

The Role of the Intellectual Capital in the Development of the Region

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Abstract- the work is about the activity of the enterprise represents system of relationship of subjects of the given enterprise with various subjects of the market: suppliers of resources, consumers of finished goods, financial credit institutions and the financial organizations, the minority shareholders checking the organizations and so on. Competitive positions of the enterprise in this system consist of two groups of factors. The first group of factors has a material basis. The second group of factors has non-material character and has no concrete numerical expression. But in modern market conditions non-material factors have impact on formation of end financial and economic results of activity of the enterprise, its competitiveness and cost. The level of the competitiveness is depended on the intellectual capital efficiency represented in such points as higher education and training, labor market efficiency, innovation.

Keywords- *human capital, intellectual capital, innovation, tangible and intangible capital.*

INTRODUCTION.

In the terms of the globalization activity of the enterprise represents system of relationship of subjects of the given enterprise with various subjects of the market: suppliers of resources, consumers of finished goods, financial credit institutions and the financial organizations, the minority shareholders checking the organizations and so on. Competitive positions of the enterprise in this system consist of two groups of factors. The first group of factors has a material basis. It is connected with such processes, as introduction of the new equipment and technologies, management of material and financial assets. But according to the capital equipment, for example, the economically optimum useful life is influenced by two opposite effects. The advantage of a long useful life is in the distribution of acquisition costs over an increasing number of periods. It is detrimental, however, that with the useful life installation, maintenance and repair costs usually increase over-proportionately. Downtime costs also increase with an increasing useful life. [Hofman E., Maucher D., Hornstein J., 2012] The second group of factors has non-material character and has no concrete numerical expression. But in modern market conditions non-material factors have impact on formation of end financial and economic results of activity of the enterprise, its competitiveness and cost. Innovative activity of the enterprise allows to provide efficiency of activity of the enterprise. at the same time we know that innovative activity is better development on the territory of clusters. Porter explains how clusters affect competition in three broad ways:

- by increasing the productivity of companies based in the area;

- by driving direction and pace of innovation;
- by stimulating the promotion of new business within the cluster. [M. Porter, 1998]

M.E. Porter defines a cluster as a geographically proximate group of interconnected companies, suppliers, service providers and associated institutions in a particular field, linked by externalities of various types,.....basic feature of regional and national economies, with an important influence on innovation, competitiveness and economic performance.[M. Porter, 2003]

LITERATURE REVIEW AND HYPOTHESES

In economics, the central meaning of capital is probably assets used in the production process: tangible assets and intangible assets such as know-how. [Armitage S., 2005] Human capital is considered a strong complement to investment in physical capital. Human factors are important contributors to the increase in productivity and innovation via know-how diffusion. The efficiency of the firm is dependent upon the mobilization of intangible resources (intellectual investment). It is now evident that in the growing complexity of intangible assets we need to highlight the transparency for the intellectual capital multiplier, or in other words look for what kind of strategic structural capital will leverage the human capital for organizations as well as regions. [Bounfour A., Edvinsson L., 2005] A holistic value-based supply chain network concept must consider non-financial value drivers, such as supply chain risk, intangibles or intellectual capital, and inter-company aspects to reflect the network approach of this concept. [Brandenburg M., 2013] Knowledge has become the primary ingredient of what we make, do, buy and sell. As a result, managing it – finding and growing intellectual capital, storing it, selling it, sharing it – has become the most important economic task of individuals, businesses, and nations. [Stewart T., 1999] However, a key ingredient in the relationship between resources and capabilities is the ability of an organization to achieve cooperation and coordination within teams ... These can be viewed as intangible resources which are common ingredients of the whole range of a corporation's organizational routines. [Grant R., 2001] Intangible capital has become the main asset and investments in this area often has a greater influence on growth and productivity than investment in capital and equipment. Thus, on a corporate level, intangible assets, like human capital, have replaced fixed assets as the main driver of wealth. [Bounfour A., Edvinsson L., 2005] In business terms we might describe human capital as a combinations of factors, such as a following:

