

Крім державних, існують також міжнародні грантові програми, які можуть бути цікаві молодим підприємцям. Інформацію про них можна знайти на різноманітних інтернет ресурсах. Також, молодь може шукати підтримку на порталі Дія (основний інструмент для подання заявок на грант) та в Регіональному центрі зайнятості (надають консультації щодо подання заявок та розробки бізнес-планів). Важливим аспектом є пропозиція отримання пільгових кредитів для мікро- та малого бізнесу під 5%, 7% або 9% річних.

Отже, молодь у смарт-економіці виступає рушійною силою інноваційного розвитку. Вона формує нову культуру підприємництва, що базується на технологічності, соціальній відповідальності та креативності. Підтримка молодіжного підприємництва через державні, освітні та фінансові інструменти сприятиме сталому розвитку української економіки та інтеграції країни у глобальний цифровий простір.

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SMART TECHNOLOGIES AS A TOOL FOR ENHANCING THE EFFECTIVENESS OF INTERACTION BETWEEN CHAMBERS OF COMMERCE AND ENTREPRENEURS

In the contemporary context of the digital economy, Chambers of Commerce and Industry (CCIs) act as intermediaries between the business community and governmental or international institutions, providing services aimed at supporting entrepreneurship, promoting exports, and resolving administrative matters. The integration of smart technologies – the Internet of Things (IoT), Artificial Intelligence (AI), cloud services, chatbots, and blockchain solutions – opens up new opportunities for improving the accessibility, speed, and quality of CCI services, which is particularly relevant for small and medium-sized enterprises (SMEs) [1].

The rapid development of digital platforms, the challenges of the pandemic, and the wartime conditions of recent years have underlined the necessity of digital transformation within institutions serving the business sector. The adoption of smart technologies in the operations of CCIs allows them to: reduce the time required to process entrepreneurs' requests; enhance access to

informational and consultancy services; automate routine processes (certification, verification of goods' origin, electronic queuing systems, etc.) [3].

Global experience, as reflected in the World Chambers Federation network and case studies conducted by the International Chamber of Commerce (ICC), demonstrates that digitalization initiatives within chambers generate tangible benefits for SMEs and the economy as a whole [1].

Smart technologies can be understood as a set of digital solutions capable of collecting, analyzing, and automatically responding to data (AI/ML), integrating with remote services (cloud), facilitating interaction on a 24/7 basis (chatbots, online portals), and ensuring transparency in transactions (blockchain, electronic signatures). For chambers, this signifies a transition from paper-based and in-person service models to multi-channel, personalized, and data-driven service systems [4]. Figure 1 illustrates typical digital services that may be provided by CCIs.

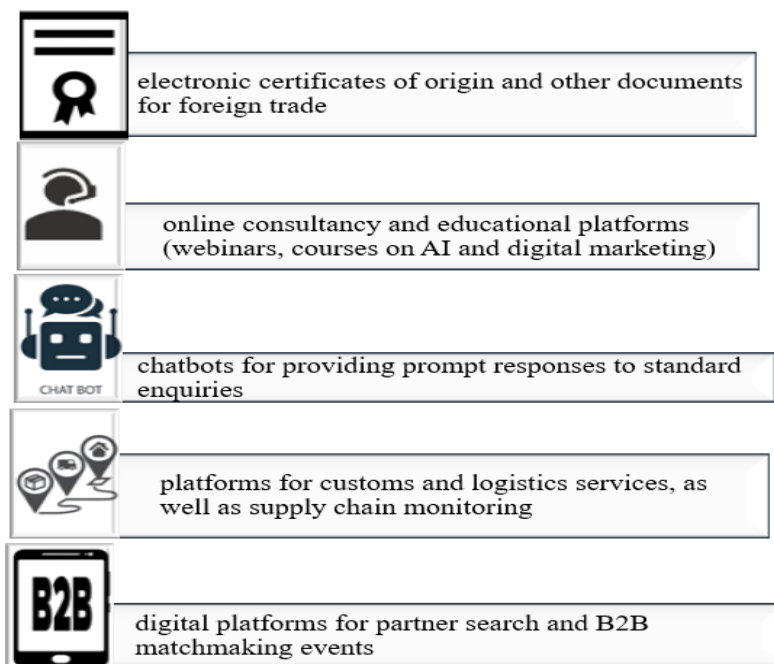


Figure 1 – Typical Digital Services Provided by Chambers of Commerce and Industry

Source: compiled by the authors based on [5; 7]

The effects of implementing smart solutions within the activities of Chambers of Commerce manifest across several key levels – operational, organizational, and strategic. Primarily, operational efficiency emerges as one of the most visible outcomes of digital transformation. According to the International Chamber of Commerce (ICC), the automation of routine administrative procedures – such as the issuance of certificates of origin, registration of business event participants, or processing of information requests – significantly reduces service delivery time for entrepreneurs and alleviates the workload on chamber personnel. The use of digital platforms and electronic document management systems reduces transactional costs, minimizes the risks of human error, and simultaneously enhances the transparency of internal processes. Such an approach lays the foundation for more effective resource management and creates the preconditions for scaling services without a proportional increase in costs [2].

