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Pushak Yaroslav
Doctor of Economic Sciences, Professor, Professor of the Department of Economics and Economic Security
Lviv State University of Internal Affairs
ORCID: 0000-0003-1369-8770

Cherednyk Anna
PhD in Economics, Associate Professor, Associate Professor of the Department of Enterprise Economy and Business Organization
Simon Kuznets Kharkiv national university of economics
ORCID: 0009-0003-6471-0677

Usenko Nadiia
Senior Lecturer of the Department of Enterprise Economics and Business Organization
Simon Kuznets Kharkiv National University of Economics
ORCID: 0009-0007-0347-5430

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INFORMATION AND COMMUNICATION SUPPORT FOR THE DEVELOPMENT OF SERVICE COOPERATIVES IN AGRICULTURE

Summary. *Introduction. In the context of the global transformation of economic systems, information and communication technologies and digital platforms are becoming key drivers of agricultural sector development. The relevance of the study lies in the growing role of digital communications and network interactions as key factors in increasing the competitiveness of agricultural service cooperatives, their integration into modern agri-food systems, and the need to overcome information asymmetry among market participants.*

Purpose. The purpose of the study is to analyze, systematize, and improve the theoretical and methodological principles for developing information and communication support for agricultural service cooperatives, thereby increasing the efficiency of their functioning in the context of digitalization of the agricultural sector.

Materials and methods. The study is based on the analysis of the fundamental concepts of the network society, digital economy, and innovation systems, in particular, the theory of the "triple helix", network economy, and digital transformation. The work uses methods of system analysis, comparison, and generalization of approaches of domestic and foreign scientists on the role of information and communication technologies in the formation of cooperative structures, and also develops a functional support structure based on a system approach.

Results. The study identified fragmentation in existing approaches to the digitalization of cooperation and established that the key problem in development is the low level of systemic organization of information flows. The authors proposed a complex functional structure of information and communication support, which, unlike existing ones, is based on a combination of information and analytical, coordination, digital integration, marketing and communication, trust, monitoring, logistics, and institutional components. Such a structure ensures effective interaction of internal participants and external stakeholders, promotes the implementation of ERP systems, IoT, blockchain solutions, and integration into state digital ecosystems.

Further research in this area. The integration of modern digital tools into the cooperative management system will significantly reduce information asymmetry, increase trust among participants, and ensure the validity of management decisions. Further research should focus on analyzing the impact of digital communications on the dynamics of agricultural network development and on developing methodological tools for assessing the digital maturity of cooperative structures within the national agri-food system.

Key words: *cooperation in agriculture, agricultural cooperatives, information and communication support, digitalization, agricultural sector, cooperative management.*

Statement of the problem. In the context of the global transformation of economic systems, information and communication technologies, digital platforms, and network-

based forms of interaction among economic agents are identified in contemporary research as powerful drivers of agricultural sector development. These processes are particularly relevant in the field of agricultural cooperation, where the efficiency of service cooperatives largely depends on the organization of information flows, the quality of communication links, and the degree of digital integration among participants.

At the same time, the current state of development of service cooperatives in Ukraine is characterized by a number of systemic problems, including insufficient digitalization of managerial processes, fragmentation of information support, weak integration into regional and national information systems, limited access to modern digital sales platforms, and a low level of internal and external communications development. This creates information asymmetry among cooperative members and reduces the effectiveness of managerial decision-making.

Thus, the study's relevance lies in the need to develop a coherent theoretical and methodological framework for information and communication support for service cooperatives, which serves as a key instrument for enhancing their competitiveness, integrating them into the digital economy, and ensuring the sustainable development of the agricultural sector.

Analysis of recent research and publications. In contemporary academic discourse, the issue of information and communication support for the development of agricultural service cooperatives emerges at the intersection of innovation systems theory, network society theory, and digital economy theory. Etzkowitz H. [1; 2] and Leydesdorff L. [1; 3], within the framework of the "Triple Helix" concept, demonstrated that the effectiveness of innovation development is determined by the level of cooperation among government, business, and science, where information and communication linkages play a key coordinating role in knowledge and resource exchange. In subsequent studies, Leydesdorff L. [3] focused on the formation of the knowledge-based economy, in which information flows facilitate the integration of institutional actors and the emergence of network structures.

