

## **EFFICIENT TRANSFER OF KNOWLEDGE IN AGRICULTURE THROUGH COOPERATIVE STRUCTURES**

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### **Abstract**

In broad, deep and dynamic process of knowledge transfer, the cooperative structures can have a decided role in improving the information as a factor of production in agriculture. The process of defining a cooperative structure, as the intermediate link between producers and consumers of information and taking in consideration the principles of economic liberalism requires going through several steps which well-define, in the implementation of projects with European funding philosophy, can become self-standing actions.

In this context, it is important to establish criteria through which are defined the target group, tools for promoting the new, and patterns for managing market relationships of agricultural markets.

**Key words:** knowledge transfer, cooperative structure, information, market, efficiency

The World of today is marked by a new planetary dimension, given being by the circulation and putting into value of the information, regardless the geographical area this is coming from. To have information and to use it in real time at its entire value has become today one of the criteria for assessing the development degree of one society.

The major advantage of the information is that it is not finite. It seems to regenerate itself. Information creates information. Out of knowledge it results more knowledge. Knowledge is a public good. Once it has been discovered, it is practically free for everybody (except for that protected by the Law). Sooner or later, everybody will take advantage from the new discoveries. Once they have

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been made public, the addenda of new users to that knowledge have a null marginal cost. Two key points are generating major costs in the information circulation: first, the transmission network for the new knowledge, and, second,, the process of educating the people for the use of the new knowledge and its application in the economic activity, as knowledge is best assimilated through its application and not through its memorizing.

On these grounds, of general order, having information as a central point, our study starts, which has in view the determination of the role of the agricultural cooperation in the accession and putting into value of the new information by the farmers, within the big and modern concept, personalized by what the knowledge transfer means. The operationalization of the knowledge transfer implies a series of structural elements: the approach of the philosophy the concept is based on, the operational structures which manage the process of knowledge transfer, the means by which the knowledge transfer is ensured.

Conceptually, the knowledge transfer represents a process which is responding to an increasing social need of putting into value the research results, by their quick integration, be it in practical applications or in the policies elaboration. In the European Commission vision the knowledge transfer resides in a series of activities which wish to collect and transmit the knowledge, the skills and competences from those generating them to those which will transform them into economic results. They include both commercial activities, and non commercial ones, as the collaboration in research, consultancy, the researchers' mobility and publications. The knowledge transfer is a more comprehensible concept than the technology transfer. It includes other transfer channels also, as are the mobility of the staff and the publications. The knowledge transfer is beneficial for all the stakeholders among whom we mention universities, the research centres and economic organizations. The efficient knowledge transfer is a key mechanism for the European Research Area and contributes to the increase of the research impact upon the European Union competitiveness.

Naturally, in a modern society and economy the knowledge transfer is followed by the knowledge exchange, the so called the know how exchange, which represents the process that facilitates, on one hand the population access to the academic expertise or to the services it needs, and on the other hand the inter university collaboration for the improvement of the academic services ensured to the business environment and to the community in its whole. The activities the knowledge exchange imply are comprising the establishing of connections among universities and between these and the business environment, the management of the theme data, organized by the specific of the activities in view, the dissemination of the information regarding the interest events, the development of partnerships with the local or professional organizations in view of increasing the

capacity of funds absorption. In essence, the transfer, respectively the knowledge exchange, is processes which contribute to the optimization of informational flow through the ensuring of its continuity. The social need, to which the knowledge transfer/exchange responds, reflects the economic particularities of information.

In the context of the present socio-economic structure, the main knowledge suppliers are the research institutes and the university centres. These academic actors are confronting themselves to a series of problems:

- the increase of the research sector attractiveness;
- the better exploiting of the research results;
- the access to financing;
- the orientation of the research efforts towards demand.

The solution to these problems depends on many factors, but the getting closer to the beneficiary by the release of information, on one hand, and on the other, by its education, represents a determinative element in their activity efficiency. As result, both the rural actors and the academic ones are motivated to initiate collaboration activities, cooperation, which should contribute to the research results transposing into successful economic activities. The ensuring of the access to information is made by an institutional structure, which could take very different forms, in function of the way its constituting was initiated, and taking into account the size and the characteristics of the rural space it serves to.

