvement of existing ones are key to the development of smart working, which includes a wide range of tools such as the internet, smartphones, social media, and any programs and software designed to ensure staff flexibility and mobility. Undoubtedly, an increasing number of organizations and enterprises in the competitive business environment recognize the value of and are interested in unlocking the potential and capabilities of IT technologies for human resources. Smart working offers opportunities for greater flexibility and mobility through the use of new technologies and concepts in the workplace, marking another step in the industry's drive to achieve new and excellent results. The introduction of digital technologies into the world of business and human resources is a necessity today. Digital technologies

significantly reduce labor intensity and accelerate the HR management process.

Information technologies in human resource management have various forms of manifestation and areas of application, however, despite this, their main goal is to increase the efficiency of personnel management through the implementation of various types of innovations.

In today's environment, the digitalization of business processes related to HR management is underway. Most organizational leaders understand the importance of using information technology, including in HR, and are therefore beginning to engage in the transformation process, which helps reduce costs and optimize HR activities.

Current global trends in HR are primarily driven by the technological transformation of national economies and the increasing diffusion of internet technologies. Recent trends include those listed in Figure 4.

Дистанционная занятость	рабочий процесс, который осуществляется вне традиционного места работы и предусматривает взаимодействие с работодателем с помощью телекоммуникационных и информационных технологий
Телеработа (teleworking)	как и дистанционная занятость, работа, выполняемая в отдаленном месте от использования ее результатов
Работа в «облаке» (cloudworking)	работа с помощью сервисов и систем, которые компания получает извне. Они не требуют установки программы на компьютер. Самым простым примером является облачные сервисы публичной электронной почты, например, Google.
Краудсорсинг	практика получения необходимых услуг, идей или контента путем взаимодействия с большими группами людей, особенно - онлайн сообщества
Фриланс	удаленная работа, суть которой заключается в том, что фрилансер - сам себе и руководитель, и подчиненный. Ответственность идет только за результат
Коворкинг	это оборудованное всем необходимым для работы пространство, которое сдается в аренду любому на необходимый срок. Это что-то среднее между использованием отдельного офиса и работой дома.
Аутстаффинг	это вывод сотрудника за штат компании-заказчика и оформление его в штат компании-подрядчика. При этом он продолжает работать на прежнем месте и выполнять прежние обязанности, но обязанности работодателя выполняет уже компания-подрядчик.

Figure 4. Modern global trends in HR

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The application of information technology in human resource management is broad and multifaceted. Its implementation is finding its way into virtually all HR functions, making them more effective. Personnel is also changing under the influence of new conditions. Employees are impacted by digitalization, internationalization, cultural diversity, automation, and social media. At the same time, business expectations, needs, and demands are evolving much faster than before. A wide range of digital technologies opens up entirely new opportunities for HR specialists to optimize the recruitment process and efficiently use human and financial resources. A digital workplace should integrate nearly all technologies that people use to perform work in the modern work environment. A "digital" workplace can include a business application, as well as email, instant messaging, corporate social networks, and virtual meeting tools.

Furthermore, important areas of human resource digitalization include creating adequate conditions for training personnel for the digital economy, upgrading employee qualifications, using a motivation system to acquire the necessary skills, and improving the education system, which should provide the digital economy with competent personnel. A labor market that must respond to the rapidly changing needs of the networked economy. The advantages and disadvantages of using digital technologies in HR management are presented in Figure 5.

Thus, as the figure shows, the benefits of implementing information technology in HR far outweigh the drawbacks. Yes, the implementation of new technologies comes with financial costs and the need to restructure some management and organizational processes to meet new requirements.

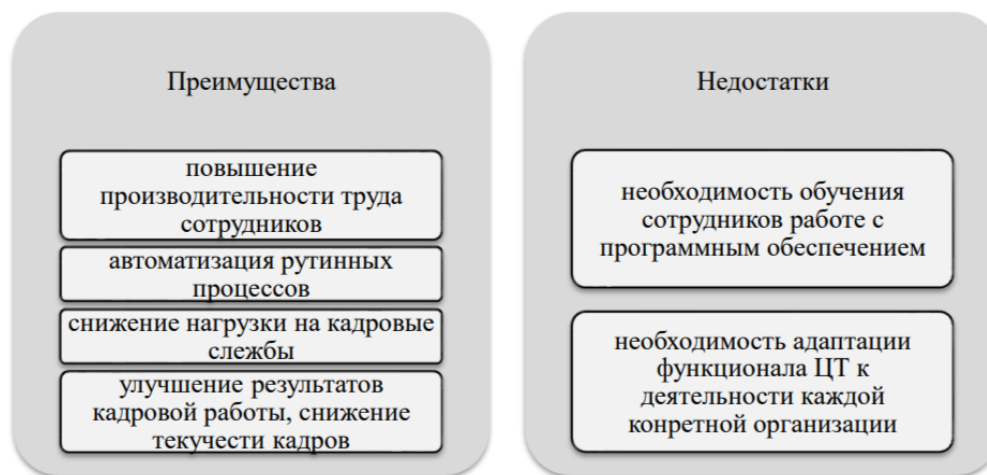


Figure 5. Advantages and disadvantages of using digital technologies in personnel management

