



Service Capital as a Condition for the Sustainable Development of Society

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Abstract. The article deals with the essential nature of a new economic category – “service capital”. Its formation is the logical result of the beginning of the new stage of functioning of economic systems in a post-industrial society. The processes of sustainable development imply global laws governing global economy performance. The authors substantiate the idea that service capital is an economic category and should be studied by modern economic scientists. Most of all, it is connected with institutional theory and is most closely related to institutional capital as a form of manifestation of human capital. Institutional capital is transformed in conditions of an innovative-type service economy and takes the form of service capital. In contrast to institutional capital, it is characterized by some distinctive features discussed in this article. Service capital circulates in the service sector, the importance of which is constantly increasing at all levels of the economy: the mega-, macro-, meso- and microlevels. The article highlights the levels of functioning of service capital. The service capital of each level has sublevels, depending on the criteria chosen for their classification. The authors show that service capital is a special component of human capital. It is inseparable from its bearer, a person, and functions only together with other structural components of human capital. It is established that service capital has been introduced into all branches and sectors of the modern economy, so it functions as intersectoral and interindustry capital. Lastly, the directions of development of the theory of service capital are formulated.

Keywords: Human capital; Postindustrial economy; Service capital, service sector, economic systems servitization; Sustainable development

1. Introduction

Since the early 1990s, the Russian economy has been transformed according to the global patterns of development of the postindustrial society (Dyatlov, 2016). Some of them should be clarified here.

1. Globalization of socioeconomic processes as a consequence of the general processes of the globalization of society (Feigin, 2015; Manyika et al., 2016). Human capital is becoming a universal economic category. The components of human capital and the relationship between them are gaining global significance. According to some scientists, this is connected with the effect that human capital has on economic development (Lapinskas and Makhova, 2019). Here, we would like to note that

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- according to the [Global Innovation Index \(2020\)](#) data, the Russian Federation, compared to other economies in Europe, performs above average in one out of the seven global innovation index pillars – human capital and research. Investments in a person (in their education and upbringing, intellectual development, health, professional training, etc.) and the assessment of their socio-economic efficiency remain relevant at the intercountry and interregional levels of functioning of socio-economic systems of different levels ([Sudova and Spiridonova, 2018](#)).
2. Servitization of social production and consumption. The processes of the servitization of the economy are universal – that is, they are applied to all subjects of the economic life of society, including the end consumer (person), and have spread to several industries. For example, scientists only recently started using the notion “servitization of subsurface resource management” ([Vasilenko et al., 2020a](#)). The quality of life of the population in the service economy is largely determined by the quantitative and qualitative characteristics of the services produced and consumed, of which the end user is an individual.
 3. Russia’s transition to the information stage of socio-economic development. Current research shows that, at present, an “intensive digital transformation” is taking place in many sectors of the Russian economy – for example, the oil and gas complex of Russia ([Katysheva and Tsvetkova, 2019; Vasilev et al., 2020](#)) or management ([Lyukevich et al., 2020](#)), though digitalization of the Russian economy seems to be a “long-term trend” and its impact on the industry will be seen only after 2025 ([Razmanova and Andrukhova, 2020](#)). Information in the modern economy is beginning to perform a multipurpose function ([Brynjolfsson and Saunders, 2010; Nedosekin et al., 2019](#)).
 4. Innovation of modern production ([Hall and Rosenberg, 2010](#)). The intellectual potential of economic entities, the human factor in the decision-making process (including an investment one), the growth of social capital and the efficiency of its use are becoming the determining factors of economic growth ([Diebolt and Hippe, 2019](#)). In this case, the “cementing tool” in the processes of the functioning of innovative production is human capital in its broadest, most comprehensive consideration ([Chartered Institute of Personnel and Development, 2017](#)).

