Agro-Consulting as a Tool for Obtaining State Support in the Agro-Industrial Sector

Oksana Viktorovna SHUMAKOVA and Vitaliy Yu. EPANCHINTSEV

Omsk State Agrarian University named after P.A. Stolypin, Omsk, Russian Federation

Abstract: The study examines the current issues of consulting support for the innovative development of agriculture with the state support. In the economic situation of an active transition to a solid digitalization of the agro-industrial complex, the tasks and functions of agricultural consulting on the part of recipients and executors of consulting services are determined. The mechanism of ensuring a high level of technological, economic and legal support of economic entities in the sectors of production and processing of agricultural products is analyzed. The article revealed the contradictions in the organization of agricultural consulting and agricultural consulting itself as a tool for obtaining state support in the agro-industrial sector on the one hand and the needs of modern agribusiness in the volume and quality of consulting services and technical capabilities, as well as the level of professional competence of the staff of information and consulting services on the other hand. The prospects for the development of agricultural consulting are examined, taking into account the tightening of requirements on the part of consumers to the level of the final product of agricultural consulting. Measures have been proposed to increase the effectiveness of state support through improving the quality of information and consulting services, contributing to an increase in the production of competitive agricultural products of high processing depth in response to the threats of global challenges in foreign and domestic markets with the creation, spreading and application of scientific and technological achievements.

Keywords: agro-consulting, agro-industrial complex, agricultural consulting, state support, digital solutions.

1. Introduction

Coordination of efforts of executive authorities, agribusiness, consulting firms, together with science and education institutions to increase the efficiency of agro-consulting as a tool for obtaining state support is aimed at enhancing the innovative development of the agro-industrial complex (hereinafter referred to as agribusiness). At the same time, the current reality is the provision of information and consulting services to producers and processors of agricultural products in the conditions of digital transformation of agriculture.

For several decades, agricultural consulting has become an integral part of the regional infrastructure of the agro-industrial sector. The range of services provided is diverse and covers the entire functionality of the economic activity of a modern enterprise of the
agro-food complex of the Russian Federation, including the obtaining of state support for the technology of production and processing of crop and livestock products; engineering solutions; economic and legal issues, informatization of production and management processes. In 2019, information and consulting services for the agro-industrial complex operate in 63 regions of the Russian Federation and are carried out by 75 organizations of various forms of ownership at various levels of subordination [1].

The ideal model of the agricultural consulting system as a tool for obtaining state support in the agro-industrial complex means a situation when qualified professionals actively accompany the processes of obtaining and applying these services by agribusiness entities, who (including thanks to consultants) grow and process crop and livestock products [2, p. 92]. At the same time, one of the priority tasks of state support is the complete industry digitalization, which ensures transparency in the production and sale of agricultural products across the country “from field to counter”. However, it is obvious that such an ideal model does not correspond to the real situation. From this perspective, it is necessary to consider the infrastructure of information-consulting service market for agribusiness in the digital economy, as well as to determine the final product of agro-consulting as an accompanying service when receiving state support.

2. Literature Review

The research base in terms of the scientific and methodological component is works of Russian and foreign scientists and economists in the field of technical implementation of agro-consulting (A. Jones [3], M.E. Kadomtseva and M.N. Osovin [2, p. 89], et al.), the justification of the causal relationship between both agro-consulting with the development of agricultural production and life quality improving in the countryside (S.K. Sharma [4], O. Muellerij [5], G.M. Demisheievich [6, p. 145], V.G. Savenko and I.S. Sandu [7, p. 79], et al.), the scientific justification of the responsibility boundaries of agro-consulting for the content of the services provided and the possibility of obtaining state support as a product of agricultural counseling by the agricultural entity (I.G. Gaitudinov [8, p. 7], S.A. Maltsev [9, p. 9], L.R. Oganyan [10, p. 11]).

