Scientific Editor
Walery Okulicz-Kozaryn

TRENDS AND PROSPECTS FOR THE WORLD ECONOMY AND INTERNATIONAL ECONOMIC RELATIONS

Monograph

POLISH ECONOMIC SOCIETY

CZESTOCHOWA SECTION

Częstochowa 2020

Reviewers:
Halina Shmarlouskaya, Dr. hab. of Economics, Professor, Belarusian State Economic University, Belarus

Maryna M. Dielini, Doctor of Economic Sciences, Professor, National University of Life and Environmental Sciences of Ukraine, Ukraine

Scientific Editor:
Walery Okulicz-Kozaryn, Dr. hab., MBA, Professor, School of Entrepreneurship, Wroclaw University of Environmental and Life Sciences

AUTHORS
Part I : **Polous Olga**, **Orokhovska Liudmyla**, **Koshetar Uliana, Salkova Iryna**
Part II: **Zhavoronkova Galyna**, **Zhavoronkov Volodymyr**, **Kovalenko Nataliia**
Part III: **Mykhalchenko Inna**, **Simakhova Anastasiia**, **Miziuk Svitlana**
Part IV: **Kniazieva Tetiana**, **Radchenko Hanna**.

Publisher: Polish Eonomic Society, 2020.
Czestochowa Section, POLSKA, ul. Kilińskiego 32/34, Częstochowa

ISBN 978-83-65343-19-2

Published by: Polish Eonomic Society Czestochowa Section

Corector editor: Małgorzata Romanowska
Cover design: Małgorzata Romanowska
Printing: PTE O/Częstochowa

Trends and prospects for the world economy and international economic relations: Collective monograph/ Edited by Walery Okulicz-Kozaryn, dr. hab., MBA, Professor, School of Entrepreneurship, Wroclaw University of Environmental and Life Sciences.– 2020. - 179 p**.** ISBN 978-83-65343-19-2

POLISH ECONOMIC SOCIETY
CZESTOCHOWA SECTION

Częstochowa 2020

ISBN 978-83-65343-19-2

POLISH ECONOMIC SOCIETY
CZESTOCHOWA SECTION

Częstochowa 2020

Collective monograph devoted to the analysis of transformations in the world economy in the era of globalization. Studies have consistently taken into account that the processes of transnationalization of the economy affect the economic activities of all countries, strengthen and strengthen global economic relations, transform the social structure of society. However, economic development also causes a number of negative trends and threats in the field of environment, which requires the coordination of efforts of the world community to prevent environmental disasters.

The monograph presents the research results showing that economic development and socio-political transformations in Ukraine raise a number of issues, the solution of which will depend on the further progress of Ukrainian society, its inclusion into the circle of developed economies.

The monograph can be useful for scientists, teachers, doctoral students, graduate students, undergraduates and all who are interested in the problem of indirectness of society in the economic sphere.

The research results are published by the authors in the original language. The published materials reflect the authors' own opinion and scientific position and may not coincide with the editors' point of view. The authors are responsible for the content of the materials.

CONTENT

INTRODUCTION

Globalization, which began in the last decades of the twentieth century, encourages researchers to understand the features of socio-economic development of society, identify the trends in the world economy and the development of international relations. The global social, economic, environmental and cultural space, which for millennia was a conglomerate of different nation-states, is now becoming a space without borders.

The basis of globalization is the information revolution, as a result of which the sphere of human activity began to unite on the power of information and knowledge. Access to information technology affects the capabilities of individual countries, the formation of world leadership and the division of markets. The reality of the information society has become the work on the Internet (creation of programs, reference websites, catalogs, professional and popular magazines, Internet trade, Internet services, etc.).

The formation of global links in the economic, financial, cultural, legal and political spheres in the era of globalization raises the question of the nature of international relations, the nature of links and interactions between local communities, i.e. individual ethnic groups, countries and regions.

The COVID -19 epidemics has become a challenge that leads us to reconsider the need to coordinate the efforts of the entire human community. As a result of the quarantine measures, there has been an imbalance in the global economy due to the disruption of the supply chain; there has been a collapse in oil prices, the largest since the Gulf War in 1991; global stock markets have experienced their largest and sharpest decline since the 2008 global financial crisis; there has been a reduction in the supply of goods, exacerbated by the accumulation of stocks and the collapse in demand due to people's self-isolation (except for medical products where there has been a huge increase in demand), traditional trade has given way to online shopping.

Of great concern is the state of the globe's ecology, which is being openly sacrificed to the interests of capital. The ideology of overconsumption is absorbing more and more natural resources, leading to irreversible changes in the environment with disastrous consequences for the world. These problems make us think that all residents are citizen's world, that there is no alternative to a single humanity, and therefore in the interests of preserving civilization on the planet must exist not only in common for all principles and rules of coexistence, but also a common responsibility for the fate of the Earth. The formation of global economic connections,

ecological and demographic challenges cannot be solved alone, with local efforts and means. Globalization must be shaped to bring out its positive potential, and this requires the coordination of global programs, the open work of international organizations and economic institutions: the IMF, WB, the WTO and others.

The team of authors sincerely thanks the Polish Economic Society and personally Walery Okulicz-Kozaryn, Dr. hab., MBA, Professor, Wroclaw University of Environmental and Life Sciences (Poland) and reviewers Halina Shmarlouskaya, Doctor hab. of Economics, Professor, Belarusian State Economic University (Belarus) and Maryna M. Dielini, Doctor of Economic Sciences, Professor, National University of Life and Environmental Sciences of Ukraine (Ukraine).

I. TRANSFORMATIONS OF MODERN WORLD ECONOMIC PROCESSES IN THE TRENDS OF TECHNO-GLOBALIZATION

1.1. GENESIS OF SCIENTIFIC APPROACHES TO UNDERSTANDING THE ECONOMIC ACTIVITIES` INTELLECTUALIZATION PROCESS

The main approaches to the study of economic activities` intellectualization are considered, which allowed to establish the fact of the difficulty of determining the exact time of occurrence of this process. The essence and economic content of intellectual revolutions are highlighted. The characteristics of the phases for the stage of intellectual revolution are given on the basis of the idea of redistribution of elements and functions, which reflect the interrelationships between subjects, information and methods of its use in economy and society. It is proposed to identify additional stages of intellectual revolutions based on a number of historical facts and events that directly affect the development of the economy and society. It is determined that intellectualization changes are most actively carried out by developed Western countries and are expressed in special indicators. It is established that intellectual revolutions led to the formation of a new direction of economic theory, the representatives of which studied the patterns of formation and development of the knowledge-based economy. The bipolarity of the knowledge economy is argued. The importance of the organizational concept to ensure the implementation of the processes of economic activities` intellectualization of the enterprise is emphasized.

Keywords: intellect, intellectualization, intellectual revolution, human capital, enterprise, economic activity, factors of production

Introduction. Leading modern researchers often come to the conclusion that the economic activity of entities of different levels is based primarily on knowledge and their effective use. This statement follows from the well-known factor that any production is the result of the interaction of the personal factor of production (carrier of knowledge and human capital) and the material factor of production, which is "activated" through the use of intelligence and application of a set of kills, which were obtained on the basis of the acquisition of certain knowledge. It is logical to assume that value added is created by intelligence (carrier of human capital) transferred to the production process and embodied in the means of labor and raw materials that have been modified and acquired the necessary state through its use, because all resource components of the production process become necessary and used only after discovering and development of technologies that allow them to fit organically into the production process. Understanding the importance and priority of the processes of economic activities` intellectualization

at all levels raises the issue of research of scientific approaches to understanding this concept. Representatives of science and business emphasize the importance of knowledge for economic growth and development, emphasize the priority of improving the principles and methods of studying the economic content of the intellectualization process and developing effective methods of its analysis, because currently economics operates a number of approaches based on use of quality information, which is extremely difficult to quantify and evaluate.

The essence and economic content of intellectual revolutions

Consideration of a number of sources and approaches to the study of the intellectualization of economic activity allows us to talk about the difficulty of determining the exact time of appearance of this process. It seems appropriate to focus on the consideration of intellectual structures, which, by analogy with the technological modes, replaced each other. Comparative analysis of these structures makes it possible to identify the degree of intellectualization of the economy by determining the level of development of individual elements of the economic system - labor, capital, property, rent, potential, enterprises. These components acquire signs of innovation and intellectual saturation, generate added value and contribute to the formation of excess knowledge, which intensifies the processes of technology transfer and additional income.

Also, the process of intellectualization of economic activity is seen as irrational to consider separately from the statement and formation of logical thinking, intelligence and human capital of the subject of economic relations, because the growth of these characteristics of the individual directly affects the intensification of labor and efficiency of economic interaction.

