DOI 10.33111/vz_kneu.29.22.04.15.103.109
УДК 339.137

Грущинська Н.М.
доктор економічних наук, професор,
професор кафедри
міжнародних економічних відносин та бізнесу
факультету міжнародних відносин,
Національний авіаційний університет
м. Київ, Україна
e-mail: nataliia.hrushchynska@npp.nau.edu.ua
ORCID: https://orcid.org/0000-0002-5606-4666

Румянцев А.П.
доктор економічних наук, професор,
професор кафедри
міжнародних економічних відносин та бізнесу
факультету міжнародних відносин,
Національний авіаційний університет
м. Київ, Україна
e-mail: anatolii.rumiantsev@npp.nau.edu.ua
https://orcid.org/0000-0002-7531-654X

Пічкурова З.В.
кандидат економічних наук, доцент, доцент кафедри
міжнародних економічних відносин та бізнесу
факультету міжнародних відносин,
Національний авіаційний університет
м. Київ, Україна
e-mail: zoia.pichkurova@npp.nau.edu.ua
https://orcid.org/0000-0002-6561-8413

СЕРВІСНА ЕКОНОМІКА В СУЧАСНИХ ГЕОТРАНСФОРМАЦІЙНИХ ПРОЦЕСАХ

Hrushchynska Nataliia
Doctor of Economics, professor, professor of the department
international economic relations and business
Faculty of International Relations
National Aviation University
Lyubomyr Huzar Avenue, 1, Kyiv, Ukraine
e-mail: nataliia.hrushchynska@npp.nau.edu.ua
ORCID: https://orcid.org/0000-0002-5606-4666

Rumiantsev Anatolii
Doctor of Economics, professor, professor of the department
international economic relations and business
Faculty of International Relations
National Aviation University
Lyubomyr Huzar Avenue, 1, Kyiv, Ukraine
e-mail: anatolii.rumiantsev@npp.nau.edu.ua
https://orcid.org/0000-0002-7531-654X

Pichkurova Zoia
Ph.D., associated professor Department of of the department
international economic relations and business
Faculty of International Relations
National Aviation University
Lyubomyr Huzar Avenue, 1, Kyiv, Ukraine
e-mail: zoia.pichkurova@npp.nau.edu.ua
https://orcid.org/0000-0002-6561-8413

SERVICE ECONOMY IN MODERN GEOTRANSFORMATION PROCESSES

Анотація. У статті розглядається мережева економіка з кількох точок зору: перехід від індустріальної економіки до постіндустріальної, як цифрова та інформаційна інфраструктура, з точки зору прав інтелектуальної власності. Зазначено, що мережева економіка є лідером постіндустріального суспільства, і водночас її можна вважати каталізатором технологічного розвитку країни. Також вказано, що мережева економіка розглядається як еволюційний фактор, що впливає на геоспеціалізацію. Певні відмінності у визначеннях постіндустріального суспільства, економіки знань як теоретичних побудов і реальності свідчать про необхідність обговорення окремих проблем, пов'язаних зі становленням і розвитком постіндустріальної цивілізації. Настання постіндустріальної фази і становлення відповідного суспільства характеризуються процесом створення постійно зростаючої частки ВВП у сфері послуг і збільшенням концентрації зайнятих у цій сфері людської діяльності. У країнах з високим рівнем розвитку в структурі ВВП переважає третинний сектор, вторинний сектор представлений переробною промисловістю, тоді як частка первинного сектора невелика. Дведено, що перехід до нового технологічного способу виробництва супроводжується глибокими структурними змінами у галузях виробництва. Показано, що техніка як важливий елемент продуктивних сил завжди існує в певній соціально-економічній формі, яка визначається панівними виробничими відносинами. Зроблено висновок, що, незважаючи на єдність технологічної та економічної складових суспільного виробництва, між ними неминуче виникають неузгодженості та суперечності. Накопичення капіталу і науково-технічний прогрес змінюють структуру капіталу, підвищується технічна озброєність праці, а отже, змінюється технічна вартісна структура капіталу, що визначає тенденцію до зниження норми прибутку.

Ключові слова: геотрасформація, глобалізація, сервісна економіка.

