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## THE PLACE OF THE BRANCH PRESS IN THE KNOWLEDGE TRANSFER TO AGRICULTURE

**Abstract.** The study attempts at analysing the notions of knowledge transfer in agriculture. It also pointed on their increasing absorption in rural areas and as the result necessity of adapting of information channels to receiver's needs. Increasing number of knowledge network users open new area for entities defined as knowledge brokers. They are actively intermediate in knowledge offeror-consumer contacts. Carry on in this article analysis, was tried to proof that agricultural press, especially its commercialised part, with well effect repossess role of knowledge broker, to comply with this traditional education and informative role in the country. Was underline, that publishers of agricultural press, mostly acting on commercial basis, not only realised informative-education function, but also effectively go into role of knowledge brokers of transactions concluded on knowledge market.

**Keywords:** agriculture, knowledge transfer, knowledge broker, agricultural press, balanced development

### INTRODUCTION

Agriculture is a field in agribusiness traditionally and quite precipitately viewed as a branch with relatively low knowledge absorption. This opinion is justified only when base agricultural activity (i.e. vegetative and animal raw material production) is compared, for instance, with entities based on biotechnology, genetic advancement or Information Technology development, which can be found in the vicinity of agriculture and work to its advantage. Regarding to country dwellers improvement of education level and inclination to learn lifetime, causing increased investment activity (purchase of equipment and technology), the postulate of low knowledge absorption in agriculture is not accurate. Such opinion

share entities providing production means for agriculture, which beside traditional assortment more often offer to cultivators' knowledge and information too. From pragmatic perspective, agriculture constitutes the demand side of knowledge market and is characterised by considerable potential. The problem is however such organization of knowledge supply that the offer to reach the fragmented and diversified addresses. The entities described as knowledge brokers have a particularly significant role to play in this field. To their aims belong activities such as knowledge sourcing, knowledge promotion and knowledge transfer, what predestine to this role, between others, agricultural press which in polish market reality realise similar or the same tasks (Solon, 2014, p. 273).

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The following study attempts to analysing the being in creation networks of knowledge transfer in agriculture, pointing to the necessity of broadening the existing communications channels of new related to IT technologies development. Regarding to overplus of informations in environment, was underlined necessity to reinforce of education-informative charge of transferred content. Formulated the thesis, that agricultural press, particularly connected with commercial publishers, acting in conditions of competitive market, is especially predisposed to will take over broker knowledge function and solidify role in knowledge transfer network.

The following analysis is based on a review of branch literature using desk research method. Was analysed of papers concerned with knowledge transfer in agriculture and in rural areas and especially plans and concepts of building an optimal network for knowledge transfer for the whole sector. Used accessible branch information including from The Ministry of Agriculture and Rural Areas Development and The Press Distribution Control Union. Emerging conclusions are basis for discussion about functioning of effective knowledge transfer network in polish agriculture, using agricultural press as a medium of information and the role that commercial entities play in this process.

## KNOWLEDGE TRANSFER TO AGRICULTURE

The issue of knowledge transfer to agriculture is one of the major notions as well as challenges which institutions responsible for agricultural development have to face nowadays. The Ministry of Agriculture and Rural Development as well as broadly understood agricultural consulting, are traditionally perceived as leaders in the area. More and more frequently, however, such responsibility is also delegated to scientific and research entities and institutions, non-governmental organizations as well as municipal government entities (Chyłek et al., 2017, p. 99–113). It point to the increasing awareness of the complex character of modern knowledge market and optimising the mechanisms of knowledge transfer. Belong they unquestionably to difficult and demand using diversified tools and measures, but also new method of formulation the very informative messages.

The relationships between entities functioning within the area of agriculture are connected to the essential scheme of science/research – agricultural practice. The cultivator is a centre and the addressee of the message,

however, it is difficult to point to concrete media for message transfer as well as feedback.

