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Corporate Innovation a Missing Success Factor of Rural Development – Lessons Learned from the Past Decade

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Abstract

'Innovation union' is one of three flagship initiatives under the smart priority of the Europe 2020 strategy. Development of social and human capitals as important resources of local development could give good basis for corporate innovation, which could be a success factor for rural regions. After introducing the importance of these capitals and corporate innovation in sustainable local development the paper firstly examines how farmers process information and how they participate in the development of a rural settlement. Secondly the ways in which animation actions are developed to help generation of innovation are described. To give answer to the first question a survey was carried out among farmers in Mezőcsát, one of Hungary's disadvantaged settlements, while the second question was examined through action learning. The results show that farmers are rather information consumers. Animators of rural settlements could play an important role in knowledge exchange between local actors including farmers and give them confidence to move beyond consuming information to become responsible information producers.

Keywords: animators, corporate innovation, farmers, knowledge

Introduction

The main economic driver of economic growth in the European Union (EU) is innovation. Europe's future is connected to its power to innovate. The Innovation Union, an action-packed initiative for an innovation-friendly Europe. It forms part of the Europe 2020 strategy that aims to create smart, sustainable and inclusive growth. (EC, 2013a)
Over the last decade, the Hungarian research and innovation system has made clear progress in the level of private sector investment and in overall R&D intensity, as well as in scientific quality, patent revenues and structural change toward a more knowledge-intensive economy. On the other hand Hungary is still facing some key challenges in research and innovation. These include: a low level of innovation activity, especially by SMEs, together with **low degree of cooperation** in innovation activities among the key actors; unfavourable framework conditions for innovation, in particular an unpredictable business environment, a **high administrative burden** and competition is not conductive to innovation; as an insufficient number of human resources for research (2015 forecast). (EC, 2013b)

Dries et al. (2014) call attention that open innovation process is the new mantra of the agri-food sector as well. Firstly Chesbrough used open innovation. He wrote the famous book titled the Open Innovation in 2003. With this determination, described those business model, in which the company, knowingly and regularly use external/foreign knowledge in the part of innovation or hole of the process. (Chesbrough, 2006)
The content and actors of knowledge transfer have changed also radically over time and above this change information became a resource which can be easy shared.
The Triple Helix (Public sector/Government, Private sector/Business, Academy/Higher education) is a spiral model of innovation that captures multiple reciprocal relationships at different points in the process of knowledge capitalization. (Etzkowitz, 2002) Nowadays the Triple Helix model added with the civil sector, and this is so called Quadro Helix model.
This paper focuses on one type of open innovation, the corporate innovation. In the understanding of the authors corporate innovation taking the Figure of the Ohio State University (Figure 1.) is a type of open innovation which is closely linked to the Helix model, where following Etzkowitz (2002) innovation moves outside of a single organisation, lateral relationship across boundaries become important. As these actors have different sight of a

problem, knowledge flow between them could give innovative solutions for challenges in rural regions as well.

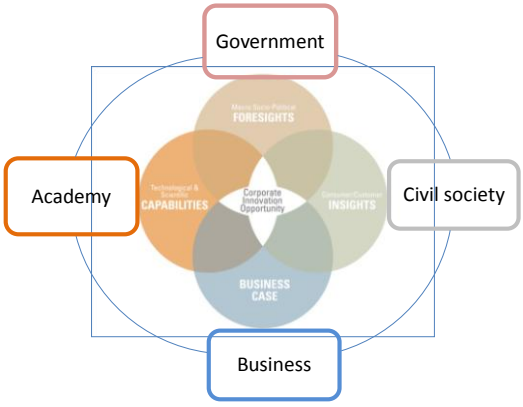

Figure 1. Corporate innovation opportunity linked to the Helix model
Source: Ohio State University and own adding of the Helix model

Since Hungary's accession to the European Union in 2004 from political direction, following the rural development policy of the EU, different initiatives were introduced to create a better physical and social environment for development and innovation in rural regions. One of the most important elements of these is the LEADER program. LEADER stands for "Links between actions for rural development". Innovation is one of the seven key features of the program and public-private partnership is also an important feature of it. (European Communities, 2006). The success of LEADER programme comes from the space it gives for bottom-up approaches, for partnership and co-creation. Linking government, business and civil society (three actors of the Helix model) in the creation of local action groups give a good basis to examine the possibility of corporate innovation along LEADER program. Nemes and High (2013) describes LAGs as important actors of the rural development agricultural knowledge system. OECD (2007) also recognises that rural development has gained strength through local action groups, adding to the numbers of those responsible for rural areas.