In the context of this study, we should consider the hypothesis of K. Nordstrom and J. Ridderstrale on the three intellectual revolutions. According to this hypothesis, the next three stages of revolution are separated:

1. The first intellectual revolution (1455) - the invention of the printing press by I. Gutenberg.

2. The second intellectual revolution (late 1800s to early 1900s) -the mass distribution of radio and then television.

3. The third intellectual revolution (early 1990s) - the development and distribution of the Internet (K. Nordstrom and J. Ridderstrale, 2000, p. 71).

Considering the presented higher stages of intellectual revolutions, we can see that they differ from each other in the degree of availability of information, the mechanism of its dissemination, the speed of this dissemination, as well as reducing the cost of obtaining and analyzing the necessary information. If we draw a parallel with the processes inherent in modern enterprise, we can talk about simplifying the reproduction of information through greater availability of means of its distribution and exchange between economic entities.

In the intellectual revolutions, there are five phases that correspond to the dominance of the links between the functioning and development of the processes of intellectualization of economic activity. These phases, in our

opinion, are most accurately represented in the theory of evolution of social systems, which is illustrated by the Poret diagram (Fig. 1).

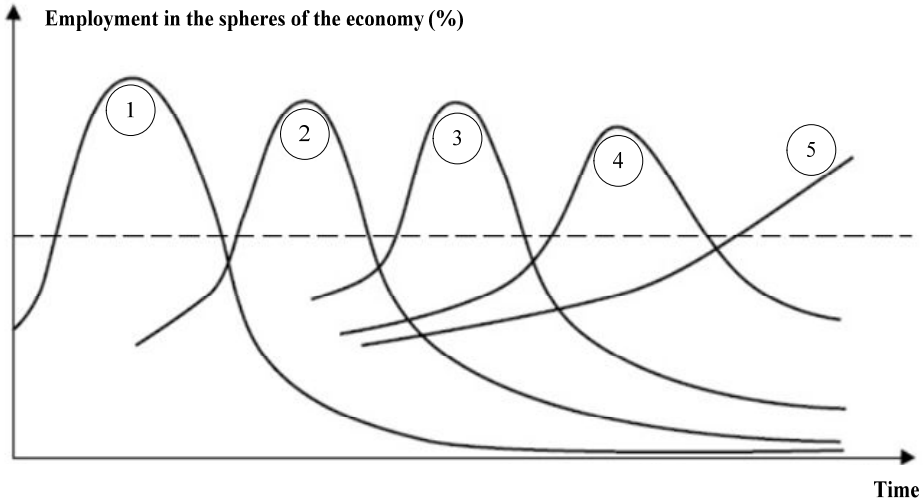

Fig. 1. Poret's diagram.
1 - employment in food production (agrarian society);
2 - in material production (industrial society);
3- in the field of services (post-industrial society);
4 - in the field of information services (information society);
5 - in the field of intellectual activity (noosphere society)
Source: (Porat M., 1978, p. 76)

Poret's diagram reflects the logic of the evolution of social order in a noosphere society. Noosphere-economic dialectic is the formation of positive feedback, which characterizes the interaction of rational economic activity with the rationality of the system of human needs (Porat M., 1978, p. 76). Such a phenomenon is called in the works of E. Toffler "prosumerism", which is based on the understanding of work as a form of satisfaction of spiritual needs, provided that free time and working time become virtually inseparable (E. Toffler, 2004).

Thus, during one stage of the intellectual revolution, one can observe a redistribution of elements and functions that reflect the relationships between actors, information and methods of its use in the economy and society, which takes a certain amount of time to invent and implement new, more effective forms and methods of information processing. Accordingly, at each stage it is possible to observe an active phase, which is accompanied by the development of information relationships, their dissemination, after which structural changes in this process decline somewhat due to the temporary sufficiency of available methods of collecting and disseminating information for the needs of entities and the transition to a passive phase of their use. Social and economic challenges intensify the need to intellectualize the above processes and facilitate the transition

to the transformation phase, which requires the development of new methods and ways of working with information resources.

Based on the idea of the phases adopted at each stage of the intellectual revolution, we can expand the hypothesis of K. Nordstrom and J. Ridderstrale, assuming the existence of at least a few more stages of the revolution between the first and second stage, given in their hypothesis. The existence of these stages can be justified by the following historical facts and events:

- spread in the 18th century in the Enlightenment ideas of equality and freedom. These ideas have strengthened the motivation to acquire knowledge, investment in education has become economically viable and began to pay dividends;
- industrial and agrarian revolutions led to an increase in productivity in the transition from hand tools to machine production;
- equipping labor processes with mechanisms that provided conditions for the application of technologies of continuous production and performance of specialized operations. In turn, mechanized production and the mechanisms themselves required continuous improvement of the skills of workers who worked with them, increasing the degree of interconnection between inventions and their practical application;
- formation of large industrial centers - generators and coordinators of national and international flows of capital and knowledge. It is possible to tell about an initial stage of display of effect of diffusion of knowledge («spillover effect»);
- development of new requirements and approaches to personnel training. Professional education of workers at existing manufactories in the process of deepening the processes of division of labor and its specialization. Training of engineering and technical staff in leading European universities, real high schools and industrial centers has been intensified;
- creation of market mechanisms to stimulate inventive activity and its popularization. Subsidizing research, providing state support for the implementation of technical inventions.

The result of the above intellectual and economic transformations was the formation of conditions for the development of one of the modern directions of economic development - its intellectualization. Intellectualization changes are most actively carried out by developed Western countries and are expressed in increasing the share of those engaged in intellectual work, increasing its importance for the development of society and economy, increasing the percentage of new knowledge that finds its material expression in new forms of capital, technology, equipment, personnel training systems, organization of production, turn science into a key productive force. Yes, Ericsson, a leading multinational corporation, spends more than 50% of its costs on services and intellectual work. At companies such as Hewlett-Packard and IBM, this cost is close to 80-90%.

Scientific approaches to understanding the process of economic activities` intellectualization

Intellectual revolutions led to the formation of a new direction of economic theory, whose representatives studied the patterns of formation and development

of the knowledge-based economy (knowledge economy). At the same time, the knowledge economy is very difficult to define unambiguously, because it combines the harmonious development of two economic paradigms of post-industrial society:

- theory of knowledge economy, which is based on an integrated socio-economic type of management with the priority of the idea of the value of knowledge as a major factor in sustainable development (V.I Vernadsky's theory of the noosphere, P. Sorokin's integral society) (V.I Vernadsky, 1991; P.A. Sorokin, 1997);

- theory of information economy or system of economic relations, the formation and features of which are due to the development of new technologies and the speed of information dissemination (theory of post-industrial economy: D. Bell, J. Galbraith, E. Toffler, D. Riesman, G. Kahn, V. Inozemtsev etc.) (D. Bell, 1999; E. Toffler, 2004).

At first glance, the processes of intellectualization of economic activity seem quite simple and definite. Thus, intelligence in relation to an individual enterprise is a fundamentally new qualitative characteristic of the workforce, which can be defined as a set of knowledge that is largely or partially alienated from its creators and constitutes commercial value for the enterprise and its competitors. On the other hand, intellectual capital is the ability of workers to perform a specific set of abor functions, to adapt to external and internal conditions, to understand, use and implement new, more effective ways to ensure the activities of the enterprise. Thus, the definition of intellectual capital eliminates the possibility of its alienation from the holders, because then they will be unable to perform their functions and generate new benefits for the company.

Let’s consider the definition of "intelligence" and "intellectualization" to form a fuller understanding of the process of intellectualization of economic activity.

Intelligence (from the Latin Intellectus "perception", "understanding", "concept", "mind") or the mind in the most general sense - is a property of the human psyche, its adaptability to the environment, the ability to learn and remember, understand and use abstract concepts, the application of knowledge in behavior management (Eisenk G., Kamin L., 2002).

Intelligence (mind) is defined as a system that has the ability to conscious (to varying degrees) purposeful mental activity (in relation to themselves and the world around them, other intellects and their communities, using the results of their activities and their potential), the results of which it can give qualitative (moral and other) assessment and adjust their activities on the basis (within) the existing level of intelligence, morality, freedom of creativity and will (Kolomiets B.K., 2010).

In science, there are many other positions of the authors on the concept of "intelligence", which complement and enrich the understanding of this category. In addition, scientists identify different types of intelligence and ways of its development, which is described in detail in the literature on the training of human intellectual abilities (Eisenk G., 2017).