The development of the network society concept is presented in the works of Castells M. [4], who identified information as a fundamental resource of the modern economy, and network communications as the basis for organizing cooperative production and management. Similar ideas were further developed by Van Dijk J. [5], who argued that digital networks transform traditional hierarchical interaction models into flexible decentralized systems, which is particularly significant for cooperative structures in the agricultural sector.

In digital economy research, Schwab K. [8] and Mesenbourg T. [9] documented changes in production and management processes resulting from digitalization and the emergence of new business models, in which information and communication technologies ensure competitiveness. In this context, Porter M. and Millar V. [10] demonstrated that information technologies transform value chains, improving coordination efficiency and reducing transaction costs, a finding that is particularly relevant for agricultural cooperatives.

Benkler Y. [11] explored the networked information economy as an environment of decentralized interaction, in which cooperation and information exchange serve as the basis for value creation. FAO researchers [12] emphasized that digital communications in the agricultural sector provide producers with access to market information, financial services, and technologies, thereby increasing the resilience of agri-food systems.

Ukrainian scholars have also paid considerable attention to the development of digital tools in cooperation. Bezus R. M. and Kriuchko L. S. [13] proved that implementing digital marketing tools in cooperative activities enhances the efficiency of member interactions and expands market opportunities. Zinovchuk V. V. [14] and Moldavan L. V. [19] considered cooperatives as an institutional mechanism for consolidating small producers' resources and improving their competitiveness; however, the information and communication dimension in their works is addressed only indirectly.

Further development of the institutional aspect of agricultural cooperation is presented in the studies of Lupenko Yu. O., Malik M. Y., and Shpykuliak O. H. [15, 16], where the importance of cooperation for agricultural sector development is substantiated, although issues of digital integration of cooperatives remain underexplored. Similar limitations are observed in the works of Mamchur V. A. and Hermaniuk N. [17, 18], which focus mainly on the institutional and regulatory aspects of entrepreneurship development, while digital communication mechanisms are considered only in a fragmentary manner. Research by Hnatieva T. M. [20], Trusov N. V. [21], and Irtyshcheva I. O. [22] confirms that digitalization of the agricultural sector enhances management efficiency, develops e-commerce, and fosters digital interaction platforms; however, the specific features of information and communication support for service cooperatives are insufficiently addressed.

Despite the significant body of research in the fields of digital economy and agricultural cooperation, the issue of information and communication support for service cooperatives remains underdeveloped and requires further theoretical and methodological substantiation, taking into account network, digital, and institutional transformations of the modern agricultural sector.

The purpose. The study aims to analyze, systematize, and strengthen the theoretical and methodological foundations of information and communication support for the development of agricultural service cooperatives, thereby enhancing their efficiency amid digitalization in the agricultural sector.

To achieve this objective, the following research tasks are defined:
– to examine existing theoretical approaches to understanding information and communication processes in the system of agricultural cooperation;
– to determine the role of digitalization and network communications in the development of agricultural cooperatives;
– to identify key gaps in existing approaches to information and communication support of the cooperative sector in Ukraine;
– to systematize the functional components of information and communication support for cooperatives and define tools for digital interaction among cooperative members;
– to substantiate the contribution of information and communication systems to reducing information asymmetry and improving management efficiency.

Materials and methods. The materials of the study are the regulatory and legal framework for regulating the activities of agricultural cooperatives and the processes of digitalization of the agricultural sector in Ukraine, as well as the works of domestic and foreign authors conducting scientific and practical research in the field of network economics, the theory of innovative systems ("Triple Helix"), digital transformation, and management of cooperative structures in agriculture.

In the process of conducting the study, the methods of theoretical generalization and grouping were used to characterize the essence of information and communication processes and determine the functional components of supporting the development of agricultural cooperatives; formalization, analysis and synthesis to build a comprehensive model of the functional structure of information and communication support; as well as a systematic approach and logical generalization of results to identify problem areas in the digitalization of the cooperative sector and formulate conclusions on improving management efficiency.

Research Results. In the context of the global economic transformation, information flows, digital communications, and network-based interactions are key drivers of enterprise competitiveness, innovation development, and the integration of economic agents into global production and information systems. These issues are particularly relevant in the agricultural sector, where cooperative forms of management increasingly depend on effective communication among market participants, the level of digitalization of management processes, and the ability to integrate into digital ecosystems.