In market conditions, the relations are considerably modified by processes of knowledge commercialisation including increase their prices, which directly translates to dynamic development of consulting services sector. In consequence, increase in knowledge absorption in agriculture can also be observed. Pointed is also even, on socio-economic aftermath of this process, enumerated between others:

- weakening connections in the scope of knowledge exchange for agriculture, both, between entities offering the know-how and the cultivators themselves (knowledge transfer becomes a one-off impulse),
- gradual redirection of consulting services to large farms with simultaneous weakening of cooperation with smaller cultivators (high prices for consulting services discourage knowledge transfer),
- manipulation of knowledge transfer by entities seeking benefit in speculative dealing (selling the know-how to whoever pays the highest price),
- lowering the pressure on the information connected to public good (also, the principles of balanced development) (Chyłek et al., 2017, pp. 99–113).

The result of pursuit after optimisation of the flow path of knowledge to the realm of agriculture are discussions about creation common and unified networks. It concern also participation of Polish cultivators in the European System of Knowledge and Agricultural Information (i.e. AKIS)<sup>1</sup>, as well as creating Network for Innovation in Agriculture and Rural Areas (SIR)<sup>2</sup> in Poland. In the presented schemes, The Centre for Agricultural Consulting constitutes the major link supported by institutions realising agricultural policies in Poland with The Ministry of Agriculture and Rural Areas Development on the head and The Ministry of Environment, The Ministry of Education, etc. In networks are considered also entities for agricultural and food processing, knowledge source units, including: state research institutes and higher education institutions as well as units called brokers (Fig. 1). It is assumed in the framework of the projects organised by the networks, that a lot of their

<sup>1</sup> PROAKSIS Perspective for support in Agriculture: Consulting Institutions in European System of Knowledge and Agricultural Information – AKIS, access on-line: [www.proakis.eu](http://www.proakis.eu)

<sup>2</sup> More information on: <http://www.cdr.gov.pl/component/content/article?id=1744:czym-jest-sir>, Retrieved 28th Apr 2017.

aims will be realised utilising the existing organizational agricultural consulting structures. This practice has its justification in foregoing activity and achievements of these units employed staff experienced in work with cultivators and enterprises, as well as municipal authorities, non-governmental organisations and scientific and research units.

The networks (AKIS and SIR) are, by assumption, meant to facilitate the process of communication between the cultivators and other interested entities, as well as increase the efficiency of knowledge transfer. It is also assumed that ordering information transfer in this manner, will enable at least partial balance of transfer in the market of knowledge for agriculture through stimulation of cultivators demand and offers broaden by supply side i.e. commercial entities, research institutions etc. The processes of stimulation for both sides have to be diversified due to distinct character of entities participating in them. This, especially, concerns cultivators as knowledge recipients. The group is not only scattered and polarised, but also has varied needs depending on

the character of their agricultural activity. This prepare the offer as well as directly reaching the target recipient becomes more difficult. The situations opens a relatively new space for entities called as knowledge brokers, simultaneously create a risk of existing on market also knowledge speculators, pursuing to maximisation of own profit e.g. through increasing knowledge transfer costs.

Entities engaged in agricultural and rural development which represent knowledge for both agriculture market sides, can become knowledge brokers. Amongst them, particular predispositions have publisher of branch press addressed to cultivators.

Knowledge and innovation diffusion according to E. M. Rogers' model proceeds from innovators to early imitators, then to early majority and late imitators to, eventually, reach stragglers (Kasperkiewicz, 2009; Kijek and Kijek, 2010, p. 53–68). The model is supplemented by G. Moore's description of the gap between the two first groups (i.e. innovators and early imitators) and the other participants of the process. The gap, in turn, adheres to the actual situation in agriculture (Batorski,

