

# INFORMATION AND MARKETING SUPPORT FOR THE COMPETITIVENESS OF AGRICULTURAL COOPERATIVES

## АУЫЛ ШАРУАШЫЛЫҒЫ КООПЕРАТИВТЕРІНІҢ БӘСЕКЕГЕ ҚАБІЛЕТТІЛІГІН АҚПАРАТТЫҚ-МАРКЕТИНГТІК ҚАМТАМАСЫЗ ЕТУ

## ИНФОРМАЦИОННО-МАРКЕТИНГОВОЕ ОБЕСПЕЧЕНИЕ КОНКУРЕНТОСПОСОБНОСТИ СЕЛЬСКОХОЗЯЙСТВЕННЫХ КООПЕРАТИВОВ

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**Abstract.** In foreign practice, particular importance is attached to the development of a system of information and marketing support for the activities of the agricultural market subjects, aimed at increasing their productivity and competitiveness in the context of global changes. *The goal* – hypothesis of the scientific article is to develop reasonable recommendations for improving the information and marketing support of agricultural cooperatives based on the mechanisms of information and communication technologies and marketing-innovation aimed at creating competitive advantages of agribusiness entity. *Methods* – the monographic and abstract-logical, statistical and survey methods are used in the article. *Results* – taking into account the analysis of the development of digital technologies and creation of digital platforms, the need for a deeper study of the patterns of functioning of agricultural market in view of its information and marketing support, which is one of the urgent and main practical needs of agricultural cooperatives, is considered. The issues of development of mechanisms for ensuring the competitiveness of agricultural cooperatives are studied and a model of information and marketing support is presented based on an analysis of their current state. The significance of the use of reliable

information is shown, taking into account the effectiveness of marketing research in the context of the strategic priorities for the development of subjects of agricultural market. *Conclusions* – the mechanism for the development of information and communication technologies is presented and the need for the use of a unified information and marketing support in the activities of the subjects of agricultural market of Kazakhstan is substantiated, which has a strong impact on the effectiveness of managing their activities. The authors believe that it is necessary to study the formation of digital portals, taking into account effective communication channels and marketing data in ensuring the competitiveness of agricultural cooperatives.

**Аңдатпа.** Шетелдік практикада аграрлық нарық субъектілерінің жаһандық өзгерістер жағдайында олардың өнімділігі мен бәсекеге қабілеттілігін арттыруға бағытталған қызметін ақпараттық-маркетингтік қамтамасыз ету жүйесін дамытуға ерекше мән беріледі. *Мақсаты* – ғылыми мақаланың гипотезасы ақпараттық-коммуникациялық технологиялар мен маркетинг тетіктері негізінде ауылшаруашылық кооперативтерін ақпараттық-маркетингтік қамтамасыз етуді жетілдіру бойынша негізделген ұсыныстар әзірлеу, агробизнес субъектісінің бәсекелестік артықшылықтарын қалыптастыруға бағытталған инновациялар болып табылады. *Әдістер* – мақалада монографиялық және дерексіз логикалық, статистикалық және зерттеу әдісі қолданылған. *Нәтижелер* – цифрлық технологиялардың дамуын талдауды және цифрлық платформаларды құруды ескере отырып, ауылшаруашылық кооперативтерінің өзекті және негізгі практикалық қажеттіліктерінің бірі болып табылатын ақпараттық-маркетингтік қамтамасыз ету тұрғысынан аграрлық нарықтың жұмыс істеу заңдылықтарын тереңірек зерттеу қажеттілігі қарастырылған. Ауыл шаруашылығы кооперативтерінің бәсекеге қабілеттілігін қамтамасыз ету тетіктерін дамыту мәселелері зерделенді және олардың қазіргі жай-күйін талдау негізінде ақпараттық-маркетингтік қамтамасыз ету моделі ұсынылған. Аграрлық нарық субъектілерін дамытудың стратегиялық басымдықтары контекстінде маркетингтік зерттеулердің нәтижелілігін ескере отырып, сенімді ақпаратты қолданудың маңыздылығы көрсетілген. *Қортындылар* – ақпараттық-коммуникациялық технологияларды дамыту тетігі ұсынылған және Қазақстанның аграрлық нарығы субъектілерінің қызметінде бірыңғай ақпараттық-маркетингтік қамтамасыз етуді қолдану қажеттілігі негізделген, бұл олардың қызметін басқарудың тиімділігіне қатты әсер етеді. Авторлар ауыл шаруашылығы кооперативтерінің бәсекеге қабілеттілігін қамтамасыз етуде тиімді коммуникациялық арналар мен маркетингтік деректерді ескере отырып, цифрлық порталдарды қалыптастыру мәселелерін зерделеу қажет деп санайды.