But ultimately, after some time, all costs pay off and become sources of continuous resource optimization. For a company to appreciate the need to invest in its personnel development, it is necessary to change its approach to perceiving the importance of the human factor in the company's development. In the digital economy, the human factor must become the primary factor of production, and training and development costs must be considered a priority investment by entrepreneurs, without which a company cannot be competitive and successful in the marketplace. Thus, the use of information technology in human resource management has diverse applications and applications; however, its primary goal is to improve the efficiency of human resource management through the implementation of various types of innovation. Overall, information technology in HR management is an effective tool for improving the efficiency of all personnel functions. While disclosing the fundamental principles of the

educational process and scientific research at the present stage, it is necessary to understand that computerization of education is a factor in its development, ICT are an integral part of the process of implementing information and information-activity models (information-developing and information-activity technologies, developing and personal-activity technologies) in teaching and improving cognitive activity, as well as in the implementation of the system of monitoring, evaluation and control of learning outcomes, ICT are the basis of specialized and analytical methods of assessment, the use of didactic properties (features of presentation (presentation) and transmission technologies, as well as the organization of the educational process) and functions (multi-level, transfer of some teacher functions to a computer, ensuring clarity and diversity of work, modeling, the use of computer design and modeling systems, the possibility of individualization of the learning process) of ICT, the formation of

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information culture, the principles of combining traditional and computer-oriented methodological approaches to the implementation of the educational process. The very process of computerization, informatization and digitalization of any sphere of life is based on the production of information. Information is becoming the primary resource for the development of the socio-cultural and technical-economic community, significantly influencing the development of all sectors and spheres of life. The ability to think independently, drawing on knowledge and experience, is valued far more highly than mere erudition or the possession of a broad range of knowledge without the ability to apply this knowledge to solve specific problems. The concept of "competence" is becoming more prominent as something that generates skills and actions. Based on the fundamental theoretical and methodological approaches to the informatization of society (technocratic: ICT – means of increasing labor productivity in production and management; and humanitarian: ICT is a part of human life, which is important not only for production and management, but also for the development of the socio-cultural sphere), informatization is a system of interconnected processes of an information-cognitive and material-technological nature.

The education system plays a special role in the informatization of society, as it acts, on the one hand, as a consumer of information, and on the other, as a creator of new information technologies (through highly qualified personnel). Education, flexible thinking, and the ability to navigate the vast flow of information are becoming trendy and significant values for individuals throughout their lives. Domestic pedagogy utilizes a personal-activity or activity-based approach, which places the learner, their motives, and psychological makeup at the center of learning. This approach emphasizes the learner's independence in cognitive activity. This process sets and addresses the primary goal of education: creating conditions for the development of a harmonious, socially active (by activating internal resources), and professionally competent individual. The project-based method (problem-based method) is a technology that rationally combines theoretical knowledge and its practical application to solve specific problems based on a reasonable balance between science, knowledge, and practical skills and competencies.

The STARTUP method is a creative and innovative undertaking to create a new product, solve known problems in non-trivial ways, change existing markets or even create new ones, based on the characteristics that allow a business project to be considered a startup:

(1) the project is based on a completely new idea, or innovation – the need to improve something, to qualitatively change the usual way of life, to create a

new useful product;

(2) speed of creation;

(3) young age of start-up founders (authors of innovation);

(4) high risk."

An example of "STARTUP" is "A Journey through the Moscow Region Estates of Outstanding Russian Cultural and Art Figures," prepared by first-year students of the private educational institution of higher education "Russian International Academy of Tourism" (RIAT).

