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FEATURES OF THE INTELLECTUAL RESOURCES STRUCTURE IN FORMING INTELLECTUAL CAPITAL

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Ковтуненко К.В., Шацкова Л.П. Особливості структури інтелектуальних ресурсів при формуванні інтелектуального капіталу.

Обґрунтовано склад і роль інтелектуальних ресурсів при формуванні інтелектуального капіталу підприємства, розкрито основи та особливості застосування ресурсного та процесного підходів, розроблено методикку побудови системи процесів, розроблені структури інтелектуальних ресурсів при формування інтелектуального капіталу.

Ключові слова: інтелектуальний капітал, інтелектуальні ресурси, процеси, ресурсний підхід, процесний підхід

Ковтуненко К.В., Шацкова Л.П. Особенности структуры интеллектуальных ресурсов при формировании интеллектуального капитала.

Обоснованы состав и роль интеллектуальных ресурсов при формировании интеллектуального капитала предприятия, раскрыты основы и особенности применения ресурсного и процессного подходов, разработана методика построения системы процессов, разработаны структуры интеллектуальных ресурсов при формировании интеллектуального капитала.

Ключевые слова: интеллектуальный капитал, интеллектуальные ресурсы, процессы, ресурсный подход, процессный подход

Kovtunenکو K.V., Shatskova L.P. The structure features of intellectual resources in the forming of intellectual capital.

The composition and role of intellectual resources in the forming of intellectual capital of the enterprise are justified, the basics and features of use of the resource and process approaches are disclosed, the method of constructing the system of processes is developed, the structures of intellectual resources in forming of intellectual capital are developed.

Keywords: intellectual capital, intellectual resources, processes, resource approach, process approach

The problem of enterprise stability development deals with the intellectual capital forming. The aggregate of resources forming the intellectual resources and used in its business functions by the enterprise gives the opportunity to take the leading places on the new goods and services market. According to the latest researches the growth of business and competitiveness of Ukrainian companies less depends on conjuncture, external environment and more from effectiveness of using the internal resources, the main of which are intellectual ones. The resources represent factors of production process. Really, every organization, that wants to keep and improve the bargaining position in long-term period should be focused on consumers (both external and internal) in its development and manage the processes. The author Skripko L.E. states, and we agree with him, that ineffective internal processes reduce the profitability and competitiveness of organization, so it is important for organization in time and adequately react on external environment changes by corresponding changes internal organization. The employees will know how exactly to do their work. Clear structure in the interrelation of all organization processes allows increasing the work “transparency” [1].

Analysis of recent studies and publications

The significant contribution to the theory of intellectual capital has been done by K. Bredly, E. Brooking, J. Helbreit, L. Edvinsson, M. Meloun, T. Stuart, and etc. Ukrainian and Russian scientific community pay attention to the theory of intellectual capital problems much later than western scientific workers, but this gap is decreasing in present time owing to the significant contribution of such scientists as O. Butnik-Siverskyi, Yu. Bychenko, M. Ivanov, V. Inozemtsev, L. Lukycheva, E. Markovska, E. Marusynina, Yu. Makhomet, O. Khlystova, and etc. Generalization of theoretical approaches to the definition of intellectual capital nature and its formation proves that this economic category is predominantly regarded from social and legal point of view or the scientists research only the characteristics of its individual components. While the question of intellectual capital forming in resource and process approaches is still undecided to the present time.

The aim of this work is the researching the intellectual resources structure features in forming intellectual capital using the resource and process approaches.

To achieve the aim the following tasks should be completed:

- to define the structure of intellectual resources;
- to find out the conceptual and category-related apparatus of such definitions as “resource approach”, “process approach”;
- to regard the features of using the resource and process approaches;
- to develop the models of intellectual capital forming.