**Аннотация.** В зарубежной практике особое значение придается развитию системы информационно-маркетингового обеспечения деятельности субъектов аграрного рынка, направленного на повышение их производительности и конкурентоспособности в условиях глобальных изменений. *Цель* – гипотезой научной статьи является разработка обоснованных рекомендаций по совершенствованию информационно-маркетингового обеспечения сельскохозяйственных кооперативов на основе механизмов информационно-коммуникационных технологий и маркетинго-инноваций, направленных на формирование конкурентных преимуществ субъекта агробизнеса. *Методы* – в статье использованы монографический и абстрактно-логический, статистический и метод опроса. *Результаты* – с учетом анализа развития цифровых технологий и создания цифровых платформ рассмотрена необходимость более глубокого исследования закономерностей функционирования аграрного рынка с позиции его информационно-маркетингового обеспечения, что является одной из актуальных и основных практических потребностей сельскохозяйственных кооперативов. Изучены вопросы развития механизмов обеспечения конкурентоспособности сельскохозяйственных кооперативов и представлено программное обеспечение в сфере маркетинга на основе анализа их современного состояния. Показана значимость применения достоверной информации с учетом результативности маркетинговых исследований в контексте стратегических приоритетов развития субъектов аграрного рынка. *Выводы* – раскрывается механизм развития информационно-коммуникационных технологий и обоснована необходимость применения единого информационно-маркетингового обеспечения в деятельности субъектов аграрного рынка Казахстана, что оказывает сильное влияние на эффективность управления их деятельностью. Авторы считают, что необходимо изучить вопросы формирования цифровых порталов с учетом эффективных коммуникационных каналов и маркетинговых данных в обеспечении конкурентоспособности сельскохозяйственных кооперативов.

**Key words:** agricultural sector, information and marketing support, agricultural cooperative, farms, products, innovations, infrastructure, digital technologies, effective communication channels.

Түйінді сөздер: аграрлық сектор, ақпараттық-маркетингтік қамтамасыз ету, ауыл шаруашылығы кооперативі, фермерлік шаруашылықтар, өнімдер, инновациялар, инфрақұрылым, цифрлық технологиялар, тиімді коммуникациялық арналар.

Ключевые слова: аграрный сектор, информационно-маркетинговое обеспечение, сельскохозяйственный кооператив, фермерские хозяйства, продукция, инновации, инфраструктура, цифровые технологии, эффективные коммуникационные каналы.

