
Universities in the Context of Regional Dimension¹

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Abstract

Knowledge has become much more important in all fields and economic sectors in comparison to previous times. The change of traditional, industrial economics into new, knowledge-oriented economics brings also pressure in compliance with intensive knowledge creation, dissemination, and application. Universities represent a meaningful part of municipalities and regions in which they are located. Regional and municipal authorities make an effort to integrate the educational activities into development strategies and thus support the economic, social and cultural development. They realize their common aims and interests. Different universities contribute to the development of the region they are located in to a different extent. That is caused by regional dimension of universities and by their different influence on regional development. These differences can be seen as results of the following: politics on national and regional levels, character of a region, type of a region, number and a character of universities. In our contribution we will deal with the influence of universities on regional and local development according to the type of region in which universities are located.

Key words: university, regional development, regional typology, science and research

JEL Classification: R11

1 Introduction

Currently, the transformation of industrial economics to knowledge economics is in process and therefore a new factor of production (besides labor, land, capital) is being added: knowledge. It is a status of universities that represents the basis for knowledge creation and dissemination. Universities are the place of their creation and change. Education in the field of knowledge economics has an essential role, because it has different direct influences upon individuals, firms, and also national economics (OECD, 1996). An ability to absorb and transform new pieces of information to manufacturing processes and to services depends not only on human skills, abilities and capacity but it also depends on educational quality and a system. Universities are a significant part of regions and municipalities in which they are located. Regional and municipal authorities make an effort to integrate the educational activities into development strategies, thus supporting economic, social, and cultural development. Considering regional dimension of universities and their influence on a regional development, not all the universities contribute to the development of regions they are located in to the same extent. That influences different

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factors: politics on the national and regional level, character and type of region, number of universities in the region etc.

2 Universities in relation to regional economics

Universities are traditionally perceived as the educational institutions reproducing and disseminating certain knowledge and experience. This activity is often considered to be an additional product of a university created out of its educational activity. This kind of consideration is limited because universities are significantly involved into the creation of new information, and even the educational activity is influenced by conducted research.

Increased interest in studying the knowledge economics has brought increased interest in studying a role of a university in the economic development of regions. There are several studies concerning evaluation of the influence of a university on a region (e.g. Felsenstein, 1996; Benewort, Charles, 2004 A POD.). Results of the study of university influence on knowledge creation and dissemination are only partial due to difficulty of the study. The development of regional economics is dependent on the mutual cooperation of multiple factors like natural resources, physical infrastructure, the environment, existing business environment, qualified human resources etc. (OECD, 2007). However, there are other factors that are equally essential for maintaining regional competition and efficiency of regional economics like tradition, history, surrounding regions developmental level, education accessibility, and lifelong education.

University education institutions – universities of research character in particular – traditionally used to lead to basic knowledge creation and development for the national and/or global economics with limited focus on local or regional needs. Currently, we can observe a continual change. National governments and other supranational institutions (e.g. the European Union) are actively involved in the changes through the creation of strategies, setting the frames, initiatives, infrastructure etc. Fact that university education plays a significant role in the regional development can be seen in numerous strategies on the regional, national as well as international level. The regional dimension of university education acquires a new dimension, because „the national, respectively international perspectives become complementary, not substitutional in the relation to the regional or local perspective, and the focus is on their mutual harmony“ (OECD, 2007).

Universities have direct influence on the regional and local economy. They are in the position of an employer, and they function as a customer on one hand, and as a supplier on the other. Expenses of employees and students influence incomes and employment in regions and municipalities in various ways. Universities also broaden the tax base. They are consumers of services that are supplied by regional and local authority, and they are also consumers of products of different regional firms. In literature dealing with universities and their meaning for the regional and knowledge economics (e.g. Felsenstein, 1996; Benewort, Charles, 2004 A POD.) these interactions are called „backward“ relations, and there are also “forward“ relations. Backward relations concern expenses of employees and students of a university and a university alone, and effects influencing income and employment of local economics. The second form of relations between a university and its surroundings – following relations – represent various

forms of university's outputs like, for example: knowledge creation and dissemination for the regional / local economics, university graduates or the interconnection between research activities and local companies.