Basic material research

Initially the resource approach arose as one of the theories explaining the origins of the firm. Resource theory gives the priority to intellectual resources analysis at the present time. The founder of resource approach is Jay Barney. In his article “Firm Resources and Sustained Competitive Advantage” the intellectual bases of resource approach are identified for the first time. The essence of resource approach is known as the following: the distinctions in firms’ economic results that function at the same market are connected with the distinctions in resources structure the firm has and that are using in its activity. At that time resources are understood as the whole that provide the firm’s operation. So one of the main tasks being solved in resource approach is to define the intellectual resources structure that are the source of intellectual resources forming.

The main objective of resource approach is that every organization has the exceptional set of resources and abilities that exact set of resources and abilities and the methods of their using distinguish this company from the others in the same branch. The statement that namely exceptional, difficult in simulating combinations of resources form the distinctive abilities of organization, exposes the key position in resource approach. In this approach the need of continuous and long work on creating and developing the distinctive abilities of organization is explained. As the enterprise is understood as the aggregate of original resources, so it is logical to assume that heterogeneity of the resource base is the principal sign or resource approach. With competitive resources the enterprise tries to conquer and reinforce strategic advantageous and inaccessible bargaining positions for competitors.

According to E. Brooking the intellectual resources consist of several elements: intellectual property, human resources, infrastructure assets, market assets [3]. The classification proposed by the famous scientist is not comprehensive. As the fifth element of firm’s intellectual resources, we agree with the E. Markovska opinion and suggest to regard an organizational knowledge.

Thus the enterprise intellectual resources can be defined as the combination of economic resources, that consists of: human resources, market assets,

infrastructure assets, intellectual property, organizational knowledge, besides its own special combination of intellectual resources is inherent to every enterprise. Such division of intellectual resources with respect of components is due to its role in providing the enterprise competitiveness.

Human resources represent the aggregate of knowledge, practical skills and creative abilities of staff that are lost when the employee is gone. It is also moral values of company, standard of labour. They form the human assets.

Organizational resources include the intellectual property accumulated, infrastructure assets, organizational knowledge, that in turn can be determined as an innovation and process capital. They are objectified in the following forms: object of intellectual property, technological infrastructure, technical and program providing, organizational and corporate culture, innovation in management & production, business technology (methods of financial, analytic and other accounting forms, recruiting and personnel management), economic and information security, ways of communications with personnel, partners and other counterparts. They all make parts of organizational capital.

Consumer resources are the parts of intellectual resources that characterize relations between company and consumers of its product. They consist of the clients and nature of relations with them by means of individualization (brand, service mark, goods and so on) thus forming the consumer capital. The combination of organizational and consumer capital is called a structure capital. The structure capital belongs to company generally, although it is a product of staff activity.

So, agreeing with L. Edvinsson, M. Ivanov, V. Inozemtsev and others, formation of intellectual capital is implemented by two components: human and structure capital, that consists of organizational and consumer capital [5-7]. Human, organizational and consumer capital mutually interact. It is not enough to invest in each of them separately. They should support each other, making synergistic effect when their types’ cross-influence occurs. The structure of intellectual resources in forming the intellectual capital was developed on the grounds of researches, in base of which the resource approach has been laid. It is presented at Fig. 1 – Structure of intellectual resources in forming the intellectual capital in resource approach.

It is hardly to define the intellectual resources structure because it continuously updated under the new techniques and technologies, consumers’ needs and market requirements. Thus the configuration and structure of enterprise capitals should be formed upon the solution of certain strategic issues. To determine and estimate the intellectual resources of company the authors suggest to specify what resources for the enterprise value creation the company already has and which resources it may have access to. According to the above, to the authors’ idea, an organization is able to estimate how the resources available for the

company comply with the goals that the organization is trying to achieve. Exactly at this moment managers should realize that the organization's ability to create value is not only the function from those resources, that it has, but it depends on organization's ability to utilize them.

Intellectual resources are the successive aggregate of objects that are connected by the set of processes. In the wide sense the process embodies the activity of performing the functions that need certain costs of resources and time. The greatest interest to processes has appeared after the publications of M. Hammer, J. Champy and others in the middle of 80's.

