

Functionality and Quality Management of Transformation of Capital Forms at an Enterprise

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Abstract – In the article, using the methods of functional systems theory we analyzed the characteristics of the social and institutional venture capital, their unity and distinctions were proved. Presented is the possibility of using the recommendations of the Commission by J. Stiglitz on the Measurement of Economic Performance and Social Progress at the enterprise level. The necessary communications to ensure the transformation of social capital into organizational were determined. We formed a principal scheme of the mechanism of forming the efficiency of enterprise activity, taking into account organizational capital. The principles of emergency of organizational capital efficiency as the degree of influence on the quantitative and qualitative results of the company's activities were presented.

Keywords – Social capital, Organizational capital, Efficiency, Quality management, Conditions, Functional systems.

1. Introduction

Since the 80s of the last century, the possibilities of formation of social networks have increased significantly. At the beginning this led to the

quantitative growth of interpersonal contacts, and then to the qualitative changes in their role and importance for all processes of social life. Accordingly, the number of studies in the field of social and human capital has increased. However, many of the authors stressed the relationship of these forms of capital to the sustainability of economic growth [1]. In this regard, the tendency to combine into a single complex social and human capital, the economic elements such as natural, technical, technological and financial capital has recently been outlined. In particular, the Nobel laureates George Stiglitz and Sen on the results of their collaboration with the National institute of statistics and economic researches published a Report by the Commission on the Measurement of Economic Performance and Social Progress [2]. It contains twelve recommendations aimed at improving methodological approaches to measure the results of economic activity and quality of life. Systematizing them in relation to the subject of this article, we distinguish five generalized recommendations: GDP estimates should always be considered in conjunction with the well-being or quality of the estimates of household life and sustainability; GDP calculation should take into account the quality of the results of economic activity; when assessing the stability it is necessary to take into account the dynamics of the stock of inventory logistics, human, social and natural capital; quality of life assessment should take into account the distribution of income, the ratio of accumulation and consumption of households and non-market activities; objective and subjective quality of life measurement parameters are equally important.

According to the authors' opinion, most of these provisions must be interpreted at the level of the enterprise or project. Firstly, the company is created to produce goods or services that become part of the country's GDP. Secondly, it directly or indirectly, performs a number of other public social and economic functions. The company provides and

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largely regulates employment in general and employment by the specific type of work in a particular region. It is not only the shape and the guarantor of obtaining the business and / or earned income, but also a mean of distribution of both income and social significance of human status. The process of socialization in the society, understanding social norms and regulation of social behavior proceeds in the course of collective work and cooperation relations. However, most performance criteria used in practice do not include the social and organizational aspects of economic activity and, consequently, do not target the company's management on their improvement [3, 4].

It is logical to assume that it is possible to replace GDP with enterprise income; quality of life with the level of working life; household with the company's employees or employees of the staff; social capital with the organizational. Then, the requirements imposed by the Commission for assessing the effectiveness can be extended to a company or individual project. But it is necessary to use a different methodological and methodical basis of valuation, in most cases, more complex than the macro level. This is explained, in particular, by the specificity of the individual enterprise, respectively, by the lack of a common basis of comparison and the difficulty with averaging of statistical indicators [5]. To the greatest extent it relates to the methods of valuation of intangible assets, which are largely determined by the quantity and quality of human capital.

Here problems stem from numerous functional and intertransformation intersections of social and human capital, as well as their relation to the final results of the company indirectly - through the physical and organizational capital. At the same time, it is possible to agree with L. Edvinsson and Malone M. [6], that the enterprise's human capital should be seen only as a necessary but temporary attraction of funds belonging to liabilities like debt. Social capital also must be included in such liabilities.

The purpose of this article is a systematic analysis of the transformation of social capital at the enterprise level, the structure of its links with organizational and human capital, as well as the efficiency of economic activity.

The main approaches to achieve the goal are: analysis of primary literature, standing order of functional systems theory, graphic synthesis of structural links.

2. The structure of the transformation relations of social capital

In a broad sense, social capital refers to the degree of trust between people, promoting their cooperation in every sphere of public life. In a more narrow sense, social capital determine the norms, informal rules and values that enable collective actions in groups of people [7, 8].