Although initiatives related to universities strategies usually take place on the national level (national governments), it is the local initiative that strengthens itself especially in the metropolitan regions. Local level is able to gain effective advantage from spatial vicinity, to combine and catch different synergic effects. Support for universities and taking them in the regional context is advantageous for the big cities and metropolitan regions, because they can gain different benefits from their location. Universities do not represent only themselves but they serve as a magnet for capital ebbs, and new talents. The districts of knowledge location (institutionalised at universities) are supported by authorities and strategic municipal sources, and they become "brand" co-creators. Then district or municipality can extract from its image, from the fact that it is a centre of commerce, innovations, and creativity. Partnership of the big cities or metropolitan regions with universities can be advantageous, because:

- they take part in balancing the enquiry and offer at the local labour market
- they support local economic development and
- they enter the complex system of big cities or regional government.

In the metropolitan areas there is often a lack of highly-educated labor force because of tides of qualified „brains“ leaving the area. The partnership of municipality and university can be a tool for creating and strengthening the labour market by identifying the needs of the labour market on one hand, and by organizing human resources education. Besides, there can be made new decision models in partnerships that will help increase the economic competition, and reduce a social exclusion (ODPM, 2004). Universities have a potential to be supported, to make expert analyses, and consult with representatives of municipalities. They can also contribute to the processes of decentralization and devolution through the development of a wider municipality and region connection. Strategic partnership between municipalities and research universities located in municipalities represents a way for mutual sharing of experience as well. These kinds of coalitions make an effort to create so called positive differences in their urban environment. They have the form of subregional alliances with companies and agencies on different projects or the form like e.g. "science cities" which is aimed at linking in and support of research centres of excellence with regional industry (OECD, 2007).

Today the local accessibility of knowledge and experience is still more and more significant because of two contradictory processes: globalization and localization. Universities represent a source of knowledge, innovations, and growth, and they contribute to the economic, social, and cultural development of society in the globalized knowledge economics. This kind of expectations should be fulfilled. However, the questionable thing is their transformation into strategies and institutionalized reforms. In accordance with what has been mentioned above, implementation of university education institutions into the regional context can be understood in several dimensions:

- Creation of regional knowledge within research, and its usage through technology transfer (company spin out, intellectual property laws and consultations);
- forming of human capital and knowledge transfer (learning processes localization through "learning by doing", lifelong education of people in the region);

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- social cohesion and sustainable development on which innovations in the region depend.

Regional dimension of universities

With respect to the local dimension of universities and their influence upon the regional development it is necessary to note that not all the universities contribute to regional development to the same extent. Moreover, in some regions there are not networks based on knowledge interaction, or these networks have different intensity and size. These differences can be caused by several facts: politics on national and regional levels, region character, type of the region, or the number and character of universities. Three authors: Boucher, Conway, Meer (2003) divide universities into four categories according to their influence on the regional development, based on the results of UNIREG research. These categories were made up on the basis of differences in level, or existing hierarchy, and competition between universities in the region.

Universities within the region do not need to face the competing or hierarchic relationships with other universities in activities that contribute to regional development. These effects are more intensive in central regions where traditional and newer technology-oriented universities exist one next to another. Competition and hierarchy have a tendency to limit particular universities in their participation in regional issues. Universities and regions in which they are located were divided into the following four categories by the above mentioned authors: individual university in the peripheral region, several universities in the peripheral region, traditional universities in the central and metropolitan region and newer technology-oriented universities in central and metropolitan regions.

One university in peripheral region

These universities play a significant role in the region, considering knowledge production and their economic effect, although they do not belong among the largest universities from the national point of view. They are of smaller significance; however that enables them to be an important part in regional development policy creation. Universities situated in the regions like these have better possibilities to form an institutionalized environment that provides them with capacities for active regional development.

