

The Sharing Economy as a Model 5.0 for Developing an Innovative Strategy of Universities

الاقتصاد التشاركي كنموذج 5.0 لتطوير استراتيجية مبتكرة للجامعات

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Abstract:

The study aims to develop a set of methodological methods and tools to form an effective adaptive strategy for the international competitiveness of the University in the digital age.

The analytical method was used allowing to study the characteristics of the management system and the management subsystem innovation and digitization in the dynamics of continuous development, in the interconnection and interaction with the environment factors of the work and development of the University, reaching the main results that determine the following scientific novelty: The concept of transformation of the university into the digital age, which involves a constant transition from resource management to management, firstly, expands the category of resource management by including the intangible and the number of external network resources in its composition, secondly, the speed of reaction to the transformations occurring in the external environment, which is considered the main criterion, and finally, management methods change according to the concept of Open Science and through the infrastructure of the University stakeholders (student, teacher, researcher).

Keywords: universities, innovation strategy, participatory economy, model 5.0

الملخص:

تهدف الدراسة الى تطوير مجموعة من الأساليب المنهجية والأدوات لتشكيل استراتيجية تكيفية فعالة للتنافسية الدولية للجامعة في العصر الرقمي. وقد تم استخدام المنهج التحليلي مما سمح بدراسة خصائص نظام الإدارة والنظام الفرعي للإدارة، الابتكار والرقمنة في الديناميات متطورة باستمرار في الترابط والتفاعل مع العوامل البيئية للعمل وتطوير الجامعة، والوصول الى النتائج الرئيسية التي تحدد الجودة العلمية التالية: مفهوم تحويل الجامعة الى العصر الرقمي، الذي ينطوي على انتقال ثابت من إدارة الموارد للوصول الى الإدارة، أولاً يتوسع فيه فئة الموارد من خلال تضمين غير ملموس وعدد موارد الشبكة الخارجية في تكوينها، ثانياً سرعة رد الفعل على التحولات التي تحدث في البيئة الخارجية التي تعتبر المعيار الرئيسي، وأخيراً تغيير اساليب الإدارة وفقاً لمفهوم العلوم المفتوحة ومن خلال البنية التحتية للجامعة أصحاب المصلحة بالجامعة (طالب، المعلم، الباحث).

الكلمات المفتاحية: الجامعات، استراتيجية الابتكار، الاقتصاد التشاركي، نموذج 5.0

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INTRODUCTION

The degree of scientific elaboration of the problem. The main theoretical and methodological provisions that reveal the issues of development and improvement of both higher education in general and universities, in particular, are represented in the works of the following foreign scientists: J. Salmi, F. Altbach, J. Wissema, M. Crowe, D.K. Bok. Among the domestic researchers working in this field, the following can be distinguished: N.S. Ladyzhets, E.V. Strogetsckaya, L.Y. Shipik, A.O. Grudzinsky, E.V. Bebenina, Ya.I. Kuzminov, D.N. Peskov, P.G. Shchedrovitsky, N.V. Pogosyan, E.V. Neborsky.

The hypothesis of the research article is that at the moment the system of higher education in Russia has a unique chance, thanks to new technologies, to translate the university's activities into a new format and become mainstream in the field of science and education, development of a set of methodological approaches and tools for the formation of an effective adaptive strategy for the international competitiveness of the university in the digital age.

It will allow determining the global scientific and technical agenda in a number of technologies and in a number of markets, the University's digital transformation strategy will allow make a competitive leap, the use of digital technologies will allow the strategic structuring of innovative educational and entrepreneurial activities of the university and thereby increase its competitiveness.

Research objectives: develop a methodology and substantiate the concept of the strategy university in the era of the five industrial revolution; identify problems, bottlenecks and limitations of existing university strategies, and offer tools to solve them; analyze the basic principles and requirements for the strategies of universities in the new era and for the development of its infrastructure; to study the most important resources of modern universities; to develop new tools and technologies and indicators and key performance indicators for the advancement of the university's strategy in the new digital era, to study the main components of the development of universities as scientific, educational and innovation centers ; to study theoretical and methodological approaches to the strategic management of universities; to study the main problems and limitations of existing method sand approaches for developing university strategies; to study the impact of digitalization processes on the development of a modern university; to study global trends in the development of science, education and innovation; to study national trends in the development of science, education and innovation in Russia.

