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## STAGES OF ORGANIZATION AND WAYS TO IMPROVE HOTEL SERVICE BASED ON INFORMATION AND COMMUNICATION TECHNOLOGIES

*Information and communication technologies (ICT) have a significant impact on the improvement of business processes, the enhancement of service quality, the optimization of operational activities in the hospitality industry, and, consequently, the overall improvement of hotel service. A modern resource element of information and communication technologies is social media, which plays a key role in the hotel industry by improving communication with consumers, increasing brand recognition, and attracting new guests. Based on an analysis of social media according to such criteria as user categories and platform popularity over the studied period, the media resources «Instagram» and «TikTok» were identified as the most effective. Their utilization allows for the enhancement and development of information and communication technologies at a particular stage of hotel service, as well as the formation of strategies for service improvement based on them. The process of organizing hotel service based on ICT consists of the following stages: acquisition, booking, guest reception, registration, guest service during their stay in hotel rooms, and departure. It has been determined that the implementation of ICT at these stages, including websites and mobile applications, provides consumers with convenient access to hotel information, enables online booking, allows guests to independently adjust technical parameters in the room, order additional services, make special requests, and complete electronic payment transactions. Additionally, the use of ICT, particularly social media, facilitates rapid guest registration, electronic key issuance, the creation of an automated hotel management system, climate control regulation, and the collection and monitoring of guest reviews to maintain a positive hotel image. The study establishes that the implementation of ICT and the utilization of social media resources at each stage of the hotel service process contribute to the optimization of business processes, the enhancement of internal and external enterprise communications, the improvement of service quality and comfort for guests and hotel staff, and the secure storage of customer data. These factors ensure the maximum satisfaction of consumer needs and expectations. In turn, this enhances the hotel service process, supports economic sustainability, and strengthens the competitive position of the accommodation facility within the hospitality industry market.*

**Keywords:** information and communication technologies, hotel service, service organization stages, hotel, accommodation facility, process, services, ICT application directions.

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## ЕТАПИ ОРГАНІЗАЦІЇ ТА ШЛЯХИ ПОКРАЩЕННЯ ГОТЕЛЬНОГО ОБСЛУГОВУВАННЯ НА ОСНОВІ ІНФОРМАЦІЙНО- КОМУНІКАЦІЙНИХ ТЕХНОЛОГІЙ

*Інформаційно-комунікаційні технології (ІКТ) надають великий вплив на удосконалення бізнес-процесів, підвищення якості послуг, оптимізацію операційної діяльності закладів готельного господарства, і, на покращення готельного обслуговування*

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в цілому. Сучасним ресурсним елементом інформаційно-комунікаційних технологій є соціальні мережі, які в сфері готельного бізнесу відіграють ключову роль у покращенні комунікацій зі споживачами, підвищенні пізнаваності бренду та залученні нових гостей. У результаті проведеного аналізу соціальних мереж за такими критеріальними параметрами, як категорії користувачів та ступінь популярності платформ виділено такі медіа-ресурси, як «Instagram» та «TikTok», що дозволяє використовувати їх для вдосконалення та розвитку інформаційно-комунікаційних технологій на певному етапі готельного обслуговування й формування шляхів покращення послуг на їх основі. Охарактеризовано процес організації готельного обслуговування на базі інформаційно-комунікаційних технологій, який складається з таких етапів: аквізиція, бронювання, зустріч, реєстрація гостей, обслуговування їх при проживанні в номерах та виїзді. Визначено, що впровадження на вказаних етапах таких ІКТ, як веб-сайти та мобільні додатки, забезпечують споживачам зручний доступ до інформації про готель, надають можливість здійснювати онлайн-бронювання, самостійно змінювати технічні параметри в номері, замовляти додаткові послуги, здійснювати спеціальні запити та електронну оплату послуг. Крім того, використання ІКТ, зокрема, соціальних мереж, створює умови для швидкої реєстрації гостей, видачі електронних ключів, створення автоматичної системи управління готелем, здійснення клімат-контролю, отримання і моніторингу відгуків для підтримки позитивного іміджу готелю. Встановлено, що впровадження ІКТ та використання соціальних медіа-ресурсів на кожному з етапів процесу готельного обслуговування, сприяє оптимізації бізнес-процесів, внутрішніх і зовнішніх комунікацій підприємства, підвищенню якості послуг та комфорту для гостей та персоналу готелю, збереженню даних клієнтів у безпечному середовищі. Це покращує процес готельного обслуговування, дозволяє підтримувати економічну стійкість та зміцнювати конкурентні позиції закладу розміщення на ринку індустрії гостинності.