A significant role in shaping modern scientific approaches to the study of information and communication interactions is played by the "Triple Helix" concept developed by Etzkowitz H. [1; 2] and Leydesdorff L. [1; 3]. The scholars substantiated that effective innovation development is only possible through close interaction between government, business, and academia, forming an integrated system for knowledge creation, dissemination, and utilization. According to this concept, information and communication processes are the primary mechanisms for coordinating institutional interactions, ensuring synergy among innovation actors, and fostering adaptive models of economic development.

Etzkowitz H. [2] emphasized that the modern innovation economy is characterized by a shift from linear models of interaction to network communication systems, in which universities, enterprises, and public institutions act as equal participants in the innovation process. The effectiveness of such systems depends on the development of communication infrastructure, the intensity of knowledge exchange, and the ability of actors to form partnership networks. According to the researcher [2], information and communication become a strategic resource for economic development, as they ensure the integration of local economic systems into the global innovation space.

Further significant contributions to the development of information and communication interaction theory were made by Leydesdorff L. [3], who focused on information and communication linkages in the formation of the knowledge-based economy. Through information exchange systems, the integration of market mechanisms, state regulation, and innovation activity occurs, while communication networks facilitate the formation of new mechanisms for coordinating economic processes. It is important to emphasize the scholar's [3] position that the development of information systems contributes to the transformation of local economic structures into global information ecosystems, where the accelerated diffusion of knowledge, technologies, and innovations is ensured.

In the works of Castells M. [4], information and communication processes are considered the fundamental basis for the emergence of the "network society." The researcher noted that the development of digital technologies and global information networks has led to the formation of a new socio-economic structure in which information becomes the main factor of production and competitiveness. He emphasized that network communications enable enterprises to integrate into global production systems, facilitate the formation of new models of cooperation, and transform traditional forms of economic organization.

The further development of the concept of network cooperation is presented in the work of Van Dijk J. [5]. The scholar argued that digital communication has created new forms of economic and social interaction among businesses. According to him, network structures are characterized by high flexibility, adaptability, and rapid information exchange, which are particularly important for the development of cooperative organizational forms.

In more recent studies, scholars have focused on the role of information and communication technologies in the development of the agricultural sector and agricultural cooperation. Arnould E. and Price L. [6; 7] found that effective communication among cooperative members fosters trust, social capital, and long-term partnership relations, thereby enabling the stable functioning of cooperative systems. In addition, information platforms and digital networks enhance the coordination efficiency of agricultural market participants and optimize management processes.

It is also important to highlight the significant contributions of Schwab K. [8] and Mesenbourg T. [9] to the development of digital transformation concepts in the agricultural sector. Schwab K. [8] developed the concept of the "Fourth Industrial Revolution" and defined that digitalization of the economy leads to fundamentally new approaches to production, management, and communication, while information technologies become the basis for innovative business models. Mesenbourg T. [9], in turn, defined the digital economy as a system in which information and communication technologies enable the integration of economic processes, the development of e-commerce, and the creation of digital interaction platforms.

With regard to agricultural cooperation specifically, the studies by Porter M. and Millar V. [10] are particularly important. They emphasized that information technologies transform value chains by providing new mechanisms for coordinating enterprise activities, optimizing logistics, and creating competitive advantages. In our view, this approach is especially relevant for agricultural cooperatives, as it highlights the need to integrate small producers into digital management systems and marketing networks.

Benkler Y. [11] contributed to the development of information and communication processes by substantiating the concept of a networked information economy. Digital communications enable decentralized economic models, where cooperation and information exchange serve as the foundation for creating new economic value. According to the scholar, the development of digital networks promotes the activation of horizontal linkages among economic actors, which is particularly important for cooperative structures.

Researchers of the Food and Agriculture Organization of the United Nations [12] note that digital communications in the agricultural sector enhance producers' access to market information, financial services, and innovative technologies, while also increasing the resilience of agri-food systems.

The Ukrainian scientific community, together with international researchers, actively explores digitalization issues in the agricultural sector. Researchers Bezus R. and Kryuchko L. outlined a methodology for implementing digital tools of external and internal marketing in agricultural cooperatives. The authors found that the use of such tools in agricultural cooperatives' activities enhances the efficiency of interactions among cooperative members, expands product sales markets, and fosters marketing advantages for small-scale producers [13].