Relevance of the research topic. Globalization in the XXI century it opens up great opportunities for the activities of universities in foreign markets. Global trends in innovation are characterized by the fact that leading economies continue to consider innovation as an integral, key element of a new stage of global development. Globalization and population growth determine the direction of development in the global technology sector. The proliferation of computer technology and Internet capabilities has hit an impasse. The inherent desire of individuals to live in the cleanest and most environmentally friendly location, city, nation, and planet has a sensitive influence on the global innovation development directions. This determines the prospects for the advancement of the eco-technology sector, which is now one of the most important saturated with investment investments (Y, 2016)

Global trends characterized by the formation of a new paradigm of scientific and technological development are a consequence of convergence and penetration into all spheres of life of ICT, artificial intelligence, robotics, biotechnology, new generation electronics. A significant factor in the transition to a new paradigm there is a large-scale digitalization of the economy, affecting the sphere of scientific research and having a direct impact on the development of new methods and technologies for their implementation (modeling, big data processing, robotization of experiments, network tools for analysis and exchange of scientific and technical information). Legal and ethical frameworks will increasingly limit the spread of individual achievements in the field of medicine, biotechnology, robotics, artificial intelligence, etc. The industrial Revolution will be constrained by resource constraints, including financial ones, which may arise due to changes in government priorities in terms of supporting promising research and development (Capella, 2019).

The move from the University 3.0 model to the University 4.0 model entails a complete overhaul of all university procedures. Given that the previous model prioritized inventive, educational, and entrepreneurial activities, it is critical to assure the digital transformation of these processes during the transition to a new model. The digitization of a contemporary university's services is indeed a crucial aspect in guaranteeing its competitiveness. The sharing economy, as well as the reform of institutions, will create additional chances for instructors, students, candidates, and partners to reach their full potential. Transformation is impossible without the formulation and implementation of a digitization plan that takes into consideration the university's unique characteristics and operations. (Neborsky, 2017)

The degree of scientific elaboration of the problem. The main theoretical and methodological provisions that reveal the issues of development and improvement of both higher education in general and universities, in particular, are represented in the works of the following foreign scientists (Barabanova M.I., 2018) : J. Salmi, F. Altbach, J. Wissema, M. Crowe, D.K. Bok. Among the domestic researchers working in this field, the following can be distinguished: N.S. Ladyzhets, E.V. Strogetskaia, L.Y. Shipik, A.O. Grudzinsky, E.V. Bebenina, Ya.I. Kuzminov, D.N. Peskov, P.G. Shchedrovitsky, N.V. Pogosyan, E.V. Neborsky. The goal of this paper to develop a set of methodological approaches and tools for the formation of an effective adaptive strategy for the international competitiveness of the university in the sharing economy era. In order to realize this goal, it is necessary to solve the following tasks (M.I., 2010): develop a methodology and justify the concept of the strategy university in the era of the fourth industrial revolution; identify problems, bottlenecks and limitations of existing university strategies, and offer tools to solve them; analyze the basic principles and requirements for the strategies of universities in the new era and for the development of its infrastructure; to study the most important resources of modern universities.

The object of the article's research is the strategic development management system of a modern Russian university. The subject of the study is a set of relations that arise, develop and form in the process of developing a university strategy in the context of the fourth industrial revolution, increasing competition, digitalization of society, industry and education (Khokhlov A.F., 2002). The methodological basis of the research consists of general scientific methods of cognition, which include: analysis and synthesis (as a general methodological approach), comparison, generalization, dialectics, abstraction, methods of system, complex, logical, structural, comparative, statistical,