At the level of the enterprise or project, social capital should be seen as a component of industrial relations: a part of public relations, norms, rules and values related to the rational use of material and non-material resources for the production, distribution and consumption of essential goods of society.

The reproduction of social capital, as well as any other kind of capital, is characterized by the ability to increase, accumulation and conversion from one form to another.

Social capital can indirectly through value added enter into the price of production with further treatment in a series of "use value - the exchange (public and imputed) value - the reproductive processes of social and technological spheres." Despite the fact that the engine of a reproduction of any capital personal, economic or cultural interest, the process of reproduction itself can and must only be carried out on the institutional and organizational basis. One way of such an organization at the micro level is the company, where social capital appears as one of the objective conditions - limitation and, at the same time, a prerequisite for the realization of individual human capital and economic interests of the person.

One of the objectives of enhancing the effectiveness of the enterprise from the point of view of the use of human potential is to use the advantages in specialization of labor that requires organizing a coherent set of different kinds of activities. It also involves the creation of a complete functional system of rights, responsibilities and roles, defining the relationship and complementarity of people in the process of joint activity.

Such a functional system, on the one hand, is based on a cognitive understanding of actors, their agreement to work together and to some extent the belief in fair compensation - moral and / or material, that is, the basic elements of social capital; on the other hand, industrial relations require greater formalization and structure than the relationship between people in everyday life, additional coordination of capacity of physical and human capital, the formation of the required communication and coordination channels, increasing the degree of control over the process of achieving the result and its quality.

In other words, functional transformation of social capital in the organization is required (Figure 1.).

The first idea that social capital is defined by its function is expressed by George Coleman [9]. He believed that social capital has a lot of forms that have two characteristics in common.

They all contain one or another aspect of the social structure, and they reinforce certain actions of people associated with this structure.

In more detail the problem of social capital in the enterprise began to be explored by S. Cohen and L. Prusak [10]. They argued that the presence of social

capital in organizations involves the following benefits: it improves organization activities by mutual understanding; it provides a low turnover of staff; it reduces transaction costs; it accelerates diffusion (spreading) of knowledge among staff.

The authors of this article believe that the social capital of the enterprise is transformed into another form - organizational capital, as it develops more quality characteristics associated with a particular orientation towards the result.