It is worth noting the contributions of Ukrainian scholars Zinovchuk V. V. and Lupenko Yu. O., Malik M. Y., Shpykuliak O. H., Mamchur V. A., Hermaniuk N., Moldavan L. V., and other researchers [14–19] to the development of the methodological foundations of agricultural cooperation. These scholars consider cooperatives as an effective mechanism for consolidating the resource potential of small producers and a tool for increasing their competitiveness. In their works [14–19], it is generally established that cooperative forms help reduce transaction costs, establish efficient marketing channels, integrate producers into value chains, and strengthen national food security.

Lupenko Yu. O., Malik M. Y., and Shpykuliak O. H. determined that the development of the cooperative movement in Ukraine is significantly constrained by an insufficient level of information support, low efficiency of advisory services, and the absence of a coherent state policy for the development of the information infrastructure of the agricultural sector [15; 16]. Modern cooperatives require not only financial or material-technical support but also an effective information support system capable of fostering partnership relations, digital interaction, and integration into modern market systems.

In the study by Zinovchuk V. V., considerable attention is given to the socio-economic role of cooperation in rural development and the sustainable functioning of small-scale agricultural enterprises [14]. The informational and communication aspects of cooperative development are considered indirectly, primarily through the lens of the organizational and economic mechanisms of cooperative structures. This suggests that there is insufficient comprehensive research on digital communications within the agricultural cooperation system.

Ukrainian researchers also actively study the issues of digitalization of small agricultural businesses and information-analytical support for managing agricultural associations. In the works of Hnatieva T. M., Trusov N. V., Irtyshcheva I. O. and other scholars, it is substantiated that the use of information and communication technologies improves the quality of managerial decision-making, optimizes logistics processes, develops e-commerce, and enables digital platforms for interaction among agricultural actors [20–22]. The researchers concluded that the digitalization of the agricultural sector has created the prerequisites for the formation of new models of economic interaction among producers, processing enterprises, logistics structures, and consumers.

After analyzing contemporary Ukrainian academic works, a number of significant gaps in the study of information and communication support for the development of servicing agricultural cooperatives have been

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identified. Most existing studies focus primarily on organizational, economic, legal, or financial aspects of cooperative functioning, while the communication component is often considered fragmentarily or as a secondary element of the management system.

In domestic academic literature, insufficient attention is paid to the development of digital communication platforms for interaction among cooperative members, the development of electronic document management systems, the use of CRM systems in cooperative governance, the integration of cooperatives into digital marketing networks, and the creation of information-analytical systems that support managerial decision-making.

No comprehensive methodological approaches have been identified for assessing the effectiveness of information and communication support in cooperatives. In most academic studies, digitalization of the agricultural sector is considered at the macroeconomic level or in the context of large agricultural enterprises, while the specifics of small producers and servicing cooperatives remain underexplored. Methodological tools for assessing the digital maturity of cooperatives, the effectiveness of internal and external communications, integration into digital sales platforms, and the development of network forms of interaction among agricultural market participants are practically absent.

Another gap is the insufficient attention researchers pay to the socio-communicative aspects of cooperative development. Most studies focus on analyzing the economic performance of cooperatives, while issues such as trust-building among cooperative members, the development of partnership communication, digital culture, and information exchange between cooperatives, territorial communities, advisory services, and public authorities remain underexplored.

In addition, there is a lack of comprehensive studies on integrating modern digital technologies into the operations of agricultural service cooperatives. Insufficient attention is also paid to cybersecurity issues in cooperative information systems, the protection of digital data, and the development of digital competencies among cooperative members.

Thus, the need for a comprehensive approach to developing information and communication technologies within the agricultural cooperation system has been identified.