Application of the interrelated processes system for the management of organization activity and resources can be called "process approach". The first author having used the term "process approach" was James Harrington in his book "Business Process Improvement" [8]. Although the term "process approach" has been known a long time ago, it began to acquire the popularity recently, under the dynamics of external environment and competition. The process approach is directed on compilation of the main processes list involved into forming the intellectual capital, development the methods of making the system processes construction in our research.

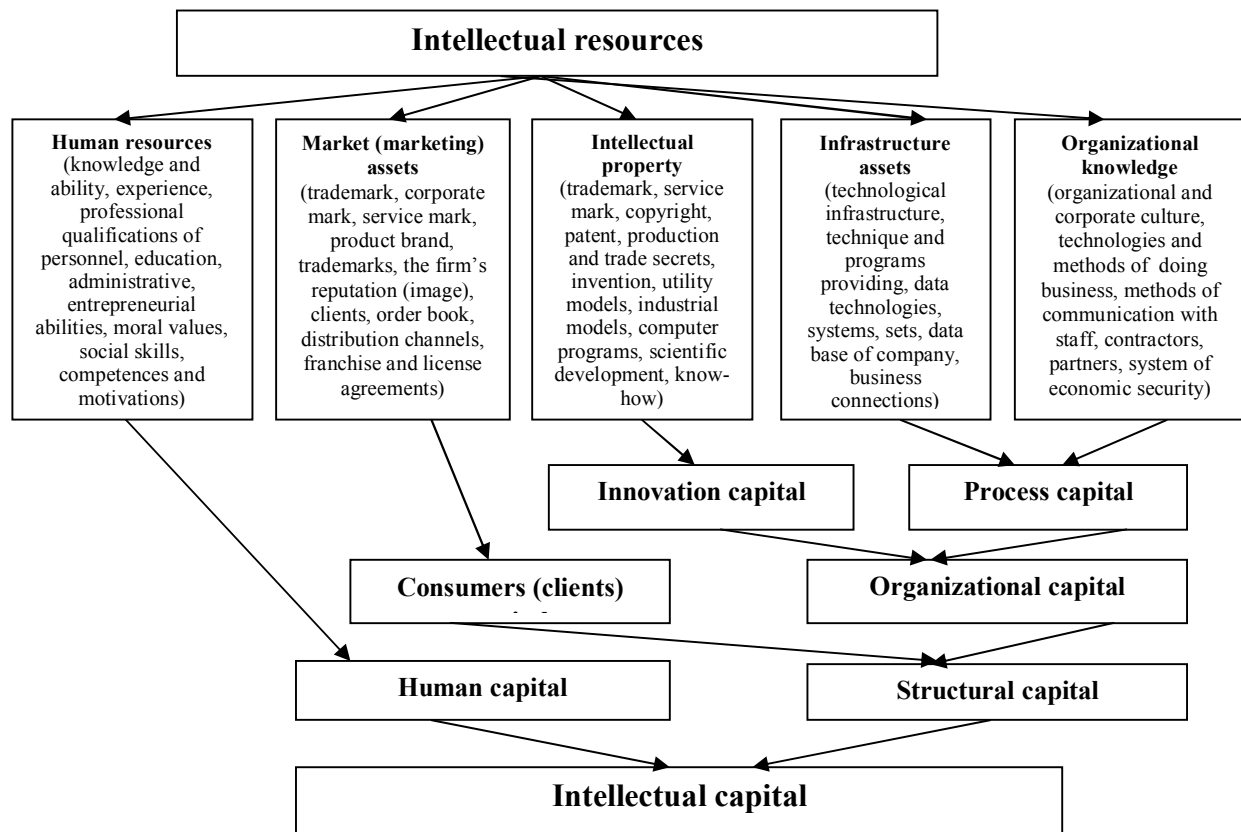


Fig. 1. Structure of intellectual resources in forming the intellectual capital in resource approach

As M. Hammer, J. Champy note [9] there is neither standard list of processes nor its clear description because these processes are not combined with functional division of company. It is hard not to agree with that as a market, level of technology, consumers needs a competition force business-processes to change constantly.