Analysis of scientific works of various authors who consider intelligence and the process of intellectualization allows us to determine that the interpretation of these concepts is usually based on the degree of coverage of the subjects of influence, assuming general intellectualization (economy, country, region, world) and partial, professional (narrower), which provides for the development of competencies and skills of the individual in a particular field of activity. This is a process of knowledge enrichment, where the key factors are education, experience, the ability and willingness to increase it, taking into account the experience and knowledge of previous generations and genetics. K. Marx wrote that: "the accumulation of skill and knowledge (scientific power) of the workers themselves is the main accumulation ...." (Marx K., Engels F., 1964).

The process of intellectualization is carried out in different directions, manifesting itself in a variety of characteristics. According to O.V Belyaeva, the main ones are the formation of intellectual self-awareness and intellectual culture of specialists, their achievement of cognitive literacy, development of methodological and information culture. The complex of these features is characteristic of the current level of intellectual development of both individuals and groups, and society as a whole (Belyaeva O.V., 2011).

The main components and results of intellectualization are (Kolomiets B.K., 2017):

- providing intelligence with the necessary means for intellectual activity (IA) (starting with information and technology);
- formalization and further redistribution of individual operations, and then functions between people and computers, giving way to human-machine and computer programs - from simple to complex functions of intellectual activity;
- creation and development of new virtual (computer) worlds, realization of intellectual activity of people in traditional (material) and in computer (multidimensional) worlds;
- along with the existing intelligence-human (and on their basis various group - social and aggregate-social intellects) creation of new types of intelligence: hybrid (human-machine) and artificial on new carriers (along with biological - human brain) - from electronic to quantum, nano, etc. computers, avatars and robots in the future;
- accelerated growth of the number and variety of artificial and hybrid intelligences, their efficiency;
- accelerated growth of the volume ("mass") of information produced by the collective intelligence of the world community.

The development of intelligent robotics and, first of all, social and household robotics begins to have a noticeable influence on the transformation of the human life world. Social robots are robots of various purposes, involved in everyday human life and the social sphere (Manko S.V., Lokhin V.M., Romanov M.P., 2015).

The intellectualization of the enterprise in the electronic era is a process of knowledge formation as a form of "intangible capital" and the use of information

technology and systems (IT/S) in order to make it possible to obtain and use knowledge.

This activity finds its expression in the form of organizational models (self-learning, hypertext organizations, virtual corporations, where most of the company's work and operations take place either in the human mind or in the virtual electronic space) (Witzel M., 2002).

The concept of the learning organization is related to the work of P. Senge "Fifth Discipline", published in 1990 (Senge P., 1990). In his research, he shifted the emphasis from optimizing learning processes to the formation of the ability to learn in any organization. P. Sange points out that a learning organization is an organization where you can't not learn something, because learning is woven into the fabric of life. Consider the five technological components of the learning organization, which he identified (Table 1).

Table 1

Technological components of the learning organization concept

Elements of the learning organization concept	Characteristic
1. System thinking	Understanding by each employee of the organization that the overall result of its activities depends on the actions of each of them
2. Personal skill	Sufficient level of knowledge, skills and responsibilities of the company's employees
3. Models of mentality	Rigid assumptions, generalizations, or perceptions that affect understanding of the world and the actions we take
4. Formation of a common vision	Development of a unified strategy of the organization, as well as the definition of specific plans of individual structural units for its implementation
5. Group training	Mutual learning in the process of joint activities, the result of which is an increase in its effectiveness. The effect of group learning cannot be achieved if individual goals prevail over common ones and if there is no common vision of the problems

Source: built on the basis (Senge P., 1990)

These models operate both at the level of individual consciousness and a the group level. Their review due to the rapidly changing conditions of life is always a serious problem for the company's management.

Models and methods developed on the basis of the concept of "learning organization" have a high heuristic value, help managers to more deeply and productively organize learning processes in enterprises. Although the concept of organizational learning remains the focus of intellectual resource management,

the potential of organizational learning is still not fully exploited even in the economies of the most developed countries.

The central term of the concept of intellectual enterprise M. Rubinstein and A. Firstenberg consider actions "on the verge of chaos" (edge of chaos) (Rubinstein M., Firstenberg A., 2003). The intellectual enterprise itself is also considered as the most effective form of capital acquisition and therefore it must have specific qualities in some crucial areas of activity, such as intellectual (traditional and heuristic) management; innovative mechanisms; business mechanisms (capital, partnership and competition); mechanisms of enterprise adaptation in the market; quality system; investment attractiveness of the enterprise (Tsyganov V.V., Borodin V.A., Shishkin G.B., 2004).

An integral part of the intellectual capital of new generation enterprises are intellectual abilities (competencies) that can be identified, transferred to others, evaluated and practically used on a planned basis, including in the management system. That is why it is completely impractical to consider the management of intellectual abilities in the enterprise in isolation from intellectual capital and vice versa.

Intellectual abilities are the most dynamic component of intellectual capital, which is very difficult to quantify. They should be considered as real and potential capabilities of individuals or groups of people who are able to perform complex work or operations. Intellectual abilities are the most difficult to measure, they are the least stable, as they require constant development and training.

Conclusions. Currently, scientific hypotheses and concepts of intellectualization of the economy, the assessment of its place in the system of general laws of development of economic relations and activities are characterized by incompleteness. The holistic concept of intellectualization of the economy has not yet been formed, as there is no complete set of necessary prerequisites for the evolution of intellectual knowledge, both nationally and globally, the role and importance of knowledge-intensive and high-tech industries, education, industrial and scientific experience, human capital. At the same time, the study of this scientific direction reveals a clear trend to increase the role of intelligence, knowledge, professionalism of the employee as the main productive resources of modern social production, which is able to provide the company with a competitive position on the market.

References

Bell D. (1999) *The coming post-industrial society*. M: Academy (in Russian).
Belyaeva O.V. (2011) *Intellectualization of Education in the Modern Knowledge Society: role and prospects*. URL: http://viperson.ru/wind.php?id=644842 (accessed: 01/04/2021). (in Russian).
Eysenck G. (2017) *IQ. Megamind. Unleash the possibilities of your intellect.* M.: Eksmo (in Russian).
Eysenck G., Kemin L. (2002) *The nature of intelligence - the battle for mind: how intelligence is formed*. M.: Eksmo-Press (in Russian).
Inozemtsev V. (1997) *The theory of post-industrial society as a methodological paradigm of Russian social science*. "Questions of Philosophy". № 10 (in Russian).
Kolomiets B.K. (2010) *To the modeling of intelligence.* M.: ICPKPS. (in Russian).
Kolomiets B.K. (2017) *Informatization and intellectualization of activities and education.* «Alma mater (Higher school bulletin)». № 11. (in Russian).
Manko S.V., Lokhin V.M., Romanov M.P. (2015) *The concept of building multi-agent robotic systems.* «Russian technological journal». T. 1. № 3 (8). 156-165 (in Russian).
Marx K., Engels F. (1964) Collected Works. T. 26, P. III (in Russian).
Nordstrom K., Ridderstrale J. (2000) *Funky business: capital dances to the tune of talent*. Stockholm School of Economics in St. Petersburg. (in Russian).
PoratM. (1978) *Global implications of information Society*. J. Community.
Rubinstein M., Firstenberg A. (2003) *Intelligent organization.* M.: INFRA-M (in Russian).
Senge P. (1990) *The Fifth Discipline: The Art and Practice of the Learning Organization*. Doubleday.
Sorokin P.A. (1997) *The main trends of our time.* M.: Science (in Russian).
Toffler E. (2004) *Third wave.*M.: ACT (in Russian).
Tsyganov V.V., Borodin V.A., Shishkin G.B. (2004) *Intellectual enterprise: mechanisms for mastering capital and power (theory and practice of managing the evolution of an organization).* M.: University book (in Russian).
Vernadsky V.I. (1991) *Scientific thought as a planetary phenomenon.* M.: Science (in Russian).
Witzel M. (2002) *Knowledge corporation. Information technology in business.*SPb.: Piter (inRussian).

1.2. SOCIAL ATOMIZATION AS A PHENOMENON OF INFORMATION SOCIETY

Abstract. The transformation of the individualization of society into its atomization became the peculiarity of social dynamics in the information era which entailed technological innovations in the field of mass media in the last quarter of the twentieth century, primarily the invention of the Internet, which made it possible for individuals to build their networks on-line and off-line based on their own interests, values, projects, formed a new model of communicability. Electronic media have become a factor that has intensified social atomization as a phenomenon of the collapse of social ties, led to the emergence of new virtual communities, forms of socialization, lifestyles and forms of social activity. Virtual reality transforms both the consciousness of individuals, who increasingly live the reality of their fictional new culture, the illusory world, and public consciousness, which leads to its evolution towards the progress of individual rather than collective consciousness, exacerbates the collapse of social institutions and leads to the decline of social life.
Keywords: social dynamics, information age, Internet, atomization, individualization.