Abstract. The article examines the network economy from several points of view: the transition from an industrial economy to a post-industrial one, as a digital and information infrastructure, from the point of view of intellectual property rights. It is noted that the network economy is the leader of the post-industrial society, and at the same time it can be considered a catalyst for the technological development of the country. It should also be noted that the network economy is considered as an evolutionary factor influencing geo-specialization. Certain differences in the definitions of the post-industrial society, the economy of knowledge as theoretical constructs and reality testify to the need of discussing individual problems associated with the formation and development of post-industrial civilization. The onset of the post-industrial phase and the formation of the corresponding society are characterized by the process of creating an ever-increasing share of GDP in the services sector and the increasing concentration of employment in this area of human activity. In countries with high levels of development, the tertiary sector predominates in the structure of GDP, the secondary sector is represented by the processing industry, while the share of the primary sector is small. The transi-

tion to a new technological mode of production is accompanied by profound structural changes in the production sectors. Technology as an important element of productive forces always exists in a certain socio-economic form, which is determined by the prevailing industrial relations. Therefore, notwithstanding the unity of the technological and economic components of social production, there inevitably are inconsistencies and contradictions among them. Capital accumulation and scientific and technological progress change the structure of capital, the technical equipment of labor increases, and, consequently, the technical value structure of capital changes, which determines the tendency of the profit rate to decrease.

Keywords: geotransformation, globalization, service economy.

JEL Classification: F01, F02, O14, O33.

Formulation of the problem. Globalization opens up enormous opportunities for humanity to expand the scale of the exchange of goods, services, information, technology and capital, humanitarian cooperation and spiritual enrichment of the individual. At the same time, globalization poses significant threats for a large part of the world, causing countries to differentiate between the «civilization center» and the «peripheral zone», deepening their differentiation in socio-economic and scientific and technological development.

When studying the processes that take place under conditions of globalization one should take into account the changes in globalization itself, its transformation. The catalysts of such changes may include, first of all, technological changes in society that lead to changes in the economic, political, social, and cultural spheres of life. An analysis of these trends can be considered effective and meaningful when determining the study methodology.

Analysis of recent research and publications. Recently, several theories emerged that one of the most important and even major factors in the transition to new levels of development in all spheres of public life is the improvement of the information structure of society. Further development of society is described in the works of a number of scientists, among them there are the works of D. Bell, O. Toffler, O. Fukuyama, J. Galbraith, J. Lyotard, F. Machlup, T. Umesao. A. Chukhno, V. Kolontai, O. Mykhailovska share the belief that the basis of the information economy is knowledge and technology development.

The issues of the essence, content, ways and methods of socio-economic transformations on a national and global scale, systemic transformations in transition countries for the construction of a new economic system, and other, acquire a specific interpretation in the theories of post-industrialism. P. Draker, D. Bell, M. Castells, J. Ellul, T. Sakaya may be noted among the most famous representatives of these theories, including Ukrainian scholars Yu.M. Pakhomov, O.H. Bilorus, D.H. Lukianenko, A.S. Filipenko and others.

French scientist A. Touraine in his work «Post-Industrial Society» proposed not to differentiate between socio-economic systems along the axis of opposing different types of property and various social methods of production [3, p. 167]. The similar ideas are substantiated in the writings of D. Bell, where the author proposed the so-called multi-axis approach to explaining the transition from industrial to post-industrial society and characteristics of the latter. The main axes in this case are the

development of science and technology, changes in the structures of production and employment, changes in the social structure, the use of knowledge, changes in ownership relations, etc. American scientist M. Castells in his work «Information Age: Economics, Society and Culture» has identified that differences are delayed by another axis: between preindustrial epoch, industrialism and information civilization. Socio-economic changes take place in production in the application of appropriate types of knowledge.

Research methodology. When writing the article, such methods were used as: description, data collection, comparison, systematization, analysis and synthesis, summarization of research information on the essence and characteristics of accelerators, as well as graphic for visual illustration of the obtained results.

Highlighting previously unresolved parts of the overall problem. Whereas XX century was the era of industries based on the use of natural resources and efficient technologies, then in XXI century «artificial intellectual industries», the economy of intellectual assets will take the lead, the main factors of development whereof are not production and implementation, but the presence of an idea, a project, a program. For Ukraine, it is necessary to not only establish the sectors of the global economy as the dominant segments of national development, but to define as well the optimal long-term strategy of economic development of the state. Globalization processes are characterized by a wide range of direct impact on the economy and its performance. Large-scale social transformations are also associated with global competition and competitiveness.

Formulation of goals. The purpose of the article is to study the problems of the service economy in modern geotransformational processes.

Presentation of the main research material. Technological development of the economy involves the development of the economy through progressive changes, investment attraction, and the consistent growth of the scientific and technological sector, economy of knowledge. Delay in the development of technological setup theory, its non-use in the process of state forecasting and management leads to distortions in the development of the country.