**Ключові слова:** інформаційно-комунікаційні технології, готельне обслуговування, етапи організації обслуговування, готель, заклад розміщення, процес, послуги, напрями застосування ІКТ.

#### **Problem statement and its connection to important scientific or practical tasks.**

ICT today represent a crucial resource in the hotel service process, serving as an essential tool for optimizing operational activities and improving communication networks of accommodation establishments through innovation. Currently, social media is among the most widespread and accessible means of communication in the online space. Media platforms also enable hotels to provide prompt customer support, respond to inquiries and reviews, thereby maintaining and increasing visitor satisfaction. This, in turn, makes guest interactions more personalized and efficient, positively impacting their loyalty and overall experience during their stay. Social media, as a modern element of ICT, plays a significant role in enhancing the overall efficiency of hotel operations and improving the customer service process.

**Analysis of research and publications.** Modern approaches to business process organization within enterprises through the implementation of managerial ICT have been explored in the scientific works of A.Solovyov, N.Panteleeva, S.Kolodiy [1]. Scholars such as B.Andrushki, N. Kyrych, O.Kilyar, O.Gagaluk have investigated mechanisms for managing the information and communication component of establishments, aiming to improve service quality and ensure socio-humanitarian development [2]. The issue of promoting hotel services through ICT, considering consumer values and needs, has been highlighted in the work of O. Polinkevych [3]. However,

the issue of improving the hotel service process through the implementation of ICT at specific stages of its organization remains insufficiently covered.

**Formulation of the article's objectives.** The aim of this article is to identify directions for improving hotel services through the implementation of modern ICT at specific stages of the service organization process.

**Presentation of the main material.** Social media plays a key role in the hotel industry by improving communication with consumers, increasing brand recognition, and attracting new guests. Through platforms such as «Facebook», «Instagram» «Twitter», «TikTok» and others, hotels can actively engage with their audience, using visual content and informational resources to promote their services. According to the conducted analysis, the most popular among these media resources in the hotel services market are «TikTok» and «Instagram».

The «TikTok» platform is a social network that began its operation in September 2016, allowing users to create and share short videos. This platform is owned by the Chinese technology company «ByteDance». The primary content of the «TikTok» social network consists of videos ranging from 15 seconds to 3 minutes, covering various topics, including music, dance, comedy, educational content, and trends. The audience of this media resource primarily consists of young users aged 10–29, characterized by a high level of engagement. The key features of the «TikTok» social network include interactivity, personalization algorithms, hashtags, challenges, special effects, and filters. According to the analysis, the majority (61%) of users of this media resource are individuals aged 10 to 19 (32%) and 20 to 29 (29%). Individuals aged 30–39 and 40–49, as well as those in the 50+ category, constitute 16%, 14%, and 9%, respectively (figure 1).

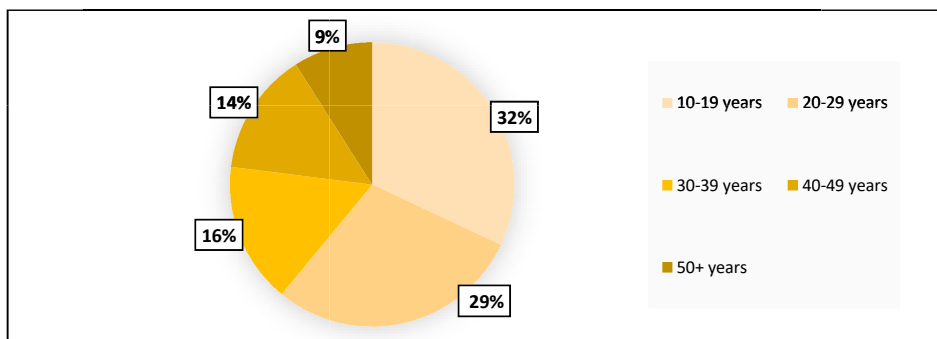


Figure 1. Distribution of TikTok users by age categories, developed by the authors based on [4]

