THE ANALYSIS OF THE USE OF KNOWLEDGE
AS A DEVELOPMENT FACTOR AT LOCAL LEVEL

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ABSTRACT
The aim of the article is to analyse the determinants and good practices in using knowledge as a factor in the development of entrepreneurship at local level. The article consists of three sections. In the first section, the authors discuss the genesis of perceiving knowledge as a factor of socio-economic development. In the second part, the understanding of the concept of local development in the view of various economic theories is presented. Finally, section three provides an overview of international research and experience in the modelling of development based on knowledge and entrepreneurship.

KEYWORDS: knowledge management, knowledge based economy, entrepreneurship.

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Introduction

Problem. The scientific problem analysed in this article is the discrepancy between theory and practice in the sphere of local development factors. In modern times, knowledge is perceived in theoretical literature as a development factor, an important factor in creating the wealth of nations. Unfortunately, it seems that the socio-economic practice at regional or local level ignore these trends.

Purpose. The aim of the article is to analyse the determinants and good practices in using knowledge as a factor in the development of entrepreneurship at local level. The authors intend to develop the assumptions of the entrepreneurial self-government development model.

Object. The article was prepared based on the literature analysis of the analysed subject and the authors’ observations, as they frequently participated in the work of teams preparing development strategies for the municipal and county government in Poland. Therefore, the highlighted research problem is the result of these observations. Local government does not perceive knowledge as a development factor. Even though such topics appear, they are presented in a form of general slogans rather than specific tasks. It is a current problem, especially in peripheral communities, where development stimulation is needed, especially based on intangible factors.

Tasks. The objective of this article is to present the concepts and factors of local development which are possible to use at local level. Here it is necessary to talk about the role of knowledge in socio-economic development. Also, the authors present an overview of international research and experience in modelling the development based on knowledge and entrepreneurship. The study includes literature about local development over the last twenty years. Literature sources were searched by Google Scholar.

Methods. In the study, two research methods were used:
• Monitoring method, which consists of deliberate and intentional observation of selected phenomena in their social-economic environment, and the interpretation of the obtained information;
• Review and analysis of scientific literature aimed at presenting the existing state of knowledge (case studies), and based on this, defining the directions of entrepreneurship development at local level.

The paper suggests that there is a very strong relationship between knowledge and entrepreneurship. There are also lots of methods, which can be used to develop local entrepreneurship. However, the main factor of development is knowledge.

1. The role of knowledge in socio-economic development

In the contemporary world, knowledge is perceived as a development factor, an important factor in creating the wealth of nations, and the most important source of value added. The first publications on this subject in the world literature appeared in the eighties and early nineties of the twentieth century. An interest in this thematic area was developed in Poland and other countries of Central and Eastern Europe at the turn of centuries.

The perception of knowledge as a development factor is not an effect of temporary interest, but it is a result of the analysis of socio-economic trends that follow each other in accordance with the principle of cyclical development. Yet, new management factors appear. The economy based on the power of human labour is replaced with the economy based on knowledge and information, that is, on intangible resources. The human and organizational knowledge is becoming a product, and its possession and effective use conditions – a competitive advantage. This is confirmed by research results, among others presented by the World Bank, indicating a clear correlation between the investment in science, people, innovation and the ICT technologies with the welfare of the surveyed countries (www.worldbank.org). The number of people who sell their knowledge rather than their labour force, in frames of their performed work, is also increasing dynamically. Manuel Castells demonstrated, based on his research conducted in societies of the six most developed countries of the world, that by the end of the twentieth century it had already been about 40% of the working population. The tendency to reduce jobs requiring physical work in enterprises is still intensifying.

The recognition of knowledge as a crucial factor in the creation and multiplication of value added has resulted in the emergence of new economic and social processes. They are of different dimensions and ranges. Their characteristic feature is the accelerated rate of change. For comparison, socio-technological and organizational change in agrarian civilization has taken place within the period of hundreds of years. At present, the process has been shortened to several years, and in some areas even to several months. The dramatic growth in the amount of knowledge and information that is in social circulation is also confirmed by research related to social communication.

The fact that knowledge is an unusually efficient factor in creating value added found its confirmation by Lester Thurow. He proved that in each unit of time the financial capital provides getting the fourfold higher value added than land or labour. Yet, involving knowledge capital causes a sixteen-fold increase (Thurow, 2006; Poskrobko, 2011). The socio-economic and technological transformations, which we are witnesses and participants of, cause, that we are faced with a new qualitatively society, called the information society. It is assumed that every participant in contemporary social life has the ability to create, access, and share information and knowledge through the development of information and communication technologies (World Summit…, 2003).