Introduction. Innovative changes in society are also changing anthropological characteristics, which are basic for the civilizational development of mankind. Man lives in a world filled with the senses and meanings of the creative activities of the community, designed its social reality. Standards of conduct that would be generally accepted are produced in the process of communication both in the sphere of life and in the workplace. The dominant way of communication affects the type of society culture in a certain historical period.

The influence of inventions in the field of communication on public consciousness

The public consciousness at all times was influenced by inventions and discoveries. In particular, the invention of writing and the use of papyrus in ancient times strengthened the bureaucratic and centralized organization of remote areas and influenced the process of creating empires of the Ancient world. Since in the Mediterranean the ship turned out to be the main means of communication, communication and trade, the Greeks intensively developed shipbuilding.

In the Renaissance, the European experience of shipbuilding became a prerequisite for the creation of technical means of mastering the world's ocean, made it possible to make great geographical discoveries, conduct trade and send Christian missionaries to all parts of the world. The invention of printing during this period intensified social space within national borders.

In the second half of the 20th century. a new industrial revolution began, called the "third wave" (post-industrial stage). IT technologies have ensured

the dissemination of information on a global scale, and have created conditions for interactive communications. The influence of the technological sphere of IT technologies leads to a change in the human habitat, the formation of a certain socio-economic system. IT technologies which became the basis of economic globalization, led to the introduction of new forms in economic activity, new methods by which the production and marketing of goods and services is organized. The result of the introduction of networks was a virtual economy and electronic business, round-the-clock online trading with access from any part of the world.

In the global communication space, computer technologies and the Internet influence various spheres of society, become direct participants in the formation of both the individual and society as a whole, they are actively used in areas that bring commercial profit: cinema, television, video clips, advertising business and PR companies, trade, finance, etc. Thanks to the unfortunate information and communication flows, the movement of capital, trade, production chains, the movement of technology, mass tourism, labour migration, scientific communication freely began to penetrate through the borders of national states. Internet and cellular communications have become the types of media that have increased the speed of movement of information, financial and economic flows, and the availability of information throughout the world.

The social system of the information society is based on networks that feed on information, are provided by microelectronics and communication technologies. The invention of Tim Berners-Lee of the WWW network allowed thanks to the concepts of URL, HTTP, HTML, to move from site to site, to distribute information, crossing the conditional borders of countries. This contributed to the creation of new projects, services and types of communication. Historically, networks existed earlier, but before the revolution in microelectronics, according to M. Castels, they were inferior to vertical hierarchical organizations. This is due to the fact that, having overgrown a certain limit, the networks owned a less efficient mode of organization, partly due to the time required for communication with the entire network (Castells, 2001).

The Internet provides high speed, the ability quickly to replace information, its instant distribution, total coverage. The network unites organizations, enterprises, states, public associations. Electronic media have created the conditions for the formation of new communities both nationally and interethnically. Networks have become a vehicle for creating global structures in various areas of society: the economy, culture, politics, including terrorist ones, exemplified by Al-Qaeda.

Financial globalization, intensification of world trade, the trend towards convergence, the establishment of international economic ties, the formation of world markets, the process of directing production forces to common standards, the emergence of "technological macrosystems" in the spheres of communication, transport, production would be impossible without the functioning of Networks. It is thanks to the latest information technologies that global TNCs have become possible and their competitiveness has been strengthened.

The development of electronic means of communication contributes to the almost instantaneous movement of capital to any region of the world, in the pursuit of profit, in fact, levels the state borders, sovereignty, and national identity of peoples. Money ceases to be tied to the real sector of the economy, to material production. Finance turns into speculative capital, which has almost nothing to do with the production of goods and services. Money and loans are out of the control of individual states and can be transferred to any place in the world. Information technologies has enabled the development of "e-commerce" as an economic activity carried out using computer networks and includes: Electronic Data Interchange, EDI; Electronic Funds Transfer, EFT; e-cash; e-marketing; e-banking; e-insurance; e-mail, fax, computer-to-fax system, e-catalogs, e-bulletin boards (BBS), intranet (exchange of information within the company), extranet (exchange of information with the outside world), etc.

Business entities, thanks to global networks, were able to act quickly and strategically, respond instantly to the markets of basic economic resources and to changes in the course of world policy. The reality of our time was the virtual economy and electronic business. Large financial markets have switched to round-the-clock online real-time trading, with access from any part of the world. Also in a networked society, digital technologies have become the basis of the supply chain.

The quality characteristic of the information society is such an indicator as the employment of the working population in the sphere of production, processing, management and exchange of information. Only with the development of scientific and technological progress, the processes of obtaining and disseminating knowledge become a massive phenomenon, and at the turn of the 21st century. a knowledge economy is formed, the essence of which is that knowledge becomes a decisive factor in production, and professions with a predominance of intellectual labor account mainly for an increase in employment: 85% in the USA, 90% in Japan (Luhmann, 2004, p. 239).

It was computerization that led to significant changes in production processes, most affected the activities of “white-collar workers” and managers, and began to consider society from the position of a "machine for the production of wealth." If before only brokers created wealth by manipulating shares, now manipulating information as a means of creating wealth is no longer a monopoly of the exchange player. Now every engineer is engaged in it in the same degree and the entire communication industry. So, the emergence of electronic media leads to the introduction of new forms in economic activity, new methods by which the production and sale of goods and services is organized. Not so much as symbols and codified knowledge become the value of such a virtual economy.

New media are also changing the nature and working conditions. D. Bell characterizes the information (post-industrial) society as a service society: "The post-industrial society is based on services. Therefore, it is a game between people. The main importance is no longer the strength of muscles and not energy, but information. The main actor becomes a professional because his education

and experience allow him to meet all the requirements that post-industrial society puts forward"(Bell, 1974). According to D. Bell the nature of labour in modern society changes in two ways. First, modern production requires highly skilled labour. Instead of working in large enterprises subordinate to the rhythm of the conveyor, modern workers work in small firms where labour does not have as much alienation as in factories. Secondly, modern work, first of all within the service sector, is the work connected with human communication, the agreement, beginning from the seller of air tickets to work of university professors. "Revolutions in the sphere of transport and information transfer which are the consequence of the development of technology, created new economic relationships and new social interactions" (Bell, 1974). The fact that a person's work now consists more of a conversation with another than in interaction with a machine is fundamental to the characterization of work in a post-industrial society.

Internet networks are changing the principles that underpin the management of labour and social processes. The interactivity provided by the Network makes it possible to establish interaction in real or selected time with all participants in the production process (suppliers, customers, subcontractors and employees), provides a higher level of consistency between partners in the business. The use of information and communication technologies allows to provide a new form to our daily schedules and even our concept of time. Computers have made flexible working hours possible. They allow workers to access and modify data both synchronously and asynchronously. With the development of the Internet, the need for giant socio-economic and political structures has disappeared. Information technologies made it possible to replace mass standardized production with a system of computerized production and move to small centralized enterprises, to local structures of the lower level. The final product of such production is no longer millions of identical standardized goods, but individual food and services. The best way to organize such production and labour is adhocracy (from Latin ad hoc – according to circumstances), which means a temporary, situational organization aimed at solving any particular task, the implementation of a specific project in which each organizational component is a free module and interacts with other components of the organization not only vertically, but also horizontally.

Decisions that are made by adhocracy, like goods and services, are de-standardized. Work for most people becomes variable, destandardized, which is not repeated and is responsible, requiring the individual to be able to act freely, make independent decisions, evaluate and judge, and constantly be ready to change the sphere of employment and profession. But such quality of work generates also psychological loading, a stress, fear to be the unemployed because you "became outdated", "lagged behind", wasn't in time". To this should be added that the high level of innovativeness, the speed of changes and unpredictability, the non-standardized social context allows the individual to develop a stable orientation in the world, manage the course of life, does not indicate the meaning of life. A person who lives in a fragmented world and is constantly subjected

to technological aggression is not able to integrate and comprehend his experience of existence in the world. At the same time, the process of labour construction is underway, thanks to new technologies of society, more and more wealth is being produced, while less and less labour is being spent. Not just the number of "potential unemployed" is growing, the number of people who do not have a "permanent place" in society is growing.