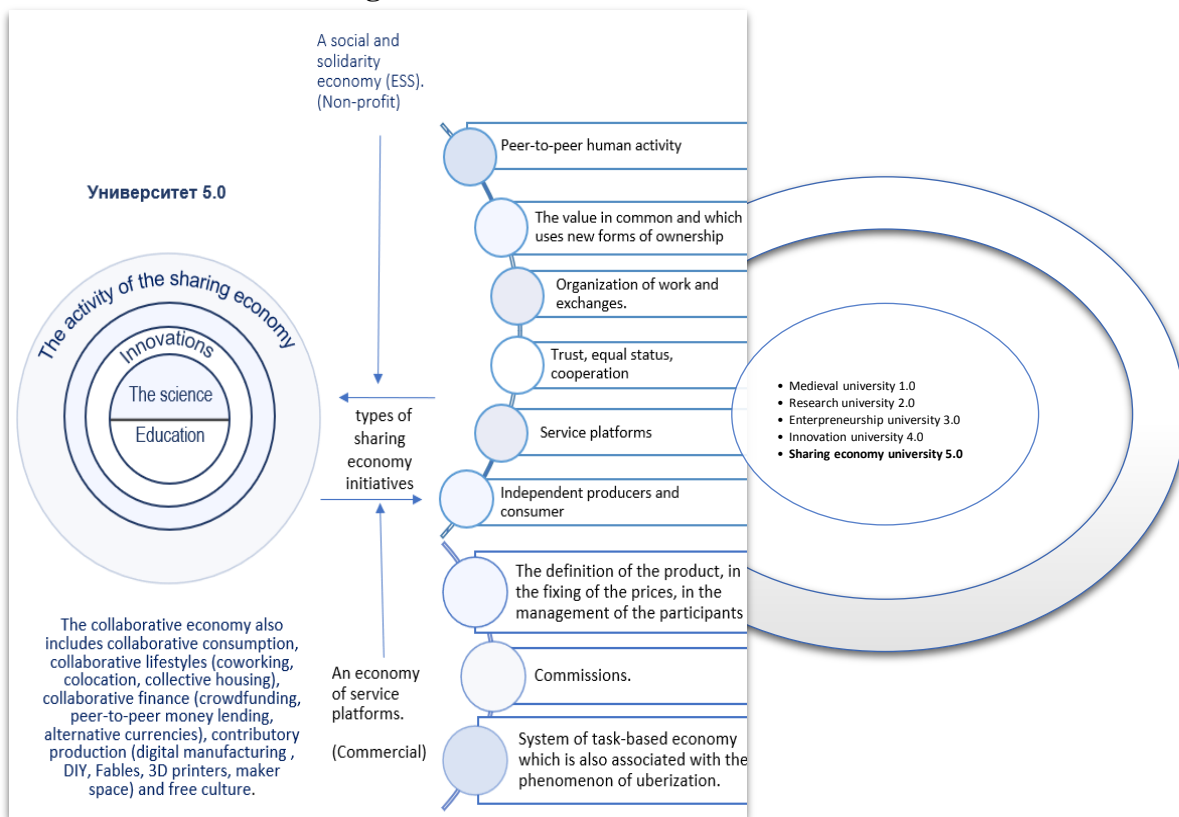
correlation analysis (as separate methods of analysis) allowing to investigate the characteristics of the management system and management subsystem innovation and sharing of the economy in dynamics, in constant development, in interrelation and interaction with environmental factors of functioning and development of the organization. These methods are used in different combinations and at different stages of the study, depending on the goals and tasks being solved. This, of course, contributed to ensuring the reliability of the analysis and the validity of the conclusions made by the author. The scientific novelty of the research article is that the approaches and main directions of the sharing economy of the transformation of the innovative educational and entrepreneurial model of the university have been developed, allowing to increase its competitiveness.

The hypothesis of the research article is that at the moment the higher education system in Russia has a unique chance, thanks to new technologies, to translate the university's activities into a new format and become mainstream in the field of science and education. The development of a set of methodological approaches and tools for the formation of an effective adaptive strategy of the university's international competitiveness in the digital era will allow determining the global scientific and technical agenda in a number of technologies and in a number of markets.