The European model most frequently encountered, especially in the UK is represented by the centres of rural development, constituted through the cooperation, collaboration between the research or academic institutions and the information beneficiaries, represented often by an agricultural cooperative structure. The centres of rural development are representing real “information nuclei”, where the incomes are represented by the research results, the information supplied by the rural actors, the political and legislative information of interest, the financing opportunities, and the outcomes are the responds to the farmers and rural enterprisers needs. In this nucleus there takes place the assembling of the consumption with the information supply, by the adjustment of both the components. For example, the supply is adapted by initiation of applied research, proposals of political or legislative measures, and the consumption, by processes of instruction, information, etc.

A major element that differentiates the rural knowledge centers is the philosophy their construction is based on. Thus, this can be a traditional approach, where the starting point is the information supplied by the research, integrated afterwards into governmental programmes, wishing their implementation (the top-down approach), or on the contrary, an innovative, pragmatic approach, initiated by

the rural actors or university centres, which have as a starting point the needs of the final beneficiaries, where there is wished not only the implementation of the governmental programs, but their improvement also, their adapting to the realities with which the rural space is confronted (bottom-up approach).

The final beneficiaries of the information transfer are the farmers, in Romania especially the small farmers. It would be nonsense to think that in a world where the changes are extremely quick, the actions of overtaking and putting into value of the new information could pertain exclusively to the producer farmers. The arguments, given being the environment these are manifesting themselves, are no needed. This is the role of the cooperative in the equation of information transfer, a socio economic structure, which by its status and organization can represent the farmer's interests in the chain of information transmission. The agricultural cooperative has a double role in the field of information transfer:

1. The ensuring of the access to information of the farmers;
2. The farmers' education, in their quality of consumers, for using the economic and natural potential of information.

In addition, the cooperative should respond also to the needs and rigours of information ordering. Through ordering, the information does not amplify itself, but it puts into a maximum value the economic advantages of its logical algorithm (Georgescu Roegen, 1996). In fact this is determinative also, from point of view of the role and importance of the cooperative in the equation of information transfer, the biggest effort in the transfer chain being generated by the information consumers and none the way the suppliers of it. Obviously, the agricultural farmer is the main information consumer in the rural environment. The agricultural cooperative has to be a portal to a series of incentives for the development of the entrepreneurship action- information, consultancy, funds accession, instruction. In addition it has to help the rural entrepreneurs be more innovative through the showing of the new opportunities and through their training and assistance in their valorification. The agricultural cooperative must facilitate the group work and collaboration, including through the support of newly developed companies into collaboration and favour the development of the partnership culture.

Conceptually, the cooperative is forming an "information nucleus", where the incomes are represented by the information supplied by the rural farmers and enterprisers,, the researches results, interest legislative and political information, the financing opportunities, and the outcomes are the responds to the local actors. In the "information nucleus" there takes place the assembling of the needs with the information supply, including through applied research and answers formulation. The information flow is enclosing, being thus created the premises for a continuous improvement. In order to fulfil its role of the knowledge intermediary, it is wished

that the cooperative units involved, should ensure free services or strongly subsidized.. This way they avoid the competition with the consulting firms and they ensure a large access. As regards the capacity for support, the funds, necessary for the activity development can be obtained on project basis from the development regional agencies, from the European funds, etc.

At world level there were developed many initiatives following to ensure the access to information and the preparation of the information consumption in the rural space. They were based on different approaches, have managed spaces of different sizes and accessed various financing programs. Many of such initiatives were replicated for the stimulation of the rural regions in Africa, South America, and South East Asia. Although the names differ rather much – centre, portal, initiative, network, the intermediary of the knowledge transfer could assimilate to an information centre or node. Remarkable results in the knowledge transfer were obtained in Great Britain, Germany, France and The Netherlands. In Great Britain, the most efficient system was that based on the bottom up approach. At local level, either the farmers or the enterprisers, or the University Centres have initiated cooperation actions meant to ensure the knowledge transfer in the rural space. These initiatives have contributed to the development of over 10.000 rural businesses through the facilitation of the training of their members into instruction, planning and business administration programmes, in actions of collaboration and innovation and entrepreneurship action. There was this way formed a way of connection, within some cooperation networks between the final users and the governmental agencies. In ensemble, the initiatives were a success, and their role becomes more and more important for the implementation of the change and the valorification of the opportunities brought by it.