The knowledge economy not only creates new conditions, but it also produces the need to improve even the management methods. These methods should help to control smoothly such a complex system (socio-economic-environmental-political-spatial) as well as its individual elements. The concepts used in the industrial economy are of no importance. Therefore, in the new economic realities, the following factors should be considered: dissemination of information technology, increased importance of information, flexibility toward changes, and concentration on the individual and the team.

3 The research was conducted in the United States, Canada, Japan, France, Germany, and the United Kingdom (Castells, 2008).
2. Concepts and factors of local development

Local development can be understood as “the process of positive quantitative and qualitative changes affecting the life of local community and the functioning of business entities, simultaneously considering the needs, priorities, preferences, and the recognised value systems of residents and entrepreneurs” (Ziolkowski, Goleń, 2003). This process is carried out on four planes: economic, social, political and cultural, which mutually complement and condition each other. Economic theories most closely relate to the economic and social sphere, relatively rarely considering the remaining planes. Only recently (that is since the nineties of the twentieth century) personality and psychological factors have also been taken into consideration in theoretical deliberations, which are so important in the effective use of knowledge capital.

Already classic economists (including A. Smith, D. Ricardo, T. Malthus, and J. S. Mill) noted that among the forces determining the pace of development (mainly economic), apart from the economic forces, cultural, political and historical factors also influence the growth. Contemporary understanding of socio-economic development describes the concept initiated by T. Veblen, called institutionalism. The advocates of this current concept argue that, apart from market phenomena, which constitute a core research area, non-economic aspects influencing strongly economic decisions should also be considered. According to this concept, it is not possible to talk about the socio-economic sustainable development without considering the structure of mental habits and commonly applicable rules and principles of conduct. J. I. Schumpeter used the work of institutionalists in creating a vision of socio-economic development that takes into account the internal factors inherent in the economic system, which are the main drivers of development. They have distinctive character and weight. Thus, J. I. Schumpeter recognises innovations and entrepreneurship as being these factors (Sekula, 2001).

The definition of local development is under discussion among economists, but there are also some voices negating the mere concept of its existence (such a view is expressed, among others, in: Pietrzyk, 2000; Dziewmannowicz, 1997). It is clear, however, that there is a significant difference in the size of the area. The level of resident activity, different development factors, and control instruments are different at the level of small communities, and in a larger area. Drawing a definition is another important aspect. From the point of view of the local community and its needs, and the perspective of changes within the local system, at least two definitions can be accepted. The first one is more important for a small area, while the other one focuses on the effects of local development (Sekula, 2001). From the point of view of the municipality or even the county both aspects or planes can be considered as complementing each other. Community-led local development with active participation of local people is carried out involving into this process local government and other organizations or institutions. Here, entrepreneurs, training institutions, and non-governmental organizations play a very important role.

In a knowledge-based economy, it is important to identify the available knowledge resources, as well as determine and use in practice the knowledge-based mechanisms. The latter helps to build competitive advantage, as well as accelerate and consolidate local development. These mechanisms should be different for individuals, for organizations / companies, and eventually for communities living in the area.

It can be assumed that the key drivers of local development are:
• Territorial localisation and the quality of the environment;
• Activities of local self-government;
• The capital of knowledge of local communities and entrepreneurs;
• Institutional settings.

Part of these factors is subjected to some influences only to a little extent (for example, territorial localisation). Other factors, such as knowledge, are controllable. In the opinion of the authors of this article, the local level allows to influence on the development in a flexible way and it accelerates the creation of value added for all participants living in the municipal or county community. The harmonisation of activities is possible having determined plans and development strategies, though their implementation requires systematic activity when all groups involve in active participation.
3. An overview of international research and experience in modelling the development based on knowledge and entrepreneurship

The concept of local development can be defined as a special form of the concept of regional development. It should be based on the most effective use of endogenous factors. Development based on knowledge and entrepreneurship requires developing a network economic structure based on local initiatives (Coffey, Plese, 1984). The theoretical and empirical basis of such a model does not exist. It is only possible to talk about partial solutions. Any attempt to implement the solutions that have been proved as successful in other spatial and economic conditions can end up in failure, for everything depends on the internal conditions of the local community. The following review of research should therefore be treated as a list of good practices, and a source of inspiration for possible activities supporting local development.

Local development based on knowledge and entrepreneurship takes place under three pillars: society (including an individual and a group), organizational (mainly at enterprise level) and self-government. The following examples apply to all of them. It is often difficult to attribute explicitly given initiatives. This is because initiators and participants of pro-development activities form a kind of a system of highly correlated elements (in terms of relationships and connections).