**Introduction.** Within the framework of the State Program “Digital Kazakhstan” for 2018-2022, the digital transformation of the activities of agricultural cooperatives is one of the important trends in the development of this branch of economy. Determining the digital potential of agricultural cooperatives based on the introduction of digital technologies in order to increase their competitive advantages in the face of global changes is quite difficult, but it is a necessary process. In solving this problem a crucial place belongs to information and marketing support of agricultural cooperatives. It is necessary to make small farmers in rural areas aware of the benefits of cooperatives and to provide information and marketing services and technical support to those who organize cooperatives. However, for a number of reasons of economic and social nature, the process of development of farms under the COVID-2019 pandemic is accompanied by a decline in agricultural production, the destruction of the potential of the agricultural market and the decline in the activity of workers employed in it. Therefore, research on the development, formation and functioning of the information and marketing infrastructure of agricultural cooperatives in the context of the analysis of the use of the resource potential of the agricultural market in the transition to the digital economy requires a more detailed study. It should be noted that marketing, including agromarketing, has not received due attention and development. This has become one of the reasons that domestic manufacturers are not able to compete with suppliers of foreign, repeatedly dated products, even in the domestic market of the country. Therefore, practice-oriented marketing involves the creation of information content for the development of strategic agricultural development programs and a strategic business plan for the development of agricultural cooperatives. The purpose of business content is to use information and marketing to make management decisions in the activities of agricultural cooperatives.

**Material and methods of research.** The research paper used the monographic method of study to explore foreign experience in developing the system of information and mar-

keting support for the activities of agricultural cooperatives.

Abstract-logical method was used to investigate the need to create a unified information and marketing space for agricultural cooperatives based on the development of digital platforms. However, it is almost impossible to draw a reasonable conclusion on the readiness of agricultural producers to switch to a new technological mode due to the lack of information; accordingly, measures aimed at stimulating innovation activity do not give full effect to the results. Information regarding the use of innovations is very limited and is presented within the scope of investment in fixed capital, by type of economic activity (agriculture, hunting and forestry), where there is a lack of information on the effectiveness of the use of investments for their intended purpose.

Based on the statistical method, the current state and development of farms were analyzed in order to assess their development in conditions of increasing competition. At the same time, analysis of the data shows that the state annually increases funding for various programs to support farming and the agro-industrial complex.

The method of social survey and study of state programs for the development of the agroindustrial complex investigated the needs of farms of the agrarian market in information and marketing services, assessed the content of education problems on digital literacy of the subjects of the agrarian market.

**Results and their discussion.** The practice of developed countries shows the effectiveness of the subjects of the agricultural market in the world market of agricultural products, through their rational management of reliable information and application of the tools of marketing innovation in their activities. It is possible to access these mechanisms in the foreign market for domestic agricultural cooperatives in the development of information society, using effective communication channels that have access to world information resources on the development of agriculture. For example, leading countries, including China, contribute to the competitiveness of the Chinese economy by adopting in 2015 the program “Internet +”, whose main

goal is the formation of an information society by 2 049 (the 100th anniversary of China). It is planned that the pace of introduction of digital technologies in the industry and the economy for the period from 2015 to 2025 will be from 22% (population) to 8% (education). Currently, the share of the digital sector of the economy in the GDP structure is 6-7%, by 2020 it was planned to increase it to 35%, and by 2030 – to 50% [1].

Analysis of the development of agricultural cooperatives in Kazakhstan shows that 18 864 agricultural organizations and 563 new organizations engaged in agricultural activities were registered in 2021. Compared with 2001, in absolute terms, the volume of state support increased 18 times (2021), but its share annually amounted to no more than 3.5% of the cost of agricultural products. Analysis of statistical data of the agro-industrial complex of Kazakhstan indicates an increase in the volume of gross agricultural output by 1.7 times and amounted to 6.3 trillion tenge in 2021 (compared to 2016 - 3.7 trillion tenge). At the same time, in 2020, compared with 2019, the growth of gross agricultural output amounted to 5.7%. This is the largest growth among the countries of the Eurasian Economic Union. The inflow of investments into fixed assets of agriculture over the last 5 years of the year has increased 2.2 times and amounted to 565.4 billion tenge in 2020 (253.7 billion tenge in 2016). Exports of products have grown 1.5 times over the past 5 years and amounted to 3.3 billion US dollars in 2020 (2.1 trillion tenge in 2016). Exports of processed agricultural products increased 1.4 times during this period and amounted to 1 345.6 million USD in 2020. Labor productivity amounted to almost 3.0 million tenge per employee, which is 2 times higher than in 2016. At the same time, the average annual growth rate of labor productivity in the agro-industrial complex is almost 18%. The average incomes of peasant farms in the country amount to 5.0 million tenge, the estimated profit is 1.5 thousand tenge. However, it was revealed that the majority of small farms did not have access to state support measures in the form of subsidies. An undeveloped information infrastructure leads to problems with the sale of products, with the formation of a network of intermediaries [2-5].