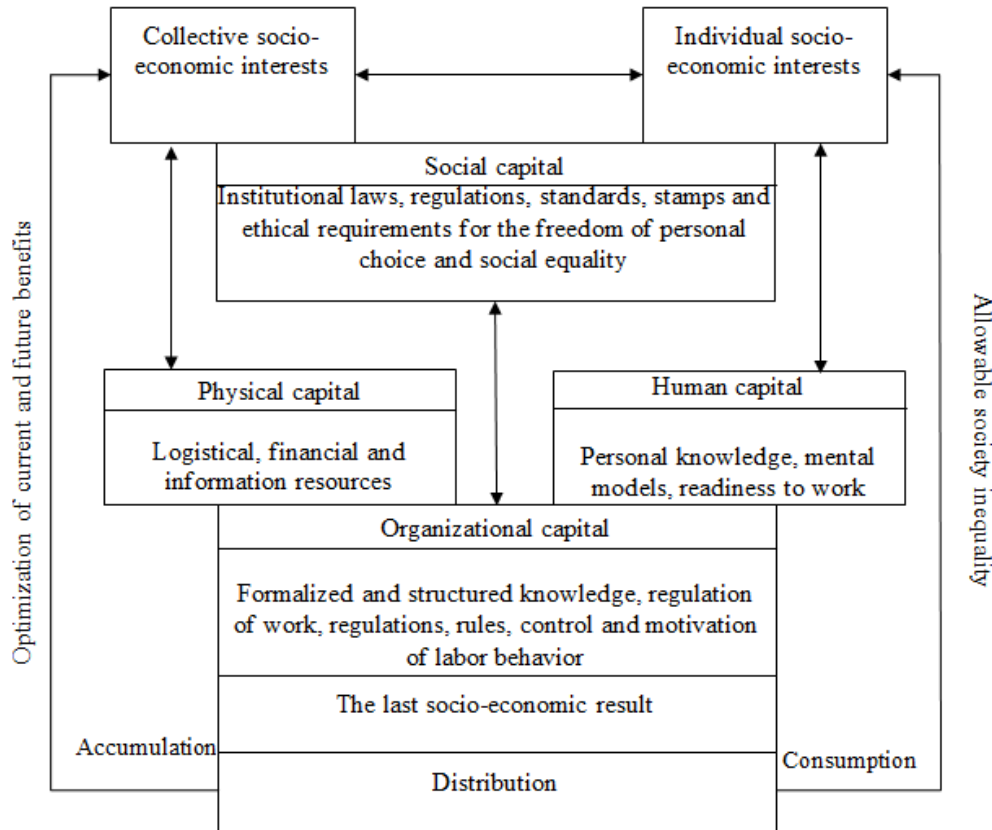


Figure 1. Transformation of social forms of capital [authorised]

Transformation is a relative circuit communication link; reducing their number and increasing the intensity; at the same time communication links enhance its coordinating importance - the exchange of rights and duties, and limit the importance of the exchange of personal information and emotions.

It should also be borne in mind that organizational capital formalizes and absorbs part of the human capital. By the definition of S. Bowman [11], if knowledge is found only in the mind of a particular person, it is the human capital. If this knowledge can be used by any employee of the company, it is organizational capital. On this basis, D. North [12] narrows the concept of organizational capital to the institutionalized knowledge. However, the authors of this article have a much broader understanding of the organizational capital. T. Stewart [13] refers to

organizational knowledge as the one that can be used freely or with restrictions on intellectual property, namely, technology, invention, data sets, publications, strategies, structures, organizational regulations to the operations and culture of relations and communications. As a basic understanding of organizational capital we'll take the definition of R. Grant [14]: organizational (structural) capital appears as a part of the resources of the enterprise that allow to effectively integrate factors of production and labor. The prerequisites for the allocation of organizational capital in a separate category is a need to form a comprehensive framework to create additional value by improving the quality of social and production relations in interaction with human capital.

Organizational capital purpose is not only to form the communication channels of collective action, but to direct this activity to a result which ensures a long and stable existence of the collective and the society as a whole. In the course of the activities of human capital it is realized through organizational capital, material and technical and technological resources in the product that is consumed by society [15]. As a rule, the result focuses on basic domestic needs - income, dividends, wages, employment, social status, but in order to achieve sustained results we should take into account the needs of external stakeholders - customers, suppliers, government and society.

However, neither the product nor the income from it are not the end result. These are the intermediate state results, which are a means of achieving the next steps. You need not the product itself, but its functional purpose; not an income, but the source of funds for the payment, purchase of items and means of labor, that is, the source of consumption and accumulation. Therefore, the final result is included in organizational capital not so much as a reflection of the market price, but as the value (price) of the result of internal and external stakeholders. Availability in organizational capital of the value of the end product and focus on this value, according to the authors of this article, is the main difference from the social capital.

3. The principles of organizational capital

Formation of organizational capital and increase of its effectiveness as a means to achieve common goals is impossible without understanding the essence and principles of collective interaction. Certain aspects of this interaction are discussed in social psychology - interpersonal communication problems, the dynamics of the formation of group behavior, national characteristics; social economy - human socialization in the workplace, work behavior, job satisfaction; management - motivation, leadership, design work. Of course, the list of areas of science and considered collective action problems can be expanded. However, the more general concept of the system on the researched topic is reduced to three lines [16, 17]: the rational - information science, semantics, game theory; cognitive - communication, training, knowledge and competence; the use of analogies - physico-chemical synergy; theoretical biology; autopoiesis (reproduction in ecosystems), functional organization in biosystems. Each of these areas has its own advantages and disadvantages, supporters and critics. According to the authors of this article, all three lines are complementary - mutually supportive, mutually reinforcing and mutually enrich each other. It is possible to distinguish the theory of functional organization, as having the largest backbone

properties with respect to research of the effectiveness of organizational systems.

