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FORMATION OF INFORMAL INSTITUTIONS OF INNOVATIVE BEHAVIOR

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Abstract

The article presents an analysis of the development of informal institutions of individual behavior, aimed at creating new competitive technologies. The article examines how an individual develops competencies that allow him to assess the situation in the intellectual property market and make decisions on developing or introducing certain new technologies into mass production. Scientific literature, which tells about famous figures who created competitive technologies that played an essential role in human civilization development, was used in the paper. Besides, the literature, containing information on introducing new technologies in mass production and industry development in leading countries of economic development, was involved. The complex analysis of the text was applied, based on the systematic and functional approaches to studying the information presented. It investigates how individuals receive economic intuition and knowledge that allows them to assess the situation in the intellectual property market and understand which technologies can be most in demand, which can be developed in everyday life without spending too much time and other resources. Recommendations have been developed to create educational programs aimed at developing individuals' competencies that allow creating competitive new technologies.

Keywords: Behavior, innovation, institutions

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1. Introduction

The article presents an analysis of the formation of competencies in individuals, which allow them to create competitive new technologies that are in demand in modern society. It analyzes how the institutions of personal and group innovative behavior are formed, aimed at the systematic creation of new technologies.

2. Problem Statement

At the moment, the formation of institutional infrastructure in Russia favorable for the creation of new technologies corresponding to the fifth and sixth technological patterns is a pressing problem that needs to be addressed immediately, as Russia is still dependent on raw material exports, which in the conditions of rapid changes in oil prices harms the exchange rate of the Russian currency and the macroeconomic stability of the country (Zaitsev, 2020).

For this reason, there is a need to create a complex of formal and informal institutions in Russia that would facilitate the creation and introduction of new competitive technologies into mass production. Russia is introducing various formal institutions responsible for creating and implementing innovations (Kleiner & Rybachuk, 2019). However, insufficient attention is being paid to the development of informal institutions that are responsible for building the capacity of individuals to create and introduce competitive new technologies into mass production. Such informal institutions - informal institutions of individual innovative behavior (Khoroshilov & Mashkov, 2020) - form the necessary competences that determine an individual's thinking aimed at creating and introducing competitive new technologies into mass production that are in demand in society and meet modern requirements to reliability, environmental safety, efficiency (energy saving), multifunctionality and ease of use. Such competence lies in the specifics of thinking, in the way we perceive information, in communication with other individuals, in building relationships at the enterprise, in the process of creating and bringing new competitive technologies to mass production.

Individuals tend to maximize their usefulness, while formal and informal institutions impose certain restrictions on individual behavior. Formal institutions regulate individuals' behavior through state laws, corporate rules, and resolutions of municipal and regional authorities (Votinov et al., 2019). Informal institutions contribute to regulating individual behavior through the influence of traditions, the population's mentality, the ability to perceive information, religious and cultural permits and bans.

The works of such authors (Kondratiev et al., 2020) examine the processes of creating and introducing new technologies, but do not study the processes of forming institutions of personal behavior aimed at creating and introducing new technologies into mass production that are in demand in the intellectual property market.

The purpose of this article is to study these processes and develop recommendations for the formation of individual and group behavior, aimed at creating and implementing new technologies that are in demand in a dynamically developing society (Kamalov & Ponarin, 2020) and competitive in the modern world. The development of cognitive technologies, nanotechnologies, biotechnologies will enable

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the country to reach the sixth technological level, to ensure macroeconomic stability and long-term national security.

However, while formal institutions that influence the development of the innovation process and the active role of individuals in this process are relatively well studied, informal institutions are insufficiently studied and there is a need for further research to explain many economic phenomena that cannot be justified and described using only knowledge about the impact of formal institutions on them.

3. Research Questions

The innovative process helps to meet the material needs of many individuals through the introduction of new products into mass production, reducing the burden on the environment (by introducing into mass production more environmentally friendly technologies than those previously used to meet the same needs, and were applied in the same field of activity), through the creation of new jobs and educational programs (Glazyev, 2013) that help individuals to take their place in modern society.

Informal institutions, as well as formal institutions (Armour & Eidenmueller, 2019), promote the creation and introduction of new technologies into mass production. They determine the level of rationality of an individual (Ibragimova & Franz, 2020) and his or her ability to navigate the intellectual property market, using the various possibilities of the existing institutional infrastructure to create and introduce new technologies into mass production, in order to obtain tangible and intangible benefits from this action.

The creation and introduction of new technologies into mass production brings not only material benefits to the individual who is engaged in this activity (Belyanin, 2018), but also moral satisfaction (Larin & Filyasov, 2018), if the individual wishes to benefit humanity by introducing a new technology into production, or if the individual has a desire for creativity. The creation of new technologies is not always done by one developer alone (Ershov, 2019), often he or she actively communicates with other individuals who do the same, and some individuals find this communication useful for spiritual development.

For this reason, the gross domestic product is not the only indicator that can describe all the benefits that individuals living in a particular country (Maclean et al., 2017), as a result of the introduction of new technologies in mass production. This is especially true for those individuals who are directly involved in the development of new technologies, and their introduction into production. The quality of education and the psychological situation in the country of their residence also play a big role in the life of individuals (Zinchenko & Egorov, 2019).

After raising the standard of living above a certain mark, expressed in the number of monetary units received by an individual for a month, most individuals are no longer interested in further improvement of living standards, and seek to obtain impressions, to spiritual self-development and communication. This phenomenon is actively explored by many economists since the nineties of the twentieth century (Yuzhakov et al., 2020).

