

## Methods of Agricultural Machinery Market Regulation

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**Abstract:** This study deals with the influence of information on the level of development of the agricultural machinery market. Today the market of agricultural equipment has a large number of equipment manufacturers both Russian and Foreign, each of them struggling for buyers who have the ability to purchase equipment both for their own and borrowed funds. Therefore, every buyer must have full information about prices, quality and analogues. Plenty of farmers receive information from the Internet or media advertising. This information is presented on behalf of the producers and does not have data on the negative aspects of the products or services while rural producers do not have alternative sources for other data. Here were studied the methods of data collection. The scheme of information communication between the producing enterprises and consumers of technology markets is given below. Information support includes the following basic elements: the sender of information; the message; The channel of information; the recipient of information, able to get a feedback from the sender. In this regard, it would be appropriate to create a separate direction in the activities of Information and Consultancy Services (ICS) to assist in the creation of wholesale markets of engineering. ICS will need to have information on the sales markets of the new and secondary machinery should form the demands of consumers and have a list of requirements of domestic and international standards as well as the requirements of the latest developments in the field provided in the patents also have to know about the developments in the field of quality and the most powerful competitors should have the data obtained under normal operating conditions taking into account the differences of the climate. Here are examined possible problems in the activities of ICS which are surmountable. All this shows the urgent need for the implementation of the synthesis and processing of information on the agricultural machinery market within the ICS which will increase the efficiency of information management system and a number of enterprises in the framework of the institutional mechanism.

**Key words:** Market of agricultural equipment, information, information and consultancy service, communication channels, new machinery, secondary market of machinery

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### INTRODUCTION

Information data is one of the factors of the positive development of the agriculture machinery market complex. Information on prices, manufacturers, maintenance and repair are one of the most important components of effective development of the enterprise as a whole. Lack of information leads to the purchase of goods and services for the price of the buyer, what makes it impossible to compare.

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### MATERIALS AND METHODS

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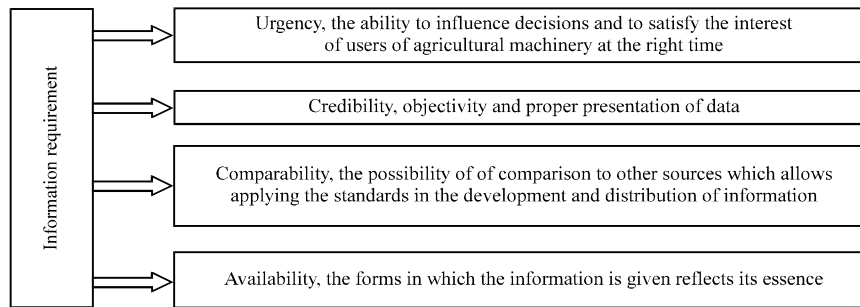


Fig. 1: Requirements for information on the machinery market used in agricultural manufacturing

competitors should have the data obtained under normal operating conditions taking into account the differences of the climate (Bautin and Veselovsky, 2002; Burobkin, 2005). ICS receive information via communication channels: phone, fax, internet, etc. Information should meet the following criteria considered in the scheme (Fig. 1).

On the online market of agricultural machinery, there is a number of information and advisory services companies, where you can find information about the availability of certain machines, spare parts, price, used inventory, etc.

These businesses include: consulting service “Aris”, “Rosagrosnab”, “Agris” (Burlankov, 2004). Federal exchange network of knowledge and technology in agriculture “Your country consultant”.

In the agricultural sector in the Volga region under the Ministry of Agriculture and Food, there are information and consultancy services, where you can find information about the availability of certain vehicles, spare parts for them, their price, etc. (Subaeva and Malinina, 2014).

During periods of intensive exploitation of machinery getting information about breakdowns, defects, delivery of spare parts, the need for repair by experts is essential. Communication tools are telephone, fax, computer network, the GLONASS system, etc.

Data collection methods do not provide consumers with full and accurate information in a large flow. Therefore, the information security of the management is paramount.

## RESULTS AND DISCUSSION

We shall consider the scheme of information communication between the producing enterprises and consumers of technology markets. In the first place, all the information on the use of the machinery has to be formed at the customer enterprises during operation. Herewith, there should be the collection of data on new and secondary equipment.

Companies-manufacturers of agricultural machinery and spare parts get information on the use and recommendations for improvement of the ICS. ICS in this chain plays a key bridging role. ICS should perform the following functions: informational, consulting, and educational. The accumulated information in the sector of agricultural machinery concerning new or repaired machinery should be transparent and accessible to consumers.