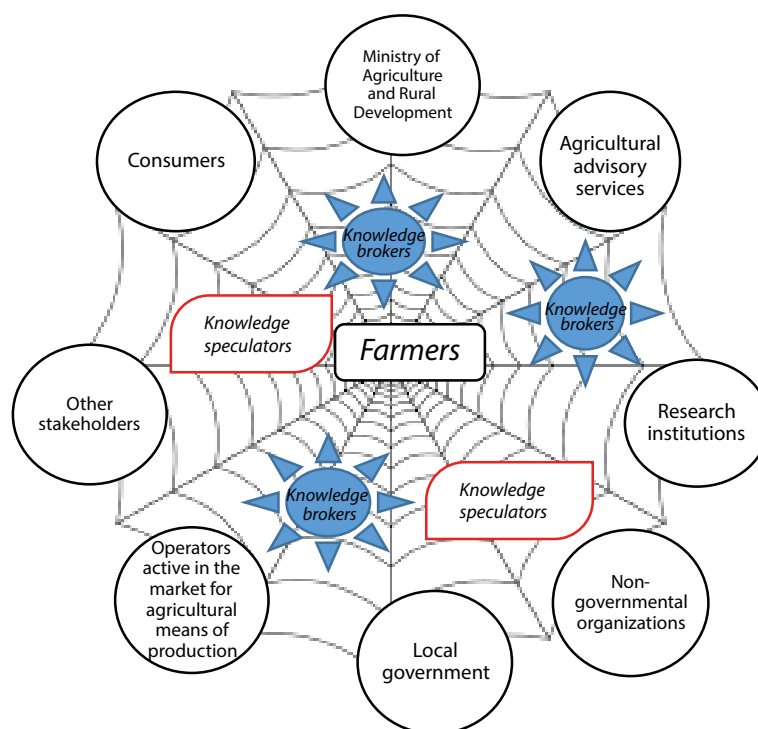


Fig. 1. The concept of knowledge transfer to agriculture  
Source: own elaboration.

2013, p. 82). It is explained by the quality of human capital (knowledge, experience, skills) which, has impact on the inclination to make costly and – not infrequently – risky investment decisions (Kozera, 2013, pp. 35–43; Mazurkiewicz, 2010). Innovators and early imitators are courageous people who tend to be risk-takers as well. Their economic situation is stable and satisfying and they have the financial capacity to invest. The group is also characterised by high levels of integration with the local community and – most frequently – higher education. In consequence, innovators and early imitators become leaders in opinion formation processes amongst communities they belong to. Adopting a stance that according to the model these two integrated groups constitute about 16% to 18% of all the participants of knowledge transfer, it can also be stated that in this case, the economic rule of Pareto i.e. 80% of effects are generated by 20% of causes, applies. This highlights the necessity to intensify activities connected to knowledge transfer and diffusion to these particular target groups. Separate subject for discussion is popularisation of achieved results (i.e. implementations, innovations, changes in technology, etc.) on the basis of promotion of good practice for agriculture, where modern information channels could be useful i.e. internet.

#### **AGRICULTURAL PRESS AS KNOWLEDGE BROKER**

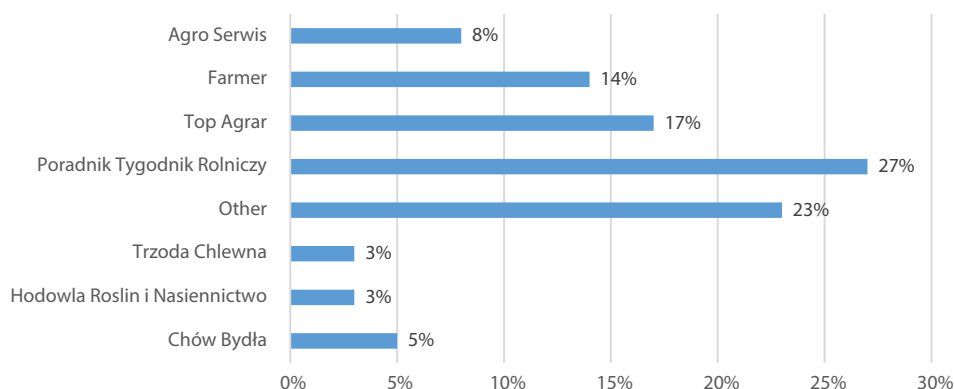
The very term “broker” undergoes various interpretations i.e. it can be a person or an organisation which facilitates and supports the creation, exchange and exploitation of knowledge on its way between the producers and the users. Knowledge broker (information broker, cyberian, freelance librarian, researcher, data dealer) it is a job connected to commissioned search for and sharing of information. In the research process broker takes account specific criteria, which allows precisely satisfy the needs of the ordering party. For their tasks belongs, not only gain the necessary information, but also evaluation, analyse and compile it. Broker, as a natural mediator between the demand and supply sides of the market, becomes warrant of the quality of the information they undertake to distribute.

