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**THE ROLE OF INTELLECTUAL CAPITAL IN
BUILDING A COMPETITIVE ADVANTAGE BY
ENTERPRISES FROM THE TRANSPORT,
SHIPPING AND LOGISTICS INDUSTRY (TSL)**

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The role of intellectual capital in building a competitive advantage by enterprises from the transport, shipping and logistics industry (TSL)

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Keywords: *intellectual capital; logistics, shipping and transport industry (TSL), competitive advantage*

Abstract

Research background: The modern economy is characterized by use changes. They appear very quickly and unexpectedly. This is a situation which impedes the functioning of companies and it is a challenge for the people managing them. They have to meet new challenges and adapt to changing competitive conditions, which are associated with the processes of globalization and knowledge-based economy.

Purpose of the article: Therefore, the aim of this article is to define the role of intellectual capital in companies with TSL branch in building competitive advantage. In addition, the author attempts to assess the facts of intellectual capital management in the surveyed enterprises and it will identify the barriers that accompany this process.

Methodology/methods: Founded research objectives will be realized an analysis of available sources of theoretical and conducted by the author, in 2016 (100 companies with TSL from Baltic Sea Region). The study was prepared as a general survey, which describes the company and individual interviews conducted with representatives of the boards of companies and their managers (for a total of 400 people).

Findings & Value added: After analyzing all the material you see the role of intellectual capital in building a competitive advantage in the surveyed entities. Especially in activities related to the improvement of the quality of services / products and the efficiency of employees. It also turned out that business owners know how important it is for them the capital and they also know the barrier implementation of this concept - the main are: the capital is not their property.

Introduction

The changes that accompany economic transformations, forced the company to adapt to the changing conditions of the competition - they

bring to these new challenges. In the twenty-first century product no longer plays such a large role in the process of building a competitive advantage because of its features can be easily copied and transferred to other products of the production.

It also means that companies must adopt in every area of activity principle of the leading role of the client. This is the basic element of a comprehensive approach to Quality Improvement of this process is to eliminate gaps in the services provided and products sold (Fun & Ku, 2010, pp. 212 - 213).

Therefore, in the process of building a competitive advantage in the market it is the most important component of the intellectual. As the main factors driving the economy and the middle ground for success in the twenty-first century is called the wealth of the organization or its treasure (Stewart, 1997). In the literature, the term is also called intellectual assets, knowledge assets and intellectual property.

In the recent period there is also a lot of theoretical models and the concept of intellectual capital management. Unfortunately, there is no uniform standards and opinions concerning the tool identification, measurement and resource productivity assets. This creates a major barrier to implement them in practice - has an impact on the level of efficiency and market competitiveness of modern enterprises. All the boards of companies, particularly in fast-growing industries (such is the industry TSL) have to look for new opportunities to build market advantage. They depart from the traditional management methods towards those that are based on intangible assets. It is the intellectual capital is a key asset of the company, and the optimal management becomes their core competence.

Therefore, we can be argued that the market success of modern enterprises, greatly influenced their assets and intangible assets management system implemented intellectual capital. Therefore, the aim of this article, based on the analysis of literature and empirical research is to identify the role of intellectual capital in companies with TSL branch (operating in the Baltic Sea Region - BSR), to build a competitive advantage in such changing economic conditions.

Research Methodology

Many boards are aware of the importance of the implementation and management of intellectual capital in their organizations. However, they do not choose to rely on it their strategy because they see too many barriers and risks. This phenomenon is confirmed carried out in 2016 a study in which 100 companies participated with TSL branch, located in the BSR.

The main objective of the study was to determine the prevalence of the concept of intellectual capital management in the surveyed entities. In addition, the author wanted to indicate the main factors (including barriers), its development and define the main objectives of the use of this concept in practice.

The study was designed as a general survey of standardized, which described the tested entity and individual interviews with representatives of the management boards of companies (100) and managers at various levels in their employees (300 people). The author planned to use the purposeful and random sampling on the basis of information on companies from the TSL sector included in the statistical data BSR for the year 2014. Unfortunately, many companies refused to participate in the study. Therefore, the author applied the principle of selection on the basis of self-declaration of participation (he sent a question to 1500 companies whether they are interested in participating in this study).

Among the surveyed companies were the largest group of Polish companies and companies defined as the average - with employed from 50 to 249 people. The least had a group of large enterprises - more than 250 people employed. The study did not take part smallest companies - up to 9 employees, because they have enough developed structure. At the beginning it should be noted that only 63 companies used the concept of intellectual capital management - although all the companies have given such a declaration. This concept is most common in large companies that have more employees - confirms the thesis about the need for a developed structure.

