

Labor market in the context of creating corporate value and intellectual capital in the process of selecting smart specializations

Abstract

Emergence of smart specializations is an initiative at European level for assurance of constant development taking into account characteristics of each region. The effect on the intellectual capital in the context of the labor market will have a complex nature. The aim of this article is to answer the following question: what is the role of the labor market in the process of selecting smart specializations on the basis of creating corporate value and intellectual capital?

Keywords: smart specializations, intellectual capital, value, Lubuskie Province, job market

Introduction

Smart specializations are one of the ways for a region to build and strengthen competitiveness and development. The process of their creation is complex due to the structuring of the regions for which they are intended, so the effects of their emergence depend on many factors. The research problem is to determine the role of the labor market in creating these specializations. The aim of this article is to show the role of the labor market in the selection of smart specializations based on corporate value and intellectual capital. The secondary objective is to indicate the challenges faced by strategic bodies in relation to the links between the labor market and selected smart specializations. This article contains an analysis of existing sources in the field of the issues described. The hypothesis assumed prior to the analysis is a statement that the labor market is a stimulator of creating smart specializations. The sources used for the analysis come from the Google Scholar and EBSCO databases.

The first part of the article indicates the links between smart specializations and the labor market, details them on the basis of territorial outreach, and indicates the place of the labor market in the strategic documents regarding smart specializations being developed. The second part concerns the correlation between the creation of corporate value and processes occurring in the labor market. The third and final part of this paper puts the labor market in

the role of an intermediary between value and intellectual capital, and the emergence of smart specializations.

The correlation of smart specializations with the labor market

Smart specializations are areas selected by strategic bodies (European Commission, local governments) related to the development of a given territory based on its strengths and the greatest potential. Cross-sectoral cooperation is one of the key support factors in the context of potential funding. A specialization is considered “smart” if it is linked with the surrounding environment, which is why the goals set out by regions should not only be ambitious, but also realistic (*Guide to Research*, 2013, p. 17).

The place-based approach specific to smart specializations means that the geographical context is mainly used in the social, geographical, economic and institutional aspect. It allows the implementation of activities that are aimed at the development of a given territory, taking into account its characteristic features (Szostak 2015, p.210). Smart specializations in the context of territorial range can be divided, similarly to strategic levels, into national and regional (see Table 1).

Table 1. Areas of smart specializations by territorial outreach

National outreach	Regional outreach (Lubuskie Province)	
	Sectoral approach	Industry approach
A healthy society	Green economy	Production and services for the automotive industry
Agro-food, forest-wood and environmental bioeconomy	Health and quality of life	Manufacture of machines, devices, assemblies and metal parts as well as welded constructions and products (metal industry)
Sustainable energy	Innovative (modern) traditional industry	Environmental technologies and services
Natural resources and waste management	Business cooperation	Technologies and services for human health
Innovative technologies and industrial processes (in horizontal perspective)		Socio-industry cooperation

Source: own study based on (Lubuskie Province Regional Board, 2014, pp. 2-4), (Ministry of Development, 2018, p.1).

Looking at Table 1, it was concluded that both the national and regional levels the health of residents has a strategic importance (regionally complemented by the quality of life). This is justified by the assumptions contained in the document *Polska 2030. Trzecia fala nowoczesności. Długookresowa strategia rozwoju kraju* [Poland 2030. The third wave of modernity. Long-term national development strategy], which postulates improvement of the quality of life defined as GDP per capita in relation to the richest country of the European Union and ensuring social cohesion. Achieving this goal will be attempted by increasing spending on science, research, culture and health (Kucharczyk 2014, p. 27). The convergent objectives of Lubuskie Province and Poland include innovative industry at national level, but extended to cover industrial processes. Environmental aspects, in a general sense, tie together the regional and national objectives. The specified smart specializations can affect the level of development of the labor market, supporting the size of employment, quality of work and its automation. They also indicate industries, among which dynamic development is likely to be observed (automotive industry, forms of supporting business cooperation).

Applying the industry approach to smart specializations, eight industries can be identified, among which a sudden increase in investment capacity is expected. These include: automotive, construction, IT, metal, food, renewable energy, wood and medical (Jakubowski 2017, p. 109). It can be observed that they are all based on industry and they are increasing their innovativeness. An inseparable element proving the potential of the indicated areas is the support of local governments, which is included in the gratuitous aid provided in the field of current needs such as: free use of office space, conference rooms, or research laboratories.