Interesting components of the methodology for analyzing modern practices of information and consulting services for producers and processors of agricultural products are found in the studies of R. Birner [5], K. Davis [4], J. Pender [3] etc., while the methodology for advising personal farms and peasant farm enterprises taking into account the management of changes in the institutional environment is reflected in the works of R. Nettle [4], A. Crawford [11], P. Brightling [12].

The information base of the study was the data of the federal executive bodies, the reporting of the Federal Center for Agricultural Consulting and Retraining of the Agro-Industrial Complex, as well as the regional centers of the agricultural consulting system.

3. Methods and Materials

The theoretical and methodological basis of the study is the work of domestic and foreign economists on service support for the production and sale of agricultural products in terms of agricultural consulting. Methods of comparative and system analysis were applied. The analysis involved the development of agro-consulting as one of the main components of solving the problem of ensuring a dynamic transition to digitalization of the agro-industrial complex, and an important factor in increasing the
competitiveness of domestic agricultural products of high processing depth. The process of achieving an effective level of functioning of the agrarian consulting system in the conditions when it becomes a real tool for technology transfer in the chain: innovation - production and processing of agricultural products - final consumer.

There have analyzed the basic concepts of the subject of study. The specified source defines agricultural counseling as: "The activities of consultants to provide professional advisory services that are advisory in nature and help rural producers and the population to develop production and improve the living standards of rural residents" [13]. The study identified the fundamental differences between agricultural consulting and agricultural counseling. In English, this is the same concept of "Agro-consulting." In Russian, these phrases are essentially identical. However, according to the authors, a significant difference can be due to different mechanisms for organizing the provision of information and consulting services, the features of which are discussed below.

According to the information of the Federal Center for Agricultural Consulting and Retraining of the Agro-Industrial Complex, counseling solves the following tasks [13]:

- promoting the development of agriculture and rural areas;
- ensuring the transfer of innovations from innovation producers to rural producers;
- dissemination of information on innovations by modern means of communication;
- demonstration of new knowledge and technologies on experimental fields and farms;
- compilation and maintenance of innovative projects in the agro-industrial sector.

Thus, the process of achieving an effective functioning level of the agrarian consulting system under conditions when it becomes a real tool for technology transfer in the chain: innovation - production and processing of agricultural products - final consumer.

4. Results

Currently, the tasks of promoting agro-consulting on the development of the agro-food complex by ensuring the transfer of innovations, mainly with state support, are being solved by implementation of its three main functions:

- information and consulting: by providing agricultural and processing organizations with the necessary scientific and technological information, as well as providing advice to agricultural producers on economic, technological and engineering issues;
- educational: in terms of organization of professional retraining and advanced training, internships for specialists and managers of economic entities of the agro-industrial complex, farmers, rural population;
- innovation and investment: working out and support of investment projects for the production and processing of agricultural products, including involvement of state support as a source of financing.

At the same time, the result of the consultant's quality and operational work is not only the integrated development of agricultural production, but also the improvement of the quality of life of the population of the corresponding rural territories [14, p. 8]. The causal relationship of effective counseling with the sustainable development of agribusiness and corresponding rural areas is presented in Table 1.
Table 1. Causal link between agricultural counseling and sustainable development of agro-industrial complex and rural areas

| Component of efficiency | Component of agricultural counseling | Concrete result |
|-------------------------|--------------------------------------|-----------------|
| Economic                | Assistance to economic entities of the agro-industrial complex in developing a package for obtaining state support. | Improving the effectiveness of budget financing, taking into account the timeliness of its obtaining. |
|                         | High-quality level of information and consulting services. | High-efficiency level of managerial decisions made by economic entities in the agro-industrial complex. |
| Scientific and Technological | Transfer of innovative technologies. | Increasing the volume of commercialization of innovative projects. |
|                         | Creation and maintenance of business plans for investment projects for the production and processing of agricultural products. | Increase in capital investments, including in the active part of fixed capital. |
|                         | Evidence-based consulting to agricultural producers on crop and animal husbandry, storage and processing of agricultural products. | Increase in the volume of production and processing of agricultural products; increasing the productivity of farm animals, crop yields, increasing the level of import substitution. |
| Social                  | Information and consulting support for initiatives of individuals and legal entities aimed at the development of rural areas. | Improving the life-quality of population as a criterion for sustainable development of rural areas. |