The unified information space system of agricultural counseling, structured by computer systems at various levels, allows informative combining of industry structures information of the federal and district levels into a single information-technological system (Pimenov and Berezin, 2002).

All information is stored in a data bank which is a set of data necessary for a specific purpose and shown in computer which allows the automated processing of the information contained (Burlankov, 2004; Savenko *et al.*, 2015) (Fig. 2).

Information systems of regions are dependent on the federal level which tasks include: informing regions on developments in the field of machinery quality in the agri business sector; data bank formation of new and refurbished machinery; analysis of Foreign machinery used in Russia; data collection on the level of reliability of the exploited agricultural machinery, its analysis, forecasting and making management decisions as well as the development of measures to improve the situation; informing managers and ICS specialists of regional level about the results of testing and certification of various types of agricultural machinery; formation of a data bank on modern, cost-effective and most promising technologies of repair and maintenance of machinery for their application in practice in the regions and abroad; (Burlankov, 2004). prompt informing of the managers and ICS specialists of regional levels of the legal documents relating to the quality of agricultural machinery (international and national standards, laws, etc.).

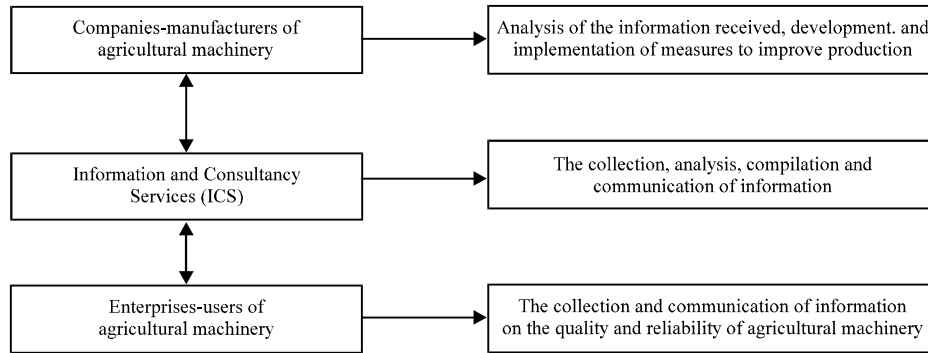


Fig. 2: The scheme of information provision with ICS technology on the machinery market

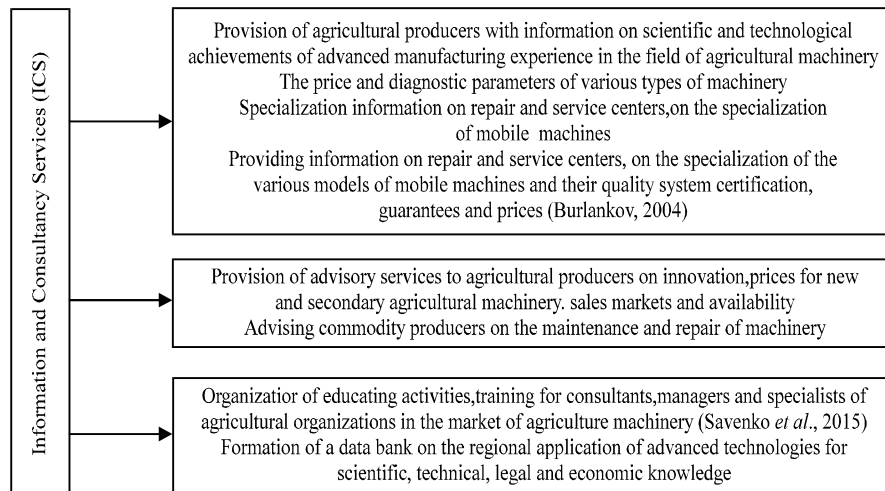


Fig. 3: Functions of Information and Consultancy Services (ICS) on the market of agricultural machinery

regulation of relations between regional ICS information systems, manufacturing companies, marketing departments working on issues of agricultural machinery quality (Fig. 3).

For the formation of this trend in the functioning of Information and Consultancy Services (ICS) under the Ministry of Agriculture and Food of the Russian Federation various variants of its financing are possible. Information communications arising between agricultural producers and manufacturing companies should be formed and funded by these companies as the information about the level of quality required is that what they need in the first place (Burobkin, 2005).

The networks, linking companies with consumers of machinery and services, should be formed both by the Ministry of Agriculture and Food and by the manufacturer, with the support of federal agencies. Formation of information systems linking federal agencies with enterprises should be formed by government agencies and be centralized.