The «Instagram» platform is a social network primarily designed for sharing video and photo content. It was launched in October 2010, and its owner is Meta Platforms (formerly Facebook Inc.). The informational content of Instagram consists of photos, videos, stories (Stories), long-form videos (IGTV), short videos (Reels), and live broadcasts. The platform's key features include photo filters, messaging capabilities, geotags, hashtags, shopping (Shopping), and integration with other social networks.

The audience of this media resource is characterized by a higher concentration of young users, with a broad age group ranging from 18 to 34 years old (63%). This demographic represents an active audience with diverse interests and preferences. The proportion of users aged 35–44, 45–54, 55–64, and 65+ accounts for 16%, 8%, 4%, and 2%, respectively. Meanwhile, the share of young users aged 13–17 within the total number of Instagram users is 7% (figure 2).

Thus, TikTok is characterized by high content dynamics and rapid dissemination of viral videos, attracting a younger audience through entertainment content, whereas Instagram provides a multifunctional approach to social media, incorporating photos, videos, and commercial opportunities, appealing to a broader audience of various age groups. The results of the analysis of Instagram usage over five years are presented in figure 3.

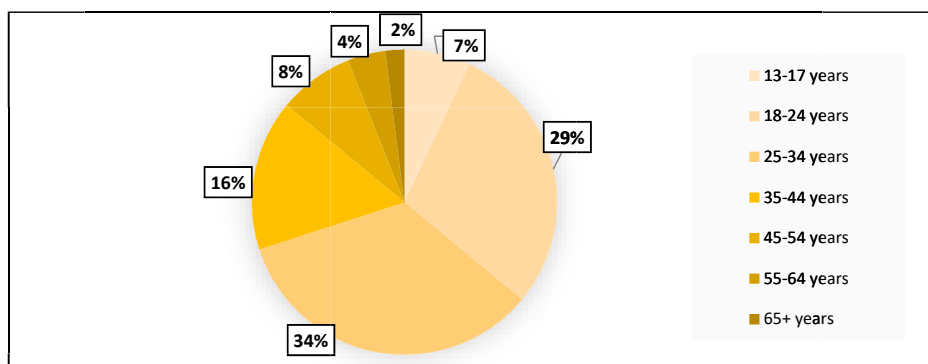


Figure 2. Distribution of Instagram users by age categories, developed by the authors based on [5]

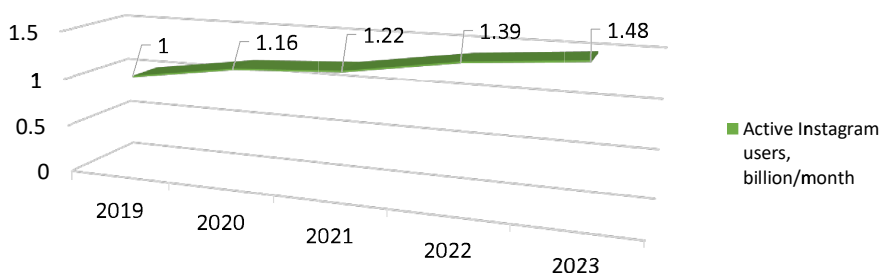


Figure 3. Dynamics of Instagram user activity, billion/month, developed by the authors based on [5]

The conducted analysis demonstrated that over the specified five-year period, the number of active Instagram users steadily increased, as illustrated in Figure 3. In 2019, this indicator was 1 billion/month, in 2020 – 1.16 billion/month, in 2021 – 1.22 billion/month, in 2022 – 1.39 billion/month, and by 2023, the number of active users reached 1.48 billion.