Table 1

Functional structure of information and communication support for the development of agricultural servicing cooperatives

Function	Content	Tools	Result for the cooperative	Level of interaction
Information-analytical support of cooperative management	Collection, processing, systematization, and analysis of data on production, sales, resources, and market prices	ERP systems, BI analytics, cloud databases, dashboards	Improved substantiation of managerial decisions, reduction of information asymmetry	Internal/strategic
Coordination of internal and external communications	Organization of information exchange between cooperative members and external stakeholders	CRM systems, messengers, corporate portals, and email platforms	Reduced decision-making time, improved coordination of actions	Internal + external
Support for digital interaction among cooperative participants	Provision of digital channels for interaction between producers, logistics providers, and processors	Digital cooperative platforms, mobile applications, e-cooperatives	Strengthened integration of participants, reduced transaction costs	Operational
Formation of trust and partnership relations	Ensuring transparency of information exchange and openness of activities	Blockchain solutions, digital registers, and rating systems	Increased level of trust among cooperative participants	Socio-communicational
Provision of marketing communication	Promotion of cooperative products in domestic and international markets	Digital marketing, social networks, e-commerce platforms	Market expansion, increased competitiveness	Market
Digital monitoring of production and logistics processes	Tracking production, transportation, and storage of products	Internet of Things (IoT), GPS monitoring, tracking systems, sensor networks	Improved logistics efficiency, minimized losses	Operational-logistical
Integration of cooperatives into regional information networks	Inclusion of cooperatives in regional and national digital ecosystems	Government platforms, agricultural registries, open data systems	Strengthened institutional interaction and improved access to resources	Institutional

Source: developed by authors

We are convinced that information and communication support for the development of agricultural service cooperatives should be positioned as an integrated system of organizational, digital, informational, and communication tools to ensure effective interaction among cooperative members, public authorities, advisory structures, financial institutions, scientific organizations, and consumers.

The key functions of information and communication support for the development of agricultural servicing cooperatives are as follows (Table 1):

– information-analytical support of cooperative management;
– coordination of internal and external communications;
– support for digital interaction among cooperative participants;
– formation of trust and partnership relations;
– provision of marketing communication;
– digital monitoring of production and logistics processes;
– integration of cooperatives into regional information networks.

The presented structure of information and communication support functions for the development of agricultural service cooperatives demonstrates that the system is comprehensive, multi-level, and integrative. It combines managerial, technological, socio-communicational, and market components. The proposed functional structure demonstrates that the effectiveness of cooperatives is determined not only by the level of resource provision but primarily by the quality of information flows, the speed of communication, and the degree of digital integration of cooperative participants with the external economic environment.

Information and communication support performs not only an auxiliary but also a system-forming function, thereby ensuring the coordination of interactions between internal members of the cooperative and external institutional stakeholders. As a result, stable network structures form, information asymmetry is reduced, and trust and partnership relations within the agricultural sector are strengthened.

Thus, we have developed the theoretical and methodological foundations of information and communication support for the development of agricultural service cooperatives, which, unlike existing approaches, are based on a comprehensive understanding of it as an integrated multi-level system of organizational, digital, informational, and communication tools aimed at ensuring effective interaction between internal cooperative members and external stakeholders, including public authorities, advisory services, financial institutions, scientific organizations, and consumers. This allows improving the efficiency of managerial decisions, reducing information asymmetry, strengthening coordination and trust among cooperative participants, and integrating cooperatives into regional and national digital agri-food networks.

Conclusions. Information and communication support for the development of agricultural service cooperatives is a key factor in their effective functioning amid the agricultural sector's digital transformation. Modern cooperative structures are complex open systems whose effectiveness is determined not only by resource potential but primarily by the quality of information-flow organization, the level of digital integration, and the development of communication networks among cooperative members and external stakeholders.

The analysis of existing approaches has shown that research is mainly focused on organizational, economic, and legal aspects of cooperative development, while the information and communication component remains insufficiently systematized and methodologically grounded. This has necessitated further development of a comprehensive approach to understanding cooperatives as digital-communicational systems operating within regional and national agri-food networks.

The proposed theoretical and methodological approach to providing information and communication support for the development of agricultural service cooperatives, compared with existing approaches, integrates organizational, digital, informational, and communication tools into a unified, multilevel system of interaction between internal cooperative members and external stakeholders. It enables more efficient managerial decision-making, reduces information asymmetry, strengthens coordination and trust among cooperative participants, and integrates cooperatives into regional and national digital agri-food networks.

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Література

1. Etzkowitz H., Leydesdorff L. The Dynamics of Innovation: From National Systems and "Mode 2" to a Triple Helix of University-Industry-Government Relations. *Research Policy*. 2000. Vol. 29, no. 2. P. 109–123.