In connection with the peculiarities of the agricultural consulting content, we will essentially reveal the essence of the differences between consulting and agricultural consulting, taking into account the degree of responsibility of the performers for the consulting product in the first case and for the consultation provided in the second case, respectively (Table 2).
### Table 2. Comparative characteristics of agro-consulting and agricultural counseling

| Comparative Criteria                  | Agro-consulting                                                                 | Agricultural counseling                                                                 |
|---------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Level of difficulty to fulfilling orders | Any difficulty, to be ready to attract subcontractors, as a rule, on complex technological issues. | Within the framework of the professional competencies of specific skills of the employees. The level of difficulty of the required services limits the package of orders. |
| Sources of activities’ financing      | Sales volume from the sale of consulting services. State support in the framework of general measures to support small and medium-sized businesses. | Direct and indirect attracted sources, revenue from sales of services. |
| Level of responsibility               | Responsibility for quality and timeliness of fulfillment of obligations according to the contract. | Responsibility for quality and timeliness within one specific consultation. |
| Conditions for employee’s attraction  | Entering into labour contracts with employees.                                   | One-time employee involvement. As a rule, for a specific order under civil law contracts. |
| Level of professional competencies    | High level of competencies in various fields of agricultural sector.            | A high level of competencies in certain areas of agricultural sector.                   |
| Mechanism for promoting services on the market | Active customer acquisition, rely on word-of-mouth marketing, bonuses for regular customers. | Centralized notification of potential customers about possibilities of providing information and consulting services, including notification through public authorities. |
| Efficiency in the order fulfillment organization | Maximum efficiency                                                            | An order is fulfilled as far as possible. Delayed timing is not excluded.               |

Obviously, there is a set of fundamental differences, in particular in terms of functionality, in the process of drawing up a package of documents for obtaining state support. In terms of complexity, agro-consulting is ready to tackle a complex product. For example, an investment project for the production and deep processing of livestock and crop production, with the organization of its own retail sales system. There is no doubt that the high-quality implementation of such an order requires executors of a very high level of professional competence in all areas of agribusiness (technological, industrial, IT, economic, financial and other components).

Agricultural counseling is usually narrowly focused on specific issues, the solution of which is limited to recommendations. This defines a different level of responsibility: in counseling - for information that is not relevant today or for its absence, in agro-
consulting - a product must be done “on a turn-key basis” with all the ensuing consequences, namely:

- be ready on time (most often quite tough in time);
- take into account the operational conditions for changing the task set by the customer (for example, the work on an investment project also adjusts the amount of financing, composition of equipment, herd turnover, etc.);
- fulfill the order according to strictly defined criteria (often according to federal state requirements).

According to the comparison, the severity of the burden of responsibility for violation of contractual obligations pulls towards consulting. A counseling person may be asked for the small amount of information received, and in the worst case, they will make oral complaints. Given a timely written response to questions, it is extremely difficult to prove the low quality of such a service.

In consulting, the opposite is the case. This is due to the fact that the end consumer is essentially not even a customer, but executive authorities, credit organizations represented by a team of high-level professionals. Moreover, the task for performers is becoming more complicated due to the activation of the process of introducing digital technologies into the agro-industrial complex. One hundred percent increase in labor productivity by 2021 at the “digital” agricultural enterprises should occur due to technological breakthrough [15]. Information and consulting support for the agro-industrial complex through the introduction of platform solutions is largely intended to provide this breakthrough.

5. Discussion

In the current situation of the massive introduction of integrated digital solutions for agribusiness in the process of agro-consulting (as a tool for obtaining state support by economic entities of the agro-industrial complex), technological, economic, IT and legal support is provided for agribusiness in the sectors of agricultural production and processing. For a more complete illustration, we turn to the information of the Federal Center for Agricultural Consulting on the structure of the agricultural consulting system in the Russian Federation [13].