The need for functional organization derives from the principle of a system-wide priority of functions over the structure. In its turn, the function is the process of achieving any result, but the process is implemented and described by the dynamics of flows of different nature - material, energetic, financial, information [18].

The order of the communication process for the exchange of information flows, emotions, social and individual values and economic interests is the most important for organizational capital. Orderliness, organization arises, occurs at observance of certain principles, conditions [19, 20]: compatibility of elements in the flow, and compatibility between the flows; actualization (manifestation) and additional support functions with respect to the principal; necessary and sufficient concentration of all complex of functions relative to the main, the dominant function; permissible lability (flexibility) of bonds in complex functions; elimination of dysfunctions - regulation and self-regulation processes.

The initial condition for the formation of the system is compatibility. The question of compatibility of elements and processes are always there when you need an orderly interaction between them and, at the same time, there are differences in their properties, the space-time position or state parameters.

For enterprises as diverse and multi-component systems - social, technical, economic, compatibility must be achieved for all types of vertical, horizontal and spherical connections in statics and dynamics. For the transformation of social and human capital in the organization, the most important are interpersonal and group relations. Human is a public being and has compatibility in the team at the genetic level. Initially, the level of compatibility manifests itself as a desire and a need to communicate. For effective joint action it is necessary to pass several levels. First, you must define clear and mutually acceptable rules of interpersonal and business communication, that is, to create a channel for communication in the interaction. Second, to reach a compromise in the degree of regulation and standardization activities that are necessary for the coordination of all individual efforts in the general program of the result.

Thirdly, to create conditions in which there is a feeling of satisfaction and labor, respectively, is shown in the interaction of cooperative relations. The level of compatibility of professional and collective norms and values, mutual understanding in interpersonal contacts increases the likelihood of achieving joint objectives and, consequently, organizational capital. This is achieved largely by the training, exchange of knowledge, skills and abilities,

as well as by the ethics of communication. It must go through the process of training, the organization of joint activities and training organization must be established as an institution and form of enhancing organizational capital.

Under mainstreaming we refer to the process of transition of properties of elements of the system from the state potentially useful to the functionally used by the system to perform its primary target destination. So in relation to the organizational capital actualization of human intellectual potential will be to transfer personal knowledge into intellectual property of the company. Human capital is inalienable and cannot be separated from those personalities, which it belongs to, as opposed to the organizational capital, which can be copied, reproduced, and alienated in favor of any other agent. Actualization in this case takes place in three stages: the transition of latent, implicit knowledge into expressed and somehow clarified knowledge. This is due to activation of heuristic abilities of the person (expert) by the communicative methods, passive - interviews, observation, protocol "thinking out loud", or active - dialogue, role-playing, the method of synectics etc; the structuration of stated knowledge through the use of special and general scientific terminology and verification of objective criteria; formalization of knowledge in the service documents, information software, patents and know-how.

Principles of compatibility and actualization imply additional focus and support of functions in the main, target destination of the system. However, the lack of degrees of freedom for the elements slow down the speed of system response to irreversible processes in the internal and external environment and ultimately destroy it. To improve the organization and functioning of the system development process it is necessary to observe the principle of sufficient lability, i.e., mobility, flexibility of functions in relation to the hierarchy. The company has this principle implemented through the mechanisms of specialization and universalization. Specialty is characterized by a narrow range of conditions of elements use and high efficiency within the boundaries of this range. The versatility is achieved either by the number of functions and / or purpose of this element, or by a number of elements that perform any one function, which enables achieving a higher degree of reliability of operation and development of systems in a wide range of conditions, but by reducing the effectiveness of each case. The problem of selecting of lability level is of optimization character and situationally influences the value of organizational capital.

The main task of the progressive evolutionary development of systems serves the identification and

elimination of dysfunctions that can occur either due to the failure of the element, or due to the changes in internal and external conditions of the system performance. Given the cyclical nature of the systems, the principle of elimination of dysfunctions (regulations) can be formulated as follows: the greater dysfunction and defects will be detected and eliminated in the current cycle, the more sustainable and effective will be the following. Obligatory component of regulation (control) in the enterprise is the presence of semi-heuristic procedures. This is especially true when dealing with staff and strategic planning, but it's possible also in the operational work with insufficient qualification of managers and the complexity of the works themselves.