However, following the example of some foreign countries there can be created: public, semi-public (financed both by the state and agriculture manufacturers) and private services. We shall consider the most unknown to us variant of ICS in the form of private enterprise. The German experience shows that private consulting bureau unites 6 consultants. Consultants research independently while for documentation and information exchange, they are united in a bureau. Private consultant serves a wide range of issues, main among them are: investment projects, projecting the development of agriculture, drawing up the business plan for the loan application to the bank, etc.). Thus, private ICS operate not only within one region. One private consultant can operate 30-50 house holds. The average frequency of consultant's visits to the households is 4 time a year. There will be a written or oral agreement governing the relationship between the counselor and the household. Remuneration of a private consultant is time based (Filatov, 1997).

Table 1: Swot analysis of ICS activities development

S (strong points)	W (weak points)
The presence of developing federal and regional network of services	No federal law on agricultural advice
Work of qualified specialists in different areas	The problem of staffing
Development of a database and information sharing	ICS is not involved in the formation of orders for agricultural machinery and spare parts to it
Interaction with developers, customers, investors, producers companies serving agri business	Underdeveloped mechanism of interaction between academic institutions manufacturing companies
The use of modern forms and methods of information work	The lack of ICS in areas
<b>O (Opportunities)</b>	<b>T (Threads)</b>
The prospect of ICT development in the direction of the market of agricultural machinery	The absence or weak activity of ICS in the regions
The development of ICS in the direction of the market agricultural technology can provide innovative services to producers	Lack of government support for the development of ICS

However, the collection of data on agricultural enterprises remains one of the labor-intensive activities. The question is: “Who has to collect and transmit the information of ICS?” To solve this issue it is advised to sign up a tripartite agreement between agricultural producers, ICS and agrarian university. It is expected that for the collection, processing and delivery of data in the farms will be involved in the students of agricultural universities and the agricultural colleges will be able to send students for work experience and will be able to conduct a series of scientific studies. Students will get well-deserved earnings for their work if the contract provides it.

At the same time, the interest of agricultural enterprises is to attract the cheapest workforce in the face of trainees. The proposed structure of financing this advisory association: 30% will be paid by agricultural enterprises and 70% due to the ICS. However, in the case agricultural enterprises are not interested, the payment in the amount of 100% shall be assigned to ICS. In turn, ICS can communicate collected and processed information to agriculture manufacturers and other interested parties on a commercial basis.

An important point in collecting information is the functions of team leaders aimed to collect data who are the representatives of ICS. Their task is to unite the team, setting goals, development of questionnaires and the formation of the resulting data. While developing the questionnaire should be taken into account the following: the form should contain the name, the initiator of the survey, a short goal; questions must be concise, understandable, designed for people of average intelligence; would be better if there were possible responses to be ticked; profile should not be too long and take a lot of time; the profile shall include the time and location where it is being filled in; in the questionnaire should not be offered questions concerning personal data. Written method as questionnaires may not always be acceptable because of the complexity of the filling, formalities, lack of time (Demishkevich, 2009). In this case it is better to use the questionnaire-interview. When

interviewing the employees of ICS will get to know the problems of employees’ material base, since the conversation is not limited to a discussion of questions of the questionnaire, the employees of the village will be able to reflect better the problems they have encountered. We offer profiles to identify potential customer dissatisfaction of machinery market. Each questionnaire should be prepared individually for agricultural enterprises, large and medium-sized farms and small (peasant) farms and smallholders. It is necessary to take into account the economic condition, availability of existing agricultural machinery and repair shop areas and the availability of repair equipment. These questionnaires should differ according to the list of issues. In developing, the questions, you need to consider the interests of producers and consumers of machinery, use the opportunity to identify and correct existing deficiencies. These analytical materials of the monitoring allow making adjustments in the program of agricultural machinery enterprises and agribusiness specialists’ development, in the development plans of the ICS at the federal, regional and district levels, to develop a strategy for its development in the future.

The proposed scheme of ICS activities is a system uniting all levels of information resources focused in order to bring new developments to specific customers, assisting in the development of innovations (Veselovsky, 2001; Savenko *et al.*, 2015). We shall consider possible problems in the activities of ICS which are surmountable. Table 1.

**Summary:** We have established that changing the current situation of the machinery market for agricultural purposes is possible in the case of informing the buyers and manufacturers about the real state of the machinery market and advanced manufacturing experience, forming and providing objective, credible ICS information that will improve the efficiency of information management system and a number of enterprises as part of this organizing mechanism.

## CONCLUSION

Thus, the use of the opportunities of agricultural consultation will help improve the current situation, when the real state of the use of scientific and technological achievements and advanced experience in the field of agricultural machinery is not properly carried out and does not reflect the real situation. This creates a distorted picture of the development of the agricultural machinery market and the state of scientific and technical potential of the industry.

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