Unfortunately, the site does not have information for the last reporting year. However, taking into account the fact that the structure of consultants for agribusiness sectors over the previous three years is quite stable, the data on monitoring the provision of consulting assistance allow drawing conclusions about the organization of information provision and consulting services in the agro-food complex (Table 3, Table 4).

An amount of 4009 specialists is represented on 26% as the economic and legal bloc, 22% are livestock specialists. These indicators clearly correspond to the current situation in which business entities receive state support for the development of livestock.
Table 3. Specialists' structure of the agricultural counseling system in the Russian Federation

| Consultants                | Number, people | Proportion,% |
|----------------------------|----------------|--------------|
| Agronomists                | 605            | 15           |
| Animal and vet specialists | 906            | 22           |
| Economists                 | 537            | 13           |
| Accountants                | 345            | 9            |
| Lawyers                    | 152            | 4            |
| IT Specialists             | 131            | 3            |
| IT Specialists             | 426            | 11           |
| Specialists of other specialties | 907      | 23           |
| **Total**                  | **4009**       | **100**      |

The proportion of consultants in federal districts correlates with the district’s share in agricultural output. We will reveal the features of the mechanism for organizing the information provision and consulting services in the Russian Federation.

**Feature 1.** Out of the 75 organizations operating in the agricultural consultancy market of the country, 58 are educational institutions. It would seem that the "living embodiment" of the formula "science - production", however, questions arise. Teachers can give a recommendation to the farmer, but they physically cannot do any more cause of time limit (taking into account the requirements of documenting the activities of participants in the educational process). It is easy to draw an elementary logical conclusion that less than 25% of consulting organizations can fully work on the final consulting product during the whole working day.

Table 4. The structure of the agricultural advisory system in the federal districts of the Russian Federation

| Federal Districts  | Consultants, pers. | Proportion,% |
|--------------------|--------------------|--------------|
| Central            | 1178               | 29,5         |
| Northwest          | 298                | 7,4          |
| Volga District     | 1098               | 27,4         |
| Southern           | 615                | 15,3         |
| North Caucasian    | 92                 | 2,3          |
| Siberian           | 475                | 11,8         |
| Far Eastern        | 218                | 5,4          |
| Ural               | 35                 | 0,9          |
| **Total**          | **4009**           | **100**      |
**Feature 2.** The centers of agricultural consultation at the district (inter-district) level are not fully staffed with specialists. Although it is such centers that should answer current urgent issues of agricultural organizations, farmers and rural population.

**Feature 3.** The "average check" of one service is 1,473 rubles. In modern market conditions it’s not a lot. The basic principle of business is violated: consulting, at a minimum, must pay for itself. Otherwise, with the slightest lack of attracted funding, information and advisory services cannot survive financially.

The authors do not exclude the presence of some debatable issues in their conclusions. Obviously, a consultant needs a high level of professional competence in terms of theoretical training. Doctors and Ph.D. of Sciences (and a total of 1,462 of 4,009 specialists) are undoubtedly needed. However, it is quite difficult to find time for the operational preparation of high-quality consulting products for such a number of professors and associate professors. At the same time, practitioners often lack scientific competencies to prepare such products in a quality manner.

The results of the study reveal mainly the mechanism of agricultural counseling by the service provider. At the same time, it is important what the customer is ready for [10, p. 11]. Thus the role of counseling as an entrepreneurial activity is lost without it. In particular, Table 5 presents the results of a study by the authors on the level of preparedness of agricultural producers in the Omsk region for the use of integrated digital agricultural solutions (including data-based management) using an agricultural consulting system.