Facilitation of the implementation of such operations, and improvement of the quality of the result is possible with the use of formal institutional rules, taking into account the positive experience of previous activities. The formalization of procedures at the same time extends the application of information software when searching for the optimal or rational solutions to interactively work with computer technology. Any collective work - even creative, as a rule, consists of a set of standard operations combined with intuitive ideas and heuristic techniques. The level of elaboration of job descriptions, technological routes, design documentation, the provisions of subdivisions, executed instructions on making decisions in different, including extreme situations directly affect the value of organizational capital and may be subject to transfer of ownership.

In general, the principles of the functional organization adequately characterize the conditions of formation of organizational capital as a means of effective collective activity.

4. Functionality of organizational capital and the quality of the result

The principles of functional organization may be deliberately used if you know the dominant feature of the system. On the basis of the scheme of transformation of relations of organizational capital (Figure 1.), we can assume that its dominant function will be to ensure the compatibility by the quantity and quality between the result and the means to achieve it. Such compatibility must be achieved in several stages:

1) the products and / or services of the enterprise should be combined by nomenclature, quantity, quality and opportunity costs with the needs of society;

2) product requirements must comply with the technical and technological capabilities of the enterprise and labor potential;

3) the possibility of technical and technological base and human capital must be combined with each other; income from economic activities should provide advanced reproductive cycle, which is achieved due to the implementation of the first stage.

The sequence of steps reflects the transfer of level of public requirements for product on the quality of the organization of production, and the reproduction cycle involves finding a compromise between what is desirable and achievable.

At the same time product quality manifests dualism. On the one hand, as the necessary social value and value, and on the other hand, as the system of technical, economic, ecological, aesthetic and ergonomic properties. The breadth and depth of the range and, respectively, differentiability of markets correlates with the principle of lability and intensity of the manifestations of various quality characteristics – with actualization. Improvement of the quality characteristics is aimed at increasing of the degree of satisfaction of social needs, but requires increase of intellectual and material costs. Most often, this leads to an increase in selling prices for the products. For effective transformation of organizational capital it is required to fulfill a number of conditions, the dominant of which is the following.

To the biggest extent it is possible to reconcile the interests of producers and consumers in case the quality level increases to a greater extent than the costs do. In this case it is possible to establish a new price $P + \Delta P$ when a relative price increase is less than the relative increase of the quality level ($\Delta Q / Q$) and higher than relative costs increase ($\Delta C / C$), that is: $\Delta Q / Q > \Delta P / P > \Delta C / C$, where P - the old price of the product; ΔP - the price increment.

In this case, the usefulness of the goods to the consumer (its use-value, the effect produced by consumption) will increase to a greater extent than the cost of its acquisition, and the effect for the manufacturer (new price) will increase to a greater extent than the costs. Both sides were in profit. Price in this case stimulates the increase of product quality and increasing its demand. The manufacturer is interested in increasing demand for his goods, since with an increase in the scale of production unit costs are down and he gets more revenue. This interest the manufacturer in the maintenance of demand, for which he raises the quality of his products again.

The functionality of the national economy can be characterized by conventionally accepted Global Competitiveness Index [21].

The Global Competitiveness Index is a global study and the accompanying ranking of countries in terms of economic competitiveness by the World Economic Forum. Report on global competitiveness is an annual report of the World Economic Forum. The first report was released in 1979. Since 2004 the Report on global competitiveness ranks countries on the basis of the "Global Competitiveness Index" [21-23].

It's formed by twelve components [24-32]: quality of institutions; infrastructure; macroeconomic stability; health and primary education; higher education and professional training; goods and services markets efficiency; labor market efficiency; financial market sophistication; technological development; size of the domestic market; the competitiveness of companies; innovative potential (Figure 2.).