Another crucial aspect concerns the improvement of service accessibility, as highlighted in reports by the United Nations Development Programme (UNDP) focusing on strengthening the digital resilience of small and medium-sized enterprises. Through the introduction of online portals, mobile applications, and integrated chatbots, Chambers of Commerce gain the capacity to provide advisory, educational, and informational services on a 24/7 basis. This is especially important for regional entrepreneurs who were previously constrained by geographical or time-related barriers. Digital services thus contribute to greater inclusiveness within the business environment, enabling even small enterprises to interact with chambers without the need for physical presence. Consequently, smart technologies not only expand the reach of target audiences but also create a new quality of communication between chambers and the business community [5].

The third major effect is the improvement of decision-making quality through the adoption of analytical tools and artificial intelligence technologies. As emphasized by the U.S. Chamber of Commerce, modern digital solutions enable chambers to collect, systematize, and analyze large volumes of data concerning requests, challenges, and the dynamics of entrepreneurial development. Such analytics facilitate the personalized provision of services, the anticipation of business needs, and the formulation of more informed strategic decisions for regional economic development. The use of machine learning technologies allows the identification of behavioral patterns among entrepreneurs, the assessment of the effectiveness of various support programmes, and the optimization of chambers' communication strategies. Consequently, not only does the quality of managerial decision-making improve, but so too does the level of entrepreneurs' trust in the institutional framework of the chamber system [4].

Thus, the integration of smart technologies provides Chambers of Commerce with a comprehensive effect: on one hand – improving internal efficiency and optimizing operations; on the other – creating a more open, convenient, and business-oriented environment for interaction. These outcomes demonstrate that digitalization represents not merely a technical modernization process, but also a strategic driver for the development of institutions that support entrepreneurship at both national and international levels [6].

Despite their evident advantages, the implementation of smart technologies within Chambers of Commerce is accompanied by a range of barriers and risks that may significantly influence the pace and outcomes of digital transformation. One of the key challenges remains technical constraints, particularly the lack of unified data integration standards and the limited capacity of information and communication infrastructure, especially in regional areas. In many countries, members of the chamber network employ disparate, often incompatible information systems, which complicates data exchange between national and international chambers. The absence of standardized interaction protocols, centralized databases, and shared digital platforms leads to data duplication, delays in request processing, and a general decline in the efficiency of digital services.

An equally significant challenge concerns the shortage of qualified personnel. Digitalization requires highly skilled specialists in the fields of information technology, cybersecurity, data analytics, and digital project management. However, in practice, most Chambers of Commerce possess limited resources for establishing fully-fledged IT teams. Frequently, digital support functions are performed by staff from administrative or marketing departments who lack sufficient technical expertise. This results in the fragmented implementation of innovations and an increased dependency on external contractors and consultants. Consequently, difficulties arise in the long-term maintenance and modernization of digital solutions.

Particular attention should also be paid to the legal and security risks accompanying the digital transformation process. Issues related to personal data protection, user identification, confidentiality, and the integrity of electronic document management remain highly relevant for most chambers. The imperfection of legislation regulating electronic signatures, document verification, and cybersecurity creates legal uncertainty, which may hinder the adoption of smart solutions. In the international context, according to the ICC, an additional challenge lies in the need to harmonize legal frameworks between countries to ensure mutual recognition of electronic documents and certificates issued by chambers.

Another significant constraint is the financial factor. The implementation of large-scale digitalization projects demands substantial investment in technical infrastructure, software, personnel training, and continuous system updates. Chambers of Commerce – particularly at the national or regional level – often lack sufficient internal resources to cover these costs. As a result, they must seek external funding sources such as government grants, international technical assistance, or partnership programmes with the private sector. However, the instability of financial support introduces the risk of inconsistency in implementing digital initiatives, potentially leading to the fragmentation or suspension of modernization processes [2].