- the traits one brings to the job: intelligence, energy, a generally positive attitude, reliability, commitment;
- one's ability to learn attitude, imagination, creativity, and how to get things done;
- one's motivation to share information and knowledge: team spirit and goal orientation. [Fitzenz J., 2000]

Some scholars include in definition of intellectual capital not just human brainpower but also brand names and trademarks. Other researchers include in definition of intellectual capital such factors as technology, leadership, ongoing employee training, even speed of response to client service calls. [Edvinsson L., Malone M., 1997]

The main components of intellectual capital consist of:

- human capital;
- structural capital;
- customer capital.

Within the literature review it was determined that intellectual capital, innovation and organizational strategy have a positive effect of firm performance. [Kalkan A., Bozkurt O., Arman M., 2014] Was considered earlier that development and deployment of results of researches and development belongs to economic activity with a high risk level. But now economists proved that existence of an effective control system by risks for the purpose of their minimization not only reduces risks but also increases such indicators, as financial efficiency, development of the intellectual capital on the basis of human resources. Appropriately managing sustainability risks can result in cost reduction achieved through improved environmental and health and safety performance... The impact of sustainability issues on an organization's operational and financial performance as well as reputation and brand value. [Reuvid J., 2012]

METHODOLOGY

Algorithm of an intellectual capital revelation in enterprises comprises the following stages:

- 1) To identify the role of knowledge as a major factor of development of enterprises through innovation activity.
- 2) To form the knowledge-based activity on the level of the region.
- 3) To use qualitative and quantitative instruments on the level of enterprise for forming the research and development institutes.
- 4) As a result, to know barriers for entry to the innovation sector, the level of the importance of the intellectual capital.

- 5) To discuss future opportunities in the area of innovations on the level of enterprises, region.

As we know the level of the competitiveness is depended on the intellectual capital efficiency represented in such points as higher education and training, labor market efficiency, innovation. In the Republic of Tatarstan we have got the following rate of this types, as shown in table 1.

TABLE 1. THE VOLUME OF INNOVATION PRODUCE OF THE REPUBLIC OF TATARSTAN IN THE PERIOD OF 2012-2013. (SOURCE: ANNUAL REPORT FROM THE OFFICIAL INTERNET RESOURCE OF THE MINISTRY OF ECONOMY OF REPUBLIC OF TATARSTAN)

The name of enterprises	The name of product	2012, billion rub.	2013, billion rub.
OJSC Nizhnekamskneftekhim	soprene rubber, Propyl carbinol, Halobutyl rubber, Butadiene rubber, Styrene, polystyrene resin, Nanylphenol, Ethylene glycol	10,44	6,31
OJSC Kazanorgsintez	Polycarbonate, Polycarbonate, Plastics Articles, Organic products, Ethyl acetate, Diphenol	4,64	6,07
OJSC KVART	The chemical product on the basis of Technical Carbon	1,29	1,21
OJSC Danaflex-nano	The chemical product	0,6	1,01

At the Republic of Tatarstan we have got such research institutes and universities, such as R&D institute of medical instruments, R&D institute (Volga-region) of carbon raw materials, Institute of organic and physical chemistry named Arbusov A.V., Institute of the development of education in the Republic of Tatarstan, Kazan R&D institute of information equipment, Kazan physics and technology institute named of Zavoysky, Research and development

institute of oil-field chemistry, the institute of environmental problems and environmental management, Science and technology park of industrial technologies "Innovatively Technological Center", Central research institute of geology of nonmetallic minerals and others. As a result of working this research and development institutes and organizations level of the volume of energy resources is declining from year to year, as we can see in table 2.