The preproduction is a stage of life cycle that is focused and based on knowledge. It is an intellectual stage of a product life cycle where the forming of intellectual capital goes. Thus we suggest to regard business-processes not like individual components of intellectual capital forming process, but like holistic system of interconnected and often contradictory actions. These processes distinct from all others with

their unpredictability and instability, that can never be regarded as a negative display of system, because all the next manufacturing business-processes and also revenues and costs related with production and product exploitation will be depended from the efficiency of forming intellectual capital process. While the business-process individual components can be changed by influence of positive and negative factors, the system will exist until interaction between elements of business-processes will be maintained [9].

Forming system of processes methods that take part in forming the intellectual capital consists of the following stages:

1) Identification of all system processes and its intercommunications. A division of individual process

is advisable to carry out with imposing processes on the resources structure.

2) Identification of the most important processes and their detail description. Determination processes that are in deficit. Reorganizing the processes.

3) Analyzing the efficiency of processes. Provide recommendations for their development.

The new business-processes appearance is possible only with availability of new resources and uncertainty of the system future development at critical moments. In our opinion all resources presented at scheme are necessary in forming the intellectual capital process, but the main contributing resource is a human factor and its influence on the organization activity results. The human factor or capital is important resource components in current conditions, but not the only. The resources making components of structural capital are an intellectual instrument (implements of intellectual labour) in process of intellectual capital forming and the product of intellectual labour (objects of intellectual property, created and introduced to innovation products by intellectual instrument). All of them are the source of reproduction process and actively influence all its stages. Finding the optimal system structure and the inter-connection will contribute into resources transformation efficiency and obtaining the product with new additional value. So business-process representing a kind of entity activity product is reproduced many times. The process is the transformation of adding product value consisting of quality and price, so promotes the creation of new

product with higher additional value. Capitalization of new knowledge and information flows makes preconditions for further reproduction on the expanding basis. Capitalization of business-processes is an economic benefit received as the result of the intellectual property objects commercialization under growth of noncurrent assets and liabilities organization as the result of innovation activities, because the main goal that organization aims to achieve in forming intellectual capital is firstly creating the intellectual property object as a result of intellectual activity, getting its legal protection and bringing it to commercial result. Realization of this chain needs financial provision, rational using of resources.

The process efficiency is one of basic parameter that determines the creation of value for customers, which is reflected on intellectual capital and on company value respectively. Continuous improvement processes will increase the effectiveness and efficiency of the organization. So it needs to provide the definition of mutually acceptable processes for effective and efficient support connection with its customers and other parties concerned.

Analysis of recent studies allowed creating the intellectual resources structure in forming intellectual capital as a process of intellectual resources creation and using, that is presented at Fig. 2 – The intellectual resources structure in forming intellectual capital by process approach.