In the process of production, development and use of individual and aggregate human capital, the processes of production and consumption of certain services are constantly taking place ([Acemoglu and Author, 2012](#)). Any violations or failures in these processes negatively affect the processes of expanded reproduction of human capital. At the same time, the service sector is considered with an extended interpretation. It seems appropriate to consider as services all those informal social interactions of agents of the institutional environment that the representatives of neoclassical economics (as opposed to the institutional ones) do not see as belonging to the field of economic activity ([Brožová, 2015](#)). The products mentioned above in the form of services are the result of not only the social interactions of agents but also their economic activities. There are two main reasons for this. First, the decision of agents to make certain interactions is in itself the fact of a certain choice made by them in the use of their own always limited resources (as a way to solve the main problem of the economy). Second, the very fact of performing certain forms and methods of social interaction is always associated with the achievement of certain goals of their participants, which directly or indirectly affect the resource capabilities of the agents of the institutional environment.

The constantly accelerating processes of servitization of economic systems in the context of the development of human capital of society initiate the formation and research of a new category of modern economy such as “service capital”.

2. Methods

We believe that in the conditions of an innovative-type service economy, a special type of capital (i.e., service capital) that functions in socio-economic systems of different levels is formed (Khaykin, 2007). The degree of its maturity characterizes the level of development of the service economy and innovative production. Its formation is a logical continuation of the transformation of the processes of the evolution of human capital in the conditions of the economy of a post-industrial society. Based on the existing approaches to the structural elements of human capital, we conducted a comparative analysis of them, the results of which justified the necessity and expediency of the category “service capital”.

Service capital is directly related to a person’s ability and motivation to produce and consume services. The bearer of service capital, a person, is considered in the unity of the implementation of their production and consumer functions.

In an aggregate form, service capital in the context of human capital covers the formation, development and implementation of the total motivation and ability of the population to produce and consume services, taking into account time and space frames specified in the analysis.

On the basis of all said above, it seems appropriate to distinguish different levels of functioning of service capital. This issue is considered under the condition of separation of the individual’s performance of production and consumer functions in the service sector. Thus, it is proposed to distinguish four levels of service capital functioning in the processes of service consumption (Khaykin, 2011).

1. Service capital of the first order. It is associated with the consumption of basic social services that determine the life support of a person’s existence. The processes of consumption of these services, as a rule, do not require special training of a person who consumes them.
2. Service capital of the second order. It is also related to the processes of consumption of social services, which are essentially similar to basic services, but the content and form of the service have an exclusive, personalized and often elite character. At the same time, the consumer of such services does not need to have any special training, but the basics of knowledge, competencies and ideas on relevant issues are necessary to accurately determine the compliance of a particular service with the consumer’s needs.
3. Service capital of the third order. It “works” to meet the professional needs of a person. Therefore, it is required for the user of the relevant services to have special professional training.
4. Service capital of the fourth order. It functions within the framework of meeting those social needs considered to be fundamental in the formation of characteristics and indicators of high quality of life according to international standards. The consumer of such services is required to have a sufficient store of knowledge, abilities and often thematic practical training to make the right decision.

The service capital of each level has sublevels, depending on the criteria selected for their classification. Therefore, the considered structuring of service capital within the four levels of functioning is rather nominal. However, it can be the basis for the study of several key issues in the field of service capital functioning, such as determination of the resource availability of the functioning of service capital and assessment of the level of its use, quantitative assessment of aggregate service capital in aggregate form, determination of the content and features of the functions of service capital at all levels of economic management and so forth.

Service capital is a category of the service economy in which the service sector occupies

a key position, and it is inferior to the sphere of material production in terms of growth rates and equity ratios.

Service capital is a special component of human capital. It is not separable from its bearer, a person, and functions only in unity with other structural components of human capital. In the process of formation, accumulation and development of service capital, adequate processes of reproduction of health, intellectual, social and cultural capital take place. These forms of capital coexist in close relationships and interdependence.

In the conditions of the digital economy, the forms of capital mentioned above face increasing demands in the way of ensuring institutional balance (Vasilenko et al., 2019). The concept of “service capital” has not been applied in the socio-economic fields of knowledge until this study. From our point of view, the neoinstitutionalists came closest to it (Dobrinin et al., 1999).