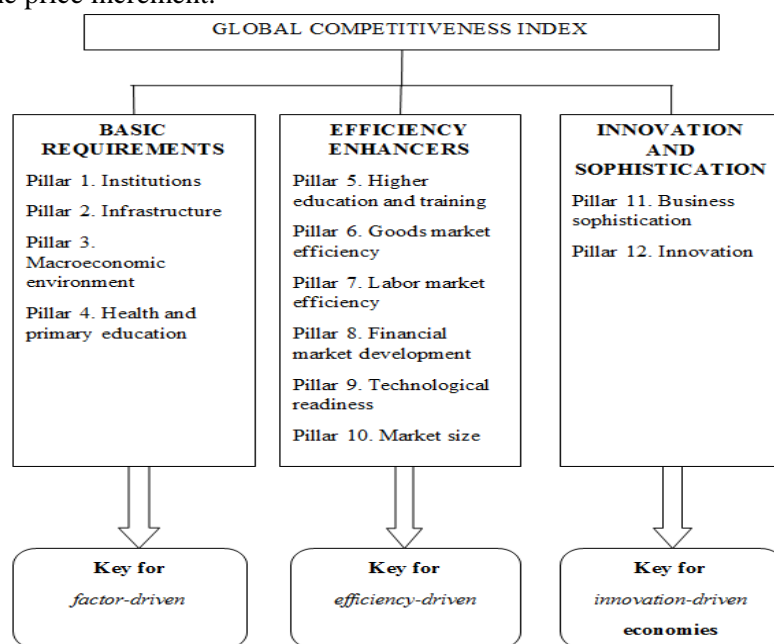


Figure 2. A block diagram of the indicators on which the global competitiveness index is calculated [based on 21].

Competitiveness Index assesses the ability of countries to provide high level of well-being of its citizens. That is primarily dependent on how efficiently a country uses the available resources. At the same time to maintain the standard of living in a free market, as a rule, there must be constant improvement of productivity and quality of products or (and) services.

The choice of these variables is caused by the composition of metaenvironment factors that affect the quality of the enterprise, theoretical and empirical indicators of research. All the listed groups of indicators are characterized by a certain level of complementarity and only together analyzing their significance it's possible to make solid conclusions. (Figures 3., 4.).

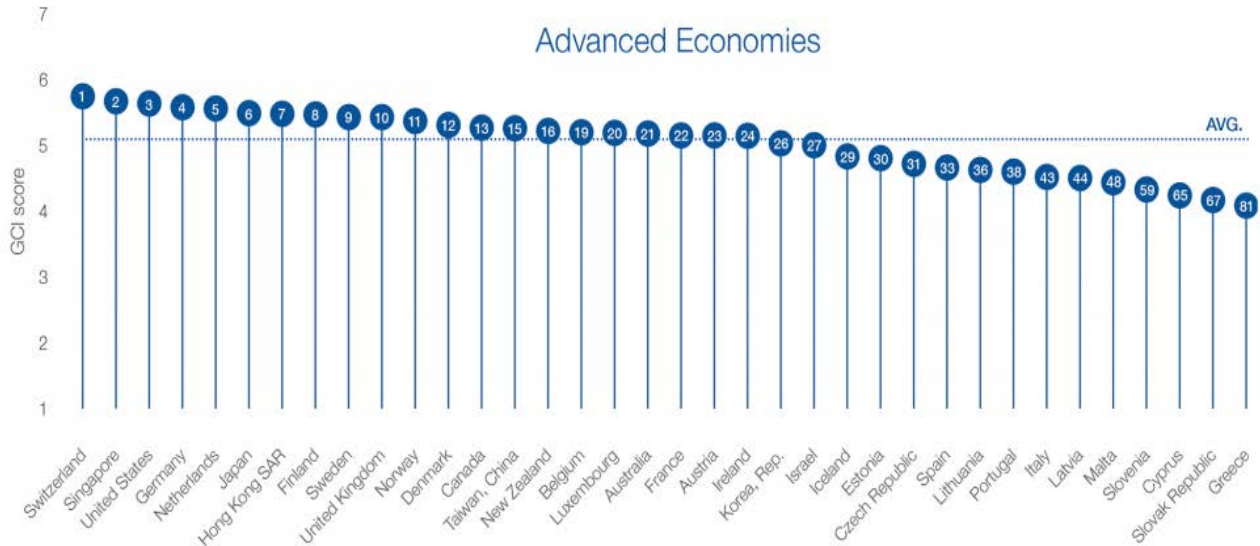


Figure 3. The Global Competitiveness Index of the advanced countries of the world Commonwealth of Independent States [based on 21-23].

