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A CONCEPTUAL FRAMEWORK FOR RESEARCHING FUNCTIONS OF INSTITUTIONS IN THE SHARING ECONOMY

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Abstract

The development of the sharing economy results in the transformation of the social and economic institutions capable of both fostering and hindering the development of the economic system. Such institutions function as a means of reducing transaction costs. The economic effect of the digital revolution lies in slashing the transaction costs whereas all the previous industrial revolutions made for technology cost reduction and transaction cost escalation. At the same time, the total costs decreased and the transaction costs increased at an accelerating pace. The reduction in transaction costs is possible due to the transformation of business models and institutions. The sharing digital economy is a complex of technologies based on the artificial intelligence (AI) that allows transaction costs reduction accompanied by the emergence of a set of institutions. The article studies the functions of the institutional environment subject to the transformation in the sharing economy. The functions of the institutes this research accounts for are attributable to the fundamental regulatory relations between the economic agents which concern the changing character of the shared enjoyment of the property rights. Another promising area of the research is believed to be the analysis of the sharing economy's effect on the transformation of the economic institution of property triggered by the new challenges originating from the inferiority of the traditional economic institutions.

Keywords: Sharing economy, institutions, functions of institutions, digital transformations.

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1. Introduction

The concept of the sharing economy has recently regained and reached the mainstream discourses in the economic studies. Although sharing is a phenomenon as old as humankind, collaborative consumption and the sharing economy are phenomena born of the Internet age (Belk, 2010).

In most recently published studies, the sharing economy is viewed from the perspective of digital platforms and digital services development (Gelishanov, Judina, & Babkin, 2018; Gupta, Mejia, & Kajikawa, 2019; Kupriyanovsky, Namiot, & Sinyagov, 2016; Lin, 2020; Travkina, Zubenko, Terekhova, Vyacheslavovich, & Zubenko, 2019). Some researchers focus on the evaluation of the effect the development of the sharing economy makes on the sustainable development of the society (Mi & Coffman, 2019; Nikitina, Korsun, Sarbaeva, & Zvonovsky, 2020; Panfilova, Okrepilov, & Kuzmina, 2018).

2. Problem Statement

The ambiguity of the sharing economy phenomenon is obvious. In the research (Acquier, Daudigeos, & Pinkse, 2017), an emphasis is made on the three basic matrices of the sharing economy: 1) access economy, 2) platform economy and 3) community-based economy. The authors pinpoint the three constituent elements of the sharing economy while maintaining the idea of their integrity and inseparability, on the one hand, and their incoherence, on the other hand (Acquier, Daudigeos, & Pinkse, 2017; Arcidiacono, Gandini, & Pais, 2018).

3. Research Questions

In fact, understanding the concept of the sharing economy as a combination of the transformation models of consumer behavior (Belk, 2010) requires paying attention to the transformation of the fundamental economic and social institutions influenced by Industry 4.0.

4. Purpose of the Study

The main goal of this article is to analyze a conceptual framework for researching basic functions of institutions in the sharing economy.

5. Research Methods

5.1.Methodological settings for this study

Studying the conceptual basis of the transformations in the functions of the social and economic institutions in the sharing economy requires applying the institutional and functional approaches as well as the method of economic comparative studies.

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5.2.Research methods for political technology tools

- The institutional approach is used in order to investigate the institutional factors of development of the sharing economy.
- The method of functional analysis allows revealing mechanisms of transformation of social and economical institutions in the sharing economy.

6. Findings

The resource scarcity defines a shift in the attitude to the consumer culture and, thus, explains the transition from the consumer society to the sharing economy characterized by the shared (collective) use of goods and services. Nowadays, such tendencies emerge in various spheres (e.g., carsharing is being developed in the field of transport infrastructure; shared use is gaining more and more popularity in the spheres of movable and immovable property use, etc.). The idea of sharing economy inspires people with the prospects of realization of the values of the future: social solidarity, effective use of industrial and human resources, overcoming the phenomenon of capitalist alienation (Nikitina, Korsun, Sarbaeva, & Zvonovsky, 2020; Popov, Gereegova, & Semjachkov, 2018).