The rural initiatives for the knowledge transfer are functioning on the basis of some financing obtained through projects from national funds administered by the regional development agency and from European funds: The European Social Fund, The European Agricultural Fund for Rural Development (EAFRD), the Objective 2 Programme. A representative example, and a successful one, in the field of research networks and agricultural extension, with multiple partnership, but where predominant are the producers cooperatives are Business Link and National Rural, in Great Britain.

From spatial point of view, the two networks were projected at regional; and sub regional level, each having in administration 5-7 administrative units and 1.000 – 4.000 of local businesses, which are mostly to be found in the farmers' cooperatives. The management group of one initiative is made up of 10-15 members, representing governmental agencies, faculties, ministries, professional associations, producer groups and agricultural cooperatives. In each centre there operate 5-7 extension officers, respectively one for each administrative unit

subordinate to the region. The premises of the success could be identified in the characteristics of these initiatives, among which are:

- the adoption bottom-up approach;
- the collaboration with many organizations on non competitive basis for the organization of events and activities of dissemination, so that the limited financial resources be efficiently used;
- the assistance ensuring for all types of rural businesses;
- the professional accrediting of the extension officers for the quality of counsellor and mentor of the rural business;
- the use of incentives to encourage self determination in the group work of the farmers and rural enterprisers;
- the sustaining of diversified theme groups, which are representing the rural businesses;
- the organization of information events;
- the reduction of the effort duplication among the rural; organizations, by their involving in the management group;
- the attraction of the reticent or isolated farmers;
- the ensuring of adjustable instruction and assistance;
- the attraction and support for the businesses with big value added and with high growth rate;
- the help given to the young farmers-enterprisers.

Each initiative is supplying different services, adapted to the local requirements, but all are practice oriented, they promote mutual help and self determination. The way of action, the staff particularities, the means of communication used led to the winning of confidence on behalf of the enterprisers the mentors of which they are. The needs specific for the knowledge based society are manifested in the rural space also, because, mainly this is in front of an ample transformation process. The survival of the rural businesses is conditioned by the diversification of the activities as answer to competition increase and to the requirements of the sustainable development as regards agriculture role. The rural entrepreneurship action is the means by which the structural change of the rural space will happen. The development of this action is an intensive process under information report, and in addition, it has to take place in a space, which is structurally disadvantaged from point of view of the access to information.

In Romania's agriculture, the agricultural cooperative, in European meaning, is still in an incipient development stage. For example, at the end of the year 2006, there were no more than 108 agricultural cooperatives, an insignificant number, if

we refer to the branch potential, but especially to the performing opportunities, which these organizations are offering, mainly to the peasant households. To this big minus, of quantitative order there are added the qualitative aspects also, which are mainly of profile genre, because in our country, the orientations of agrarian policy are totally different from the European ones, as they push these economic structures towards the land areas farming, and none the less towards market activities or knowledge transfer with address to the agriculture in the peasant households. That is why, the role of cooperation in the knowledge transfer within Romanian agriculture is, at least in the present a theory order issue, but not yet a practical one.

We could support such a formula, which could help the development process in the branch, only for the future strategies. But, for this action to be also viable we need a positive perception on behalf of the public dissidents, and only after that, a real instruction of the information beneficiaries. In the end, we hope that our approach, founded greatly on theoretical grounds, lead to that wing beat, which in the chaos theory is known as "the effect of the butterfly", according to which, out of the chaotic and uncontrolled movement of the wings of a butterfly, should emerge the essential changes in the Romanian agriculture. This is, it seems, the only way, as the failure of the actions of the new development strategies is so obvious.

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