Technological setup is the conductor of modern processes of post-industrial society.

The main problem of constructing the principles of the new economic structure in modern conditions is the factor of adapting its internal features to the national character of the industrial economy. The newest branches are specific elements of the national economy, because they are directly subordinated to the laws of global economic flows. Problems and perspectives of their functioning are a complex structure of the global and national economy. The main problem node of post-industrial design, which has been conceptually defined in recent times, was the need to develop a model for building a post-industrial humanitarian economy in a separate country.

In general, against the background of a rapid increase in the importance of the information component, the weight of the industrial forms of economic organization is decreasing. The latest technologies provide a unique opportunity for countries with limited resources to «jump» the whole cycles of industrial development, which just a few years ago had to be accomplished in order to reach the today's level of economic development of Western society.

The formation of a post-industrial society implies a new historical phase of civilization, in which the main products of production are information and knowledge. The

hallmarks of the information society are: increasing the role of information and knowledge in society; an increase in the share of information communications, products and services in the gross domestic product; creation of a global information space that provides effective information interaction of people, their access to world information resources and satisfaction of their needs with regard to information products and services.

In today's society, information is becoming the biggest value, and the industry of receiving, processing and transmitting information is transforming into a leading industry in which every year more and more significant capital is invested. According to leading scientists, information becomes an important strategic resource, the absence of which leads to significant losses in the economy. Informatization of society is one of the decisive factors for modernizing the economy on a market basis and a guarantee of Ukraine's integration into the world community.

For the first time attempts to measure information were carried out at the beginning of the nineteenth century. However, the beginning of modern information theory was laid by American Cybernetics K. Shannon in 1948, which defined the information not as a social phenomenon, but in a technical aspect. After studying the characteristics and options of measuring information, philosophical works devoted to the qualitative nature of information begin to emerge. So, according to A. Ursula, information is part of such an attribute of materialism, as a reflection that expresses diversity and can objectified, transmitted and participate in all forms of movement in nature and society. In the 70's of the XX century, as believed by V. Kashperskyi, the views on the information were as follows: «... information - it is both a meaningful connection and a functional structure, at that these aspects, correlating with stability and variability, identity and difference, cannot be reduced to either identity or difference»[4].

In the 80's, the number of publications of a philosophical nature on information has decreased significantly, which can be explained by false notions about the development of the basic theoretical provisions of the problem. Along with the discontinuation of theoretical studies of philosophers, information began to play an increasingly prominent role in socio-economic development and attract economists' attention.

The transition of economic science from the description of the information phenomenon to a more serious theoretical analysis has revealed the fundamental difficulties in economic assessments of the information strategic role in scientific, technical and socio-economic development. Economists have noted the similarity of the concepts of «information» and «knowledge», partly in the economic literature, these concepts are used as synonyms. However, similarity, but not their identity, is evident. According to A. Vashchekin, «the transformation of knowledge into information and its movement in this form to the consumer is carried out as a result of scientific information activities, consisting of a number of knowledge processing stages, its documentation, changes in form, referencing, distribution, etc.» [2]. It is worth considering that this creates new information, not knowledge, because in this case knowledge is a source of information.

Well-known economists have emphasized the importance of information, interpreting it not only as knowledge, but also directly as data and information. Thus, W. Jevons argued that political economy could turn into an exact science; for this, only relevant statistics are needed, which will enable the necessary calculations. However,

predicting the emergence of institutionalism, W. Jevons acknowledged that although the development of critical definitions, which form the basis of statistical research, requires enormous efforts and involves a thorough and skillful reasoning, with the help of such methods it is impossible to solve all economic problems.

The problem of information in the new classical direction is taken into account in order to improve the formal-logical side of the equilibrium approach and theoretical schemes by using the idea of the subjective-specific nature of the expected economic actors and their ability to predict the future.

Capital accumulation is a process that combines economic and technological changes. Since technological changes have historically defined boundaries and cycles from the growth of their role in the economy development to the reduction of such role when approaching the technological limit, they are in accordance with the processes of increasing and reducing returns. Depth of production decline, decrease of capital productivity are determined by the state of scientific and technological progress and the degree of use of its achievements. Such negative processes are inevitable, if the technical basis does not change. Conversely, scientific and technological progress, the application of new technology ensure the growth of the impact of introducing scientific and technological processes.

Contradictions particularly escalate when the technological setup is close to its limit, exhausting its potential capabilities. Therefore, overcoming this technological limit is achieved by the transition to a qualitatively new technology and technological setup [6].