Nowadays, it's not always possible to visit and admire various sights. But thanks to our StartUp project, you can visit famous museums and art monuments without leaving your home. This was our idea for a virtual tour, as a virtual tour is a form of learning that differs from a real-life excursion. It will be provided in video format, with material about museums and estates, with the goal of simplifying the perception of the material for future use. The virtual tour consists of filming estate museums in the Moscow region. Designed for a variety of audiences, the project will be of interest to adults and children who, due to circumstances or health restrictions, are unable to visit and explore various cultural heritage sites in person. It will achieve the following objectives: cultural education and the development of cognitive activity by immersing them in an atmosphere of presence, while being at a considerable distance from the site of study of our country's heritage; assistance in organizing an excursion route through the Moscow region estates of outstanding figures in Russian culture and art; Diversity in studying school material, obtaining useful information for self-development, completing assignments in the "Museums, Parks, and Estates" Olympiad, and assistance with various subjects of the school curriculum related to the history of our country. Students enthusiastically created a STARTUP project, filming such remarkable places as the Melikhovo Estate, closely associated with the name [Anton Chekhov](#); the Shakhmatovo estate, which is a museum, the exhibits of which introduce the life and work of the poet A.A. Blok; museum association: the house-museum of Yu.A. Gagarin's school years, the house-museum of the parents of cosmonaut Yu.A. Gagarin, revealing the historical past of the Gzhatsk region; the memorial house-museum-monument "To the Conquerors of Space"; the Zaraysk village of Darovoe, which belonged to the Dostoevskys since 1831 - a kind of center in the biography and work of the writer F.M. Dostoevsky, truly the "cradle of creativity"; the State Biological Museum named after A.K. Timiryazev - an ancient natural science museum in Moscow with a rich exposition; the museum-apartment of M.I. Tsvetaeva in Bolshevo; the house-museum of V.M. Vasnetsov is located in the Meshchansky district of Moscow; the museum-reserve of A.S. The Pushkin Museum in the Moscow

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region; the P.I. Tchaikovsky State House-Museum in the small town of Klin; the estate complex in Serednikovo – an ancient estate near Moscow, preserving in its ensemble features of the heyday of Russian classicism – the golden age of Russian estates, where Mikhail Lermontov spent long periods in his youth; and the D.I. Mendeleyev Museum-Estate in Boblovo, near Moscow. The prospects for the virtual tour were identified through a sociological survey. The students completed work on the following topics: project summary, market analysis, SWOT/PEST analysis, opportunity assessment, marketing plan, revenue projections, pricing policy, production, organizational and financial plans, and risk analysis. Projected revenue estimates were calculated: 65 units will be sold per month, based on a price of 150 rubles per package (which includes a video and additional materials with photographs and descriptions of the cultural heritage site being studied). Projected monthly income is 9,720 rubles. The financial portion of the project consists of: travel costs to the estates of prominent Russian cultural and artistic figures, which are covered by a student travel card and cost 0 rubles; payment for excursions and virtual tours is made using the Pushkin Card. The payback period is 3-4 months. The projected income is 116,640 rubles. Net profit, taking into account expenses, is projected to be 113,040 rubles. Various social platforms were used to share our video tours. The virtual tour is interactive and can be used at a convenient time and place. The next example of a startup project created by RIAT bachelor's degree graduates is the "Tour Bot for Telegram Messenger." This is a paid tour bot on Telegram called "RENDEZ-TOUR," which translates from French as "go," "meeting," or "meeting place." The bot is a quest tour that will initially operate in Moscow, St. Petersburg, and Yekaterinburg. A detailed analysis was conducted

during the project's development, which revealed that several types of tourism are developing simultaneously in each of these metropolitan areas. To ensure that tourists have an interesting and engaging experience, For each object found, they will earn points, which will be added up at the end, and a prize (for example, an electronic discount certificate from a partner company) will be awarded. In this case, the user will receive a specialized card with useful information about the object.

At the end of the route, a total score based on the points earned will be displayed. As a reward for completing the quest in the bot, clients can receive special vouchers from partner organizations. To receive your reward, you must contact the administrator. The prize is awarded once a month. The bot is designed to meet human cognitive needs. It will allow you to better understand your city (or your destination) and expand your horizons, allowing you to take an independent and engaging walk. Given the current geopolitical situation and sanctions, the practical significance of the project is increasing. Unable to travel abroad, tourists will undoubtedly turn to Russian cities, which are quite interesting, diverse, and educational. The project is aimed at a young audience who quickly grasp all the mechanics and easily immerse themselves not only in the game but also in the educational process. The bot is primarily intended for people looking for an unusual excursion, as well as for leisure.

The bot may be of interest; it was initially developed for use in large cities such as Moscow (the project's starting point) and St. Petersburg (Figure 6). However, in the future, the project may expand and become attractive in other areas (small towns, villages, estates, etc.). Specifically, it could be used in Khimki.

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Figure 6. Bot activity instructions

This project will be especially relevant in the current global climate, where strict sanctions policies have left many familiar and familiar destinations closed to Russian tourists, while people are beginning to explore domestic destinations. The bot is designed to help them do this, allowing them to explore new horizons. A tour bot is a promising initiative that will require very little investment and effort, but will pay

for itself quickly by addressing modern challenges. Interactive games using a Telegram bot are an excellent way to reimagine standard tours and a simple way to innovate (Figure 7). It also allows you to explore the sights independently, undisturbed by crowds of tourists, which is crucial in these times of periodic epidemiological escalations. There is no seasonality, as people choose when to use it.