The modern definition of intellectual capital

The first information on the intellectual capital we can see already in the thirties of the last century. In practice, the economic forerunner in the field of intellectual capital management was the Swedish insurance company Skandia. The company opened a department that dealt with intellectual capital. His head was L. Edvinsson (Beyer, 2012, p. 247). He believed that intellectual capital consists of knowledge, experience, technology, customer relationships, professional skills that give the organization a competitive advantage in the market. It is knowledge that can be converted into value (Edvinsson, 2001, pp. 44-45).

Today, we have more and more deadlines and schedules for determining the size called intellectual capital. According to G. Roos and J. Roos (1997, p. 17) intellectual capital is the sum of hidden assets that are not in the financial statements because they contain what is in the minds of employees. While the H. W. A. Johnson (1999, pp. 562-575) believes that intellectual

capital is the amount called goodwill, which also includes values such as brand or ability to adapt to changing competitive condition (Johnson, 1999, pp. 562-575).

In Poland, the interesting concept of intellectual capital created M. Bratnicki (2001, p. 71) - this is the sum of the knowledge possessed by the people who are community enterprises and the practical ability to convert this knowledge to goodwill. He believed, too, that intellectual capital is divided into two main parts. The first is organizational capital and social capital includes the resources and processes. The second is the human capital that reflects the knowledge and skills of employees.

Specific elements that make up the intellectual capital, the author showed in Table 1. However, it must be said that in order to effectively use this capital, every company must implement a complete system to manage all of its components.

Table 1. Components of intellectual capital

Human capital	Capital clients (relationship)
Education Professional qualifications Knowledge associated with work Professional skills Predisposition psychometric Entrepreneurship, enthusiasm, innovation, ability	Trademark Customers Customer loyalty Company name Distribution channels Cooperation with other companies Concession agreement Beneficial contracts Franchise agreements
Organizational capital (structural)	
Intellectual property	Infrastructures assets
Patents Copyright Design rights Trademark Outstanding service Trade secret	Philosophy managed Organizational culture Management processes Information system The system links Financial relations

Source: Dzinkowski (1999).

To summarize the above considerations, we can conclude that the concept of intellectual capital has been designed to fully demonstrate its importance and essence in building competitive advantage. Intellectual capital, we can consider considered as an intangible asset an organization - that is, assets soft, because it has a significant impact on the value of the company and is not listed on the side of its assets. On the other hand, it must be

taken into account in the management of the company, as it helps to improve the efficiency with optimal use of the available intellectual resources.

The functioning of the transportation industry, shipping and logistics in the Baltic Sea Region

The land area of the Baltic Sea Region is approximately 2.4 million km² and is made up of all or parts of territories of 11 countries. Although the land area of the BSR is a little less than half the area of the EU, the share of the region's population is 23 percent and the aggregated GDP about 16 percent of total GDP in the EU. These data show that the BSR is not the economic center of Europe. Compared to other European and world regions BSR has high levels of education, training personnel and expenditure on R & D. There is also a broad awareness of the role of social factors in the construction of sustainable economic development (<http://balticsea-region-strategy.eu>).

Baltic region is referred to as an antidote to the dominance of the center of Union economic area - the area of the south-eastern coast of the UK to the northern Italy. On the other hand, this region is an area of large differences in social and economic. This is a result of increasing liberalization of world trade, which is the elimination of barriers to international trade. For the countries that are growing and have a lot of economic problems, it is not only the benefits. Companies from these countries must seek to build competitive position methods that are not related to financial investments (Cieřlik & Hagemmejer, 2011, pp. 518-519).

On the other hand, contemporary TSL market in Europe is characterized by increasing competition, which forces companies to look for new methods of management - the old ones are already very effective. In this connection an important role to leverage existing intellectual capital to create and implement innovations that have become the main determinant of building a competitive advantage in the market. From this analysis we can conclude that the TSL industry in recent years has dynamic development. This is the result of the development of innovative information technology and related processes of economic globalization - it is the main driving force. This process is also enhanced: the rising costs of transportation, production and maintenance of permanent stockpiles.

Transport has become a major factor in the economic development of the BSR, since the cargo and passengers he meets most people's needs. The development of transport brings together the markets allows for increased production and economic growth. There is no world economy during its globalization, without the network of routes and transport links, which allow manufacturers, exporters and importers freely enter into contracts irre-

spective of the place of action. These regions of the world that do not have roads and transport points can not participate in international exchange and industrial cooperation. Without the development of transport there will be a further increase in production and an increase in social. On the other hand, transport can also be a barrier that restricts economic growth.