The shared use is considered as a new culture and foundation of a new economic model that acknowledges the superiority of the model of the temporary use of the object available for shared access or previously owned by another person/entity and now being reused over the purchase and ownership of a new object. This model is capable of changing business, consumer behavior and life style of the society (Kupriyanovsky, Namiot & Sinyagov, 2016).

It should be noted that the development of the sharing economy leads to the transformation of the social institutions which may accelerate or hinder the development of the economic system. It is hard to overestimate the importance of the institutional environment for the development of the sharing economy (Stephany, 2015; Tagarov, 2019; Zvolska, Voytenko, & Mont, 2019). Traditionally, the institutional environment is considered as a set of institutions affecting the structuring of the social relations between the economic agents. The institutional environment encapsulates a complex orderly system of the fundamental and infrastructural economic institutions creating conditions for the social reproduction through making compulsory rules and mechanisms of their support; on the other hand, it is a system of relations between economic subjects and institutions focusing on satisfying the needs of the subjects of the economy in the institutions and institutional mechanisms. The institutional environment displays a number of features, among which are integrity, sustainability, hierarchical patterns and heterogeneity.

The functioning of the institutional environment is directly connected with the peculiarities of the institutional infrastructure (Schulz, Hjaltadóttir, & Hild, 2019). . We propose singling out the following constituent elements of the latter:

1. It is the institutions objectifying the information on the consumption and production services using a set of unambiguous data. In separate cases, the free and liquid market works as a decisive factor for getting reliable data on the fair market value of the goods. However, it is not the only factor. Standards, technical conditions, quality and goods certification systems, rating systems and many other requirements have to be applied. Sometimes, creating such institutions requires direct involvement of the

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governmental authorities. Otherwise, the state is expected to provide support in the quality control of the goods and services for the private specialized organizations.

2. It is the protection of intellectual and industrial property by the government for creating the adequate institutional and legal environment (including trademark and brand protection) facilitating the establishment of standards by the market actors.

3. It is the institutional elements of the information sufficiency including the system of the rights identification as well as the regulation of the contract liabilities execution. In the context of modern economic theory, property rights form one of the most important social institutions. The overcoming of the information uncertainty in the process of interaction between the economic subjects is provided with property rights institutions. Proper execution of the contract liabilities requires a well-developed efficient legislative and economic courts system.

4. Achieving information sufficiency requires high competition and meta-competition in the market. This element emphasizes the need to take into account market dynamics, which is associated with the possible liquidation of its participants and does not guarantee the security of an economic entity (even for monopolies).

A monopoly does not enter meta-competition unless it has no guarantees against bankruptcy. On the other hand, the competitive market can be a playground for the actors who take little care in their future as they rely on the support from the state and are fully aware of the fact that their losses will be, in the end, written off. Provided such actors are few, it does not create additional problems; otherwise no sanctions for the rent-seeking from the information asymmetry will be workable, leaving the market vulnerable and doomed to information insufficiency.

5. A network of publicly available and private information databases on scientific, technical and commercial information acts as another component of the institutional infrastructure of the economy.

Taking into account the abovementioned facts, the institutional environment shall be understood as an organized complex of institutions that set restrictions and limitations for the economic agents in the process of the innovative administration. The operation of the institutional environment and its specifics are provided by the mutual efforts of the institutions executing their relevant functions.

As a rule, the functions of the institutions include their activities providing for the preservation of the stability in the society. Meanwhile, a dysfunction is understood as the activity failing to satisfy the needs of the innovation system and resulting in its breakdown. A dysfunction occurs in case the innovative institution focuses on self-sustainment instead of the needs of the society. Thus, general functions are formed by the total of social functions of various institutions.

It is noteworthy that the development of the links between the formal and informal institutions appears to be a key factor of the institutional dynamics as, apart from establishing new rules, it also has to be sensitive to the norms and laws accepted in the society. Formal restrictions, rules and institutions are mainly based on the already existing informal rules and mechanisms providing for their execution.

The institutions at the macro- and mesoeconomic levels are comprised of the external institutions as they remain beyond any managerial regulation (including by the owners) and depend on the actions undertaken by the government and top management of the large diversified companies.