Figure 7. Reasons for choosing the Telegram messenger

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The students identified potential partners for collaboration and advertising. They are presented in Figure 8. Today, there is a clear lack of adequate education in the hospitality industry regarding digital technologies and the latest technological innovations, trends, and best practices. Therefore, the primary goal of educators is to utilize digital technologies and ICT in the educational process. The primary objective is to prepare and develop the next generation of specialists, so-called digital technologists, who are knowledgeable in digital technologies in the

hospitality industry, such as business applications, artificial intelligence, robotics, project management, and business process automation. They are also skilled in assessing an organization's technological needs, developing its technological strategy and the optimal technology stack required by the hotel, evaluating and selecting the most appropriate technology, making decisions, and monitoring ongoing implementation and integration.

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Figure 8. Affiliate offers

Information and communication technologies (ICT) are clearly needed to ensure the effectiveness of practical training. Business training is a leading ICT tool in educational training. In business training, students' professional development is enhanced through business games using simulators of the training facilities. Since 2013, the Department of Mathematics and Computer Science at the Russian

Academy of Medical Sciences has been using a virtual motel model as a simulator for training hospitality professionals. The model is used to demonstrate industrial relations in hotel management, based on the job descriptions of receptionists, sales managers, legal advisers, logistics specialists, and accountants (Figure 9).

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Корпоративная Информационная Система Ассоциации Мотелей (КИС АМ) Родигин-Трам-Мотель-РФ

Дирекция
Reception
Отдел продаж
Отдел логистики
Отдел гл. инженера
Отдел кадров
Бухгалтерия
Юрисконсульт

Головной офис

29.03.2021 10:49

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Да
Сегодня
Нет

Сегодня в Сети

Дежурный	Мак-Время	Должность
Яковлева Полина Игоревна	2021-03-29 10:47	Бухгалтер
Коровкин Алексей Владимирович	2021-03-29 10:45	Бухгалтер
Голубев Константин Алахович	2021-03-29 10:43	Бухгалтер
Роща Сергей Андреевич	2021-03-29 10:23	Бухгалтер
Бойко Розалина Владимировна	2021-03-29 10:16	Бухгалтер
Пархоменко Валерия Алексеевна	2021-03-29 10:12	Бухгалтер
Галкина Алина Эльсевича	2021-03-29 10:10	Бухгалтер
Штырлова Мария Александровна	2021-03-29 09:55	Бухгалтер
Васильченко Анастасия Алексеевна	2021-03-29 09:53	Бухгалтер

Figure 9. Home page of the RMAT virtual motel

The business game's ideology is based on the performance of job responsibilities in various production situations, formalized in an information system and offered for "resolution" through case studies and online tests. Results are assessed in points and recorded automatically. At the end of the business game, the participant is asked to create a qualification resume, including the knowledge and skills required for the specialist's job responsibilities. It should be noted that a business game is fundamentally different from learning professional applications, such as the aforementioned Shelter software or 1C83. Applications are designed exclusively to automate user work, meaning they are a tool for individual productivity improvement. A business game, however, involves interaction between different users, both real and virtual, on a simulated facility. Moreover, this interaction can either accelerate or slow down the process of operating the simulator. However, the end result of the training is always increased efficiency in performing the entire range of job responsibilities regulated by the job description. Thus, the process of training hospitality specialists according to the scheme: "Instructions - Sequence of duties according to the time taken - Theory - Practical lesson" seems justified and proven by many years of practice of use in the educational process of RMAT and a number of other educational institutions.

It's worth noting that modern graduates should have the skills to work with Russia's most popular CRM system, Bitrix 24.

To increase the competitiveness of a tourism university graduate, they must possess a number of minimum necessary skills in Bitrix 24, namely:

1. Experience processing incoming requests in a CRM system, and the ability to work with leads: working with requests via IP telephony, email, and chat, while understanding and applying ethical business communication standards accepted in the industry when communicating with clients.

2. Ability to work with deals (and/or leads) at various stages and apply these stages to more successfully convert a lead into a sale.

3. Ability to customize audiences for advertising, online advertising itself in popular CRM-related services, and automated funnels based on this advertising.

4. Email marketing skills for different customer groups based on CRM data are also still relevant.

5. Management positions require training in the basic principles of setting up a CRM system: setting up a sales funnel, deal stages, deal and lead card fields, setting up payment options (automatically generated invoices, various online payment methods, chat payments, etc.), and setting up robots in leads with deals.