MATERIEL AND METHODS

Generations of Russian universities: It can be said that Russian universities have gone through five basic stages/or generations, which can be illustrated in the following figure 1:

Figure 1: Generations of Russian universities



Source: prepared by the researcher models from universities

The following is an explanation of each of these stages (I.G, 2014)

Medieval university (the concept of the seven arts) 1.0: The list of six medieval universities includes universities (specifically, studia generalia) that existed in Europe throughout the Middle Ages. It also includes short-lived foundations and European educational institutions with debatable university status. The university, with its corporate structure and considerable autonomy, is a creation of medieval Christian Europe. More than eighty universities were established in Western and Central Europe prior to 1500. The university was introduced to the New World during the later Colonization of the Americas, marking the beginning of its global spread as the center of higher learning everywhere. The term arts liberals, on the other hand, was popular during the Middle Ages. The list of six medieval universities includes universities (specifically, studia generalia) that existed in Europe throughout the Middle Ages. It also includes short-lived foundations and European educational institutions with debatable university status. The university, with its corporate structure and considerable autonomy, is a creation of medieval Christian Europe. More than eighty universities were established in Western and Central Europe prior to 1500. The university was introduced to the New World during the later Colonization of the Americas, marking the beginning of its global spread as the center of higher learning everywhere. The term arts liberals, on the other hand, was popular during the Middle Ages, does not mean arts as we understand the word at this present day, but those branches of knowledge which were taught in the schools of that time.

Research university 2.0 (Ayhan, 2022): A research university, often known as a research-intensive institution, is one that prioritizes research as a fundamental component of its purpose. These are the most significant places for knowledge production, together with "intergenerational knowledge transmission and the validation of new information" through PhD degrees. They might be public or private, and their brand names are frequently well-known. Many research institutions provide undergraduate courses that are intellectual rather than vocational, and they may not prepare students for specific occupations. Yet, many companies respect degrees from research universities because they teach important life skills such as critical thinking.

Entrepreneurship universities 3.0 (Salmi D., 2007): Entrepreneurship is crucial to economic development societies that provide flexible development and operation of entrepreneurs' new ideas will gain benefits. Empirical evidence shows that countries with entrepreneurial activities experience economic development. As a vehicle in the system, entrepreneurship provides services for change and innovation. Therefore, entrepreneurship should be considered not only as a career option or a factor that causes downsizing of employees or an economic downturn but also as a major social change driver. The role of entrepreneurial education is threefold: educating people for business phenomena in general (the 'about' mode), inducing start-ups of graduates (the 'for' mode), and instilling a positive attitude to students towards business ventures (the 'through' mode). Aligned with educational policies and independent from a specific mode pursued, a measure of success of entrepreneurial programmers is evidenced by the increase in entrepreneurial intention among graduates.

Innovation and technology universities 4.0 (Mioho, 2020): The urban economy and the number of commercial, industrial, and service enterprises are growing in the post-industrial age. The growth

and expansion of private and joint-stock ownership has increased the demand for competent managers with strong entrepreneurial abilities. The demand for economic, managerial, and humanitarian knowledge in society is growing. Entrepreneurs and staff are needed for the "super industry" and the urban economy. The institutionalization of creative and innovative activities occurs as a result of the development of methodologies of humanitarian and socio-cultural research and design. The merger of innovation and entrepreneurship was the qualitative leap that led to the shift of universities to the 4.0 paradigm.

into universities. J. Vissema, in the book "University of the third Generation" interprets the processes of improving the management of a modern university as a transition from second-generation universities focused primarily on the development of science and the dissemination of scientific knowledge to 4.0 universities focused on scientific and applied research and the dissemination of competencies.

Sharing economy: The sharing economy (sharing economy or cooperative economy) is a sustainable economic system based on the sharing of human and material assets, and includes creativity, production, distribution, trade and participatory consumption of goods and services between various individuals and commercial establishments, and these systems take many forms, but they work in their entirety to enhance information technology in order to provide individuals and government and non-profit institutions with information that helps in the distribution and sharing of goods and services and the reuse of wasted and surplus energies, and there is a widespread belief that the participation of Information related to goods and services, will increase its value at the level of institutions, individuals and society.

Peer-to-peer markets: Individuals in this pattern deal directly with others in third-party two-way markets, where third-party markets - perhaps an institution, business, or even government - manage bidirectional markets in terms of their development, maintenance and policy, but they are not "peer-to-peer" systems in the technical sense, as there is generally a public central market that manages transactions and transactions, such as Airbnb and KRRB.