Changing the organization of labour in the information society accelerates the destruction of class, corporate, professional identity, leads to a change in the social order, which was the guarantor of stability, acted in the form of a system of orientations. If the industrial society was dominated by a system of production, in which everyone had his own place and system of roles within the regulated, hierarchical team, created inextricable unity with other social subsystems, supported and consolidated them, then in a post-industrial society, instead of centralization, regionalization occurs, instead of hierarchy and bureaucratization – democratization, instead of competition – disengagement, instead of standardization – individualization. In the post-industrial era, when there is an orientation towards innovation, the application of creative finds of individual individuals, various talents and abilities of people become in demand. That is, there is a change in the "social character" of the person of the information society, which is required in the work of greater independence in decision-making, creative dedication, original, non-standard approaches. That is, electronic media, as a means of activating intellectual activity, increase the opportunities for creative expression of the individual and stimulate the tendency for workers to form an individualistic position.

The structure of the Internet leads to a new model of inter-human interaction, accompanied by changes in the production system, which requires more and more individualized workers. A hierarchical way of organizing production comes to the place of a structure in which there is no pinnacle of power, there is no pyramid, but there is an operational interaction of structural nuclei, each of which, with its own full responsibility and freedom of decision, performs its own set of actions. Cores are combined within a joint organized structure, capable of replacing each other and exchanging functions.

Exploring society as a system, N. Luman rightly notes that although the information society is decentralized, it closely "communicates worldwide thanks to its networks – the trend, thanks to computerization in the near future, will certainly only intensify" (Luhmann, 2004, p. 27).

This communication system is operationally closed and expands or contracts depending on the number of existing communications in it. The communication space allows a significant number of communicators to be involved simultaneously in various chats and forums that combine certain target groups with relevant interests. Electronic media communication is increasingly crowding out oral communication, even within the same organization. Although colleagues may be in neighboring rooms, they often prefer electronic communication. Often, this choice is made not so much to save time as to avoid conflict when dealing with complex issues related to both production activities and personal problems.

The invention of the Internet made it possible for individuals to build their networks on-line and off-line on the basis of their own interests, values, projects, and formed a new model of communicability, which is characterized by individualism. Electronic media have become a factor that has intensified social atomization as a phenomenon of the collapse of social ties, led to the emergence of new virtual communities, forms of socialization, lifestyles and forms of social activity. Virtual reality transforms both the consciousness of individuals who increasingly live the reality of their fictional new culture, the illusory world, and public consciousness, which leads to its evolution in the direction of the progress of individual rather than collective consciousness.

Living in a virtual world causes people to cease to be speakers of traditional social institutions – ethnic groups, nations, society, language, and a specific cultural form. They are increasingly living the reality of a fictional new culture, an illusory world. The fact of the influence of virtual reality on changes in consciousness is becoming increasingly obvious. Electronic media contribute to a heightened awareness of one's own identity. A person raised by modern media demands to be recognized as an individual and treated as an individual.

Atomization of society as a consequence of technological innovations of the information society

Technological innovations, of course, make a person's life more comfortable, but often they simultaneously undermine the base of traditional culture. As a result, there are changes in the cultural sphere, caused not by conscious human activity, but by technological development. Man is becoming increasingly dependent on the artificial world, including in spiritual culture.

The dynamics of the development of Western society is characterized by social atomization as a phenomenon of the collapse of social ties. The main subject of globalization was a person with an individually oriented, selfish consciousness, a consumer person and a pragmatist in his relations with society and people, who goes through competition, not cooperation, to achieve the goal. M. Castels rightly considers the "growth of individualism in all its manifestations" to be the dominant trend in the development of social relations in Western countries (Castells, 2001). The media also play an important role in shaping individualism, especially through technological innovations of the last quarter of the twentieth century, which form a new model of communicability, which is "characterized by individualism based on the network" (Castells, 2001). The development of the Internet provides an appropriate material basis for the spread of network individualism, however, "the Internet itself creates a model of network individualism, but the development of the Internet provides an appropriate material basis for the spread of network individualism as the dominant form of communication" (Castells, 2001). The Internet allows individuals to build their networks online and off-line based on their own interests, values, projects. New virtual communities, forms of socialization, lifestyles and forms of social organization are emerging.

Electronic media contribute to a heightened awareness of one's own identity. A person raised by modern media demands that she be recognized as an individual and treated as an individual. E. Toffler predicts that tomorrow individuals will be more different from each other than today. Many of them will grow up earlier, take responsibility earlier, adapt better and show more individuality. They will be more likely than our parents to question authority. "The revolution of the means of communication gives each of us a more complex image of ourselves. It makes us even more different from each other. It accelerates the very process of our "fitting" of various images and accelerates our movement towards new images. It allows us to use electronics to demonstrate our image of the world "(Toffler, 2005). A man of mass society builds his life on the patterns and paradigms inherent in mass culture. The culture of individualism, on the contrary, allows a person to move away from standards and convey his thoughts to society. Individual opinion is often more progressive than the decision taken in the process of collective discussion. It is the individual opinions that can be conveyed to others through electronic media that often become a source of solving certain problems, mobilizing others to solve them.

The emergence of mass culture was caused by a number of factors (factory method of production with a mass standardized organization of production; migration from villages to cities, which was accompanied by the rejection of traditional norms of behavior, the emergence of the phenomenon of mass culture), among which the influence of the media and their replication of global flows of standardized images played an important role. The main task of massification was to ensure technical development – the reproduction of a standardized labour force. As a result, a person focused on the mechanical performance of a given social role was formed, which is subjected to advertising and other mass actions, but the desires of social achievements are overwhelmed.

The emergence of new types of media affects the change in psychology as a whole, as new communication technologies develop or weaken certain features of a social nature. The evolution of social consciousness takes place in the direction of the progress of individual, not collective consciousness. A man of mass society builds his life on the patterns and paradigms inherent in mass culture. The culture of individualism, on the contrary, allows a person to move away from standards and convey his thoughts to society. Individual opinion is often more progressive than the decision taken in the process of collective discussion. It is the individual opinions that can be conveyed to others through electronic media that often become a source of solving certain problems, mobilizing others to solve them.

The philosophical encyclopedic dictionary defines "individualization" as:

1) a concept, determines the isolation of the individual from universal and their interaction;

2) the concept of Young's analytical psychology, which means the process of the formation of the inner world of man as a result of consciousness's mastery of the content of the personal and collective unconscious. Individualization is the maturation of self, which is the harmony of the individual and collective, conscious and unconscious (Philosophical Encyclopedic Dictionary, 2002, p. 240).

Individualism as a moral principle based on the prioritization of autonomy and individual rights was established as a result of the development of the individual and society. Man's view of himself as a rational individual, a free atom arose in Europe as a result of the Protestant Reformation and the scientific revolution. Over time, under the influence of the ideals of the Enlightenment, the works of prominent writers and scientists, publications in the press, these ideas are affirmed in the mass consciousness of Western society. E. Durkheim considers this process as a historical pattern and believes that individualism as a free opinion was inherent in human society throughout history, and "not since 1789, not from the Reformation, and not from scholasticism, not from the fall of Greco-Roman polytheism or Eastern theocrats" (Durkheim, 1990).

In ancient times, collective identity dominated, but over time, the identity of "I" begins to dominate "We." With special strength, the culture of individualism declares itself in Europe in the 60s of the twentieth century. It was at this time that the protests of young people began, directed against Puritan morality with its tradition, asceticism, pessimism. It was opposed to the values of cheerfulness and optimism, a free lifestyle. Traditional, generally accepted, sanctified by authorities began to be identified with outdated and ineffective, and innovations were considered effective and progressive. The focus on stability and order, on the preservation of cultural traditions, retreated before the chaos of innovation. As S. Bauman notes, "the constant and continuous technological revolution turns acquired knowledge and learned habits for the good into gravity and quickly shortens the lifespan of useful skills, which often lose their use and utility in a shorter period than what is required for their assimilation" (Bauman, 2001).

If traditional society suppressed individualism, then in the information era, thanks to the demassification of the media, this trend becomes one of the dominant in social development. At a time when people directly exchanged views at people's assemblies, posed questions to each other and answered them, they were in the same position, everyone had an equal chance to influence others. With the advent of the press, radio, television, the Internet, everyone chooses their own article, program, site and independently responds to their messages and influence. People lose the opportunity to react if they disagree with something. The isolation of the reader and the viewer does not allow him to find out how many people share or do not share his opinion.

P. Kozlovski considers the individualization of society as an increase in the differentiation of self. The reasons for this process, he calls the deepening division of labour and social differentiation. Increasingly, a person finds himself in a situation that seems to him to be the only one of its kind when traditional patterns of action are tested, behavior is no longer satisfied. He sees the progress of Western culture in the fact that, unlike archaic, old and communist cultures, it does not impose certain identities on its members, provides an opportunity for individual individuals to develop and unfold their individuality. The philosopher calls the decrease in direct communication between individuals a negative consequence of individualization: "The culture of Western societies takes into account (since it itself is post-modern) the extraordinary differentiation

of human self. The latter does not facilitate interaction between people "(Kozlovski, 1997, p. 88-89).