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The institutions at the macro- and mesoeconomic levels have an important role in establishing the sharing economy. The importance of the institutions at the macroeconomic level (first of all, the government) is explained by their status of the regulators of the governmental policy and reformers of the institutional environment. In particular, the priority goal of the government lies in the implementation of the innovation policy providing for the growth of the research and technological potential and improvement of the wellbeing of the population and innovation climate in the country.

The institution of legislation activates the managerial function of the government and its impact on the development of the innovation-oriented market economy; it also facilitates innovation technologies implemented by the government at multiple levels of economy. Among the institutions at the macroeconomic level, the key role is attributed to the tax system, labor market, social partnership and social protection. In this case, the tax system acts as an important economic institution responsible for tax concessions and targeted subsidies policy stimulating the innovation activity of the economic agents.

The institution of social partnership functions as a major facilitator of the public-private partnership and focuses on the development of the mechanisms regulating the coordination and accommodation of the public interests that could provide for the innovation development of the country and prevent facing massive internal crises and challenges.

At the mesoeconomic level, particular attention should be paid to the institution of corporate social responsibility as a major factor of successful innovation policy of the organizations, which further provides for the creation of an innovation society.

The institutional environment has the following functions:

1. The cognitive function. The institutions provide for the economic processes and phenomena occurring in the society and form a system of economic insights on the society.

2. The practical function. It consists in making theoretical conclusions, analysing their validity and applicability in the economy, searching for efficient forms and methods of economic control and establishing an adequate economic structure at all the level of the economy.

3. The integrating function. The economic institutions establish the subjects of the economy as the individuals of social production, enable establishing economic contacts and help the economic rationalization owing to the transaction costs reduction. Reduced uncertainty of the external system supported by the institutions allows planning and making long-term investments, which contributes to the increased value. Saving on the research and forecasting of the agents' behaviour can be used for the economic purposes. And, vice versa, high environmental uncertainty and lack of functioning institutions result in the economic counteragents facing the problem of the reduced expected earnings from the future investments and extra expenses on the safety measures for their economic activity, for instance, insurance.

The function of the reduced transaction costs stems from the integrating function and remains one of the key factors. R. Coase began his study by analyzing two key (according to him) institutions of the greatest importance for the economic theory – a company and the market (both characterizing the institutional structure of the economic system) (Coase, 1937). It is a well-known fact that the market provides for the freedom whereas a company, or enterprise, curtails it. An entrepreneur needs reliable information in order to succeed on the market, and getting such information requires considerable

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transaction costs. Hence, transaction costs play a central role in the analysis of the economic institutions (Coase, 1937).

The institutions serve as a means of transaction costs reduction. The economic subjects intend to reduce their own expenditures and increase profits. The reduction of the transaction costs mainly leads to lesser uncertainty of the economic system and results in the protection of the property rights as the standardized behavioural rules start working. These behavioural rules are the institutions. The institutional structures properly coordinated, the transaction costs are going to be minimized. Should the transaction costs keep growing, various nontypical models of the economic institutions are established with the purpose to reduce the transaction costs. This approach to the efficiency of the transactions explains the variability of the successful experience of applying economic institutions (some institutions that show positive results in certain economies prove to be absolutely inefficient in others).

4. The information function. Its main purpose is accumulation, selection and transfer of information in time and space. Executing their information function, the economic institutions provide for the continuous reproduction of the society. The awareness of the counteragents of the contents of the institution responsible for the regulation of their behaviour provides for the coordination of the economic activities of the agents. Should one of the agents fail to recognize the behavioural rules in a particular economic situation, the coordination is going to be impaired and the participants of the process are going to incur overhead costs. The efficient institutions enhance awareness of the parties of the state of the market and economy in general and, thus, help minimize their expenses on surfing for information and rationalize activity of the economic subjects.

5. The regulatory function. According to this function, the economic institutions set the activity of the economic subjects on a course offering greater benefits for the economy and, at the same time, they try to slowdown or completely stop the activity having negative consequences for the system. Serving as the foundation of the norms and rules in the society, the institutions give the impression of safety and guarantee of the individual rights and freedoms. Hence, material and intellectual resources can be used more effectively.