Nowadays, brokers are consultants, analysts and customers’ partners. The consulting function requires utilisation of specialist broker’s knowledge in the field of client’s primary interest in order to prepare reliable information and/or offer. The analytical function

is connected to risk evaluation in the context of activity or investment. Furthermore, partnership it is building long-time lasting relations of entities based on mutual trust (Jeżyńska, 2016). „Side effect“, often not being made aware by applied for broker’s role entities, is taking some of the responsibility for decisions made by the client. In this present understanding of agent for knowledge attain, with well effect fit in agricultural press with centuries-old tradition in Poland (Solon, 2014, p. 277). Practice shows, that because of high level of reliability of agricultural press, play it role similar or identical with knowledge broker.

Although the history of agricultural press in Poland has its sources in the 19th century, it is rather hard to univocally define the role and the coverage of agricultural press on the Polish market. It could be estimated with the help of information provided by The Ministry of Agriculture and Rural Development, as its webpage (which has not been updated since 2009) contains a list of 66 titles of agricultural periodicals. However, from the perspective of knowledge-based economy such information becomes unreliable due to passing time. Especially in the light of dealing with an entity as prone to change as branch press what is connected with phenomena so-called durability of journal, which for periodic dedicated to agriculture is differ. Amongst them, we can find periodicals which marked their existence, however, did not manage to survive the test of time as well as the competition and existed on the market for a year of a few years. There are also periodicals which have lasted for 20 and more years (Solon, 2014, p. 277). Most periodicals with a steady position on the market as well as in the awareness of the cultivators are monthly magazines. There are also weekly magazines, fortnightly magazines, bi-monthly journals, quarterly magazines and journals which are published once or twice a year. All these magazines are different in terms of their circulation and volume, which is usually in strict relation with their characters (e.g. strictly branch magazines usually have lower circulation and smaller volume in contrast to agricultural press with a more general character). More and more often their publisher use modern information channels i.e. try to reach customer by the Internet creating information portals and e-versions of magazines available on-line.

Interesting in cognition, and reliable source of information about journals market, including for agriculture, are rankings carried on by The Press Control and Distribution Union Analysing especially Top-114



**Fig. 2.** Share of leading titles in agricultural branch press in Poland in 2016  
Source: own calculation on the basis of 2016 Polish Agriculture Report.

and Top-150<sup>3</sup> rankings, among others can find six titles dedicated to broadly understood agriculture amongst the lead. They are: “Top Agrar Polska” (43th and 47th place with circulation rate of 49 thousand units), “Farmer” (98th and 125th place with circulation rate of 17 thousand units), “Sad Nowoczesny” (128th and 102th with circulation rate of 8 thousand units), “Miesięcznik Praktycznego Sadownictwa Sad” (129th and 103th with circulation rate 6 thousand units), “Warzywa i Owoce Miękkie” (132th and 106th with circulation rate 8 thousand units), “Hasło ogrodnicze” (134th and 106th with circulation rate 8 thousand units). The ranking, however, does not take into consideration weekly magazines, amongst which we can find a very popular “Tygodnik Poradnik Rolniczy” (created from the merger of two pre-existing magazines, i.e. “Tygodnik” and “Poradnik Rolniczy”). The circulation of this magazine is over 77 thousand units. Do not also consider local magazines very popular in cultivators. Nevertheless, it can be assumed, that mentioned titles belong to the leaders of agricultural press market in Poland. It also should be pointed to the fact that the very estimation of the scale of the titles reaching their addressees is tremendous. Taking into consideration only the circulation on the cumulative level of 175 thousand units and the amount of farms in Poland estimated at the level of 1,2 million, it transpires that every seventh cultivator in Poland is a reader of agricultural branch press. Information contained in the “2016

Polish Agriculture” report also verifies the role of agricultural press. According to this research, almost 60% of cultivators point to branch press as one of the three most important sources connected to changes in rural areas and in agriculture.