In general, agreeing with the classification presented, it is worth emphasizing that under the influence of the advancing growth rates in the sphere of intangible production, human capital acquires a special form – service capital, which in highly intelligent spheres of the economy becomes the main producer of technological and product innovations. This, in turn, creates real conditions for ensuring sustainable development processes that are solving economic, environmental and social problems of society in their interrelation and interdependence (Shcherbakova and Khaikin, 2019). That is why, from our point of view, institutional capital in the conditions of an innovative service economy is transformed and takes the form of service capital. Unlike institutional capital, service capital has some distinctive features, such as belonging to a person, being inseparable from them and functioning only in the form of animate capital; manifesting itself in the service sector, which permeates the entire socio-economic structure of society; and being an element of the socio-economic system of modern society in developed countries of the world, which are characterized by a service economy of an innovative type.

The realization of a person’s ability and motivation to produce and consume certain services always presupposes the fact of certain social interactions of agents. Depending on the content of a service provided and used, an appropriate reserve of an individual’s health, as well as a certain level of their intellectual and cultural development, is required. In this context, service capital should be considered a derivative product of interconnections of human capital constituent parts (Ilinsky, 2011).

In recent years, research has continued on the structural components of human capital. Following the concept of service capital, the components of human capital considered and proposed by Tsyrenova (2006) should be regarded as the basis for the development of the theory of service capital. At the same time, there are some differences in the perception of some basic notions. From our point of view, the notion “cultural and moral capital” corresponds most accurately to the nature of the functioning of human capital in the institutional environment. At the same time, in our opinion, the term “organizational and entrepreneurial capital” does not fully correspond to its definition since, first, the concepts of “capital” and “potential” should not be equated; second, innovativeness and creativity of the activity are not always present only in entrepreneurial activity; and third, the innovative, creative nature of the activity is inherent not only to an employee who has developed organizational skills but also to an employee who creatively performs their work.

Service capital permeates the entire economy, its industries and its sectors. In this sense, it functions as an interindustry and intersectoral capital.

Service capital, like human capital and “ordinary capital”, is capable of increasing and decreasing, circulating at higher and lower speeds, creating new value and generating new

costs, and having wear and tear (Sasani, 2012).

The feasibility of considering the category of “service capital” can be explained by several reasons. First, in the process of formation, accumulation and preservation of human capital, the processes of production and consumption of certain services are constantly taking place. At the same time, the content of the service and the need for it determine the formation and development of quantitative and qualitative characteristics of human capital. Second, the functioning of service capital always presupposes the determining role of a person as the main factor in the production and consumption of services. Like any other type of capital, service capital cannot function without the presence of other factors of production. However, it is the productive consumption of the personal factor of production in unity with other factors that creates a necessary and sufficient condition for the production and consumption of a service. Furthermore, in conditions of innovative production, the service sector cannot develop progressively without effective innovative management strategies. Following this, service capital creates a condition for the implementation and use of innovations in the service sector. Finally, the expanded reproduction of service capital is always associated with investments both in a person, its bearer, and in the service sector as a whole.

3. Results and Discussion

The processes of investment in the service sector predetermine the growth in the efficiency of the use of all factors of service production, of which the main factor is the human resource.

The mechanisms of functioning of the social sphere’s service capital should be analyzed from the position of different class-forming features. The results of the present study are the types of service capital within the framework of the selected class-forming features suggested by the authors in Table 1.