The research conducted by E. Chell and S. Baines has shown that companies operating within a network show increased business performance (Chell, Baines, 2000; their research was carried out among management staff of 104 micro-enterprises; compare also: Johannisson, Nilsson, 2006; Klyver, Foley, 2012). The network is used in various areas, for example, as a source of business contacts, a recruitment channel, and a source of knowledge on what is happening in the industry and on the market (local, regional, as well as international). Of course, mechanisms used to stimulate the network activity require an in-depth analysis (such as the structure and channels of communication, network benefits, and joint initiatives). K. Klyver and D. Foley proved that cooperation is strongly influenced by cultural considerations (the networks function in a unique way in a uniform structure, and differently in the context of communities where national minorities predominate). Not every network is assumed to be effective. Certainly, local leaders are needed (not only in terms of the net, but also as a binder of activities on the level of the whole local community).

E. Bończak-Kucharczyk, K. Herbst and K. Chmura believe that the most important thing for development is the activity of authorities of the local self-government (Bończak-Kucharczyk, Herbst, Chmura, 1998). The municipality can create conditions for development of entrepreneurship, and thus stimulate local development in an effective way. This role of municipality comes down to consistent strategic thinking based on solid knowledge and comprehensive analysis of the endogenous basis of business activities. Moreover, the municipality creates competition in the market, by improving conditions for investment development through all available instruments (including the use plan of local land, and investments), and the adaptation of municipal schools to the needs of the local labour market or future challenges. When the municipality in realising its policy does not create any barriers that might hinder the development, only then it makes sense to use other additional measures supporting entrepreneurship and local economy. It should be borne in mind that the development of entrepreneurship must be understood both in social categories, i.e., concerning human activity, and economic categories. It is important to understand the need for such cooperation and the benefits that result from it.

Planning is a vital component conditioning development. Stimulation of development is possible based on a thorough analysis of the existing state and socio-economic trends. Therefore, it is also important to define the concept of development. In addition, it is difficult to assess the effectiveness of the measures taken, unless a measurement system has not been implemented (including base values after the diagnosis and target values to be reached, for example in the prospect of 10–15 years). Thus, the suggested directions should be clearly communicated. The vision of the future should be known and accepted by the inhabitants. The involvement of local communities around the shared idea allows creating the climate of cooperation on different planes (Bończak-Kucharczyk, Herbst, Chmura, 1998). Strategy is always the fruit of choice. Strategic planning is a means that facilitates decision making enabling clear presentation and analysis of proposals. However, it does not exclude the uncertainty and necessity of choice. On the contrary, it may facilitate com-
promises, understanding and acceptance of a common vision, thus facilitating the selection of measures for its implementation (Bończak-Kucharczyk, Herbst, Chmura, 1998).

For several years, the concept of smart specialization has been pushed through to ensure smart and sustainable development. National and regional authorities should design the development based on endogenous resources and competitive advantages (so-called smart specializations). The concept is aimed at focusing all regions of the European Union on innovation (in different regions, depending on the region’s potential) (National/Regional Innovation Strategies for Smart Specialization, 2014). There are five ambitious goals of this concept, among which are the following: employment, innovation and education.

In local self-government entities, where the idea of development based on knowledge and entrepreneurship is promoted, it is advisable to create business incubators and even science and technology parks. They are intended to support entrepreneurship by creating conditions for the emergence and functioning of businesses (by providing space for running business activities and extensive expert support in business activity). Other important entities in the socio-economic environment include business organizations (including chambers of commerce, guilds, and cooperatives), training centres, financial institutions, and non-governmental organizations (acting for business, and also in the field of entrepreneurship and effective use of knowledge) as well as research and development centres (including academic centres) (Huczek, 2008). These entities are very important seeking to promote the innovation policy in a country.

It is obvious that the effectiveness of the above-mentioned entities depends on their efficiency. This is confirmed by studies conducted in various countries over the past fifteen years (Quintas, Wield, Doreen, 1992; Felsenstein, 1994; Westhead, 1997; Lindelöf, Löfsten, 2002; Colombo, Delmastro, 2002; Siegel, Westhead, Wright, 2003; Wallsten, 2004; Appold, 2004; Fukugawa, 2006, quoted in Pelle, Bober, Lis, 2008). Yet, the conclusions are different (often very sceptical), including the following:

- contacts among companies and research centres (mainly universities) have already existed before these companies entered the park; it appears that there is no difference in the effectiveness of cooperation with university-based companies operating in or outside the park;
- the intensity of relationships between companies and universities does not necessarily turn into enterprise innovation;
- the park companies grow faster in terms of employment and sales;
- companies in the parks implement modern technologies faster, and they are more likely to participate in international research projects;
- companies in the parks have a greater tendency to invest in research and development activity, but they are also more willing to train their own employees (Pelle, Bober, Lis, 2008).