Historians, economists, sociologists, anthropologists, culturologists study the concept of identity with the aim of an interdisciplinary context for analyzing the processes of modern world development, in particular the development of international economics. The category of identity in the sphere of scientific knowledge allows to determine the mechanisms for displaying individual consciousness in collective ideas and practical actions. It extends the subject field of research by combining individual and supra-individual sections of consciousness and behavior at the level of social groups and communities of various configurations – from professional to national-state. Identity can be understood as an identity, unlike "others," and at the same time as "self-identification" ("who I am").

Atomization in the context of the information society has actualized the problem of identity. We can state the crisis of identity, the collapse of the former traditional integrity of human positioning in the world around us. In the future, role patterns change, the self-identification of the individual with traditional communities (for example, the state, denomination) changes. The process of globalization, the development and introduction of information technologies create the prerequisites for the formation of new identities, including in virtual space. For example, the consolidation of professional character (trade unions) is replaced by associations on a racial, religious, linguistic basis. Thus, there is a crisis in the classical forms of institutionalization of the class interests of citizens.

Social changes change the collection of identification vectors. In a globalized society characterized by atomization, the diversity of roles and functions of the individual is rapidly increasing. Traditional society was characterized by a stable lifestyle, the invariability of both identity and social roles, then in the information society a person has a multiplicity of identities, their multi-level and multi-complex character. The latter is characterized by the interaction of multiple identities, for example, between a subject and an object of self-identification (group, community), between multiple identities of the subject, between individual and collective identities. Identity becomes hybrid and multiple. The consequence of this is a change in the social structure of a society in which the middle class disappears. It is replaced by the precariat, the social layer of people, which is characterized by a lack of stability, full guaranteed employment, social security and social guarantees, stable social ties, unstable income, deprofessionalization.

According to the English sociologist Z. Bauman, author of the work "Individualized Society," attempts to achieve a sustainable identity are today utopian (Bauman, 2001). Unsustainable identity becomes an integral characteristic of modern societies. All subjects of identity are in the process of continuous re-identification, are included in the process of nonlinear development of the modern world and are affected by the factor of nonlinearity.

The state participates in the formation of identity policy. The latter is carried out at the supranational, regional, local levels of government. Political elites use identity as an instrument of nation-building. Civilizational identity is one of the most permanent, centuries-old ways of classifying oneself as a human community. Civilizational structures are much stronger than political and ideological systems. Civilizational stability is manifested both through objective forms and through certain behavioural and psychological stereotypes and collective perceptions of society. Intertwined with religious identity, civilizational identity includes, unlike the latter, not only traditions and customs, but also secular cultural norms. In the modern world, civilization a identity plays a very important role in the emergence of ethno social and political conflicts, confirming a number of provisions of the concept of the "clash of civilizations" by S. Huntington (Huntington, 1996). It is also necessary to note cosmopolitan identity (a person's idea of himself as a citizen of the world), ontological identity, macro-political identity.

Scientific discourse on identity issues involves the search for new forms of combining the trends of individualization of consciousness with the need for social integration in order to overcome the process of global atomization of the information society. F. Fukuyama noted that the preservation of local cultural identities and homogenization occurs simultaneously (Fukuyama, 1992). The role of ethnic, national, religious traditions in public life remains important, people mainly focus on a conservative lifestyle. The consumption of goods and services, brands, the development of information technologies in the information society has a certain identity problem. Identification is a protective function of preserving and protecting national culture, traditions, consciousness, language.

M. Castels proposed the consideration of identity as a process through which a person identifies himself on the basis of cultural characteristics inherent in a certain historical community, excluding connections with other social structures. The scientist noted that the person needs to be protected from the negative impacts of globalization and create conditions for adapting the person to the new realities that arise (Castells, 2001).

In the context of the formation of a new system of values, traditional ideals of culture are replaced by that ethnos contrasts its own values and ideals – historical memory, beliefs, traditions, language. It acts as a cultural community and outpost for the preservation of ethnic values and ethnicity in the global world and ethnocultural identity plays a supporting role in strengthening national and religious identities. At the same time, there is a need to adapt to new realities and perceive the role of culture in the context of digitization and scientific and technological progress. In a globalizing society, science and theoretical knowledge have become a direct productive force, the synthesis of political and entrepreneurial is carried out. the scientific elite. There is a process of forming a new community – a class of intellectuals.

In the information society, scientific and entrepreneurial activities have made national and territorial boundaries conditional. There is a process of concentration

of the scientific elite in developed countries, where conditions for access to the latest information and opportunities for experimental work and the introduction of the results are provided. In the context of inter-national communication the system of values is being updated, culture is being adapted to new civilizational realities, social and cultural experience of people is either enriched or individualized, identity crisis and aggravation of ethno cultural contradictions. Intercultural communication involves an acculturation process in which one cultural system assumes the properties of another. Acculturation can occur both with the voluntary borrowing of cultural elements, and with cultural expansion and assimilation. This leads to interethnic conflicts and creeping atomization.

Summarizing the above characteristics of the individualization of society, we will consider it as a process opposite to socialization, as a process of acquisition by a person of special, unique experience, creative potential, acquisition of independence, freedom and responsibility. Individualism was inherent in individuals at all times, but this process develops into atomization only in the last decades of the twentieth century. New types of communication technologies, especially the creation of the Internet, as well as the demassification of production, which was the result of the emergence of new technologies, standardizing the influence of technology and technologies on the individual, led to an increase in the loss of real types of solidarity by the individual in society. This leads to social atomization (the phenomena of breaking friendly, family, neighbourhood and other social ties; the emergence of isolated individuals, social ties and contacts between which acquire a predominantly impersonal, rational character).

The socio-philosophical understanding of this concept is based on a generalization of the gap in social relations in society, including relations at the level of ethnic groups, nations, peoples in various social practices. An atomized person is a person who belongs more to civilization (if we mean by civilization the material achievements of humanity: development of industry, urban lifestyle, high level of consumption, etc.) than to culture (in the sense of spiritual, primarily ethical values). For an atomized person, the highest value is not the value system, but professional belonging, the ability to be a skilled labor force in a globalizing society, where the person is forced to adapt to other people's cultural traditions, to new circumstances of life, to live simultaneously in different traditions, cultures, often breaking off the roots of his native culture. This leads to the weakening of family, national and other socio-cultural ties, autonomics and atomization of the individual.

The atomization of society leads to a reduction in the time of direct communication in the family, collective and other small groups. Since the advent of the press, radio, television, and especially the computer and the Internet, there has been a tendency for people to move from public to private. They do not want to leave the screen for political meetings, religious ceremonies or demonstrations. The emergence of demonic media leads to a weakening

of contacts between people, isolates them and transfers them to the disposal of those who are trying to influence them.

As S. Muscovie notes, there is cooling in relation to public places. "When you drive through cities and villages today, you see that the shops in front of the houses are empty, the cafes are not filled, the squares are deserted, all people are sitting in houses, at a certain time they are chained to televisions" (Muscovie, 2011, p. 184). The emergence of demasified media leads to a weakening of contacts between people, isolates them and transfers them to the disposal of those who are trying to influence them. "There is a certain alternation of trends of association and dissociation, occurs by technical means, leads to psychological and social consequences. At first, the conversation united a small number of interlocutors in a certain space, where they see and hear each other. Then the press moves them away from each other and turns them into disparate readers. Cinema gathers different people in one place, where there is a direct infection with thoughts and feelings. Television scatters them again, closes them home, glues them to a small screen, and direct contact in the family becomes limited "(Muscovie 2011, p. 185).

The appearance of cellular communications has a certain effect on the atomization of society. Mobile phones, with their multicast, make it possible to establish many contacts using e-mail or SMS and announce the holding of meetings or events. Often the people to whom the notifications were sent comply in case of consent and do not respond if they do not plan to participate in these events. This eliminates the inconvenience of failure, which inevitably arise when talking face to face. "Mobile phones provide an opportunity for a culture of fluid, mobile meetings to strengthen" (person-to-person) "communities and "network individualism", and a separate person comes to the advance" (Urry, 2007, p. 329). That is, each individual becomes an engineer of his acquaintances and networks, and wherever he is within the limits of the availability of network communication, he has a personal communication network, which at any time can activate.