2. Etzkowitz H. The Triple Helix: University-Industry-Government Innovation in Action. New York: Routledge, 2008. 164 p.

3. Leydesdorff L. The Knowledge-Based Economy and the Triple Helix Model. *Annual Review of Information Science and Technology*. 2010. Vol. 44, No. 1. P. 365–417.

4. Castells M. The Rise of the Network Society. 2nd ed. Oxford: Blackwell Publishing, 2010. 597 p.

5. Van Dijk J. The Network Society. London: Sage Publications, 2012. 320 p.

6. Arnould E., Price L. Consumer Culture Theory. London: Sage Publications, 2006. 424 p.

7. Arnould E., Price L., Malshe A. Toward a cultural resource-based theory of the customer. *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*. Taylor and Francis, 2014. P. 91–104.

8. Schwab K. The Fourth Industrial Revolution. Geneva: World Economic Forum, 2016. 184 p.

9. Mesenbourg T. Measuring the Digital Economy. U.S. Bureau of the Census, 2001. 15 p.

10. Porter M., Millar V. How Information Gives You Competitive Advantage. *Harvard Business Review*. 1985. Vol. 63, No. 4. P. 149–160.

11. Benkler Y. The Wealth of Networks: How Social Production Transforms Markets and Freedom. New Haven: Yale University Press, 2006. 528 p.

12. Information and Communication Technology (ICT) in Agriculture: A Report to the G20 Agricultural Deputies. Rome: FAO, 2017. 92 p.

13. Безус Р.М., Крючко Л.С. Методологія дослідження стану впровадження цифрових інструментів зовнішнього та внутрішнього маркетингу в сільськогосподарських кооперативах. *Вісник Херсонського державного університету. Серія: Економічні науки.* 2022. № 5. С. 14–21. DOI: https://doi.org/10.32999/ksu2307-8030/2022-45-2

14. Зіновчук В.В. Організаційні основи сільськогосподарського кооперативу. 2-ге вид. Київ : Логос, 2001. 380 с.

15. Розвиток підприємництва і кооперації: інституціональний аспект : монографія / Ю.О. Лупенко та ін. Київ : ННЦ ІАЕ, 2016. 432 с.

16. Шпикуляк О.Г. Інституційні засади розвитку аграрної кооперації в Україні. *Економіка АПК*. 2014. № 8. С. 63–68. URL: http://nbuv.gov.ua/UJRN/E_apk_2014_8_12 (дата звернення: 04.04.2026).

17. Мамчур В.А. Розвиток підприємницької діяльності в аграрному секторі економіки: інституціональні засади: монографія. Київ: ННЦ "ІАЕ", 2023. 280 с. URL: http://www.iae.org.ua/activity/books/3794-mamchur-va-rozvytok-pidpryyemnytskoyi-diyalnosti-v-ahrarnomu-sektori-ekonomiky-instytutsionalni-zasady-monohrafiya-k-nnts-liaer-2023-280-s.html (дата звернення: 04.04.2026).

18. Мамчур В., Германюк Н. Методичні положення індикативної оцінки регулювання та розвитку підприємництва в сільському господарстві. *Економіка та суспільство.* 2023. Вип. 56. DOI: https://doi.org/10.32782/2524-0072/2023-56-153

19. Молдаван Л.В. Економічні та соціогуманістичні основи розвитку кооперативних форм господарювання в Україні. *Економіка і прогнозування*. 2017. № 3. С. 85–96. URL: https://eip.org.ua/docs/EP_17_3_85_uk.pdf (дата звернення: 04.04.2026).

20. Гнатьєва Т.М. Цифровізація аграрного сектору економіки України: сучасний стан та перспективи розвитку. *Економіка та держава*. 2021. № 4. С. 15–21.

21. Трусов Н.В. Інформаційно-аналітичне забезпечення розвитку аграрного бізнесу в умовах цифрової економіки. *Інвестиції: практика та досвід*. 2022. № 3. С. 35–41.

22. Іртищева І.О., Сохнич А.Я. Інноваційний розвиток сільських територій: адаптація міжнародного досвіду в національних реаліях: монографія. Миколаїв: Іліон, 2012. 273 с.