Table 1 Typology of service capital

Classification attribute	Types of service capital
The nature of the service	Basic, professional, personal
Sector affiliation	Commercial sector, public sector, nonprofitsector, household sector
Industry affiliation	Everyday services, education and upbringing, culture, health care, physical education, tourism and so forth.
Formality	Formal, informal
Relationship to the socialsphere	Social sphere Infrastructure support of the social sphere
Economic function ofreproduction	Production of social services Consumption of social services
The level of managementof the economy	Nanolevel (individual level), microlevel (organization level), macrolevel (country level), megalevel (planetary level)
Number of service consumers	Individual, group, collective
Type of end product	Service itself Service as a component of the final product
Relationship to the componentsof human capital	“Socio-intensive”, “culture-intensive”, “bio-intensive”, “knowledge-intensive”, “mixed”
Relationship to the economic school	Category of institutionalism Category of classical economic theory

Depending on the content and quality characteristics of social services, service capital has different levels of functioning. It is involved in the production-consumption process of basic services (first-order services), services for the formation and growth of professional

skills of the employee and services related to the self-realization of the individual's personality and creative abilities.

Consider the factors that determine the nature and characteristics of the functioning of service capital. Service capital is formed in the family. The fact of a child's birth in itself implies the formation of service capital. At the same time, service capital performs consumer, but not production, functions. The sphere of services within the immediate environment of the child is implemented mainly by informal institutions (i.e., the institutions of the family and childhood).

From childhood, a child begins to carry out the simplest types of activities in accordance with the natural processes of normal human development, on the one hand, and the appropriate upbringing of the immediate environment of adult members of the household, on the other hand. These activities are often associated with the satisfaction of one's own physiological and spiritual needs, as well as with the results of the upbringing of the immediate environment. From this point on, the child's service capital begins to adapt to the performance of production functions.

With age, an individual's personality, their creative and business activities, their material and nonmaterial needs, and the content and forms of interaction with formal and informal institutions change. In accordance with the life cycles of a person as a biocultural being, the consumer and production functions of service capital change quantitatively and qualitatively.

At the stage of the highest business and creative activity of a person within production functions, service capital reaches its climax. During this period, the volume of production and consumption of services at an individual level is at the maximum, and therefore, the rate of service capital turnover is also at the maximum.

The consequence of this is internal changes in the social status of a person within the household, on the one hand, and institutional transformations of the external environment of the household, on the other hand. The nature and characteristics of the functioning of individual service capital have an impact on the nature and features of the functioning of aggregate service capital. Thus, the age of a person is the basic factor determining the mechanism of functioning of individual service capital.

The institutional environment has a significant impact on service capital. The economic and noneconomic conditions of the functioning of the external environment of the household strongly affect the potential of service capital and the features of its use.

The state of modern society and the nature of its socio-economic development are interpreted differently by Russian and foreign scientists. This is explained by the choice of different parameters as fundamental in determining the essential content of the modern economy and socio-economic processes taking place in it. Here are some definitions of the economy of the postindustrial stage of its development.

According to one of them, it can be viewed as an innovation economy. The main activity of business entities is innovation activity, the result of which is an innovative product (Sundbo, 1998; Porokhovskiy, 2014). Conducting an active innovation policy is aimed at modernizing and increasing the innovative activity of economic entities (Cherepovitsyn et al., 2018). Innovation thus plays an important role in the development and implementation of the circular economy, in which all production and consumption chains must be effective and efficient (Berawi, 2020). Next, it can be seen as an information economy. The information component of economic processes occupies a significant position; economists talk about "the digitalization of the economy" (Vasilenko et al., 2020b). This process has even led to what is called the 4th Industrial Revolution (Bencsik, 2020). The main resources and results of production activities are information products and services (Birchler and

Bütler, 2007; Mukhamadeev et al., 2019). Finally, it can be dealt with as a service economy. It is the result of the servization of socio-economic processes as a global pattern of modern development of society, permeating all levels of economic management (Organisation for Economic Co-operation and Development, 2000).

However, in all cases, it is generally accepted that socio-economic systems function in the post-industrial society. Moreover, the “transition to a postindustrial economy is, first of all, characterized by rapid development in the structure of the world economy of the service sector” (Vasilenko, 2017). In other words, the postulates and values of the industrial stage of society’s development have been transformed so much that their essential nature has become radically different.