The overview of the aforementioned titles points to the leading role of periodicals which are characterised by general profile, relating to changes in the whole sector. The cumulative share of the two most prominent periodicals is 44% (Fig. 2). This also emphasises the role of press as the transmitter of knowledge and information important from point of view Polish rural areas and agriculture functioning.

However, also should to be taken under consideration in studies, information about readers possible to gain by Polish Readers Researches platform ([www.pbc.pl](http://www.pbc.pl)). Arise from them, that purchase of branch journal is conditioned by its price and buyers are the persons described as a walth. Simultaneously is pointed to culture conditions determining purchase of journal and furthermore that it is the indicator of status and social position. The last observation is important especially as concern agriculture, where reading of journals is often a kind of family tradition.

## CONCLUSIONS

Building of knowledge transfer network for agriculture in theory cause no problems. In practice, however, exist the diverse manners in which information in agriculture reaches the target recipient and changing number of entities competing against each other for exclusively reach to the client. Changing also content of transfer

<sup>3</sup> Years 2015 and 2016 respectively. Compare: [Wirtualnemedia.pl](http://Wirtualnemedia.pl)



from education-informative to informative-commercial. As a result, in environment of agriculture activated commercial entities – brokers, offering factoring service in transaction on knowledge market. Their aim is to fill up arising gap in this area. Differentiation of receivers and their needs in the era of accessible IT channels cause no obstacles for them. Conforming faster than non-commercial institutional surround, in principle acting as information and knowledge provider (i.e. state research institutes and higher education institutions etc.). Regarding to absence of entities, which in complete way would be carried on monitoring of cultivators needs, acquiring and purposeful delivery of knowledge and, at least, making easier contacts between sides – brokers can monopolise market, leading to full commercialisation. It could be mean the situation with inhibition knowledge absorption, which one be payable only. Regarding this is important to underline role of agricultural press have to play. From one side publishers are more and more commercial entities, compete for market share, from the other – entities cultivate agricultural press tradition with education-informative service. Bounded with this function cultivator's trust make them acting as knowledge broker easier, especially in terms of being intermediary in knowledge finding. It is important task, because from point of view sectors served agriculture, the agriculture is demand side with high potential.

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## MIEJSCE PRASY BRANŻOWEJ W TRANSFERZE WIEDZY DO ROLNICTWA

**Abstrakt.** W opracowaniu analizowano zagadnienie transferu wiedzy w rolnictwie. Wskazano na coraz większą jej absorpcję na terenach wiejskich oraz wynikającą z tego konieczność dostosowania kanałów dystrybucji do potrzeb odbiorcy. Rosnąca liczba uczestników sieci wiedzy otwiera nową przestrzeń dla podmiotów nazywanych brokerami. Są to podmioty aktywnie pośredniczące w kontaktach oferent – nabywca wiedzy. Podczas analiz wykazano, że czasopiśmiennictwo rolnicze, zwłaszcza jego skomercjalizowana część, z dobrym skutkiem przejmuje rolę brokera wiedzy, spełniając przy tym tradycyjne role edukacyjno-informacyjne na wsi. Podkreślono, że wydawcy prasy rolniczej, w większości działający na zasadach komercyjnych, nie tylko realizują funkcję informacyjno-edukacyjną, ale również sprawnie wchodzą w rolę pośredników transakcji zawieranych na rynku wiedzy.

**Słowa kluczowe:** rolnictwo, transfer wiedzy, broker wiedzy, czasopiśmiennictwo rolnicze