**Table 5.** The level of readiness of agricultural organizations in the Omsk region for the use of integrated digital agricultural solutions, including agro-consulting

| Readiness for the use of integrated digital agro-solutions | Digital Technology Package | Proportion, % |
|-----------------------------------------------------------|-----------------------------|---------------|
| Agricultural producers ready for digitalization of primary and secondary business processes | Application of all basic technologies | Up to 5 |
| Agricultural producers ready for digitalization of individual elements of their business processes | Application of bigdata technologies, block chain, limited intellectual planning systems | 10-15 |
| Agricultural producers ready for targeted use of digital technologies | Application of bigdata technologies, block chain | 80 |
| Agricultural producers not ready for digital technology | Lack of digital infrastructure and core competencies | |

It is easy to see that the vast majority of economic entities in the region are currently in opposition to the digital transformation of agriculture. Nevertheless, the creation of a single base with the condition of constant updating on the basis of an intelligent system for supporting the adoption of agricultural decisions in the situation of active digital
transformation of the agro-industrial complex will increase the level of effectiveness of state support by increasing the production of competitive agricultural products of high processing depth through the creation, distribution and application of scientific and technological sphere [9, p. 9].

6. Conclusion

Being one of the sought-after tools for obtaining government support in the digital economy, agro-consulting should be proactive, offering potential consumers of information and consulting services breakthrough topics in agribusiness [16].

At the same time, some contradictions arise regarding the presence of contradictions in the organization and agricultural consulting and agricultural consulting as tools for obtaining state support in the agro-industrial complex:

- between the complexity of the execution of orders and the “throughput” of the organization of agricultural consultation in terms of the available working time of the executors of the consulting order;
- between the level of practical training of consultants and the level of requirements of a consulting product;
- between the availability of specialists in the agricultural consulting market and the volume of potential orders from agricultural organizations and processing enterprises;
- between the level of readiness of agricultural producers to work in the context of the digitalization of the industry and the level of requirements for carrying out economic activities in the agricultural sector in the conditions of transformation of agriculture in the transition to a digital economy;
- between the purpose of the consulting product in essence and the need for its implementation and application in agricultural organizations;
- between the level of staff motivation within the framework of one order from the organization - the executor of information and consulting services and the ultimate goal of the customer - the economic entity of the agro-food complex;
- between the market format of the customer’s relations with the service provider and the cumbersome mechanism of legal and organizational support of the consulting order from the executors - budget institutions;
- between the level of requests for the results of information and consulting services from the customer and the real financial, as well as organizational and technical capabilities of the customer in the implementation of the substantive recommendations.

In terms of agricultural counseling, an applied technological specialization is required on topical issues of crop production and animal husbandry (crop rotation consultant, herd turnover consultant). In addition, taking into account the effectiveness of consulting and the mentality of domestic farmers, it is necessary to constantly monitor how satisfied consumers are with the quality of services and what issues they are ready to contact in the short and long term.
Acknowledgments

This study was conducted with financial support from the Omsk State Agrarian University named after P. A. Stolypin.

References

(1) FSBEI DPO. Federal Center of Agricultural Consulting Services http://en.mcx-consult.ru/ (accessed Feb 22, 2020).

(2) Kadomtseva, M. E.; Osovin, M. N. Prospects for the Development of the National Agricultural Consulting System in the Context of the Transition to a Digital Agricultural Economy (in Russian). Vestnik NSEEI 2019, 2 (93), 83–95.

(3) University of Arkansas System Division of Agriculture Cooperative Extension Service https://www.uaex.edu/default.aspx (accessed Feb 23, 2020).

(4) European Commission. Target Groups and Main Methods of Advisory Services in Surveyed EU Countries. In Final Report Summary - PRO AKIS (Prospects for Farmers’ Support: Advisory Services in European AKIS). Project No: 311994; 2012. https://cordis.europa.eu/project/rcn/105025/reporting/en (accessed Feb 22, 2020).

(5) ADE; ADAS; Agrotec; Evaluators.EU. Evaluation of the Implementation of the Farm Advisory System; Text Final Report — Evaluation Part; 2009. https://ec.europa.eu/agriculture/sites/agriculture/files/evaluation/market-and-income-reports/2009/fas/report_eval_en.pdf (accessed Feb 22, 2020).