Regions in which these universities are situated are usually peripheral in comparison to the rest of the country and considering social-economic conditions. Motivation for a university to be established in a peripheral region is usually development in the sense of balancing the interregional disparity. Establishing universities is connected with building social and physical infrastructure that helps to integrate universities into the regional development; for example different university centres for technology transfer, or the centres for employing graduates. The economic backwardness of peripheral regions enables them to get help from European structural funds. A part of these funds is used to support cooperation of universities and other regional members. And thus setting up the labour groups and social projects aimed at regional development is supported.

These universities can be found, for example, in Twente, Limerick, Joensuu and Aachen. They have striking position and play a key role in the economic, social, and cultural development. The university in Twente in the Netherlands was founded in the sixties of the 20th century because of social-economic development of the region. University managed to build regional networks especially in the field of innovations and knowledge transfer. The support of European structural funds played a very important role in creating of the system. The cooperation among regional partners led to establishment of Twente Network which was based on the relations between the university and other regional members, mainly smaller and medium companies. University is almost always one of the partners in educational projects in its region, the projects dealing with research and development, the sector of small and medium companies, or projects concerning technology transfer. This region is an example of effective European funds usage in pursuit of the relation system necessary for knowledge transfer from the university. Another example is a Finnish University in Joensuu. The main element of economic policy in Finland has been the high-tech support built upon knowledge, and the aim of which is to renew the economics. In the Northern Karelia, which is one of the poorest regions in the country, many measures were taken to improve the competition ability, to support commerce, and opportunities at the labour market. These measures involved building up Karelia scientific park that is related to the university, and Centres of Expertise Programme. Karelia scientific park coordinates the Centre of Wood-Processing Technologies and Forestry and its activities are connected with Faculty of Forestry at the University in Joensuu.

These two examples refer to the universities in peripheral areas which are the only universities in the region and are tightly connected with the region in the field of knowledge and technology transfer. In spite of positive effect on regional development these universities have one shortage in common – insufficient ability to keep the majority of graduates at the regional labour market. There is a large migration of graduates into central regions. Universities try to develop different initiatives to mitigate this problem.

Several universities in peripheral regions.

Universities of this category are situated in larger (administrative) regions but are not the only university institutions. There are differences in status, specialization, and field between particular schools. The way of the university implementation into regional development refers to a less coherent system in comparison to the first category. Universities of this category do not have so great influence on regional networks creation and knowledge transfer is not so significant, too. There is a strong competition among universities of this type.

The North-Eastern region in Great Britain is an example. Universities participate in the socioeconomic development of regions to a lesser extent in comparison to the universities in the first category, although universities make an obvious effort. A regional consortium of higher education institutions was established here and its goal is to represent their interests and contribute to the process of technical knowledge change. There are five regional universities in the consortium. It represents the universities in the regional consultation process focusing on regional development issues, human resources, and regional authorities.

Although universities in this category do not intensively participate in socioeconomic sphere they often fulfil some of the regional goals, for example, they fill in the gaps in regional culture. The universities in North-Eastern England fulfill the regional cultural frame by running institutions like museums, galleries, theatres, or by organizing certain events and services.

Traditional universities in central and metropolitan region

Universities in this category are located in the central big cities regions. A majority of the central regions under UNIREG observation research are home for the national government as well as the most powerful economic region of the country. For example London, Madrid, Helsinki, Dublin, Athens, Amsterdam. These universities belong to the most prestigious ones, the oldest, having strong international orientation. Participation in the regional context of these traditional universities is less obvious in comparison to the previous types of universities. The traditional universities engage in the regional development on the informal and personal base. An example can be a representation of these universities in the regional council or the institutions like chambers of economy, innovation centres or technological parks, having usually an informal character. On the other side, the universities in the peripheral regions have a tendency to institutionalize the informal and personal relations into formal and the strategically planned networks. In Ireland, for example, the informal relations among the main institutionalized participants involved in the regional development in Dublin have far more significant meaning than that of Shannon region. There is a thick network of the formal relations between the University in Limerick and the regional participants involved in the regional development in this part of the country. One of the possible explanations can be the fact that in the cities like London, Madrid, Dublin, Amsterdam, a term “local” can mean “global”. If the universities exist and work in these regions, it does not necessarily mean that the content of their relationships with the other subjects has only regional or local character. Firms and institutions which interact with universities are located in the given region but their activity is local and regional but at the same time it is national or global.