Taken together, these factors create a complex environment for the digital transformation of Chambers of Commerce. Addressing these challenges requires a comprehensive approach –

combining state-level digital support policies, the harmonization of standards and legal mechanisms, the development of human capital, and the provision of sustainable funding. As the International Chamber of Commerce highlights, overcoming these barriers is a key prerequisite for building a global network of "Smart Chambers" capable of effectively supporting entrepreneurship in the digital era.

Smart technologies present significant potential for Chambers of Commerce – ranging from the automation of administrative procedures to the creation of digital ecosystems for entrepreneurial support. In practice, the benefits of digitalization are experienced by both large enterprises and SMEs alike: faster access to services, reduced transaction costs, and improved integration into global supply chains. At the same time, the conscious implementation of technology requires addressing infrastructural, human resource, and legal challenges, as well as maintaining high standards of cybersecurity.

Future research may encompass several key directions aimed at enhancing the efficiency, transparency, and sustainability of the digital transformation of chambers of commerce:

- Assessment of the impact of specific smart solutions (chatbots, AI analytics, blockchain-based certification) on key performance indicators of chambers of commerce. Future studies should focus on quantifying how the implementation of digital tools affects the speed of request processing, entrepreneurs' satisfaction levels, the volume of foreign trade operations, and overall process transparency. Such quantitative evaluation will enable the development of practical recommendations for scaling the most effective technological solutions.

- Development of standards for interaction between national chambers and international digital platforms. Particular attention should be given to the creation of unified technical and procedural standards that ensure the interoperability of documents (certificates of origin, customs declarations, trade confirmations) and compatibility of electronic services. This would facilitate cross-border trade, harmonization with European systems, and the reduction of transactional costs for businesses.

- Design of financing models for digital transformation in regional chambers. A significant research direction involves developing financial models that incorporate partnerships with international organizations, donor funds, and technical assistance programmed. Such an approach would allow regional chambers to attract investment more effectively, expand access to advanced technologies, and ensure the sustainability of digital transformation processes.

- Study of cyber risks and digital trust practices. Within the process of digitalizing the services of chambers of commerce, information security becomes a priority issue. Further research could focus on analyzing risks related to the use of electronic signatures, the processing of personal data, and the protection of commercially sensitive information. Exploring best international practices would contribute to the development of robust data protection standards and to strengthening business confidence in digital chamber services.

Overall, the implementation of these research directions would provide a scientific basis for developing practical recommendations to modernize chambers of commerce, enhance the quality of their digital services, and foster stronger cooperation between business support institutions and the state in a digital environment.

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OMNICHANNEL COMMUNICATION STRATEGIES OF BUSINESS: CHALLENGES OR NEW POSSIBILITIES

In the contemporary business environment, which are characterized by heightened turbulence and pervasive digitalization, enterprises operate amid rapid technological change that reconfigures not only instrumental toolkits but also the underlying logics of consumer engagement. The siloed communication architectures are being supplanted by integrated configurations, foremost among them the omnichannel paradigm. Before considering its operational specificities, a definitional clarification is warranted: omnichannel denotes not the simple coexistence of multiple channels but their coordinated integration within a unified socio-technical system that delivers a seamless, personalized, and coherent brand experience at every touchpoint. Such an environment constitutes an integrated communication ecosystem in which online and offline interactions are bound by a common information-technology platform that aggregates and synchronizes data, standardizes messaging, and preserves context; unlike multichannel approaches, it enables real-time transmission of customer data, cross-touchpoint alignment of content and offers, and the continuation of interactions initiated in one channel and completed in another without loss of history. Against this backdrop, systematic inquiry into omnichannel communication is both timely and consequential.

The objectives of an omnichannel strategy include a unified brand identity across channels, a seamless customer experience, personalized messages and offers, an optimized journey with reduced decision time, and strengthened loyalty and retention. Its effectiveness rests on four interdependent design principles with both strategic and operational dimensions: firstly, personalization - the use of first-/zero-party and behavioral data to calibrate content, tone, timing, and channel while minimizing broadcast effects and testing optimal send windows; secondly, contextuality alignment with journey stage, micro-moments, location, and technical conditions, operationalized through dynamic landing pages, adaptive creatives, AR try-ons, and triggers such as cart-return reminders; thirdly, consistency - maintenance of unified prices, messages, and statuses across channels, supported by a single source of truth, exposure controls (frequency capping), centralized campaign orchestration, and continuous discrepancy monitoring; and, finally, interactivity - rapid two-way dialogue via chats, social media, messengers, and live shopping, with seamless handoffs and systematic feedback capture. Performance is commonly assessed using response time, first-contact resolution, conversions originating from dialogues, and indicators of community quality.