According to the ÖAR (2012) the "LEADER method" is by far the most systematic and widespread application of community-led local development in Europe and worldwide. Still, while the method itself is widely supported, its implementation through the LEADER axis of the current rural development programmes of the EAFRD has **limited the scope for local innovation** and initiative. Local actors complain about **too much interference from public administrations**, too little room for local decision making, too narrow scope of eligible projects and activities, and dwindling voluntary engagement of citizens. (ÖAR, 2012)

Based on the model elaborated by Lukesch (2007), KatonaKovács *et al*. (2011) examined, from the three modes of operation offered by the model (animating actions, structuring actions and consolidating actions), the types of activities of the Local Action Groups (LAGs) in the North Great Plain region. Their results demonstrate the importance of animating actions amongst the LAGs in the region. In this region the level of governance is such that "**the ability of people to articulate their common needs** is the starting point for many innovations ... It is only the point where we can speak about development programmes in the strict sense" (Lukesch, 2007, p.16). Today animating actions are one of the most needed operations in the North Great Plain region, so as to encourage different actors to work together and experience the results of common thinking. Dialogue about the common needs is

an important first step to help the development of local communities, to look for possibilities in innovation. The most important resources to start this process are human and social resources.

Earlier studies of the researchers have already examined the importance of social capital and human capital in sustainable rural development. Sustainability is a horizontal principle of the European Union relevant for rural development. Examining its three dimensions (environmental, social and economic) in the understanding of the authors environmental dimension is the frame, which has to be recognised and taken into account, the economic dimension and its capitals (physical and financial) are products and tools of the social dimension, and the most important resources of development in rural regions are those of the social dimension, namely human and social capital.
Along significant forces changing the world, becoming a member state of the European Union brought new challenges for Hungary in the twenty-first century. One of these challenges is decentralisation, such as the above mentioned LEADER program. Decentralisation requires new competencies from people. These competencies may differ between countries depending on their cultures. Changing social embeddedness, mental models of people takes decades, which can hinder the successful implementation of new instruments.

Learning from the past, better implementation of the LEADER program along its key features could create corporate innovation, which could result lower administrative burden and better co-creation along the program. This paper examines two aspects of corporate innovation to examine rural development. First the presence of farmers, as important actors in rural regions (representing the business case in Figure 1. and LEADER, or private sector of Helix model) in knowledge and information flow was observed. Secondly taking in mind the importance of knowledge flow between actors the development and role of animators, as possible actors of rural regions helping the process, was studied.

Methods

To examine how farmers process information and how they participate in the development of a rural settlement a survey was carried out. The survey took place in Mezőcsát, one of Hungary's disadvantaged settlements in the Spring of 2014. The reason to select this settlement was, that one of the authors lives here, so she could directly collect the answers. An other reason for selecting this case study area was, that participatory action researches, helping farmers to start new actions, for example creating short supply chains have been carried out in Mezőcsát already.
The survey was carried out between farmers who has applied for single area payment scheme in 2012, representing less than 3% of Mezőcsát population. They were selected from the database of the Agricultural and Rural Development Agency. Based on the dataset of 2012, 108 farmers registered for single area payment scheme in Mezőcsát. From the 108 registered farmers 5 died in the last two years, so finally 103 were contacted. 72 questioners arrived back from which 60 were suitable for evaluation. From the 60 respondents 33% were woman and 67% man. 31% were younger than 40 years old and 20% were above 60%. All of them live in Mezőcsát.

To gain information about the development of animators, how they can help the knowledge flow, action learning was used. Learning from action in this case meant that one of the author took part in a Community Animator Development Program (in the following used as

Program). The Program was organised by the National Agricultural Consulting, Educational and Rural Development Institute (in the following used as Institute). The Institute created this Program for those rural workers running Integrated Community Service Spaces (ICSSs). The Program, so as the action learning, covered two times three days. The action learning focused on the question if participants involved in the Program could take part in the generation of corporate innovation in rural regions.

Results

Results of the questioner

To examine the possibilities of corporate innovation it is important to know which those information channels different actors prefer to use are. The reason why farmers were examined first is that they are utilizing land, one of the most important resources of rural regions. From the results it is visible (Table 1.), that although the number of information channels is increasing with the development of information technology, personal meeting is still the most important channel both in the case of getting (consuming) and giving (providing) information. The second most important channels (forums and programs) are also linked to direct contact between people, without the use of IT. In the case of consuming information, after personal contacts television, radio and internet got a score 3.0, while in the case of providing information internet the only channel with a score 3.0. Although in the case of consuming information the score of the internet is a little higher than in the case of providing, above personal contacts, this channel already plays an important role in information flow.