The peculiarities of these processes are found in the modern information economy. After all, information and knowledge as new production resources that eliminate the problem of constraints, provide increased returns, implement the law of increasing productivity. D. Bell said: «The replacement of workers by machines leads to saving not only labor but investment as well, because each subsequent unit of capital is more efficient and productive than the previous one. Consequently, the unit of production requires less costs «[3]. Such a statement can be designed in modern conditions, where machines are technologically advanced, and an increase in investment and the level of information support leads to the improvement of existing technologies [3].

D. Bell has developed a new concept of sector theory, which separated, in addition to the third, the fourth and fifth setups. In this theory, the third sector is reduced on account of transport and utilities services; trade, finance, insurance and real estate transactions are assigned to the fourth sector; health care, education, recreation, government agencies - to the fifth. This concept of D. Bell raises a lot of controversy in the modern economic scientific environment, but its research allows to define more clearly technological setups.

According to D. Bell, changes in the social structure that took place in the middle of the twentieth century, testify to the fact that industrial society is evolving towards a post-industrial one, which should become the defining social form of the twenty-first century. [3]. He formulated the nature of the transition from industrial to postindustrial society. At the same time, a new society does not replace industrial or even agrarian, but gives a new aspect, including in the field of using data and information, which are necessary components of a society that is becoming more complex. Consequently, society does not lose anything, but increases the production potential, translates it into

a new level of development. The transition to a post-industrial society does not deny the existence of the agrarian and mining sectors. The developed industry transforms agriculture and extractive industries into the main areas where machinery, complex mechanization and automation of production are introduced. This allows to increase labor productivity and reduce employment in this sphere, and to employ the freed labor in the refining industry.

The transition to a new technological mode of production is accompanied by profound structural changes in the production sectors.

Worth noticing are looks of J. Sax, who noted that the division of labor in the world by the level of technological development is deeper than ideological differences [4]. The smaller part of the planet, where approximately 15% of population resides (developed countries), provides in practice the rest of the world with technological innovations. The second part, which covers about half of the population, can reproduce these technologies. The rest of the planet, which is inhabited by about a third of its inhabitants, is technologically detached - it does not create innovations itself and does not implement foreign technologies. J. Sax stressed that the boundaries of these regions did not always coincide with the national ones. The technologically detached region covers South Mexico, part of the tropical Central America, counties adjacent to the Andes, as well as most of the tropical Brazil, the tropical Central Africa, the greater part of the former Soviet Union, with the exception of areas bordering the markets of Europe and Asia, the remote parts of Asia, such as the states of India, which are located in the valley of the Ganges, cut off from the world Laos, Cambodia, some provinces of China. The main problems of these countries or their regions are the spread of infectious diseases, low productivity of agriculture and environmental degradation. Accordingly, they cannot handle technological changes. On the contrary, developed countries are at the post-industrial stage of development, information and intellectual technologies dominate there, the bulk of computers is concentrated, and a high standard of living is provided.

O. Toffler described the features of modern society as follows: «societies of the first wave» receive energy from living accumulators - muscular forces of men and animals - or from the sun, wind and water, goods of ordinary production are made according to an individual order, which applies to the great extent to the distribution as well. In other words, preindustrial society is characterized by both a primitive way of production, and its low level, and consequently, the corresponding conditions of life and work [5].

Absolutely correct is J. Sax' statement that «the gap in technology is far more harder to overcome than the gap in capital.»

According to S.V. Mochernyi, a post-industrial society model (D. Bell, R. Aron) envisages the most important structural elements of a post-industrial society with the participation of universities, scientific institutes and research organizations, and material productive forces cease to play a decisive role. Methodological signs of a new economic reality, which requires a detailed study, is, firstly, a characteristic of society only on the part of one of the elements of productive forces, that is, science; and secondly, the loss of property as a defining criterion for the classification of society and bringing it to a legal fiction, to property rights; and thirdly, a considerable separation from the realities of practice, even in the developed countries of the world, which are ahead of Ukraine by several decades in terms of economic potential.

In the context of the formation of a post-industrial society, the «network society» (English networker economy, networker socialy) is becoming relevant. The term «network society» was proposed by Dutchman Jan van Dyk in his book «De Netwerkmaatschappij» («Network Society», 1991) and supported by Manuel Castells in 1996. Van Dyk defined the network society as a society in which there is a combination of public and media networks, forms of its simple ways of organization and most important structures at all levels of development (personality, organization and the public). Network society goes further than information society. M. Castells argues that it is not a pure technology that defines modern societies, but also the cultural, economic and political components of a network society. The influence of such factors as religion, cultural education, political organizations and social status is taken into account. Van Dyk argues that a network society is a social structure based on the operation of the information and communication technology network, microelectronics and digital computer networks that generate, process and disseminate information based on the knowledge gained in the nodes «networks» (networks). A network society can be defined as a public institution. Networks are not new. New are microelectronics, network technologies, which provide new opportunities for the old form of social organization.