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4. Purpose of the Study

The study of informal institutions that contribute to creating and implementing new technologies is necessary to ensure the development of an innovative economy in Russia.

5. Research Methods

In the process of writing the article, the method of complex text analysis was used and scientific literature was studied. By analyzing the autobiographies of famous inventors, the behavioral features of persons who created competitive technologies and introduced them into mass production were investigated. When analyzing autobiographies, keywords and expressions were tracked, which are indicators of the presence of a certain quality of character in an individual that is useful for the creator of new technologies. The qualities of an individual's character affect his adherence to certain informal institutions of innovative behavior. In accordance with this, conclusions were drawn about which informal institutions influenced the introduction of competitive technologies into mass production.

6. Findings

According to the canons of neoclassical economics, any individual has an absolute economic intuition, is rational, and uses all the institutional system's opportunities. But the nature of the individual is such that he does not use all opportunities in the institutional system, in which this individual is. He may not perceive a part of information, consider it useless or even harmful and consciously throw it away.

In the theory of transaction costs, limited rationality is seen as a peculiarity of an individual's subconscious, which affects his or her various actions, including the creation and introduction of new technologies into mass production, relations with others, with formal and institutions, and his or her attitude towards compliance with certain informal norms. Accordingly, all these features of individual or group behavior of individuals as economic agents are of interest for study.

Theoretically, restricted rationality of individuals can be formed by informal institutions inherent to this individual, which influence his or her worldview on the peculiarities of information processing. An individual adheres to his or her own manners of behavior; he or she has a positive attitude towards one of the actions of others and a negative attitude towards the other, while others may also evaluate his or her different actions in different ways, and this affects the relations between individuals.

Culture, inherent to the individual, shapes his or her attitude towards one or another phenomenon, helps to concentrate his or her attention on some subjects or phenomena and diverts him or her from others, thus, culture is able to influence the peculiarities of the individual's brain and guide its activities.

In addition, culture can encourage an individual to do some things and to abandon others, so that an individual learns the skills to work in one area and resigns from working in another area, so that culture influences the development of skills.

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In today's environment, the innovation process involves the formation of numerous informal institutions that are influenced by a particular culture that is specific to individuals or groups, thus, the state is able to influence the innovation process as well. The impact on culture through the mass media can lead to unexpected consequences and therefore, it is necessary to examine how culture impacts on the innovation process carefully. Cultural change, theoretically, can lead, for example, to an increase in the prestige of the designer and engineer professions, but it is not known whether it will lead to the development of competitive technologies and their introduction into mass production.

That is, the state needs to influence culture in such a way that both formal and informal institutions influence the creation of new competitive technologies and their introduction into mass production, so that individuals are able to effectively use formal institutions responsible for the creation and introduction of innovations, and enjoy the very process of development and introduction of new competitive technologies into production, as well as material benefits, and communication with other individuals engaged in the development of new technologies. This will improve the standard of living of individuals and provide them with a favorable psychological climate.

A certain culture influencing the development and implementation of new technologies, a kind of innovation culture, exists in many corporations around the world and allows them to be leaders in a certain industry and create both a favorable psychological climate for their employees and provide them with jobs with good pay and social guarantees. The culture of developing new technologies allows individuals involved in developing new technologies and methods to take into account the preferences of clients that are not static and constantly changing, so without carefully organized continuous monitoring of their changes it is almost impossible to track the progress of their changes. Some of the employees of these companies create and support a service to track consumer preferences, and in the process of this work the employees acquire the skills of joint creative work. When developing new technologies, the individuals who create these technologies can be guided not only by statistics reflecting the preferences of potential users of these technologies, but also by their personal experience of working with these technologies: the use of devices, services on the Internet, the use of specific ideas and methods in work.

Besides, many individuals tend to strive for completeness, the so-called Gestalt. If the developer leaves the technology unfinished, will abandon its development, the disappointment will haunt him if not all his life, then for a long time. For this reason, working in a company, among a large team of developers who can help in finalizing the technology, will help the individual get material benefits and moral satisfaction. The individual will also be able to help other employees bring their technology to a completed form or to implement it into mass production and experience moral satisfaction from the help of colleagues.

7. Conclusion

The results of the work can be formulated as follows. In order to form a culture of creation and introduction of new competitive technologies into mass production, it is necessary to organize an exchange of experience between successful foreign entrepreneurs and Russian novice inventors so that they could join the culture of creation of competitive technologies, monitoring of the intellectual property market, patenting, introduction into mass production. The modern world is moving towards the sixth

technological mode, globalization is intensifying, super large corporations are being created, the culture of many individuals is changing, and the role of creative professions is changing. Interaction with individuals who successfully create and implement innovations will allow them to acquire the mentality necessary to participate in the innovation process. This will create awareness among individuals that they can influence society's development, that their developments will be legally protected and that their opinions will be heard. The results of the work can be formulated as follows. In order to form a culture of creation and introduction of new competitive technologies into mass production, it is necessary to organize an exchange of experience between successful foreign entrepreneurs and Russian novice inventors so that they could join the culture of creation of competitive technologies, monitoring of the intellectual property market, patenting, introduction into mass production. The modern world is moving towards the sixth technological mode, globalization is intensifying, super large corporations are being created, the culture of many individuals is changing, and the role of creative professions is changing. Interaction with individuals who successfully create and implement innovations will allow them to acquire the mentality necessary to participate in the innovation process. This will create an awareness among individuals that they can influence society's development, that their developments will be legally protected and that their opinions will be heard.

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