Today, no university or college teaches its students the basics of using and configuring CRM systems. However, there is clear demand from businesses for personnel who already possess the necessary skills. It can be concluded that integrating training in the basics of the Bitrix24 CRM system into educational and training programs will increase the competitiveness of graduates after graduating from a university or college. Thus, despite some shortcomings in the computerization of educational activities, a highly promising modern educational environment must address the central challenges of the century by implementing a new educational concept that becomes the foundation of a progressive educational environment and addresses such areas as the fundamentalization of education at all levels; the generalization of innovative and evolving teaching methods based on the use of advanced IT; the development of a system of continuous and open education as a universal form of activity aimed at continuous personal development throughout life and the creation of a system of advanced education. The integration of information and telecommunication technologies into the hotel industry is essential for the development of the hotel business, minimizing costs, generating revenue, and reaching customers. They can be seen as a strategic asset on which the hospitality ecosystem develops.

Over the past decades, information technology (IT) has played a vital role in the development of the

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hospitality and tourism industries, helping to replace costly human labor with advanced technologies and technical solutions. The implementation of integrated IT in the hotel service delivery process helps reduce labor costs and eliminate customer service issues.

Technology has enabled hotels to reduce costs, increase operational efficiency, and improve customer service. Both tourists and hoteliers can benefit from the constant improvements in information technology, reservations, and guest service. Since the hotel industry is closely linked to the tourism sector, reservations and travel itinerary development represent untapped potential for the development of the Russian hospitality market.

AI-based ICT tools and software enable the collection of information about traveler intent, such as search queries, purchase information, search history, location, and much more. These ICT tools thus help hotels access traveler information from anywhere at any time, increasing the efficiency of ICT data in the provision of hotel services and the ability to build long-term partnerships with customers through engagement marketing.

It is necessary to explore the systemic and methodological aspects of IT use in the hotel industry. This systemic approach is shown in Figure 10.

A major driver for the implementation of information technology in the hotel and restaurant industry is cost reduction. High-speed ICT applications have become an integral part of the hospitality industry for business development. Efficient ICT applications facilitate various operations, such as customer-management relationships, supply chain management, and more. This means that tasks such as hotel selection and reservations, booking, purchasing, payment tracking, reporting, and more are now handled by ICT. This helps hoteliers operate efficiently with limited staff. Hotels are now directly connected to guests, offering a personalized stay and hospitality experience. Similarly, ICT equipment helps hoteliers reduce costs by improving staff efficiency, especially with online bookings. It's worth noting that, following the Covid-19 pandemic, changing guest behavior has driven demand for contactless technological innovations. For example, contactless check-in/check-out, automatic lighting on/off, air conditioners, fans, voice search commands, automatic blinds and window coverings, as well as equipment that may be in the hospitality

industry.

ITS – information technology and systems; PR – public relations; KIS – corporate information systems; ERP systems (Enterprise Resource Planning – hotel business resource planning) allow to combine the main elements of production and commercial activities (production, planning, finance and accounting, procurement, sales, inventory management, maintaining orders for the manufacture and delivery of products, provision of services), CRM – a customer relationship management system aimed at maintaining a given level of sales of services. MIS – marketing information systems.

Furthermore, the use of digital menu cards when ordering, seamless QR code scanning, and robotic staff facilitate contactless and safe interactions with guests. The use of chatbots, i.e., specialized communication programs, also significantly improves the effectiveness of customer communications. The hotel industry should also consider the structural cabling system, telephony, television (including cable), electronic racing lock control systems, Wi-Fi and internet connections, hotel accounting software, restaurant and spa management systems, and ERP systems (warehouse costing, accounting and financial systems, etc.) as information technology and their application. Much attention in the development of information technology in the hospitality industry is being paid to online booking systems. Thanks to hotel websites, customers anywhere in the world can find a suitable hotel based on individual criteria: location, comfort level, price, and availability of additional services.

There are various types of online hotel booking. General hotel search networks allow users to browse specific hotels, not affiliated with specific chains, but work with all hotels with which they have contracts (receiving a percentage of sales). Examples include booking.com, hotels.com, oktogo.ru, hotel.tutu.ru, ostrovok.ru, 101hotels.com/russia, hotels.ru, travel.yandex.ru/hotels, etc. The use of specialized booking systems, the most well-known of which are shown in Figure 11, has a significant impact on a hotel's competitiveness. The following areas are promising for use and development in the hospitality industry: Internet and Marketing. The Internet is having a significant impact on the hotel business and tourism.