Construction of competitive advantage based on intellectual capital in the industry TSL

Companies that are planning to have success in today's economic market, have their activities systematically programmed and adapted to the situation. Companies that want to be competitive they must create internal flexibility that is needed to adapt to changing conditions. In this way, he reached a particular perks. Modern concepts of building competitive advantages are mainly related to the ability to use knowledge (Cetindamar & Kilitcioglu, 2013, p. 20). Currently, it is the search for and implementation of the relevant components of intellectual capital. However, the construction by the company a competitive advantage in the market today depends on proper connection and operation of all these elements.

Analyzing the scientific literature of the subject, we can find a lot of concepts associated with the term competitiveness. The most important of them are: competition, competitiveness or competitive advantage.

The term competition can be defined as an arena in which companies compete for customers. It consists of companies in the sector, competitors and institutions governing the functioning of companies (Kasiewicz, 2006, pp. 46–47). In turn, the competitiveness can be understood in different ways, depending on the interest groups. For example, competition for customers is limited to the attractiveness of the product or service. (Rzempala, 2007, p. 227).

As for the definition of competitive advantage believes scientists are divided. The author chose those relating to the use of resources of intellectual capital:

1. The concept is based on the resources and core competencies: its subject is not the sector and the company. Its basis are key competencies defined as skills that are crucial to the results of the company (Hamel & Prahalad, 1990, s. 79).
2. Contingency theory / approach: it is constantly adapting to changing environmental conditions (Macias, 2008, p. 5).
3. The concept of knowledge (knowledge based competition): current knowledge is a strategic asset of the company that determines its development, survival and building a competitive advantage. (Macias, 2008, p. 9).

It says, however, to build a competitive advantage based on intellectual capital, we find the determinants that determine the intellectual potential of the company. Especially in the case of the TSL sector, which is growing very quickly and is a service - a difficult process to identify these determinants. Therefore, at the planning stage of research, the author has attempted to identify those factors (based on the analysis of materials). Belong to them:

1. Determinants of external:
 - ☐ Political, for example: state policy, protection of intellectual property;
 - ☐ Social, for example: education of the population, quality of life;
 - ☐ Economic, for example: the level of GDP, the level of unemployment;
 - ☐ Technology, for example: the rate of technology transfer, the level of technological development.
2. Determinants of internal:
 - ☐ Material: property (for example: technical measures) and financial (for example: capital structure);
 - ☐ Immaterial: human capital (for example: the creativity of employees), relational capital (for example: susceptibility to innovation) and organizational capital (for example: organizational culture).

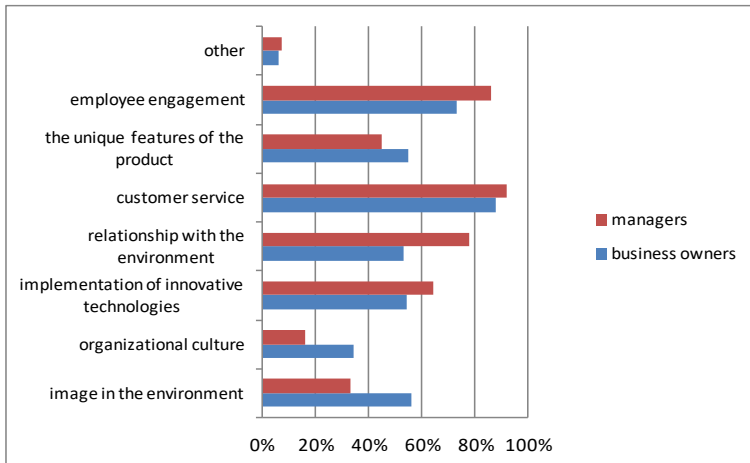
Thanks to this division, we can accurately show the complexity of factors that influence the shape of the intellectual capital of companies in the TSL. In addition, we know that we have different methods and tools to manage it. Moreover, this statement is a perfect introduction to the presentation of research results.

The role of intellectual capital in practice

Investment in this type of capital associated with high risk. However, many owners and managers of companies in the TSL understand its importance for the organization and want to implement it - confirmed it carried out the study.

In Figure 1 the author presents the opinion of business owners and managers on the role of intellectual capital in their organizations. Due to the objectives of the study, the author wanted to know their opinion was compared to the traditional factors of production.