Conclusions and prospects for further scientific research. The network economy can be viewed from several perspectives: the transition from an industrial economy to a post-industrial, as digital and information infrastructure, from a standpoint of intellectual property rights. According to the transitional views, of Melon (1998), for example, the information revolution has changed the nature of entrepreneurial activity. Since the information can be used immediately and without any cost at a global scale, the cost of centralized decision making is greatly reduced. The network economy is the leader of a post-industrial society, and at the same time it can be considered a catalyst for technological development of the country. Also, it should be noted that the network economy is considered as an evolutionary factor of influence on geospecialization.

Список літератури

1. Грущинська Н.М. Світові процеси в умовах сучасних трансформацій під впливом Covid-19. *Стратегія розвитку України*. 2020 [Електронний ресурс]. — Режим доступу: http://www.niss.gov.ua/articles/975/. [Українською мовою].
2. Грущинська Н.М. Емоційна економіка в цифрових трансформаціях /Н.М.Грущинська// *Науковий вісник Міжнародного гуманітарного університету. Серія: Економіка і менеджмент: зб. наукових праць*. 2020 [Електронний ресурс]. — Режим доступу: http://www.vestnik-econom.mgu.od.ua/journal/2020/45-2020/4.pdf. [Українською мовою].
3. Грущинська Н.М. Національний брендинг у забезпеченні міжнародної спеціалізації національної економіки. *Вісник ХНАУ*. 2021 [Електронний ресурс]. — Режим доступу: https://repo.btu.kharkov.ua/bitstream/123456789/2786/1/statta_grusinska_nacionalnij_brending_v_zabezpecenni_miznarodnoi_specializacii_%20nacionalnoi_ekonomiki.pdf. [Українською мовою].
4. Вергун В.А. Економічна дипломатія в системі факторів міжнародної конкурентоспроможності України. *Актуальні проблеми міжнародних відносин.* — 2008. - № 74. — Ч. 1. — С. 150—154. [Українською мовою].

5. Фліссак К.А. (2013) Економічна дипломатія. *Новий колір.* — 2013. — 440 с. [Українською мовою].
6. Протеро С. Вісім релігії, які панують у світі: *Book Chef*. — 2021. — 440 с. [Українською мовою].

References

1. Hrushchynska N.M. (2020). Svitovi protsesy v umovakh suchasnykh transformatsii pid vplyvom Covid-19. *Stratehiia rozvytku Ukrainy*. [Electronic resource]. — Mode of access: http://www.niss.gov.ua/ articles/975/. [In Ukrainian].
2. Hrushchynska N.M. (2020). Emotsiina ekonomiia v tsyfrovykh transformatsiiakh /N.M.Hrushchynska// *Naukovyi visnyk Mizhnarodnoho humanitarnoho universytetu. Seriia: Ekonomika i menedzhment: zb. naukovykh prats* [Electronic resource]. — Mode of access: http://www.vestnik-econom.mgu.od.ua/journal/2020/45-2020/4.pdf. [In Ukrainian].
3. Hrushchynska N.M. (2021). Natsionalnyi brendynh u zabezpechenni mizhnarodnoi spetsializatsii natsionalnoi ekonomiky. *Visnyk KhNAU*. [Electronic resource]. — Mode of access: https://repo.btu.kharkov.ua/bitstream/123456789/2786/1statta_grusinska_nacionalnij_brending_v_zabezpecenni_miznarodnoi_specializacii_%20nacionalnoi_ekonomiki.pdf. [In Ukrainian].
4. Verhun V.A. (2008). Ekonomichna dyplomatiia v systemi faktoriv mizhnarodnoi konkurentospromozhnosti Ukrainy. *Aktualni problemy mizhnarodnykh vidnosyn*. — No. 74. — Part 1. — P. 150—154. [In Ukrainian].
5. Flissak K.A. (2013) Ekonomichna dyplomatiia. New color. — 440 p. [In Ukrainian].
6. Protero S. (2021). Visim relihii, yaki panuiut u sviti: Book Chef. — 440 p. [In Ukrainian].