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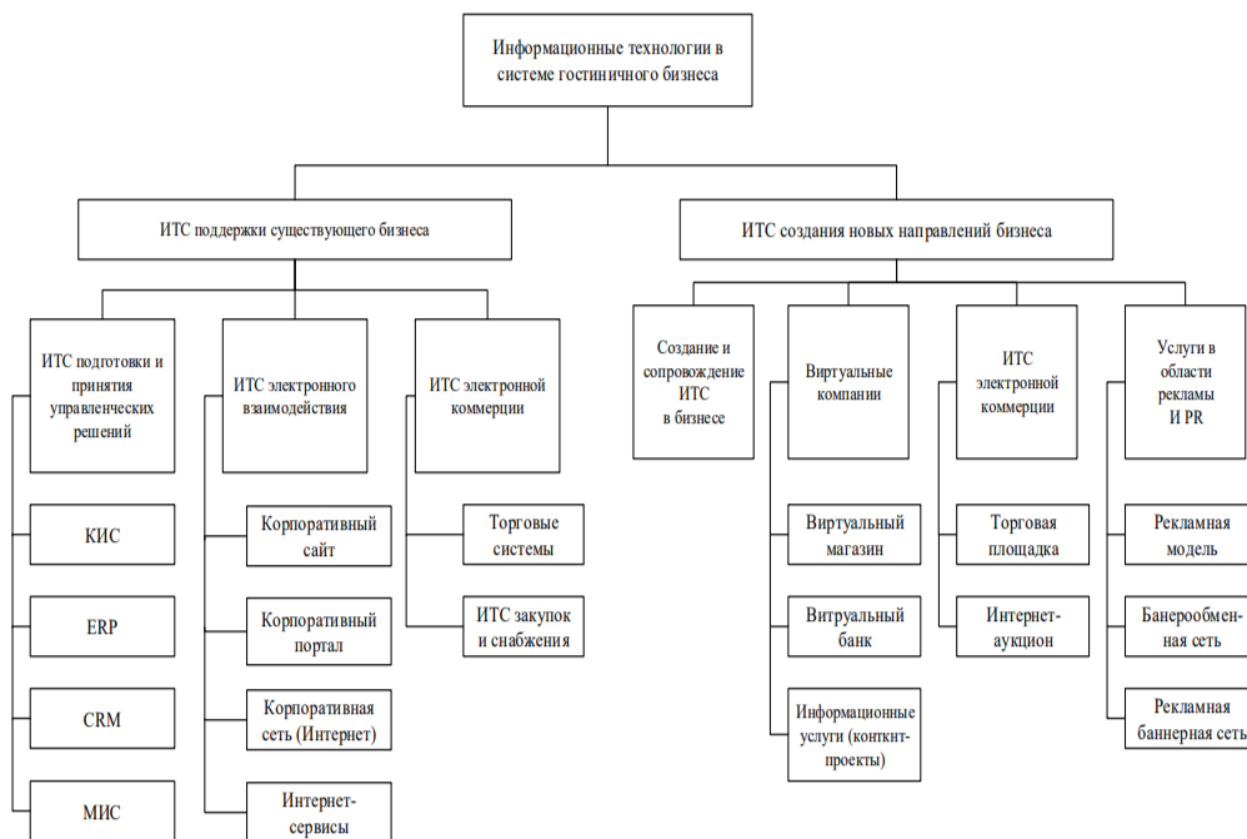


Figure 10. Use of IT in the hotel business system

Computer systems facilitate communication between larger hotel chains located in multiple locations. They also help keep staff informed and facilitate access to information, significantly improving guest experience when choosing services and offers.

Mobile communications. Mobile tablets and smartphones continue to replace desktop computers. Communicating with guests through them allows hotels to notify them of reservation changes and delays, provide additional services via GPS, and track guest movements.

Let's look at the main highly competitive IT strategies that can significantly improve the quality of services offered in the hospitality industry.

1. PMS (Property Management System). Implementing a PMS (Property Management System) can significantly improve the quality of customer service and create a positive hotel image. A PMS (Property Management System) is hotel management software that optimizes your business tasks, making your operations more flexible. The main advantages

of installing a PMS in a hotel include:

- Integration with sales channels: allows for instant receipt of booking information from all online and offline channels, which is essential for preventing disruptions and ensuring operational flexibility; in addition, it allows hotel managers to provide their guests with high-quality accommodation services;
- Business automation – prevents failures and speeds up processes;
- guarantee of an easy-to-use interface: it allows you to find and form information in an understandable way;
- Monitoring with strategic reports: helps the manager to apply more effective strategies, increasing the hotel's visibility in the market;
- the opportunity to offer the hotel an innovative way of interacting with the guest: it ensures flexibility and efficiency in providing an expanded range of services.