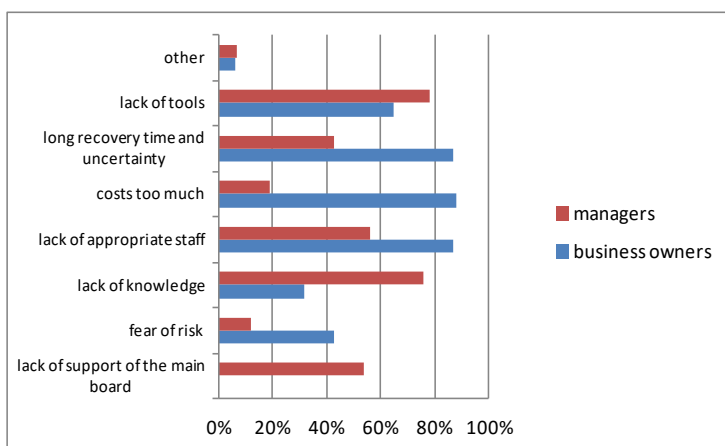
Figure 1. The role of intellectual capital in companies which participated in the study



Source: own study.

Based on respondents' answers, the author has the idea that they are aware of the need to build their competitive position on the basis of investments in intangible assets. However, in this process is a lot of barriers that do not allow them to implement the concept of intellectual capital management in their organizations. These barriers could also be identified during the study (Figure 2).

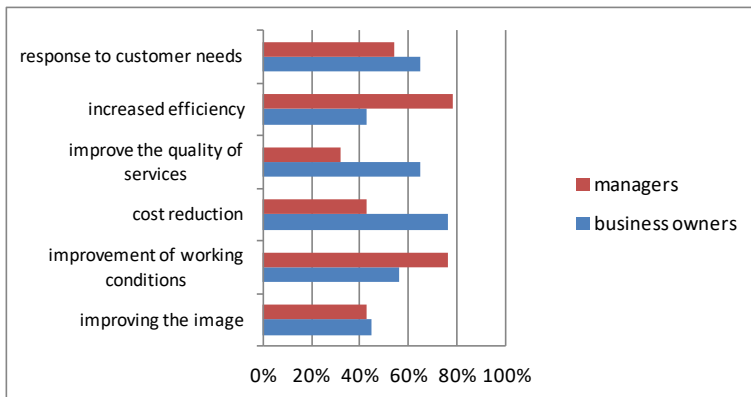
Figure 2. Barriers to implementing the concept of intellectual capital in companies which participated in the study



Source: own study.

Equally interesting and very optimistic, they present the responses that relate to the role they must play implemented the concept of intellectual capital management in building a competitive advantage. Most of the indicated purposes is practically the same as the main factors shaping the competitive position in the industry TSL - detailed distribution of responses shown in Figure 3.

Figure 3. The role of intellectual capital management in companies which participated in the study



Source: own study.

In summary, based on all of the previously described theoretical considerations and the results of the study, the author states, that intangible assets in the process of building competitive advantage of companies in the TSL are already very appreciated. It is also important that business owners are aware of what can be achieved through the concept of management of intellectual capital. They also know what it depends on - business strategy, environment variables and the extent implemented the concept of intellectual capital.

In addition, we must remember that create a model of intellectual capital management in a company is not an easy process, since it must include:

- ☐ Development of strategies related to intellectual capital;
- ☐ Creation of databases on intellectual capital - acquiring and storing them in the information and knowledge;
- ☐ Permanent development of intellectual capital;
- ☐ Protection of intellectual capital;
- ☐ Permanent monitoring of intellectual capital.

Conclusions

Author conclude, intellectual capital is a combination and joint action of all intangible assets which companies have or are able to create using the knowledge. Most important, however, it is to use this potential to be better than the competition. Companies must strive to these resources has become their main asset market. This is very important because in today's market, companies can only function through flexibility and adaptation to the changing environment. The more that in the era of globalization and knowledge-based economy, traditional methods of competition are no longer guarantee the achievement of expected results. Today, companies that build competitive advantage need to adjust their internal operations to changing external conditions. All the more so if they are industries that are developing dynamically - for example, TSL industry. In these industries to grow a lot of competition, which forces each game are saved striving for optimal management. Therefore, if these companies plan to increase their effectiveness, they must use modern forms of management that are used to implement and achieve certain results.

Therefore, intellectual capital is beginning to be seen as a major factor at the macro and micro. Without it, no entity has reached the expected level of innovation. Of course, this process is accompanied by fundamental dilemmas. They relate to the type of determinants influencing the development of intellectual capital and the conditions of management. But after all, recent years have shown, the concept of intellectual capital has become a strategic management option, and affects the position of the company on the market.

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