Newer, technologically-oriented universities in the central and metropolitan regions

These universities are located in or near the central region and the majority of them have a professional character and a specific professional specialization. Many of them were originally regional or local-oriented and were established near disadvantageous communities. Recently, a big number of them have managed to use their location strategically for the activities connected with the development of their region, and have participated in subregional or local renewing programmes and projects. Some of them fulfil a function of the local or subregional cultural centre. Dublin City University is an example of engaging a university in a regeneration of a region. It has generated an active network as a part of its strategic policy for renewing the area of the Northern Dublin. The measures of the university are aimed at the development of small and medium businesses, overcoming the obstacles in the educational field and supporting the cultural and sports facilities in the region. Many of these measures were put into practise in the institutionalized form through the alliances like, for example, North Dublin Development Coalition.

According to Boucher, Conway and Meer (2003), the category of universities that has the biggest influence on the development of the region is the only university in the peripheral region. Among the universities that were observed, University in Joensuu (Finland), University in Limerick (Ireland) and University in Twente (the Netherlands), demonstrate a link to the regional institutional networks to the highest extent and play the key role in the social economic and cultural development of the region. In spite of the fact that the regions of these universities are still behind the central big cities regions, without the mentioned networks lagging would be even greater. The authors further express that the other types of universities influence the development of their regions but they do not contribute to this process so significantly. The influence of particular universities on the regional development (if there are several of them) is usually limited by the competition factors and hierarchy among them. The traditional prestigious universities are oriented mainly on the national or global issues than their own region. Newer technology-oriented universities in the central regions have to face mutual competition with the older, more traditional ones. It can lead to strengthening of relationships between these universities and their surroundings on the subregional or local level.

3 Conclusion

Universities have an important position in new, knowledge economics – they are the source of knowledge and innovations and they are in the centre of innovation processes. The innovations help increase the competition ability of the regions in the global economic environment and the application of innovations into manufacturing processes and services through new technologies, knowledge and experienced employees increases the added value of goods and services. Except for the innovation sphere, universities influence a formation of human capital and broad social and cultural regional development. Today, an opinion that universities are only educational institutions and do not reproduce any knowledge is overcome. Universities are essentially involved in new knowledge creation and consequently the educational activity is influenced by conducted research.

As regional aspects lead nowadays economics, focus on the local knowledge accessibility increases, too. In knowledge-economics, universities do not only educate and conduct research for national economics or government needs, but they actively engage in regional development of the regions they are located in. Their engagement is based on science and research, lifelong education provision, and enhancement of job opportunities that are knowledge-intensive. These activities lead to development of universities, development of regions and municipalities in which universities are located and contribute to life quality of all citizens. Considering efficiency of universities, a long-term integration of science and education of students is needed.

Universities' influence on the regional development is not the same in all regions. If there is only one university in typical peripheral region then the university positively effects the regional development, although from the national point of view it is not of the highest quality. If there are several universities in this type of region they compete and their participation in socioeconomic sphere is less intensive in comparison to the first case. However, they often fulfil broader regional goals, for example filling in gaps in regional culture. From the national point of view there are

usually prestigious universities with higher number of students in the central and metropolitan regions. Traditional universities engage in informal and personal relations and they often have a participation in regional councils or institutions. There is also a higher migration of scientists, teachers, and students. Through creating thick informal relationship networks the local context changes to global.

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