TABLE 2. THE SHARE OF THE ENERGY VOLUME IN GDP OF THE REPUBLIC OF TATARSTAN ON THE BASED OF MAIN RAW MATERIALS. (SOURCE: ANNUAL REPORT FROM THE OFFICIAL INTERNET RESOURCE OF THE MINISTRY OF ECONOMY OF REPUBLIC OF TATARSTAN)

Period	2007	2008	2009	2010	2011	2012	2013
Energy , %	27.41	24.51	23.99	24.20	23.22	22.06	21.39

ANALYSIS AND RESULTS.

Significant in volume of direct foreign investments became result of development of innovative activity in the Republic of Tatarstan, as shown in table 3. (source: annual report from the official internet resource of the Ministry of Economy of Republic of Tatarstan)

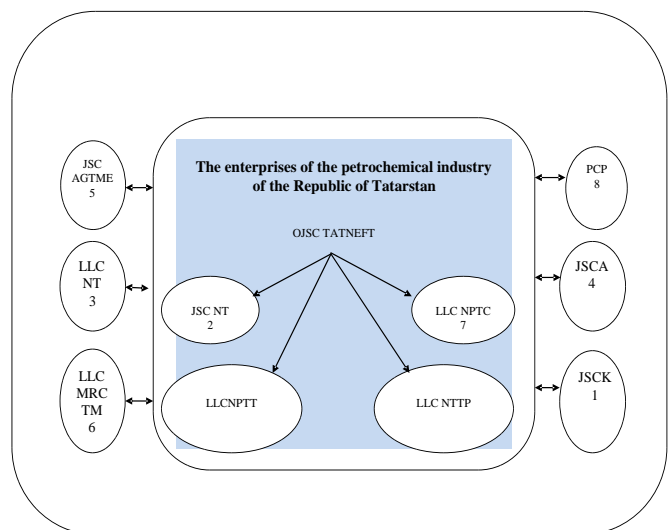
TABLE 3. THE VOLUME OF FOREIGN INVESTMENT IN THE REPUBLIC OF TATARSTAN IN THE PERIOD 2003-2013.

period	The sum of foreign investment, million USD	Direct investment, million USD
2003	176.1	77.1
2004	596.1	79.2
2005	683.6	54.5
2006	483.7	134
2007	1679.4	417.9
2008	2593.8	722.9
2009	2240.3	113.3
2010	4149.5	146.5
2011	956.4	577.3
2012	735.6	291.8

In the modern market conditions inconsistent tendencies of development of economic activity of managing subjects are observed. On the one hand, for effective activity the enterprise needs to work the conditions providing positive size of an economic value added, created within the enterprise, a cluster, the

region and so on. The analysis of structure of the capital of the enterprise, existence of ever-increasing size of net profit and optimum size of the invested capital is in this situation necessary. On the other hand, transition to the following relevant level of economic activity of the enterprise is impossible without implementation of investments into innovative researches and development with use of the intellectual capital of the enterprise, a cluster, the region. Use of the intellectual capital of the enterprise allows to replace a way of production, having provided production and realization of new production, goods, service. In the region territory there are a lot of clusters as in branch of the chemical and petrochemical industry, and in the field of educational and research and development activity that improved to creation of the intellectual capital and introduction of innovations in production now, as shown on figure 1.

Figure 1. The enterprises of the truck tires production on the territory of the Russian Federation included the Republic of Tatarstan. (author's work)



The name of enterprises of truck tires production on the territory of Russian Federation.

1. JSC "Kordiant", (JSC K), 2. JSC "NizhnekamskTire", 3. LLC "Nokian Tires", 4. JSC "Amtel", 5. JSC "Altayski group of tire manufacture enterprises", 6. LLC "Micheline", 7. LLC NPTC "Nizhnekamsk plant of technical carbon", 8. Private Company (ZAO) "Petroshina", 9. LLC NTTP "Nizhnekamsk truck tires plant", 10. "Nizhnekamsk plant of truck tires" (LLC NPTT),

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AUTHOR'S PROFILE

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