Table 1. Average importance of different information channels for farmers in Mezőcsát, 2014
(1 -"I do not use it"... 5 -"The most important information channel for me")

Information channels	Importance of channel in case of consuming information	Importance of channel in case of providing information
Personal meetings	**4.9**	**4.5**
Forums, programs	**4.2**	**3.5**
Newspaper	**4.2**	1.5
Television	**3.7**	1.5
Radio	**3.5**	1.6
Internet	**3.3**	**3.0**
Book	2.6	1.2
Video, film, YouTube	1.6	1.4
Blog	1.5	1.4
Facebook	1.5	1.3
Mobile application	1.4	1.2

Source: own data collection

Taking personal meetings as the most important channels of information flow in the next step it is illustrated (Table 2.) who are the most important contacts for farmers from the side of corporate innovation, looking at information sharing of farmers with Helix model actors (public sector, academy, private sector, civil sector). From public sector farmers' advisor play the most important role. This is a personal relationship between the farmer and the

advisor. The role of Agricultural and Rural Development Agency as the payment agency of the Rural Development Policy is the second, while Agricultural Chamber, with its compulsory membership system is the third most important one. Along the survey farmers had the possibility to give other type of actors, not mentioned in the questioner. Farmers did not define any other actors linked to the different sectors, just those mentioned in the list.
It is important to note from the results that farmers have low level of connection with the academy sector. From academy sector vocational school got the highest score with 1.95. The reason for being the first is that the vocational school is situated in Mezőcsát.

Table 2. Information share, relation between farmers and different actors of the sectors for the farmers' point of view in Mezőcsát, 2014 (1-"Do not have contact" ... 5-"Best relation")

SECTORS	ACTORS	AVERAGE
PUBLIC SECTOR	**Farmers' advisor (falugazdász)**	**4.6**
	Agricultural and Rural Development Agency	**3.3**
	Agricultural Chamber	**3.1**
	Municipalities	2.1
	Hungarian National Rural Network	1.4
	National Agricultural Consulting, Educational and Rural Development Institute	1.4
	LEADER group	*1.3*
	Other:	-
ACADEMY	**Vocational school**	**2.0**
	University	1.5
	Research Institute	1.5
	Other:	-
PRIVATE SECTOR	**Farmer**	**3.9**
	Vet and pest controller	3.4
	Seedsman	2.6
	Pesticide salesman	2.5
	Consultant	2.3
	Accountant	2.4
	Lawyer	2.2
	Integrator	2.1
	Other:	-
CIVIL SECTOR	**Consumers**	**2.8**
	Producer organisations (TÉSZ, BÉSZ)	2.3
	Unions	2.2
	Associations	2.0
	Other:	-

Source: own data collection

From private sector the most important relation for farmers are their peers. Our results are in line with the results of Kühne et al. (2013) who state that farmers are influenced by colleague-farmers in their decision-making process.

Finally from civil sector consumers got the highest score 2.75 but still more than 1 point lower related to the score for farmers' advisor or peers. This result underline the challenge also mentioned by Jokinen et al. (2010) and Katona-Kovács et al. (2006) that farmer's

strategies are focused more on production methods and not on competitive strategies needed to compete in today's market.
Taking in mind the available knowledge and consumers outside Hungary (in a lot of cases through direct internet access) the use of foreign language was also examined in the survey. To the question "Do you or the member of your farm speak foreign language? only 25% of the farmers answered yes. To the question "Do you think knowing foreign language is important for personal development and run the farm better?" 51.2% answered that they do not need it.
Finally farmers' relation with the strategy of their settlement was examined along the survey (Table 3.) While very low number of the farmers (15%) know the strategy of their settlement and they do not really would like to take part in its constitution on the other hand 65% answered they are open to take part in the realisation. Result from Table 2. also underlines the low information sharing (2.13 score) between farmers and municipalities.

Table 3. Farmers' relation with the strategy of their settlement in Mezőcsát, 2014

	Knowing the strategy	Would like to take part in its constitution	Would like to take part in its realisation
Farmers answering „yes" from total	15%	23%	65%

Source: own data collection

Results of the action learning

The reason why community animator development program is run by the Institute is, to ensure workforce for the sufficient utilisation of ICSSs. By 2013 from the sources of the European Agricultural Fund for Rural Development 400 Integrated Community Service Spaces (ICSSs) were created. The importance of ICSSs is to provide physical places and also programs for rural communities. There are compulsory and also optional programs. Compulsory programs include: youth and culture, library service, ensure internet service for the community, providing information for local enterprises, giving place for rural development experts.
Two times three days Program gives place for the participants from different ICSSs to get acquainted with each other as well. Participants take part in an informal learning process, where they learn not only from the experts but also from each other. Some elements of the program follow Kolb's experiential learning cycle (Alder, 2010): experiencing, reflecting, conceptualising, and planning. For example one of the tasks along the training was to create one of the compulsory programs of the ICSS in small groups, using the internet surface created for the operation of the administration of the ICSS. Participants after creating a fictive program presented and evaluated the results together. Reflecting and discussing what the outcomes these programs should have they could have a deeper understanding how to plan a good program in the future. Topics of the Program covered practical information about the operation of the ICSSs, legal background, IT services, knowledge on rural development and community development. From the point of the research most important topic of the Program is the community development part, where participants learn about the task of animators as well. Animators were defined as those persons who bring life into a person, into a group. French speaking people also use the term "animateur" to emphasize on putting life into a group (Bolliger and Zellweger, 2007). Learning about the importance of animators in the life of a settlement participants understood their role and own responsibility in ICSSs. Informal learning along the Program, sharing own experiences, own knowledge and noticing

themselves as knowledge carrier strengthened participants and built self-confidence in rural actors.