Within the framework of the State Program for the development of the agro-industrial complex for 2017-2021, it was planned to create about 80 thousand farms that will be engaged in sheep breeding, animal husbandry, as well as horse breeding, expand pastures to about 100 million hectares

in general, and also increase the total number of sheep to 30 million heads, cattle to 15 million heads. A peasant farm can receive the necessary funds through a credit corporation at 4% for up to 15 years [6]. However, the effectiveness of the implementation of the state program requires the adoption of more detailed measures in terms of improving the quality of the use of information support and marketing of innovation by the subjects of the agricultural market.

The development of the digital economy in the country is accompanied by the development of a system of information and marketing support for the activities of agricultural cooperatives, as a tool for effective management of activities, for which an important role is played by effective and reliable marketing information, which means information on the internal and external production relations of agricultural producers. These relations are connected with the purchase of raw materials, price determination, sales of agricultural products, competitors, government agencies at various levels, consumers, information management, both in the domestic and foreign markets [7].

Analysis of the activities of actors in the agricultural market confirms that their need for information during the digital transformation of the economy of Kazakhstan has increased dramatically, and there is a need to apply and conceptualize the scientific basis for the formation of instruments of information and marketing support for effective management system of economic activity. The review and analysis of scientific literature on the study topic confirms the fact that information and communication technologies are implemented on the basis of the development of industry, medicine, culture and other areas. The effective introduction of the digital economy is based on the development and use of modern information and communication technologies in all sectors of industry, health, science, culture and the social sphere. The degree of farmer involvement in cooperative enterprises remains limited: the number of cooperative members divided by the total number of farms was only 3.4%. The low level of cooperative development is also observed in some countries whose economies were formerly planned, such as Romania (0.3%), Georgia (1.3%), and the Czech Republic (3.5%) [8]. We believe this is due to the lack of effective research in the field of communication processes and marketing in this industry. Agricultural cooperatives in Kazakhstan provide more than 31.3% of gross output and 40% of

content of social networks have been created to identify general information trends [10].

Analysis of the development of the agricultural sector of foreign countries, shows that the state support of the agricultural sector in conditions of digitalization is implemented to a greater extent through the creation of digital platforms of information and marketing support for the activities of agricultural cooperatives. In order to identify the possibility of applying foreign experience in the specific conditions of Kazakhstan, we studied the problems encountered by employees of agricultural cooperatives. A marketing study was conducted to identify the main factors affecting the effectiveness of management of agricultural cooperatives. 150 representatives of farms and employees of local authorities related to agriculture in East Kazakhstan region were interviewed, including heads of farms – 98 people, specialists of district and regional departments of agriculture – 52 people. The study was conducted by an online survey method. The results of the survey allows to conclude that the majority of respondents have certain problems in the management of the farm (91.9% of respondents), and only 8.1% of the surveyed farm managers do not have problems in the management and marketing of agricultural products.

The results of the online survey confirm that the heads of peasant farms are more in need of the services of external consultants and are more interested in the sale of products. Product marketing is one of the stages of effective marketing-innovation, which is based on verified information obtained in the process of market research for making business decisions. Therefore, the majority of farm managers and representatives of state bodies noted the need, taking into account the current reality: in communications, digital technologies, innovations in farm management, development of business planning, audit, evaluation and monitoring of activities considering external and internal factors of the agricultural market.

All respondents answered, regardless of whether they have problems with sales or not, that they need information and marketing support and qualified assistance from specialists in information technology, management, financial management, marketing. Finally, when asked concerning the need to create a single digital platform for information and marketing support of their activities, all respondents answered positively – 100% of respondents, since most of the heads of farms that

are part of agricultural cooperatives are not provided with reliable marketing information.