This consistent growth dynamic indicates the platform's popularity and its ability to attract new users annually. This trend highlights the relevance of utilizing this network in the work of hotel SMM managers to expand the consumer audience and enhance the hotel's brand recognition.

The dynamics of TikTok user activity from 2019 to 2023 is presented in Figure 4.

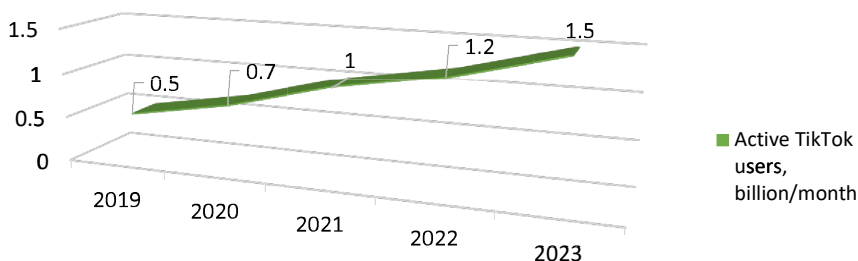


Figure 4. Dynamics of TikTok user activity, billion/month, developed by the author based on [4]

During the 2019–2023 period, the number of active TikTok users grew exponentially (see Figure 4). In 2019, the number of users was 0.5 billion/month, whereas in 2020, this figure increased to 0.7 billion/month. By 2021, it had reached 1 billion/month, further increasing to 1.2 billion/month in 2022. In 2023, the number of active users surged to 1.5 billion.

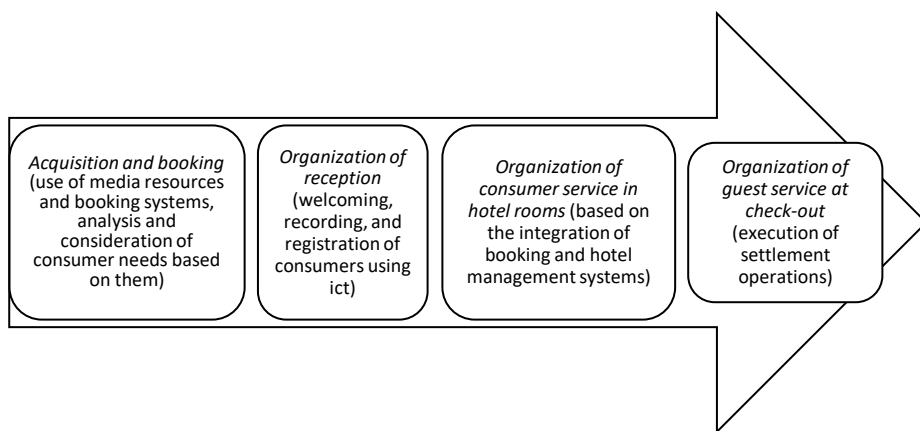
This rapid growth in user numbers highlights TikTok's explosive popularity, making it a powerful tool for enhancing information and communication technologies and improving hotel service processes. The large and continuously expanding audience of this platform enables businesses to achieve wide reach, effectively attract new consumers, and enhance brand recognition, significantly improving service quality and operational efficiency of hospitality establishments.

Thus, based on the analysis of social networks by user categories and platform popularity, the study identifies «Instagram» and «TikTok» as the most effective media resources over the analyzed period. These platforms can be leveraged for the advancement and development of ICT in hotel service at various stages and for service improvement strategies based on these digital platforms.

The findings confirm that social media serves as a key tool in hotel business operations, forming an integral part of modern information and communication technologies and acting as an effective means of product and brand promotion in the hospitality sector. Strategic social media management should comprehensively reflect all aspects of hotel operations. Ideas, special offers, promotions, surveys, articles, photos, and videos—all of these elements must convey the hotel's unique spirit and enhance customer service.

The acquisition stage, as the initial step in hotel service, focuses on attracting customers, providing complete, high-quality, and timely information, creating efficient feedback mechanisms, and ensuring fast response times to consumer inquiries and preferences. This approach increases guest interest, enhances customer loyalty, boosts bookings and visits, and facilitates convenient and quick room reservations.