Conclusion

Johnson (2013) calls attention that we are in an interesting point of the history. Science and technology have progressed to the point where what we build is only constrained by the limits of our own imagination. The question we have to ask is not can we do it but what we want to do. The deficit we have is not science, not technology, but ourselves our own imagination.

Creating a common vision about "what we want to do" is important in the future of rural regions. This paper examined the importance of corporate innovation linked to the Helix model in this process, calling attention that key features of LEADER program already creating this environment. Although legal conditions are given for co-creation practise of the last 10 years illustrates that because of high administration burden and lack of communication it is not operating yet. Results of the survey carried out among the farmers demonstrate that farmers do not really know the strategy even of their settlement. While they do not really want to take part in its constitution they are willing to take part in the realisation. The reason behind this could be similar to the case mentioned by Moira Forsyth from Scottish Enterprise at the European Innovation Partnership conference. She called attention to the gap between different actors of Helix model, in her case between universities and farmers. She emphasised the soft targets of their work including giving confidence to farmers, what helps farmers to be ready to innovate and take risk. The **importance of gaining confidence** in the case of rural people was an outcome of the action learning part of this research as well.

Significance of sharing knowledge is underlined in the results of FP 7 research SOLINSA (Dockes et al., 2013), which emphasize the importance of Learning and Innovation Networks for Sustainable Agriculture (LINSA). LINSAs are defined as networks of producers, consumers, experts, NGOs, SMEs, local administrations and components of the formal Agriculture Knowledge and Information System (AKIS), that are mutually engaged with common goals for sustainable agriculture and rural development - cooperating, sharing resources and co-producing new knowledge by creating conditions for communication. These networks operate on the principle of sharing knowledge and learning. They benefit from the mode-2 learning process, which implies exchange and feedback loops between research, extension and practices, rather than the 'transfer of knowledge', as in the case of the conventional AKIS. To improve this type of corporate innovation one of the challenges, also mentioned in Forsyth work, is to **facilitate the relationship** between farmers and universities because their different **vocabularies**. Our results also demonstrated the low level of communications between these actors (Table 2.). On the other hand along the action learning where the researcher from the university and the local actors of the ICSSs were learning together was a good example that sharing knowledge between each other, using the same vocabularies is very inspiring. The need for finding the way for better communication is also required in the case of European Innovation Partnerships (European Commission), a new approach between 2014-2020 to EU research and innovation. EIPs are challenge-driven, focusing on societal benefits and a rapid modernisation of the associated sectors and markets. As personal meetings are the most preferred communication channels of farmers, animators have the possibility to organise programs for knowledge sharing. Finding farmers preferred channel of communication and using animation actions between different stakeholders to generate dialogue about their common needs could help local actors to find answer to the question "what they want to do in the future, what is there common vision". Kerekes (2009) in her

case study illustrates how free information flow and common decision making between actors bring positive results in a small region.

Results of the Community Animator Development Program underlined the importance of human and social capital development. Rural development programmes should allocate more funding for such purposes, creating more space for learning. Giving space for human capital development through **informal learning** increases confidence of rural actors. **Animators** could play an important role in corporate innovation through linking different actors, carry out "innovation brokering". This term relies to persons or organizations that, from a relatively impartial third-party position, purposefully catalyze innovation through bringing together actors and facilitating their interaction. Innovation brokering expands the role of agricultural extension from that of a one-to-one intermediary between research and farmers to that of an intermediary that creates and facilitates many-to-many relationships. As an organization and function, innovation brokering differs from traditional extension and R&D because it represents the institutionalization of the facilitation role, with a broad systemic, multi-actor, innovation systems perspective.(Klerkx et al 2009).
Above ICSSs LEADER programs could be also supported with such actors. Finding and empowering the right actors inside local action groups (along community-led local development) could help in the development of communication between the different actors, including the channel between farmers and LEADER group, which got a low score 1.3 (see Table 2.) in the case of Mezőcsát.

Finally, it is also important to create **better coherence between initiatives** (in our case ICSS and LEADER program), because at the moment they are running side by side and not linking the already existing knowledge gained through their operations.

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