The regulating function also embraces the coordinating and distributing functions. The coordinating function is manifested through limited access to the resources and limited variety of their use. By restricting economic behaviour (even by prescribing the only possible behavioural pattern), the institutions also regulate activity of the economic agents conditioned by certain working rules. The analysis of the contents of the institution workable for a particular situation provides for the awareness of the economic subjects as for the adequate behavioural patterns. Thus, individuals can and, most likely, will choose the behavioural pattern taking into consideration the expected actions of their counterparts, which, in fact, can be described as coordination.

The execution of the coordinating function provides for the coordinating effect. Its main purpose is to reduce expenses on studying and forecasting the behaviour of other counteragents involved in the same economic situations. In reality, provided the agents adhere to the rules, there is no need to forecast the behavior of the individuals as the probability of their actions is limited to the range allowed by the functioning institution. Therefore, the coordinating effect also lies in the decreased level of uncertainty of

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the environment where the economic agents are active and serves as one of the mechanisms having direct impact on the effectiveness of the economy.

The coordinating impact of the rules is displayed through limiting the actions of the people and, thus, making them more predictable. The stimulating power of the rules has to do with the efficient organization of the transactions which results in the trade benefits. Hence, the transaction functions as a starting point, or a “basic unit”, of the neo-institutional analysis whereas the status of the rule is relevant for the more efficient organization of the transactions (North, 1989).

6. The cultural function. The cultural context and institutional environment create a set of organizational options and, thus, define the structure and size of the transaction costs; the organizational options vary depending on the types of transactions and most suitable mechanisms of management. The institutions regulate human relationships and turn down defective behavioural patterns that might cause degeneration and further downfall of the society. Hence, economic institutions coordinate the economic activity of all the parties involved into the life of the society.

The structure of the economic cooperation between the subjects of the economy is also regulated, which allows predicting the consequences of the executed activities. The institutions help establish a sustainable (though not always effective) structure of interpersonal cooperation which contributes to the reduced uncertainty (North, 1989). While restricting the number of possible actions, any institution can influence the distribution of the resources among the subjects of the economic activity; hence, the distributing function is executed. The distribution of the resources, costs and benefits is affected by a wide range of norms and rules beyond the ones regulating the transfer of goods from one counteragent to another (North, 1989).

Apart from the individual distributive consequences, any economic and non-economic institutions have a standard “typical” distributive effect: by limiting the number of possible actions, it directly shifts the resources towards their subset or, at least, maximizes the cost of the illegal actions (if executed) accounting for the future damage and penalties applied to the violators.

7. Negentropy (systemic) function. It provides for the sustainability and maximization of the organizational level of a separate nation’s economy and its ability to mitigate the emerging changes. This function can be executed due to a certain (considerable) inequality characteristic of the relations between the agents and the institutions: acting according to the needs via a certain institution, the individual is forced to adapt the structure of needs and interests and ways of their satisfaction so that they meet the institutional norms whereas the impact of the individual on the institutions is next to none. This explains their capability to execute a systemic function.

8. The complementarity function. The institutions complement one another achieving the required economic effect due to the interrelated institutional changes. Developed economies also provide for the economic links between the institutions as the development of the economy is accompanied by the competition between them. The institutions function as a mechanism coordinating the economic activities of the individual agents that lack market coordination. The latter falls within the deadlines which allow comparing the costs and the results.

9. The educational function. The educational impact of the institution targets a separate sector of social consciousness – legal consciousness, the purpose of such an effect being clear. The educational

impact includes an ideological aspect mainly implemented via social propaganda and focusing on the development of the public culture. The institution transfers its values as an element of the intellectual culture of the society as well as the skills and rules of public behaviour.

Each of the abovementioned socio-economic functions has its own regulating mechanism providing for the implementation of certain economic goals and objectives. Thus, an economic institution represents a complex of economic, social, legal, ethical and moral relations reflected in the social phenomena as separate activities of the individuals and institutional establishments.

7. Conclusion

The development of the sharing economy influenced by Industry 4.0 is currently perceived as a major trend of the economic system development. It results in the transformation of the socio-economic institutions. The development of the institutions allows reducing transaction costs, which, undoubtedly, has become a key factor of the digital economy development. The studied functions of the institutions characterize the fundamental relations between the economic agents depending on the changes in the principles related to the joint (shared) exercising of property rights.

Apparently, the current research can be developed while focusing on the analysis of the effect the sharing economy makes on the transformation of the economic institution of property.

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