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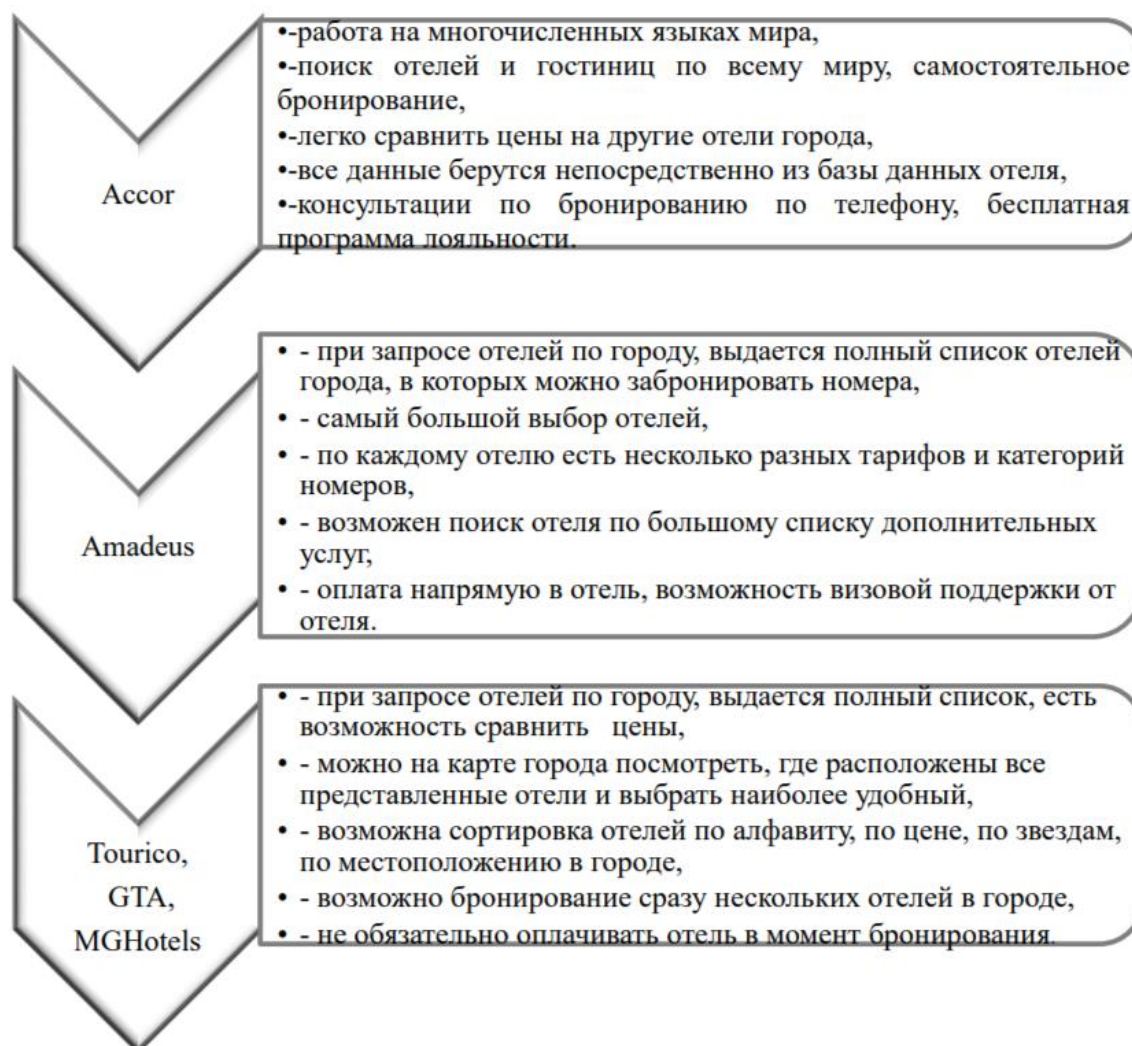


Figure 11. Characteristics of reservation systems in the hotel business

2. Channel Manager. To simplify your booking process, using a Channel Manager is a great option. A Channel Manager is a hotel manager who will help you manage your hotel's processes and increase sales.

3. Booking system. This is because the booking system allows customers to make reservations directly on the hotel website or on social media, bypassing intermediaries. Consequently, sales will be more profitable, as no commissions are charged. Furthermore, the likelihood of manual errors or duplicate reservations is eliminated, as the system is updated in real time with other tools.

4. Business intelligence (BI). Due to the high competition and demand in the hotel industry, BI is a smart way to effectively manage your business. The process involves the following steps, which require ongoing collection, organization, analysis of data and reports, monitoring, and updating. This will help hotel managers make decisions and track hotel business performance. This will allow you to collect online data and evaluate the impact of your hotel's marketing strategies compared to competitors.

5. Hotel management software. This

technology is a desktop or web-based tool designed to assist managers in the tourism and hospitality industry with various procedures, from sales and reservations to managing hotel tasks. It includes cloud data storage and other essential features for efficient hotel management.