A comparative analysis of the categories of industrial and postindustrial economies has been carried out by the authors. Based on its results, we will formulate the current objective prerequisites that are necessary, from our point of view, for the formation of service capital as a category of an economy that is at the postindustrial stage of its development. To start with, the highest value of the modern stage of socio-economic development of society is a person in a broad aspect – that is, at all stages of reproduction of material and spiritual benefits. The main producer and consumer of the goods produced is a person, with the value of the product depending directly on its place in the highest activity of a person as both a producer and a consumer of the product. The main type of products manufactured is in the form of services. Products in the form of services are becoming an increasingly important type of economic resource. Services as products are often the result of the innovative activity of their manufacturer and, as a result, take the form of novation and innovation. The innovative activity of both the producer and the consumer of a service is always connected with the functioning of intellectual capital, an important component of which is human capital.

Service capital is a category of institutional economy for which human behavior is institutional rather than rational. It is formed under special socio-economic conditions, which are characterized by some fundamental features, prevailing in society. The conditions are as follows: First, the main form of social interactions is interpersonal in nature, in contrast to the commodity nature of interactions in the era of industrial society. Second, a significant component of total social costs and gross product is informational in nature as a result of the transition of society to the information stage of its development. Third, the fundamental problem of the economy, the problem of scarcity of resources, is solved by a person taking into account opportunities and benefits provided by various forms of social interaction as a result of the unity and solidarity of joint actions of individuals as subjects of economic life. In this sense, economists studying institutionalism have the right to talk about a special human behavior in the era of institutionalism (i.e., institutional behavior).

Moreover, the main goal of human behavior is transformed from the traditional achievement of maximizing utility into absolute harmonization of an individual in their interaction with the external and internal environment. At the same time, harmonization of a person is abstract, and that of the personality is specific and defined. Therefore, the key behavioral goal of individuals is “blurred and uncertain” due to a large variety of life values that are formed taking into account the biophysical, socio-cultural state of a person, the action of environmental factors and so forth. In addition, the organic nature of human interaction with the elements of the external environment should be noted. In contrast to the mechanical nature of interaction, which is typical for the traditional analysis of the functioning of socio-economic systems, the quantitative and qualitative results of the organic interaction of the “institutional person”, as well as the external effects obtained as

a result of these interactions, are more problematic to assess. Finally, the choice of a type of human behavior is not defined, is devoid of determinism and, therefore, has a random character because the external environment and the internal state of an individual are constantly changing. In these situations, a person is deprived of the opportunity to unambiguously define the “algorithm” of their behavior in the form of a specific sequence of actions, or steps, planned in advance. In the context of increasing the role of social interactions, it is relevant to explore social determinism. In other words, the institutional period of economic development is characterized by a random choice, rather than absolute social determinism of all actions of people living in a society.

Thus, the formulated category of “service capital” is the basis for large-scale research in the field of human capital theory on the new conditions of development of the postindustrial economy. The main result of the study is the identified signs and features of the functioning of service capital.

4. Conclusions

The development of the theory of service capital will allow the creation of a conceptual platform for determining the essential role of human capital in the sustainable development of modern society and identifying its new problems and contradictions. Several economic scientists have successfully substantiated a qualitatively new role of human capital in the conditions of the sixth technological order.

In our opinion, the new category of “service capital”, formulated for the first time by the authors of this article, opens a wide path for new research within the framework of theoretical and methodological substantiation of the role of service capital in solving eco-socio-economic problems and developing its tools.

In the context of the increasing intellectualization of production, which occupies a significant place in the service sector, and with the development of the knowledge economy, service capital becomes the most important factor and condition for the sustainable development of eco-socio-economic systems. Resource specialization of the national economy determines the special role of service capital, which ensures the progressive development of the basic component of the mineral resource sector of the economy.

The theory of service capital creates conditions for clarifying the role of the human factor in sustainable development in the context of modern challenges. The existing realities are such that only highly professional key management decisions of a systemic nature in the service sector and with its help are capable and should qualitatively change the economic structure at all its levels: the mega-, macro-, meso- and microlevels.

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