It is known that by urbanization people lived in small communities, where frequent meetings gave a sense of connection with and support for their social group. Modern man is in constant motion, spends a significant part of his time on the road to and from work, among strangers in public transport or alone, leaving in his car. The spread of mobile phones helps personalized individuals establish their own worlds of communication. This shows both growing individualization and dependence on communication systems necessary for the coordination of social life.

In different historical times, values and role models determined myths, religious norms, but only with the advent of television does this type of media become a powerful cultural force that affects changing values in society and imposes standards on consumer society.

L. Thurow rightly associates the harmful consequences of the influence of television on the formation of social values with the increase in the time that people spend in front of the screen, neglecting traditional family education.

"Television and cinema have replaced the family in the formation of values. The average American teenager watches television twenty-one hours a week, spending five minutes a week alone with his father and twenty minutes with his mother. By the time a child becomes a teenager, he (or she) has already seen 18,000 murders on the screen. The average American eighteen years old watches TV at least a teenager – eighteen hours a week, and, obviously, of the same degree is under its influence. One can argue about how much violence on the screen leads to violence in life and what happens when the number of television murders per hour doubles, but one thing is beyond doubt – our values are greatly influenced by what we see on the screen"(Thurow, 1997).

L. Thurow explains these facts by the fact that the world of written means of communication, which has existed since the advent of writing, is based on linear logical arguments that follow each other, and the next comes from the previous one. The emotional impact of a written word is much weaker than the influence of a television screen. Television in many ways rejects people back to the pre-writing world. The visual impact on emotions and fears is appreciated, and not the fascination with the strict logic of thought. The author compares the influence of the media with "secular religion, which largely replaces general history, national culture, true religion, family and friends as the main force that creates our idea of reality" (Thurow, 1997).

The trend towards atomization of society intensified with the advent of the Internet as a new communication tool, resulting in the emergence of new models of social interaction. Due to the ability to communicate through the Internet, virtual communities arise, mainly focus on online communications, new, selective models of social relationships that cease to be tied to a certain territory. Internet communication, enthusiasm for computer games reduce the time of communication with family members, narrow the circle of participants in communication in real life, supplant real communications between people, form a special psychology, when it seems that everything in life can be changed by pressing the reset key. Active communication with real people seems boring compared to passive observation of news or adventures of television series heroes.

Among highly developed countries, the problem of computerization is treated differently. So, in the USA, the development of a computer network is a political program. Former Vice President A. Gore put forward the task of connecting each school with large libraries in the world. European countries, on the contrary, pay attention to the dangers and negative consequences that computer education will lead to. The discussion on the distribution of “the LOGO” training system is characteristic in this regard. It provides a new philosophy of education, based on the use of a computer in school: this is not just the assimilation of information, but rather interactive learning which combines knowledge and creative thinking. The humanitarian intelligentsia called this system a system of production "vidiots," since the absolutization of video-computer culture accustomed to algorithmization, to communication with others based on algorithms, monotonous rules and monotonous linear operations.

Modern man almost ceased to organize creative leisure himself, ceased to engage in cultural activities. He is satisfied with the screen of a television or monitor, which helps him to disconnect from reality in the world of other people's fantasies and adventures. Leisure turns into a passive contemplation of the products of mass culture, boils down to "narrow consumption, to nothing restrained and not limited to the development of goods and things".

The reality of the Internet provoked a home lifestyle. While the influence of the street was a problem for many parents, today they are increasingly concerned that children and adolescents do not break away from computer screens, where the Internet offers both the gaming industry and the opportunity to communicate on forums. Dependence on the Internet leads to the fact that interest in meeting with peers disappears, ceases to be interested in sports and active forms of leisure. Such users are satisfied with the consumption of entertainment that the mass culture industry offers them. With increasing social problems (rising unemployment, increasing the number of those below the poverty line), the Internet with its entertainment industry becomes a distraction from social problems, the worries of everyday life.

The Internet has led to the emergence of a new system of social relations focused on the individual. M. Castels calls this a tertiary relationship, in contrast to primary relations (embodied in families and communities) and secondary (embodied in communities (associations)). Tertiary relations are, according to M. Castels, the privatization of communicability, which "follows the individualization of the connection between capital and labour, between workers and the working process in a network enterprise" (Castels, 2009). The process of urbanization in the twentieth century led to the accumulation in cities of a mass of people who have lost relations with their areas, traditions and beliefs, and connections with their traditional communities. All this reinforces the feeling of loneliness and isolation in society.

But these people, torn out of their usual environment, as S. Kara-Murza warns, can come together and form quite dangerous crowds, ready to explode at any minute, with any push. Often these people are not familiar with each other, they are quite heterogeneous elements, but in the conditions of life in a country where they remain "strangers," it is enough to appear to certain beliefs or ideas spread by certain people, how these masses can quickly intensify, create unexpected unity, spontaneous organization. S. Kara-Murza calls spontaneous protests – a war without a front and a goal, a war as revenge on society, which threw part of the population as a burden, a "molecular civil war" (Kara-Murza, 2008, p. 43). Such a molecular civil war has already been declared by national minorities in Western countries, where they migrated in search of a better life but feel alienated from society. Having neither a program, nor a specific opponent, nor clearly expressed demands, they rise to protests, resorting even to pogroms, as was the case in France and Great Britain.

At the public level, increasing atomization undermines the foundations of society, exacerbates the collapse of social institutions and leads to the decline of public life. For an individual atom, traditions, customs, laws cease to be

a regulator of behavior. As P. Kozlovski rightly notes, the establishment of laws for oneself can be considered autonomy, but "if everyone establishes a law for himself, then the latter is no longer a law, but a decision regarding a specific single case; if an individual is still autonomous in the sense of "absolutely free," then he no longer needs such a metaphor as the law (Kozlovski, 1997, p. 107).

Atomization of society occurs regardless of belonging to certain components of the social structure. If earlier the lifestyle was a reflection of the social structure, now it is consciously chosen. "Changing the way of self-awareness allows to change everything: with the help of a lifestyle, one can change the position in the social hierarchy, as well as eliminate and/or, as a last resort, change natural inclinations. Age, gender, and skin color are taste and choice issues that manifest in life style. Self-identification is a matter of choice and principle. On the other hand, it was the ease of the liberation proposed by this society that gave rise to suspicion or a firm belief that a new, free lifestyle is only theatrical representations of freedom. Bluff, cynical play, theatricality and deadly rivalry, which is masked by a dynamic personality or a desire for success, is another taste of societies free from social dependence "(Yazino, 2012, p. 60). The media are becoming a means of imposing certain lifestyles. Various manuals, specialized magazines, television shows, sites advertising fashion, design, diets, bodybuilding, etc., become not just advertising, but build concepts, push a person to "meaningfully" demonstrate new standards of life by buying specialized goods or receiving certain services.

Increasing the trend of atomization of society and changing the organization of production, which was made possible by the emergence of new information technologies that contribute to the decentralization of production, stimulate flexibility and creativity. Computers allow to organize and control complex structures consisting of many components, decentralize this control, increase the contribution of individuals, and make greater use of their abilities. Thanks to Internet networks, a new type of organization of jobs has appeared: telework, or remote work. Often the employee works at home for a certain time, and part of the time is in the office. Home premises become centers of multifunctional activity. Under the influence of the spread of electronics, small firms replace large hierarchical structures, although the information revolution will not be able to displace completely large organizations with their hierarchical structure.

A. Toffler, anticipating a decline in the role of large corporations in the structure of production, predicted an increase in the atomization of individuals. He noted that as we move from a machine economy to an information economy, progress in communication will allow a person to take part in production processes, being in places far from big cities. If workers in large enterprises worked in collectives where they could count on support, mutual assistance, then the modern worker, working individually, although he has the opportunity to realize his potential, but often feels alone. E. Toffler explains this with growing social heterogeneity, when "the more we individualize, the harder it becomes for us to choose a mate with close interests, values, habits or tastes. Friends are also harder to find. Everyone becomes more legible in social

relations. The result is an unsuccessful relationship. Or there's no relationship. The destruction of mass society, thus, although it promises a large degree of individual expression, spreads, to a certain extent now, the pain of isolation" (Toffler, 2005). It is assumed that in the information society, it is small firms that will change large hierarchical structures under the influence of the spread of electronics, although the information revolution will not be able to displace completely large organizations with their hierarchical structure.

Although some production cycles require the concentration of workers in giant enterprises, in the information society, where more than 70% of the working population is employed in the service sector, there is a tendency to organize small firms that respond quickly to the needs of customers. The increase in individualism through disunity of production is evidenced by the decrease in the number of trade unions, starting in the 80s of the twentieth century. D. Neighbit calls the reason for this "the discrepancy between the philosophy of trade unions ("treat everyone the same") and individualism that arose" (Naisbitt, 2006).