The issues related to smart specializations assigned to the labor market relate to the social challenges of European policy focused on the development and improvement of the competitiveness of regions. The Innovation Development Program of Lubuskie Province assumes intervention in the regional labor market through RPO-L2020, which will be strengthened by selected smart specializations. As part of the development of Priority Axis 6 "Regional Labor Market (in the scope of CT8)", it was explained that "activities pursued under PA 6 include projects aimed at increasing the quality of current and future human resources: employees in companies and people without employment. The scope of support is inherent in the implementation of all smart specializations of the region. Improving the quality of staff will affect all aspects of the implementation of specialization in each of the areas of the economy" (Lubuskie Province Regional Board, 2016, p.112).

The idea of selecting smart specializations is based on the overriding objective of increasing regional competitiveness. As noted by D. Foray (2009, p. 14), the entrepreneurial

approach plays a key role in this case, as it consists in discovering potentials of regions by their representatives. In practice, this means that greater emphasis is placed on economic areas with high economic potential and having real opportunities to generate the region's competitiveness based on an entrepreneurial approach.

Creating corporate value and intellectual capital in the context of the labor market

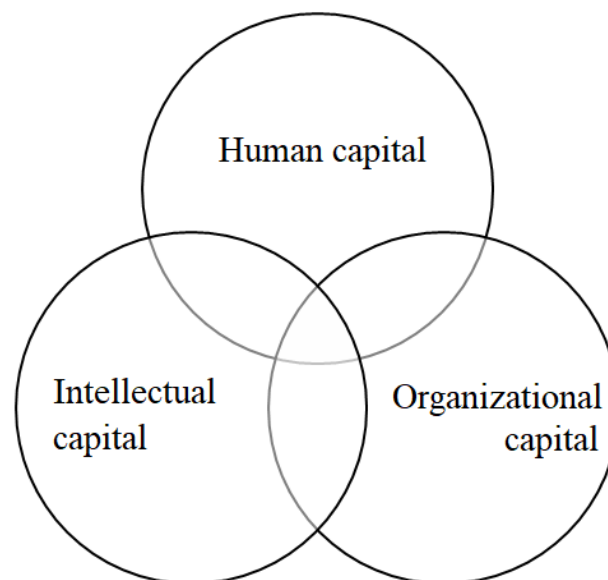
The creation and development of values and the emergence of intellectual capital are processes directly related to the work being carried out and its character. Corporate value is generally recognized as an element of the organization's activity having the characteristics of financial activity. For the purposes of this article, the characterization of a non-measurable value is provided. Accordingly, the scope of activities pursued by organizations are analyzed from this particular perspective. In line with this understanding, value should be clearly defined, properly communicated, and thus, unambiguously and similarly interpreted. A review of research studies conducted so far shows that this concept is clearly interpreted by employees, which makes them value relationships that have a relational character in the workplace, rather than those referring to the assessment and results of their work (Bursztyn 2015, p. 93).

Value generators are divided into financial, marketing and intangible. Due to the subject matter of this article, the following intangible assets should be mentioned: intellectual capital, talented employees and management, innovation, a strong brand, effective logistics, organizational culture, and social reputation (Pioch 2011, p. 211). Intellectual capital is defined as "knowledge, experience and organizational technology, customer relations and professional skills that allow the company to achieve a competitive advantage" (Edvinsson, Malone 2001, pp. 39-40). Kaczmarek (2006, p. 320) argues that intellectual capital is the most important asset in creating value, and also the greatest asset of a business organization, noting that it tends to permanent (legal protection of intellectual property) or variable (human skills and experience). It may also become a building block of the process of creating value or the effect of knowledge transformation, the co-operation of the transformation of knowledge. The definition of intellectual capital is extended to include its components, which can be unconscious (organizational and social capital) and conscious (human capital) (Żemigala 2007, p. 86).

Among the links between values and intellectual capital, it was noticed that value is a broader concept, and at the initial stage it lacks subjectivity and context. When these are given (in this case, when corporate value emerges), mutual associations with intellectual capital can

be found. Literature review allowed to distinguish the elements of intellectual capital that create corporate value. These are: human capital, staff skills, organizational culture and leadership, strategy, clients/customers, customer orientation, product, quality, innovation, brand, information and information systems, cooperation, competition-based cooperation, strategic alliances, mergers, acquisitions, environmental impact, and ecology (Rzempala, Rzempala 2014, p. 691). The ones supported by the selected smart specializations include: clients/customers, quality, innovation, cooperation, competition-based cooperation, strategic alliances, environmental impact, and ecology. The factors that create corporate value, as argued by Samul (2013, p.235), are: human capital, intellectual capital, and organizational capital. The relationship between these factors is presented in Figure 1.