The results of the online survey emphasize that information and marketing support for the activities of farms contribute to improving the digital literacy of the rural population, while it is necessary to ensure the organization and conduct of online training seminars for representatives of the agricultural business. The knowledge gained in the field of digital technologies, the organization of management of an agricultural cooperative, the organization of agribusiness, marketing in agriculture, innovation and experience, and support for business initiatives, farmers can use to improve the efficiency of their own production, the profitability of farming. Such a management system of information and marketing support for agricultural cooperatives contributes to more effective development and increase of profitability of farms, ensuring competitiveness in domestic and foreign markets.

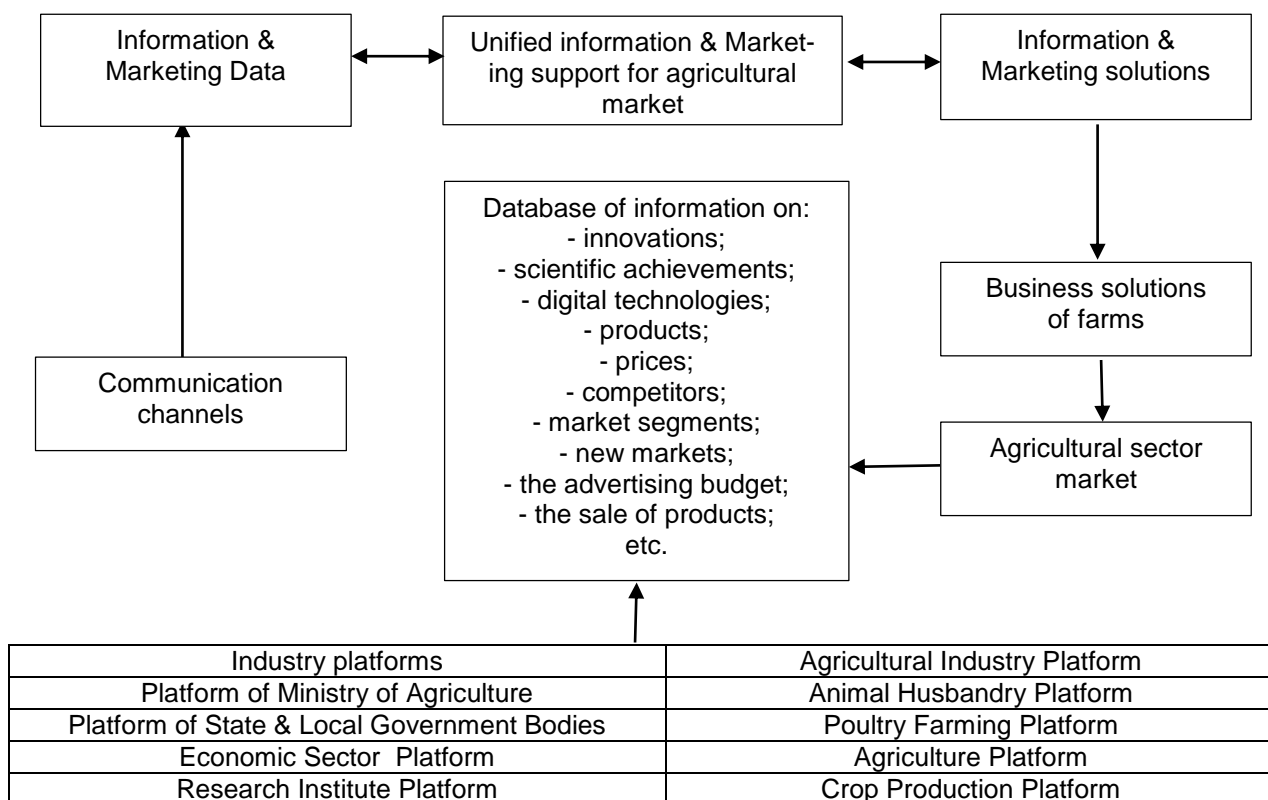
The availability of information and marketing capabilities facilitates agricultural cooperatives to accumulate huge information flows and manage marketing data. The processing of information and the use of marketing will allow to study the preferences of various consumer groups and increase the competitiveness of agribusiness. This model contributes to the development of a new direction in in-

formation technology – information and marketing support, taking into account the interests of all subjects of the agricultural market.