(6) Demishkevich, G. M. Formation and Development of Agricultural Counseling System (in Russian); FSU RCAC: Moscow, 2009.

(7) Sandu, I. S.; Savenko, V. G.; Sokolov, K. O. Crowdsourcing as a Tool for Developing the Activities of Information and Consulting Services. Fundamental and Applied Studies of the Cooperative Sector of the Economy 2017, 6, 78–80.

(8) Bylina, S. G.; Kadomtseva, M. E.; Osovin, M. N. Informatization of the Agro-Food Complex and Rural Territories of Russia: Possibilities and Limitations: Monograph (in Russian); Publ. House “Saratovskiy Istochnik”: Saratov, 2018.

(9) Maltsev, S. A. Ways to Improve State Support in the Agro-Industrial Complex of the Smolensk Region (in Russian). Achievement of Science and Technology of the Agro-Industrial Complex 2013, 11, 8–10.

(10) Oganyan, L. R. State Support of the Agricultural Sector of the Stavropol Territory in Modern Conditions. In Achievement of science and technology of the agro-industrial complex; 2014; Vol. 6, pp 9–12.

(11) European Commission. The European Cloud Initiative https://ec.europa.eu/digital-single-market/en/%20european-cloud-initiative (accessed Feb 23, 2020).

(12) European Commission. Final Report Summary - PRO AKIS (Prospects for Farmers’ Support: Advisory Services in European AKIS) | Report Summary | PRO AKIS | FP7 | CORDIS | European Commission; Project No: 311994; 2012. https://cordis.europa.eu/docs/results/311/311994/ftpl-20150928_pro-akis-final-publishable-summary-report.pdf (accessed Feb 23, 2020).
(13) FSBEI, D. P. O. *Federal Center for Agricultural Consulting and Retraining of Agro-Industrial Complex Personnel*.

(14) Gaitudinov, I. G. Small agricultural business: concept, organizational and legal forms and classification criteria. *Achievement of science and technology of the agro-industrial complex* 2012, 2, 6–9.

(15) Ministry of Agriculture of the Russian Federation. Order of the Ministry of Agriculture of the Russian Federation of January 12, 2017 No. 3 on Approving the Forecast of the Scientific and Technological Development of the Agro-Industrial Complex of the Russian Federation for the Period until 2030 (in Russian). 2017. http://base.garant.ru/71599570/ (accessed Feb 23, 2020).

(16) President of Russian Federation. *Decree of the President of the Russian Federation of May 7, 2018 No. 204 “On National Goals and Strategic Objectives of the Development of the Russian Federation for the Period until 2024”* (in Russian). http://www.garant.ru/products/ipo/prime/doc/71837200/ (accessed Feb 23, 2020).

(17) Khabirov, G. A.; Sitdikova, G. Z. Evaluation of the Efficiency of Using Production Resources in Agricultural Organizations (in Russian). In *Prospects for the innovative development of the agro-industrial complex: Materials of the International scientific-practical conference in the framework of the XXIV International specialized exhibition “Agro-complex-2014”*; Bashkir State Agrarian University: Ufa, 2014; pp 234–239.

(18) Zobov, A. M.; Degtereva, E. A.; Chernova, V. Y.; Golodova, Z. G.; Starostin, V. S. Analysis of the Agro Risks of Import Substitution of the Food Production. *Journal of Environmental Management and Tourism* 2017, 3 (19), 648–656.

---

**Information about Authors**

**Oksana Viktorovna SHUMAKOVA**: D.Sc. in Economics, Rector, Omsk State Agrarian University named after P.A. Stolypin; 1 Institutskaya Square, Omsk, 644008, Russia; e-mail: ov.shumakova@omgau.org.

**Vitaliy Yuryevich EPANCHINTSEV**: Ph.D. in Economics, Associate Professor, Omsk State Agrarian University named after P.A. Stolypin; 1 Institutskaya Square, Omsk, 644008, Russia; e-mail: vu.epanchintsev@omgau.org.