It was noted that supporting the establishment of institutions, which promote entrepreneurship diffusion, can bring economic effects on three planes:

- at the regional level: changes in competitiveness of the local economy (including an increase in the share of high technology goods and services in the production structure);
- at the enterprise level: creation of new jobs, investment in R&D, innovation, and accumulation of human capital;
- at the level of scientific centres: changes in the research direction in terms of commercialisation possibilities.

The authors believe that the level of education should also be considered, as these institutions often run training programs (general and specialised, aimed at different target groups). Furthermore, the level of entrepreneurship attitudes should also matter, as the mere existence of such centres indicates the accepted direction of strategic actions.

Counselling centres should also be created at local level, though their forms may be different. This may be a department in the municipal or county office responsible for economic development, or an association, and even a foundation. Such an entity could be a kind of observation centre, responsible inter alia for ana-
lysing socio-economic trends, initiating cooperation between entities and pointing out the possible developmental niches. Still often, the problem is the ignorance of knowledge needed for economic development or the lack of time for a search of people or institutions that have such knowledge. Therefore, giving signals (e.g., in the form of a newsletter or periodical meetings under the motto “What is new in the economy?”) to entrepreneurs can stimulate their thinking about new innovative directions of development.

An interesting and important direction of changes in cohesion policy is the introduction of the CLLD, that is Community-led Local Development. Actually, it is based on the tried-and-true LEADER method, but in the current perspective EU funding is slightly different. Its basic premise is broad participation of the local community in the development and implementation of the strategy (a ‘bottom-up’ policy). This approach requires to integrate different sectors of economy and to ensure wide cooperation of various interest groups. Also, it is possible thanks to constant cooperation and networking (dissemination of good practices and exchange of experience). This kind of development can be called a partnership, a sort of local partnership, involving a variety of operators in the public, social and economic sectors.

Entrepreneurship in the region is possible if the inhabitants show their entrepreneurial attitudes. The need to develop such an attitude should be shaped from the early age (starting at least from a primary school). Yet it is possible to educate such attitude not only within compulsory subjects (e.g., entrepreneurship as a school subject), but also within a series of workshops and meetings that can motivate students to adopt entrepreneurial attitudes.

Conclusions

Entrepreneurship stimulation is particularly important in peripheral areas. This is a prerequisite for speeding up development. There is a very strong relationship between knowledge and entrepreneurship. Knowledge is always linked with action, as it causes decisions. It is the same with entrepreneurship. In contemporary economy, these two factors are strongly correlated. There is no entrepreneurship without knowledge, while knowledge (possession, access) increases activities.

The authors believe that entrepreneurship is an activity. The activity of inhabitants (or citizens) is very important. They constitute the main pillar of the civil society. It is they, who united in the need to reach a specific goal, create non-governmental organizations. They are also employees in local companies. All this is possible with the active support of local authorities, which should stimulate local activity.

Local development based on knowledge and entrepreneurship takes place under three pillars: society (including an individual and a group), organizational (mainly at enterprise level) and self-government. The examples presented in the paper apply to all of them. To develop local entrepreneurship, they can make networks which helps in cooperation, strategic planning (in company’s and also in local self-government). Also, a concept of smart specialization, which is based on endogenous resources and competitive advantages, can be useful too. Therefore, changes require the involvement of various participants in socio-economic life, namely, such as society, NGOs, entrepreneurs, and local self-government.

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Santrauka


Vietos plėtra, pagrįsta žiniomis ir verslumu, remiasi trimis ramsčiais: visuomenė (įskaitant individą ir grupę), organizacijas (daugiausia įmonės lygmeniu) ir savivaldą. Šiame darbe pateikiama pavyzdžiai taikomi visiems. Siekiant plėtoti vietos verslumą, jie gali kurti tinklus, kurie padeda bendradarbiauti, strategiškai planuoti (įmonėse ir vietos savivaldoje). Gali būti naudinga ir sumanios specializacijos koncepcija, pagrįsta vidiniais ištekliais ir konkurenciniais pranašumais. Pokyčiams reikia įvairių socioekonominio gyvenimo dalies, tokių kaip visuomenė, NVO, verslininkai ir vietos savivalda.

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