The above suggests that the goals and objectives of information and marketing support are as follows:

- improving the competitiveness of agricultural cooperatives;
- providing information and marketing resources and increasing the educational potential of the subjects of the agricultural market;
- ensuring the production process of agriculture based on the application of investment programs focused on the development of new digital technologies and implementation in practice;
- convincing farmers to produce high-quality products taking into account the requirements of the needs of the population;
- development of the welfare of rural residents and maintenance of the necessary level of development of agricultural regions.

The developed schematic “Model of information and marketing support” (figure) contributes to solving the problem of bridging the gap between the results of marketing research of agricultural cooperatives based on the formation and analysis of the information flow and the availability of effective marketing information to the subjects of the agricultural market.



Note: compiled on the basis of literature [10;11]

Figure - Unified information and marketing support for the activities of agricultural cooperatives

The study of the current state of the system of information and marketing support for the activities of agricultural cooperatives has shown that at the moment there is a gradual change in the marketing strategy in the direction of consumer retention through the use of modern approaches and technologies. At the same time, there is a transition from extensive methods based on attracting an increasing number of customers through the use of various channels of information dissemination to marketing methods to improve the quality of service [10]. It should be noted that the development of information and digital technologies, contributes to reducing the cost of agricultural production, thereby ensuring the efficiency of resource management and the penetration of communication and marketing tools in the management system.

Thus, the ways of rationalization of the unified information and marketing support system will allow the subjects of the agricultural market to use information and marketing as a tool to ensure the effectiveness of the organization of the management system of agricultural cooperatives, studying their competitive advantages and the economic behavior of agribusiness competitors, identifying target buyers and new market segments. The cooperative programs of the USDA provide extensive information support, including a library of more than 150 publications on the subject area, from guidelines for creating a cooperative to member training and cooperative management, as well as more technical topics such as accounting and tax legislation for cooperatives [12]. The above allows agricultural cooperatives to achieve concrete results in increasing sales, identifying the most popular goods and services, improving the quality of customer service, reducing costs and increasing business profitability, preventing fraud and retaining consumers, expanding market segments, and effective management decision-making.

Marketing uses a variety of communication channels for agricultural producers to interact with potential consumers, suppliers, state and local governments, associations and stakeholders.

The most important communication channels of marketing in the activities of agricultural cooperatives are the website, mobile marketing, additional reality of the subjects of the agricultural market. The quality of these channels significantly affects the results of marketing operations and the quality of information on the effective management of farm activities.

The new direction in modern management, presented on an interdisciplinary basis by merging scientific theory and methods of management and information technology, allowed the development of a new mechanism for information and marketing support – “WEB analytics”. This tool has actively penetrated into the activities of agricultural cooperatives, the main purpose of which is aimed at studying the market and ensuring the stability of the functioning of the agricultural business.

The practical significance of “WEB analytics” is associated with the formation and analysis of information on the market, consumers, competitors and about the economic activities of the subjects of the agricultural market as a whole, which ensures the systematization of marketing information, followed by optimization of the structure and content of the site.

The unified information and marketing space will allow agricultural cooperatives to use the methodology of statistical information processing and make decisions based on marketing analysis in order to verify hypotheses concerning the marketing situation of the agricultural market based on the results of internal and external factors.