References

1. Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From national systems and "Mode 2" to a triple helix of university–industry–government relations. *Research Policy, 29*(2), 109–123.

2. Etzkowitz, H. (2008). *The triple helix: University-industry-government innovation in action*. Routledge.

3. Leydesdorff, L. (2010). The knowledge-based economy and the triple helix model. *Annual Review of Information Science and Technology, 44*(1), 365–417.

4. Castells, M. (2010). *The rise of the network society* (2nd ed.). Blackwell Publishing.

5. Van Dijk, J. (2012). *The network society* (3rd ed.). Sage Publications.

6. Arnould, E.J., & Price, L.L. (2006). *Consumer culture theory*. Sage Publications.

7. Arnould, E.J., Price, L.L., & Malshe, A. (2014). Toward a cultural resource-based theory of the customer. In R.F. Lusch & S.L. Vargo (Eds.), *The service-dominant logic of marketing: Dialog, debate, and directions* (pp. 91–104). Routledge.

8. Schwab, K. (2016). *The fourth industrial revolution*. World Economic Forum.

9. Mesenbourg, T.L. (2001). *Measuring the digital economy*. U.S. Bureau of the Census.

10. Porter, M. E., & Millar, V. E. (1985). How information gives you competitive advantage. *Harvard Business Review, 63*(4), 149–160.

11. Benkler, Y. (2006). *The wealth of networks: How social production transforms markets and freedom*. Yale University Press.

12. Food and Agriculture Organization of the United Nations. (2017). *Information and communication technology (ICT) in agriculture: A report to the G20 agricultural deputies*. FAO.

13. Bezus, R. M., & Kriuchko, L. S. (2022). Metodolohiia doslidzhennia stanu vprovadzhennia tsyfrovykh instrumentiv zovnishnoho ta vnutrishnoho marketynhu v silskohospodarskykh kooperatyvakh [Methodology for studying the state of implementation of digital tools for external and internal marketing in agricultural cooperatives]. *Visnyk Khersonskoho derzhavnoho universytetu. Seriia: Ekonomichni nauky, 5*, 14–21. https://doi.org/10.32999/ksu2307-8030/2022-45-2 [in Ukrainian].

14. Zinovchuk, V. V. (2001). *Orhanizatsiini osnovy silskohospodarskoho kooperatyvu* [Organizational foundations of an agricultural cooperative] (2nd ed.). Lohos [in Ukrainian].

15. Lupenko, Yu. O., et al. (2016). *Rozvytok pidpryiemnytstva i kooperatsii: Instytutsionalnyi aspekt* [Entrepreneurship and cooperation development: Institutional aspect]. NNTs IAE [in Ukrainian].

16. Shpykuliak, O. H. (2014). Instytutsiini zasady rozvytku ahrarnoi kooperatsii v Ukraini [Institutional foundations of agricultural cooperation development in Ukraine]. *Ekonomika APK, 8*, 63–68 [in Ukrainian].

17. Mamchur, V. A. (2023). *Rozvytok pidpryiemnytskoi diialnosti v ahrarnomu sektori ekonomiky: Instytutsionalni zasady* [Development of entrepreneurial activity in the agricultural sector of the economy: Institutional foundations]. NNTs "IAE" [in Ukrainian].

18. Mamchur, V., & Hermaniuk, N. (2023). Metodychni polozhennia indykatyvnoi otsinky rehuliuvannia ta rozvytku pidpryiemnytstva v silskomu hospodarstvi [Methodological provisions for indicative assessment of regulation and development of entrepreneurship in agriculture]. *Ekonomika ta suspilstvo, 56*. https://doi.org/10.32782/2524-0072/2023-56-153 [in Ukrainian].

19. Moldavan, L. V. (2017). Ekonomichni ta sotsiohumanistychni osnovy rozvytku kooperatyvnykh form hospodariuvannia v Ukraini [Economic and socio-humanistic foundations of the development of cooperative forms of management in Ukraine]. *Ekonomika i prohnozuvannia, 3*, 85–96 [in Ukrainian].

20. Hnatieva, T. M. (2021). Tsyfrovizatsiia ahrarnoho sektoru ekonomiky Ukrainy: Suchasnyi stan ta perspektyvy rozvytku [Digitalization of the agricultural sector of Ukraine's economy: Current state and development prospects]. *Ekonomika ta derzhava, 4*, 15–21 [in Ukrainian].