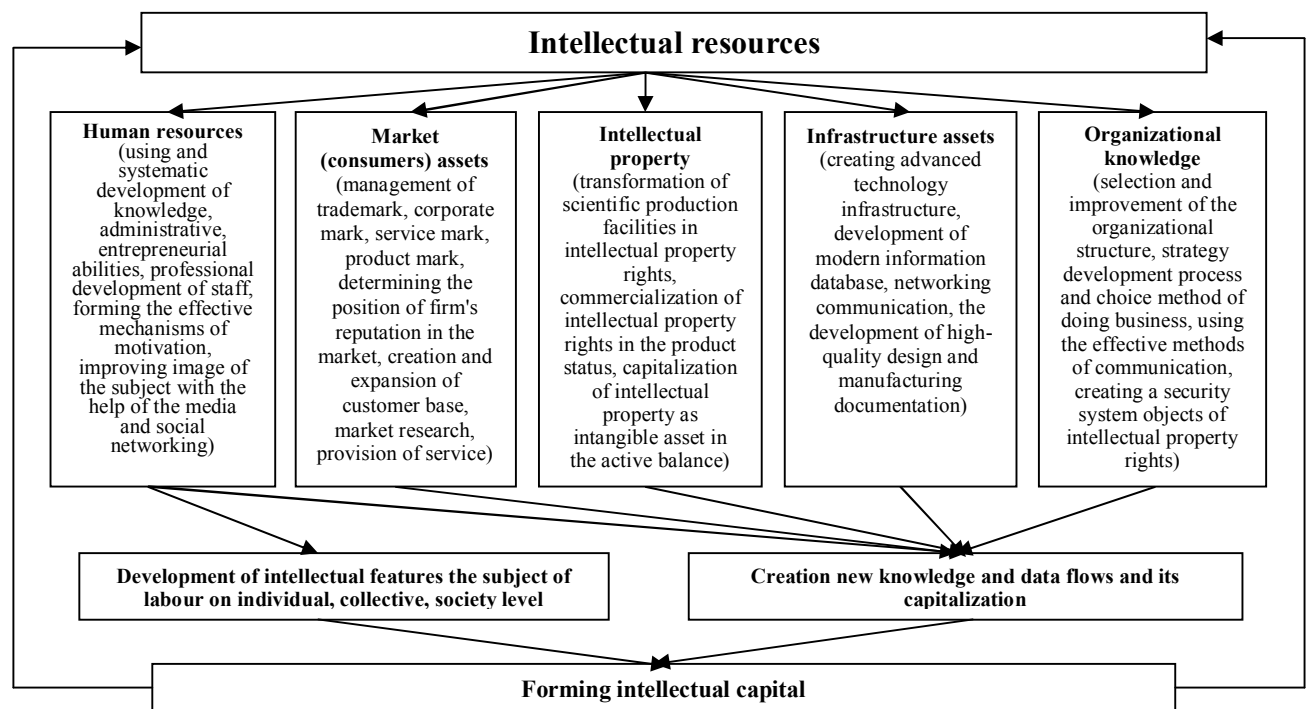


Fig. 2. The intellectual resources structure in forming intellectual capital by process approach

So, supporting opinions by Yu. Bychenko, L. Lukycheva, Yu. Makhomet, E. Marusynina [10-14], we consider the intellectual capital forming as a complex multistage process, including a huge list of sub processes. The list of sub processes can be continued: in every specific case the sub processes scheme can be structured according to the features of organization activity. But the intellectual capital forming can be identified and presented as a dual process: producing new or enriched knowledge and data flows, and also the development of intellectual features the subject of labour on individual, collective, society level, that provides sustainably expanded and balanced reproduction on intensive base. The offered characteristic has system forming meaning because any failure on every phase can paralyze the whole intellectual capital forming process, minimizing effect from its use. Efficiency of the use at all stages of its forming (personal, collectivist, and social) and creating of the most favorable external and internal conditions show its positive influence on increasing the intellectual resource role in social and economic development of society.

Conclusions

Regarding an intellectual capital through the lens of the above quoted authors' approaches serve to identify the dual nature of intellectual resources: from one side these are intellectual resources (knowledge, data, culture, education, engineer decisions, project developments, scientific researches) as the factors of production, playing a great role in postindustrial society, from another they perform the function of knowledge generator in new society. Such systematization gives more ability to have the idea of intellectual capital as a dynamic system that is an aggregate of processes and to assess the role of every intellectual resource in the whole. It can be concluded that according to approaches used in forming intellectual capital the intellectual resources structure is changed, which changes' features area valuable knowledge for an effective management of these processes. In our opinion the exposed theoretical approach related with forming the intellectual capital is one of the most acceptable in current conditions and we hope that its using will make a significant contribution to the development of intellectual capital.

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