The unified information and marketing space acts as a coordinator and contributes to improving the quality of communication channels in the activities of farms based on information and marketing data, and is aimed at performing a number of functions:

- \* Conducting marketing research and forming an information base (marketing data);
- \* Coordination of agricultural cooperatives' activities and marketing decision-making;
- \* Development of methodological recommendations for the effective conduct of agribusiness and business decision-making of agricultural cooperatives;
- \* Interaction with industry digital platforms, including the EAEU countries and far abroad;
- \* Cooperation on a digital platform with government agencies regulating agricultural cooperatives;
- \* Communication with Research Institutes in the field of new scientific developments and digital technologies;
- \* Administration of the database on agricultural cooperatives.

It should be noted that the digital platform manages the information base and interacts on the formation of communication channels with the Ministry of Agriculture, state and local government bodies, agricultural Research Institutes, test sites, economic sectors, to obtain the latest information on technologies, innova-

tions and the latest scientific developments in the field of agricultural business.

In the development of the above model, an important role is assigned to the development of analytical (expert) systems, which is the basis for the formation of new knowledge. On the basis of computer programs and models, a platform of effective business solutions is formed based on the system accumulation, generalization, analysis and evaluation of communication to solve specific tasks and problems in the information and marketing activities of agricultural cooperatives.

The design of information and marketing data involves the creation of an information base and the definition of the main criteria for evaluating and monitoring the significance of information and the results of marketing data for making managerial decisions by the heads of agricultural cooperatives. The process of using this information base contributes to obtaining not only economic, but also social effect.

The economic effect is aimed at improving the quality of the content of communication channels, information and marketing data and solutions, as effective mechanisms for organizing, managing and monitoring the activities of agricultural producers based on a single digital platform.

The social effect of designing an information base and marketing data is determined by the creation of additional jobs in the field of business analytics (system administrators, marketers and expert analysts) who own information and marketing resources for making optimal business decisions by the heads of agricultural cooperatives.

The communication database for farms should be information on innovations, scientific achievements, digital technologies, agricultural products, prices, sales of products, etc.

Thus, it should be particularly noted that the creation of a comprehensive information and marketing support system is aimed at increasing the level of awareness and confidence of agricultural cooperatives in a single information and marketing space in order to implement effective business solutions involving all subjects of the agricultural market. Accordingly, the formation of a single information space is provided on the basis of multi-channel marketing and information technologies that contribute to increasing the business activity of agricultural cooperatives and business cooperation of agricultural entities.

### Conclusion

1. In the conditions of the digital economy, the sphere of market relations is significantly expanding, the number of separate

economic entities is increasing, new ways of managing communications are being involved in the activities of agricultural cooperatives. This is due to the creation and development of infrastructure based on unified digital platforms for information and marketing support for the activities of farms of agricultural cooperatives.

2. The purpose and functions of information and marketing support are defined in the context of increasing agricultural cooperatives in the digital economy. Providing reliable information and marketing research by creating a single digital platform for agricultural cooperatives includes analysis of the activities of agricultural market entities, development of strategic programs, collection and dissemination of information, marketing and innovation, analysis of the agricultural market, support of education and science in the agricultural sector, tightening of quality standards for agricultural products.

3. The creation of a single digital platform is an important form of influence of the subjects of the agricultural market, contributing to improving the efficiency of the management of the activities of farms in order to establish communication channels for the interaction of information and marketing tools.

4. The unified information and marketing support of the subjects of the agricultural market in various parameters coordinates the strengthening of the collection, analysis, dissemination, monitoring and forecasting of the activities of the subjects of the agricultural market in the domestic and international markets.

5. The unified information and marketing support is one of the important elements of the infrastructure for the development of agricultural cooperatives. The creation of a digital network will streamline the impact of farms on the competitiveness of agricultural products, the scientific and technical level of production, information and marketing.

6. Information and marketing support as a single digital platform will represent a concentrated expression of a single and a system of support for agricultural cooperatives, which can become part of the digitalization of the agro-industrial complex of Kazakhstan.

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