Figure 1. Elements of corporate value



Source: own study based on (Samul 2013, s.235).

Human capital is related to the quality and effectiveness of human work in a given organization. It is defined by knowledge, competences, abilities, skills, know-how, culture, values, relationships, motivation, attitudes, intellectual skills, leadership (Szopik-Depczyńska, Korzeniewicz 2011, p. 182, Kaźmierczyk 2011, p. 50). Its essential feature is the fact of being generated in the process of performing work, which is why it is placed higher in the hierarchy of factors of production than land and capital (Rogoziński 2012, p.157, Kaźmierczyk 2011, p. 110). This, in turn, points to a significant share of human factors. Human capital is an integral part of human capital and also its component.

It follows from the above that the quality of intellectual capital and human capital influences the process of creating value in a company. As a rule, the higher the corporate

value, the higher the requirements towards potential employees, which indicates an increased need to educate the human factor on the side of both current and potential employees (to meet the requirements of a potential employer). At the same time, the growing importance of the human factor can be observed against the background of other factors of production.

Labor market as an intermediary in the use of value and intellectual property in the process of selecting smart specializations – a case study of Lubuskie Province

The labor market is a structure in which human labor is valued and where man is a commodity (or rather their intellectual capital in the long-term perspective), and upon becoming part of a given organization, they start contributing to the collective intellectual capital of that organization. The complexity of intellectual capital poses challenges, both social and territorial. The former include the division of society on the basis of age, and hence generations. Tytko (2017, pp. 73-74) notes the current division into Generations X, Y and Z. Generation X encompasses employees with the longest period of existence in the labor market, Generation Y includes people aged 30-40 years, while Generation Z generation consists of the youngest labor market participants - usually those with the least experience. An observation can be made the younger a generation, the more their work relies on the use of technologies, although this also comes with associations of superiority and independence.

The challenge of the labor market in Lubuskie Province is to combat youth unemployment, which concerns people under 30 years of age (Generation Z). The unemployment rate among this group stood at 24.3% in June 2017. It is significant that the *poviat* of Lubuskie Province with the most unemployed youth (28.6%) is Zielona Góra (Regional Labor Office, 2017). This poses a challenge to the successful implementation of measures in the scope of selected smart specializations, as Lubuskie Province has academic centers located in two cities, namely Gorzów Wielkopolski and Zielona Góra. Potential solutions in this area solve are smart specializations, which could be used to strengthen cooperation with businesses, with a view to improving the skills of employees and graduates of the regional university.

It remains an open issue to measure the long-term effects of implementing the concept of smart specializations. The macroeconomic indicators of the economic condition may be a parameter of the socio-economic measurement. The corporate value and intellectual capital created by employees are reflected in the structure of remuneration, which is a determinant of productivity and demand for work already undertaken (see Table 2).

Table 2. Average wage by industries corresponding to smart specializations in 2017

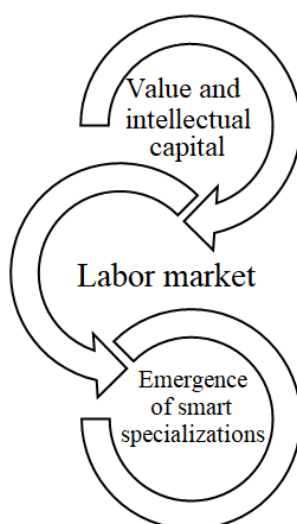
Smart specialization (by industry)	Average monthly gross wages in 2017 (PLN)			
	January	May	September	November
Production and services for the automotive industry	3305	3375	3399	3444
Manufacture of machines, devices, assemblies and metal parts as well as welded constructions and products (metal industry)	3956	4106	4227	4330

Source: own study based on Central Statistical Office (GUS), available at: <https://bdl.stat.gov.pl/BDL/dane/podgrup/temat/40/403/2504> (retrieved 18.01.2018).