21. Trusov, N. V. (2022). Informatsiino-analitychne zabezpechennia rozvytku ahrarnoho biznesu v umovakh tsyfrovoi ekonomiky [Information and analytical support for the development of agricultural business in the digital economy]. *Investytsii: praktyka ta dosvid, 3*, 35–41 [in Ukrainian].

22. Irtyshcheva, I. O., & Sokhnych, A. Ya. (2012). *Innovatsiinyi rozvytok silskykh terytorii: Adaptatsiia mizhnarodnoho dosvidu v natsionalnykh realiiakh* [Innovative development of rural areas: Adaptation of international experience in national realities]. Ilion [in Ukrainian].

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Пушак Ярослав Ярославович
доктор економічних наук, професор,
професор кафедри економіки
та економічної безпеки
Львівський державний університет
внутрішніх справ

Чередник Анна Олегівна
кандидат економічних наук, доцент,
доцент кафедри економіки підприємства
та організації бізнесу
Харківський національний економічний
університет імені Семена Кузнеця

Усенко Надія Миколаївна
старший викладач кафедри економіки
підприємства та організації бізнесу
Харківський національний економічний
університет імені Семена Кузнеця

ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНА ПІДТРИМКА РОЗВИТКУ ОБСЛУГОВУЮЧИХ КООПЕРАТИВІВ У СІЛЬСЬКОМУ ГОСПОДАРСТВІ

Анотація. *Вступ. В умовах глобальної трансформації економічних систем інформаційно-комунікаційні технології та цифрові платформи стають рушійними факторами розвитку аграрного сектору. Актуальність дослідження зумовлена зростаючою роллю цифрових комунікацій та мережевих взаємодій як ключових чинників підвищення конкурентоспроможності сільськогосподарських обслуговуючих кооперативів, їх інтеграції в сучасні агропродовольчі системи та необхідністю подолання інформаційної асиметрії між учасниками ринку.*

Мета. Метою дослідження є аналіз, систематизація та удосконалення теоретико-методичних засад формування інформаційно-комунікаційної підтримки розвитку сільськогосподарських обслуговуючих кооперативів з метою підвищення ефективності їх функціонування в умовах цифровізації аграрного сектору.

Матеріали і методи. Дослідження ґрунтується на аналізі фундаментальних концепцій мережевого суспільства, цифрової економіки та інноваційних систем, зокрема теорії "потрійної спіралі", мережевої економіки й цифрової трансформації. У роботі використано методи системного аналізу, порівняння та узагальнення підходів вітчизняних і зарубіжних науковців щодо ролі інформаційно-комунікаційних технологій у формуванні кооперативних структур, а також розроблено функціональну структуру підтримки на основі системного підходу.

Результати. Дослідження дозволило виявити фрагментарність наявних підходів до цифровізації кооперації та встановити, що ключовою проблемою розвитку є низький рівень системної організації інформаційних потоків. Авторами запропоновано комплексну функціональну структуру інформаційно-комунікаційної підтримки, яка, на відміну від існуючих, ґрунтується на поєднанні інформаційно-аналітичної, координаційної, цифрово-інтеграційної, маркетингово-комунікаційної, довірчої, моніторингово-логістичної та інституційної складових. Така структура забезпечує ефективну взаємодію внутрішніх учасників і зовнішніх стейкхолдерів, сприяє впровадженню ERP-систем, IoT, блокчейн-рішень та інтеграції в державні цифрові екосистеми.

Перспективи. Інтеграція сучасних цифрових інструментів у систему управління кооперативами дозволить суттєво знизити інформаційну асиметрію, підвищити рівень довіри між учасниками та забезпечити обґрунтованість управлінських рішень. Подальші дослідження мають бути зосереджені на аналізі впливу цифрових комунікацій на динаміку розвитку аграрних мереж та на розробці методичного інструментарію для оцінки цифрової зрілості кооперативних структур у межах національної агропродовольчої системи.

Ключові слова: *кооперація в сільському господарстві, сільськогосподарські кооперативи, інформаційно-комунікаційна підтримка, цифровізація, аграрний сектор, управління кооперацією.*