Therefore, the hotel service process, structured around ICT utilization, consists of several stages (figure 5).



**Figure 5. Key stages of hotel service organization based on the use of information and communication technologies, compiled by the authors**

The first stage of the hotel service process consists of acquisition and booking. Information and communication technologies (ICT) and social networks, as their modern variant, play a key role in organizing this activity. Hotels actively use social media to provide access and reach a wide audience of potential consumers, attract new guests through advertising campaigns, posts with attractive offers, and guest reviews. This enables the establishment of feedback mechanisms with consumers, the timely acquisition of information about their needs, changes in quality requirements and service assortment, reviews of hotel services, and staff attitudes towards fulfilling their functional responsibilities. The obtained information regarding all components of the service process allows for necessary adjustments and improvements in technological operations, enhancing the level of service culture and quality, and ensuring an individualized approach to each guest. The organization of two-way communication through social networks and attentive customer relations instill trust in the accommodation establishment and contribute to increasing the number of hotel visitors. ICT, such as websites and mobile applications used at this stage, provide consumers with convenient access to hotel information and enable online booking.

The second stage involves the organization of guest reception (welcoming, registration, and check-in). Upon arrival at the hotel, guests are welcomed, recorded, and registered, which includes the completion of necessary documentation, issuance of room keys, and provision of information about hotel services. The use of ICT for quick check-in at the reception allows guests to complete all necessary forms independently or with staff assistance, while the integration of the registration system with the Property Management System (PMS) facilitates the automation of information exchange among all functional departments of the hotel.

The third stage entails the organization of guest services in the hotel's accommodation section. The lodging establishment ensures comfortable guest stays in hotel

rooms, including room cleaning, maintenance of all technical systems (Wi-Fi, television, climate control, etc.), provision of additional services, and fulfillment of any special guest requests. Room management via ICT enables control over lighting systems, maintenance of required temperature and humidity levels, and other conditions through centralized systems. The development of mobile applications or web platforms for consumers allows them to independently adjust technical parameters in their room, order additional services, and make special requests (e.g., ordering extra items and in-room services, etc.).

The organization of guest services at check-out takes place in the fourth stage, during which accommodation payments are settled, baggage transportation services, taxi calls, and transfers are arranged. Additionally, guests may be offered loyalty programs and special offers for their return visits. At this stage, guests also have the opportunity to leave feedback about their stay at the accommodation facility. Thus, through the implementation of ICT in the fourth stage of hotel service, a convenient electronic payment system is created, allowing for transactions without queues or time loss, enabling electronic receipt dispatch to the consumer's email, facilitating the collection and monitoring of reviews, and ensuring timely responses through social media to maintain the hotel's positive image.

Therefore, the primary ways to improve the hotel service process considering the use of ICT at each stage include: activation through social media and online booking (stage 1); ICT for fast check-in at reception (stage 2); room management systems via ICT and special requests via ICT (stage 3); electronic payments and settlements, and feedback collection through social media (stage 4).

During the hotel service process, specific functions and technological operations are performed at the aforementioned stages. The use of ICT, particularly new media resources, in organizing the activities of relevant functional departments allows for an improvement in service quality and operational efficiency, creating a positive hotel experience, attracting new guests, and ensuring the retention of loyal ones. This, in turn, enhances the overall hotel service process.

**Conclusions of this study and future research prospects in this field.** The stages of hotel service provision, including acquisition, booking, reception, registration, in-room services, and guest check-out, constitute the hotel service process and determine its quality, level of comfort, and efficiency of the accommodation facility's operations.

The implementation of ICT and the use of social media resources at each of these stages contribute to the optimization of business processes, internal and external enterprise communications, improvement of service quality and guest and staff comfort, secure storage of client data, and the maximization of consumer satisfaction and expectations. This, in turn, enhances the hotel service process, supports economic stability, and strengthens the competitive position of the accommodation facility in the hospitality industry market. Therefore, further research on the analysis and determination of ways to improve the hotel service process and optimize operational activities based on ICT will enable hotel enterprises to develop strategies for their economic growth and innovative development.

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