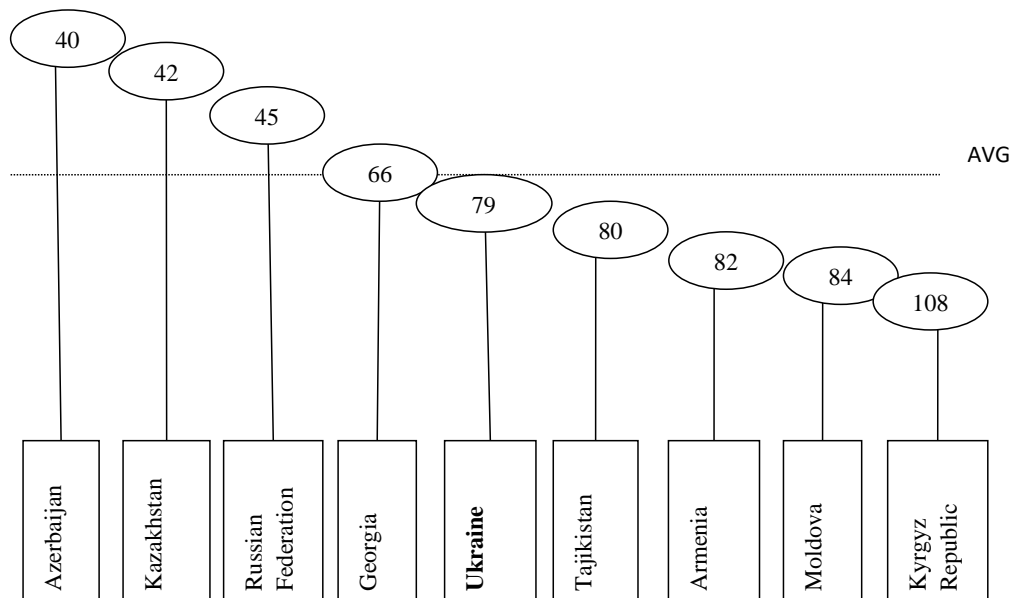


Figure 4. The Global Competitiveness Index of the CIS countries [based on 21]

Ranking of Global Competitiveness 2015-2016 was headed by Switzerland, which has been ranked first for the last 7 years. The second place, in the previous year, goes for Singapore, and the third – for the United States, which still remains the world leader in providing innovative products and services (Figure 5.).

The fourth place is occupied by Germany, the fifth – by the Netherlands.

Then in the top ten ranking leaders: Japan (6th place), Hong Kong (7th), Finland (8th) Sweden (9th) and the UK (10th). Thus, the top ten leaders have not changed since last year.

	Economy	Score	Prev.	Trend
1	Switzerland	5.76	1	-----
2	Singapore	5.68	2	-----
3	United States	5.61	3	-----
4	Germany	5.53	5	-----
5	Netherlands	5.50	8	-----
6	Japan	5.47	6	-----
7	Hong Kong SAR	5.46	7	-----
8	Finland	5.45	4	-----
9	Sweden	5.43	10	-----
10	United Kingdom	5.43	9	-----

Figure 5. The dynamics of the world ranking position changes the Global Competitiveness Index for 2007-2016 [based on 21]

The dynamics of the index of global competitiveness of Ukraine's economy during 2006-2016 has a generally negative trend (Table 1. and Figure 6).

From 69th place in 2000-2007 Ukraine has moved to 89th in 2010-2011, but in the 2014-2016 position of the state has much improved (85th place).

A low rate is in such components as [33]: quality of institutions, infrastructure, higher education and training, labor market efficiency, market size, innovation.

This directly affects the quality of enterprises functioning, that's why these components require careful study.