6. High-tech hotel rooms. These rooms offer convenience and comfort, featuring high-tech devices to meet the needs of hotel guests. These services go far beyond Wi-Fi access: they allow you to perform actions such as turning on and off the TV and air conditioning, checking in, and opening and closing the bedroom door, for example, using only a smartphone, tablet, or other device.

7. A CRM system. This helps you understand your guests' needs using technological solutions that collect information and promote hotel services. It's important to understand that customer satisfaction is tied to managing consumer behavior and interactions with them before, during, and after their stay. Therefore, it's crucial to prioritize the development of CRM systems when implementing an engagement marketing strategy.

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8. Digital Marketing. Given the current situation, investing in digital marketing strategies will help hotel businesses attract more guests, build relationships, and foster positive brand sentiment. Key digital marketing strategies for the hospitality industry include: creating a website and/or blog for your hotel, using Google services, email marketing, and managing hotel information on social media.

9. GPS beacons. A geolocation beacon device that can determine the location of guests within a hotel. This allows guests to receive notifications about promotions and other activities specific to those areas when they are in areas such as the spa, gym, restaurant, or bar. This allows hotels to improve their customer experience via Bluetooth.

10. Early check-in and check-out. Guests can receive a link via email or message where they can fill out all their information in advance and confirm their reservation. This significantly speeds up the process of completing the necessary hotel check-in documents and key collection. Upon check-out, guests receive an invoice and payment instructions, following the same steps.

These hospitality technologies make it easier for guests to check in upon arrival by improving the front desk experience.

11. WhatsApp. Direct bookings are facilitated by the WhatsApp system, which is free and the most widely used social network in the world. The main advantages of this communication channel for hotels are: optimization of your team's time, speed of service, and widespread use of direct bookings.

12. Chatbot. This messaging software operates and manages chat as if it were a direct conversation with a hotel manager. This technology allows hotels to be available even outside of business hours to answer customer questions at any time of day or night, when guests tend to be more engaged.

Conclusion

Therefore, investing in these technological innovations in the hotel industry is essential to provide differentiated and more dynamic service to its guests. The use of technology in the hospitality and tourism industry has helped speed up operations and make the travel experience more enjoyable and efficient. Technology not only benefits large hotel chains but can also be useful for connecting business systems and other smaller companies in the industry. Today, travelers are interested in independently planning their itineraries, leveraging the power of electronic media, platforms, high-tech products, and ICT equipment. Integrating modern platforms and software into the hotel industry can increase tourist influx and revenue for hotels, inns, and restaurants. This will require technological, information, and communications modernization.

The article examines the right to a favorable environment in light of the state's economic policy;

the problem of aligning the Eurasian Economic Union and One Belt, One Road;

Management and information technology: inevitability and efficiency;

Managing organizational change in the face of complexity and uncertainty in the digital environment.

In addition, the authors examined the effectiveness of improving the system for managing the socio-economic development of the region, public-private partnership as a tool for implementing the socio-economic policy of the region, the potential for structural modernization of the economy of the North Caucasus macroregion using the mechanism of public-private partnership, a study of trends in the development of the labor market of the Northwestern Federal District, including the sustainability of entrepreneurship in Russia, namely:

peculiarities,

trends,

patterns;

development of innovative potential of small and medium-sized businesses in the ferrous metallurgy;

new forms of innovative management in the warehouse system.

The Russian economy is currently undergoing a period of profound transformation. In the coming years, our country will need to fundamentally renew its economic system to meet the challenges and changes we are witnessing in the global social and economic order. We must create a development model capable of securing our country a significant place in the modern world.

The authors examined current and controversial issues of economic restructuring and the search for ways to improve its efficiency, and formulated key guidelines for long-term economic policy, as well as the main factors and sources of economic growth. Particular attention should be paid to the theoretical and applied aspects of developing a new paradigm for Russia's socio-economic development, which should ensure dynamic and sustainable economic growth in the context of the new reality. The authors' analysis of the socio-economic situation in Russia in the new reality, taking into account the nuances of structural adjustment, showed that setting new goals requires changes to current socio-economic policy and adjustments to the system of national projects and strategic planning documents. In this article, the authors developed theoretical and methodological principles for the balanced development of society and the environment in accordance with the concept of sustainable development and the role of man as the central link in the eco-socio-ecological system. This study demonstrates the need to reorient the economy from development based primarily on raw materials to the active use of the inexhaustible potential of high-tech and human resources. The authors of this article have developed measures aimed at supporting economic growth through current consumption and a

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proportional distribution of transfers between current consumption and infrastructure investment. Its publication can be used to formulate a new economic policy in the current context, aimed at addressing the development objectives of the Russian economy set by Russian President Vladimir Putin.

The general unifying theme will create a broad framework for the participation of specialists interested in current issues of Russia's socio-economic development in the context of the new reality, theoretical and methodological approaches, and practical research results in this scientific field.

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