Based on the above data, it was found that the average salary in the indicated industries shows an upward trend, which can be demonstrated, among others, by the high dynamics of wage changes or the good condition and overall performance of these industries. Accordingly, a conclusion can be drawn that smart specializations have been accurately selected, taking into account the potential of the sectors studied. Changes indicating the upward trends are taking place at a rapid pace. It can be assumed that organizations employing people in these sectors have a high value, both strictly financial intangible (including the intellectual capital of employees). The above considerations allow to presume that there is a cause-and-effect relationship (see Figure 2) between the level of knowledge and intellectual capital, and the process of selecting smart specializations, in which the parameters of the labor market are important.

As variables, value and intellectual capital are characterized by high dynamics. Their measurement depends on the ratio of the company's internal value and the market value of individual components. On the basis of the process of standardizing knowledge and intellectual capital within the company, indicators for determining the smart specializations of a given region were selected.

Figure 2. Labor market as an indicator of value and intellectual capital in the process of selecting smart specializations



Source: own study

The value generated by enterprises (including the hard factor - finances, and the soft factor - intangible assets) has a bearing on the labor market and the level of its development. Structured data, in turn, allowed to select smart specializations. They are supposed to boost competitiveness of given areas and industries, and they should improve corporate value and intellectual capital (feedback) in a company.

The challenge resulting from the above data is the dynamics of changes and the mismatch between the level of education and the requirements set by the market and the organization. More specifically, smart specializations are created for a specific number of years, whereas the dynamics of changes in these industries is considerably high.

Conclusions

An important challenge for the labor market in comparison with the selected smart specializations is the mismatch of education and the indicated areas. Social inequalities are a threat brought by the indicated smart specializations. By strengthening the selected industries, it will be necessary to retrain employees if they cannot adapt. The challenges faced by strategic bodies linking the labor market with smart specializations include improving the quality of staff (employees generate value, which is the source of competitiveness), organization and distribution of funds supporting the processes of raising competitiveness and care for the effectiveness of undertaken activities.

Indeed, corporate value and intellectual capital of a company testify to the quality of the labor market on the part of the employer. The level of development of the labor market (on the side of the employee and the employer) was a factor in assessing regional development in the process of selecting smart specializations. The role of the labor market in creating value and intellectual capital in the process of selecting smart specializations was limited to being one of the parameters of the economic condition of the industries. However, a high rate of change in variables such as wages proves that selected smart specializations form part of dynamic activities.

In light of previously published sources, this article presents a detail analysis of the role of the labor market in the process of selecting smart specializations. These roles were listed and the relationships between concepts of value and intellectual capital were assessed, followed by an evaluation of the relationships between these elements. At the same time, the hypothesis about the labor market being involved in the selection of smart specializations was confirmed. The labor market is, indeed, a stimulator of the emergence process of these specializations, although not the main one. It is an important parametric factor, but the

principal assumption of the theory of smart specializations is to raise the competitiveness of the region as a multi-element structure. In terms of the process, it can be indicated as a verifier of economic development. In turn, it is one of the factors of the region's high competitiveness compared to others. The essence of the concept of smart specializations is care for this parameter. The development of the verified hypothesis is the way an organization approaches value, which is generated from human intellectual and organizational capital. In each of them, man is the source of a significant share of value creation. The symbiosis of these three elements proves the competitiveness and innovativeness of enterprises. This, in turn, translates into the competitiveness of the region (understood as the conditions for creating competitive enterprises). More precisely, the article showed that the labor market acts as an intermediary between the creation of value and intellectual capital, and the emergence of smart specializations. The main problem faced during the research process was a small number of studies on smart specializations and their influence on the studied regions, the reason for which the application of this concept was mainly hypothetical.

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Rynek pracy w kontekście kreowania wartości i kapitału intelektualnego przy procesie wyłaniania inteligentnych specjalizacji

Abstrakt

Wyłanianie inteligentnych specjalizacji to inicjatywa powstała na szczeblu europejskim dla zapewnienia stałego rozwoju przy uwzględnieniu szczególnych cech każdego regionu. Ich wpływ na tworzenie kapitału intelektualnego w kontekście rynku pracy będzie miał charakter złożony. Celem artykułu jest znalezienie odpowiedzi na pytanie: jaka jest rola rynku pracy w procesie wyłaniania inteligentnych specjalizacji w oparciu o kreowanie wartości przedsiębiorstwa i kapitał intelektualny?

Słowa kluczowe: inteligentne specjalizacje, kapitał intelektualny, wartość, lubuskie, rynek pracy