Table 1. Components of the index of global competitiveness Ukraine for 2007-2016 [based on 21-23]

Components	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. Quality of institutions	3.14	3.12	3.26	3.10	2.96	2.98	3.13	2.99	2.98
2. Infrastructure	3.13	3.09	3.13	3.39	3.83	3.87	4.10	4.07	4.16
3. Macroeconomic Environment	4.66	4.67	4.62	3.96	3.20	4.21	4.40	4.20	4.14
4. Health and primary education	5.64	5.37	5.59	5.41	5.70	5.64	5.78	5.84	6.14
5. Higher education and training	4.16	4.20	4.46	4.38	4.61	4.58	4.70	4.75	4.93
6. Goods market efficiency	3.75	3.74	3.87	3.74	3.53	3.58	3.82	3.81	3.99
7. Labor market efficiency	4.21	4.30	4.47	4.57	4.54	4.44	4.44	4.18	4.12
8. The development of the financial market	4.11	3.96	4.00	3.56	3.31	3.39	3.52	3.46	3.54
9. Technological readiness	2.53	2.75	3.38	3.37	3.37	3.47	3.60	3.28	3.50
10. Market size	4.85	4.62	4.56	4.67	4.53	4.54	4.60	4.60	4.58
11. Competitiveness	3.72	3.83	3.91	3.63	3.48	3.48	3.70	3.68	3.66
12. Innovation	3.18	3.22	3.40	3.21	3.11	3.11	3.16	3.03	3.16

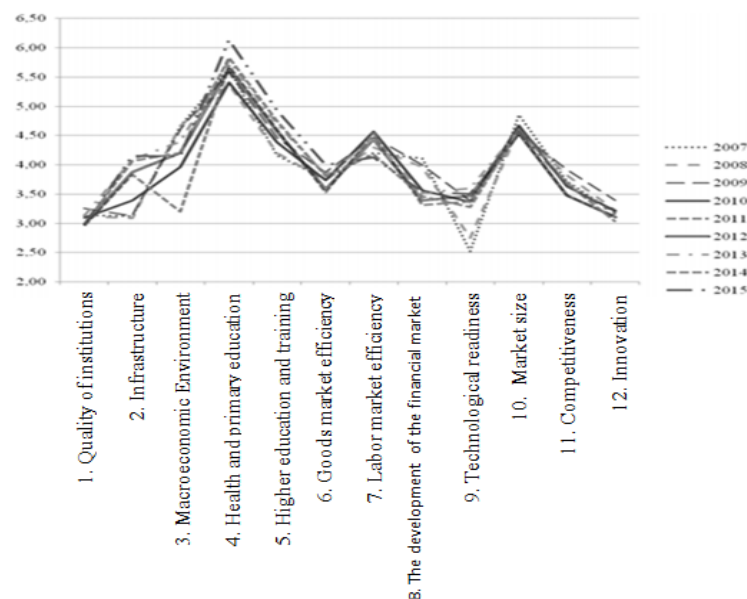


Figure 6. Dynamics of the components of the index of global competitiveness 2007-2016 [based on 23].

Trends of domestic companies functioning is very complex and controversial. This requires ensuring the quality of their performance. That's why it is appropriate to solve the issue of functioning and quality of management through changing forms of the capital in the company, which should be based on the appropriate methodology and requires compliance with the modern requirements.

5. Conclusion

The joint activity involves relations between people, method and means of organizing these relations in a specific technological system. Harmonization of relations implies a balance between personal and public interests, between the maximum financial efficiency of production and compliance with social and environmental conditions of reproduction processes. This creates conditions for the transformation circuit and various forms of capital.

The methodological basis for the study of transformation is proposed to be the provision of the theory of functional organization of the systems, taking into account its complementarity with regard to most of the other methods. The basic principle of functional theory, the requirement of compatibility of elements and processes, enables us to describe the relation between the social and institutional capital, as well as the conditions of sustainability of transformational relations. In the future, it will let us generate an adaptive regulation mechanism, based on the following elements and processes: direct and reverse, positive and negative links between the result and the factors of influence on it; comprehensive and continuous analysis of the final and intermediate results; the human ability for self-learning due to public and individual memory, desire for performance.

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