Sharing economics universities 5.0: It is a complementary economic system, it is based on the sharing of material and human assets and includes: consumption, distribution, trade, creativity, and participatory design of services, goods and merchandise between individuals, governmental and non-profit institutions, with the information that helps in this post. With regard to the universities of the participatory economy, one researcher provided a similar definition to the general concept of the sharing economy " as it was known as educational and academic institutions based on strengthening and rooting the partnership between universities, institutions, governmental and non-profit organizations at the local, regional and international levels, with the aim of transferring acquiring and sharing ideas, information and skills among students, individuals and workers , and providing them with everything new, whether in their academic lives or their field of work, to face the changes of the times and the needs of the labor market, by using information technology and communication technology " digital platforms, e-learning, and distance education."

Reasons for the existence of sharing economy universities model 5.0 (Sorokin.P.& Chernenko, 2022): There are several reasons for the existence of sharing economy universities, for example:

- ✓ Multiculturalism,
- ✓ The impact of identity and cultural diversity on the educational process,
- ✓ Increasing the degree of diversity of teaching and learning processes,
- ✓ The development of the knowledge and information society,
- ✓ The development of systems used in learning and knowledge management,
- ✓ Increase the importance of e-learning and distance education,
- ✓ The physical consequences of information and communication technology (ICI) on the teaching and training,
- ✓ Increasing the influence of political factors and forces and market economics on educational systems.

Some believe that the universities of the participatory economy are based on the following basic pillars:

Overcoming the negatives of capitalism and absorbing the positives of socialism, because it offers the possibility of reducing monopoly, and to raise awareness of the need to intervene to confront the steady global population growth and depletion of resources, development of communication systems and technology, deepening the technological industry, building generation of young people capable of acquiring knowledge, dealing and adapting to the holdings of the times, and adapting them for the purposes of sustainable development.

Elements of sharing economy universities model 5.0:

The following figure shows the basic elements of sharing economy universities

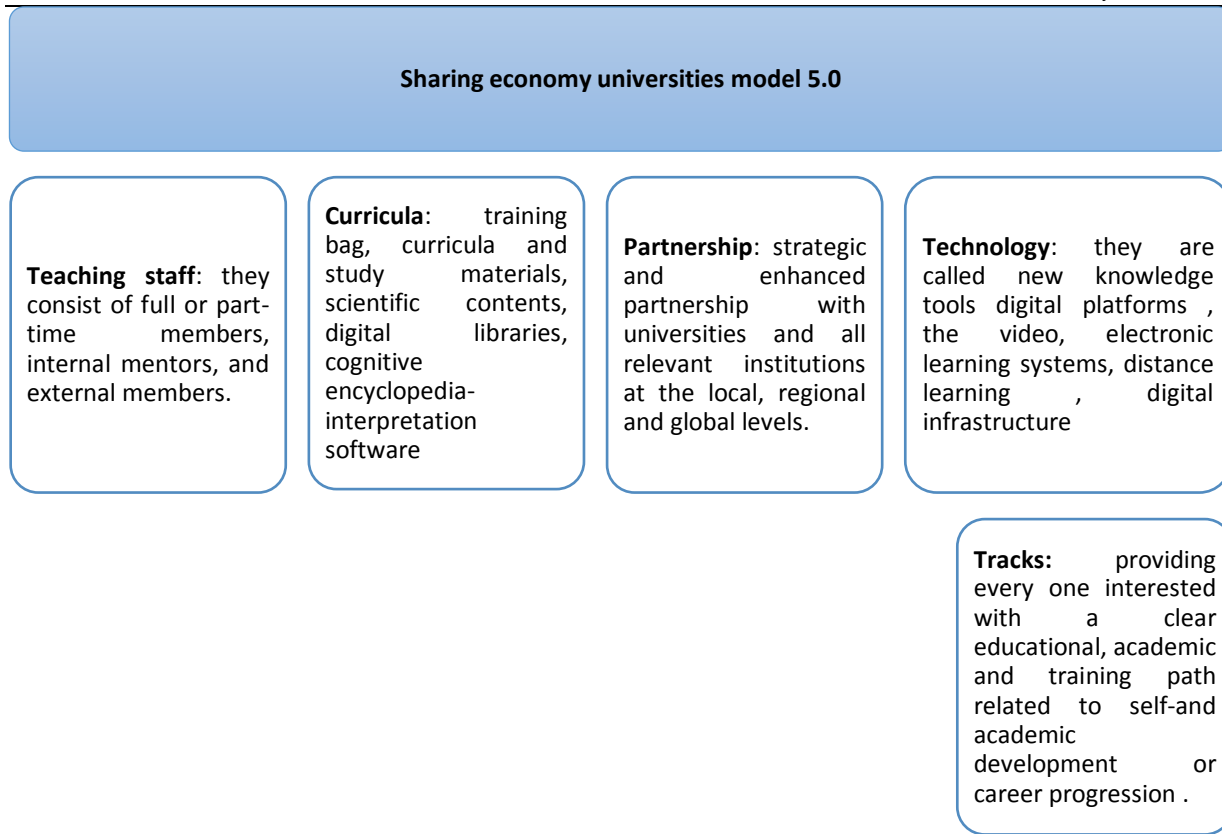


Figure 2: Elements of sharing economy universities model 5.0

Source: prepared by the researcher in light of the literature review and studies related to the subject of the study

Types of sharing economy universities model 5.0 : It is clear from the previous figure, the great disparity and diversity among the universities of the participatory economy, the differences lie according to three main dimensions : the first of which relates to the nature of learning , which begins by focusing on the narrow concept of training : which is limited to simply transferring information , developing knowledge and skills, and developing organizational values and practices, and between focusing on higher levels of education and creating knowledge through research . As for the second dimension , it is related to the spatial organizational of the unit.in terms of being a specific facility that has a fixed and specific entity in society, or it is hypothetical and depends primarily on communications technology and the internet through media and networks in broad casting education and training operations. And the third dimension revolves around program management to include internal and external management, participatory management, and knowledge management. Hence the different regulatory environment for each of them, according to this, the universities of the sharing economy model5.0 include infrastructure technology (B.R, 2011), and a participatory leadership style, supports knowledge sharing, in addition to internal and external faculty members with multiple and diverse local and international cultures, as well as sharing and diversity in curricula contents, and academic and study materials

RESULATS AND DISCUSSION

State is currently Funding a large- Scale reform Package for universities, higher education (HE) institutions world wide are experiencing fundamental changes, moving from, the traditional Humboldt – Type Model Towards an entrepreneurial model. in the context of these global trends, the Russian university landscape is being prepared to undertake a great transformation towards international standards in HE (Kuznestsov E.B., 2016) . The Russian state is currently funding a large – scale reform Package for universities. the emergence of the fourth-generation university and new innovation, then the participatory economy university, which is the subject of research application, and since the development of Russian universities is still in the stage of research and scrutiny over many years, the researcher saw that the university of the fourth generation, new innovation and the university of participatory economics, which is still shrouded in some shortcomings and ambiguities. In this sense, the researcher’s vision has been embodied in how to put and prepare a university strategy into practice, following the following methodology: First, changing environmental needs (economy, society, politics, research, etc.) are weighed against the institution's internal capacity. Several development possibilities are evaluated based on the study; some are then chosen for articulation as brief strategic objectives.

Eventually, specific tangible change activities are implemented in order to attain the strategic goals. This is the rational, linear method to planning; yet, good strategic performance is also intuitive and develops during the implementation process.

There are four main forms of strategic development: classical approaches, modern public management, evolutionary approaches, and systemic approaches.

CONCLUSION

The sharing economy is a rapidly growing concept, which has the potential to revolutionize the way in which goods and services are exchanged. In recent years, universities have begun to experiment with this concept, utilizing strategies to innovate and improve the way in which their students and staff share resources, the sharing economy has had a significant impact on the way in which goods and services are exchanged, and universities have begun to recognize the potential to utilize the sharing economy to their advantage. Research has indicated that universities are more likely to succeed in implementing the sharing economy if they have the right strategies and innovation in place, and finally study recommendations, The sharing economy transformation of universities will provide More chances for instructors, students, candidates, and partners to achieve their potential.

Transformation is impossible without the formulation and implementation of a digitization plan that takes into consideration the unique characteristics and details of the university's activities.

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