The introduction of new technologies requires workers to constantly improve their knowledge and skills. But technology changes often outpace the ability of workers to master them and in case of non-compliance with new requirements, people risk replenishing the councils of the unemployed. Rising unemployment has made social contacts between people even weaker. If employees of large enterprises are characterized by organized forms of protest, clarity of requirements, then with the strengthening of individualization of society, forms of protest change, take a spontaneous form, when there is no organization, clear requirements, but there is a spontaneous expression of their emotions. New technologies make it possible to increase labour efficiency while reducing the number of workers in the industrial sector. The number of unemployed is constant and it will no longer be possible to hide from people that their work has become unnecessary, not because it is low-skilled or low-quality, but because such a model of world development is chosen that satisfies only the interests of “the gold billion” countries. Mass unemployment becomes the destiny of workers in entire industries. No one can be sure that his profession will be in demand in the future. The ability of people to retrain is lost over time, so modern technology becomes a matter for young people, and older generations are at risk of job loss and social importance. At the cost of constant progress is living in conditions of constant uncertainty. The reverse side of the spread of autonomous social processes and movements is the imbalance and fragmentation of social space.

The liberal ideology that has been established in Western countries is guided by the principle "everyone is on their own". Large factories and factories are replaced by small firms, where often in many collectives instead of mutual assistance there is constant competition. The decrease in the level of socialization is evidenced by: an increase in the number of crimes, an increase in the number of civil lawsuits, the breakdown of the family, a decrease in the number of public organizations (from trade unions to associations of interests and charitable organizations), the spread of a sense of lack of common values and a single

community with others, the leveling of traditional value systems in the economic, political, spiritual spheres.

Conclusions. Progress in the sphere of media not only expands the communicative space, information-communicative connections between all subsystems of the social environment, but also leads to its radical transformation. Changing technologies creates a change in the way of communication, which dominates society and leads to a change in the human environment, the formation of a certain socio-economic system. The information revolution, which began at the end of the 20th century, has become the driving force of a new stage of integration processes – globalization. It was modern means of communication that made it possible to really ensure the unity of the economic, political, cultural life of peoples. Globalization offers great opportunities for humankind to expand the exchange of goods, services, information, technology and capital, to promote humanitarian interaction and to enrich cultures. Under the influence of globalization, the nature of production and work, the level of knowledge, the social and professional composition of society, living conditions, and the lifestyle of most people on the planet are significantly changing.

For an atomized person, the life of society loses its meaning, personal needs become valuable, which are often "realized" in virtual reality. Electronic media allow one to build his own world, different from the realities of life. In this cyberspace, comfortable for the atomized virtual, the created images become simulations of real values.

A new model of communication, which was formed as a result of the introduction of new communication technologies focused on diversified, specialized information, was its segmentation in ideology, cultural values, tastes and styles of life, which led to the fragmentation of social communication and the loss of a corollary-communicative context, and communication through Internet networks increased the atomization of individuals, changed the system of human values, transformed the patterns of his behaviour. The tendency to atomize society is an extreme form of its individualization and manifests itself in the loss of real types of solidarity by individuals, the weakening of family, national and other socio-cultural ties and the desocialization of individuals.

An alternative to the atomization of society should be the motivation for universal human solidarity, which is a necessary universal principle of sustainable development programmes that ensure the survival of the human species through the survival of the community and its individuals. Technological progress in the post-industrial stage of the development of society, which is characterized by an aggravation of global problems, indicates the inevitability of a return to the ethics of solidarity humanity.

References

1.Bauman Z. (2001). *The Individualized Society*. Cambridge: Polity Press.
2.Bell D. (1974).*The Coming of Post-Industrial Society.* New York: Harper Colophon Books.
3.Castells M. (2001).*The Internet Galaxy: Reflections on the Internet, Business, and SocietyNovember.* New York: Oxford University Press.
4.Castells M. (2009). *The Rise of the Network Society: The information Age: Economy, Society and Culture*. Cambridge, MA; Oxford, UK: Blackwel,. Vol. II.
5.Durkheim E. (1990). *On the division of social labor. Sociology method*. Moscow: Science(in Russian).
6.Fukuyama F. (1992). *The End of History and the Last Man*. Free Press.
7.Huntington S. (1996). *The Clash of Civilizations and the Remaking of World Order*. New York: Simon & Schuster.
8.Kara-Murza S. G. (2008). *Dismantling of the people.* Moscow: Algorithm (in Russian).
9.Kozlovski P. (1997). *Culture Postmodern: Social and cultural consequences of technical development*. Moscow: Republic (in Russian).
10.LuhmannN. (2004).*Society Society. Part I. Society as a social system.* Moscow: Logos (in Russian).
11.Muscovie S. (2011). *Century Crowd. Historical Treatise on Psychologists Mass.* Moscow: Academic Project (in Russian).
12.Naisbitt J. (2006). *Mind Set!: Reset Your Thinking and See the Future*. New York: Collins.
13.*Philosophical Encyclopedic Dictionary* (2002). Kiev: Abris (in Ukrainian).
14.Thurow L. (1997). *The Future of Capitalism: How Today's Economic Forces Shape Tomorrow's World*. New York: Penguin Books.
15.Toffler A. (2005). *The Adaptive Corporation*. Aldershot : Gower.
16.Toffler A. (1999). *The Third Wave: The Classic Study of Tomorrow.*New York: Bantam
17.Urry J. (2007). *Mobilities.* Cambridge: Polity Press.
18.Yazino M. (1012). *Culture of individualism*. Kharkiv: Humanitarian Center (in Ukrainian)

1.3. FACTORS AND PRINCIPLES OF EFFECTIVE ACTIVITY OF TOUR OPERATORS AND AGENTS ON THE TOURIST SERVICES MARKET

Abstract.The article examines the effectiveness of tour operators and agents in the tourist services in Ukraine market based on the vouchers cost dependence on their sales volume to the population and the number of tourists served. Th necessity to use such methods as correlation-regression analysis and adjusted least squares to evaluate the efficiency of these legal entities in the tourist services market is substantiated. The method of analysis of the operating environment has been used in the study of the positions of the regions of Ukraine where legal entities operate in the market of tourist services, which allowed by the number of tourist vouchers and tourists served to determine the directions of development of legal entities that allowed in its turn travel agents and tour operators to attract tourists and sell tourist vouchers to the population.

It is revealed the direction of the modern market of tourist services development and according to it the effective development direction of the market of tourist services of Ukraine owing to activity of travel agents. The necessity of maximum coincidence of these directions is proved, while for travel agents in the regions of Ukraine there is no such coincidence. It is proposed to change the positions of the regions where these entities operate in an effective direction of the operating environment by reducing the cost of vouchers and increase tourism activity, as the study identified a number of areas where tourists pay higher vouchers cost than the national average. As the result of the environment of tour operators operation analysis in the regions of Ukraine, a special position in the Kharkiv region has been revealed, as one that allows to assess the effectiveness of these entities in all other regions of the country. A much larger organization in the tourist services market of tour operators is proved in comparison with travel agents, as the positions in the respective regions are currently in the direction of effective development with the exception of Ternopil, Khmelnytsky and Chernivtsi regions. Conclusions are made on the need to develop all business entities in the market of travel services, in particular to provide benefits from the travel agents activities.

Key words:factors, principles,travel agents, tour operators, market of tourist services, economic efficiency, the cost of vouchers, tourists volume.

Introduction. The tourist services market is brought to the system and satisfaction of the population's needs for rest according to the principles and mechanisms of the world market of services. World market of services, as an economic category, is characterized as a system of rich-aspect, poly-structural and large-scale changes. One of the segments of the market is the tourist services market. In regard with mentioned above, the sustainable development of the tourist services

market has certain features, which consist in combining the interests of its subjects with the interests of individual tourist areas and their representatives. Such features include:

1. Tourist services have a dual nature, which is manifested in the consequences of their consumption. So, the tourist brings economic benefits to tourist services producers, but does not always provide protection of natural resources involved in the process of providing the service. Thus, by consuming intangible goods, the benefits of which are limited in time, the tourist can cause material environmental damagesometimes, but he will not be responsible for them always.

2.The direct process of selling a tourist service, its consumption and the onset of consequences for the tourist area have a significant gap in time. Moreover, the consequences of consuming tourist services have a tendency to accumulate. Thus, if the positive consequences for participants in direct market relations occur immediately - the travel agent makes a profit, and the tourist meets the need for rest, etc. However, for tourist ecosystems and for the population of a particular tourist area, the consequences can be formed over several years or centuries.

3. Seasonal fluctuations in the consumption of tourist services provide different load levels on tourist ecosystems, which requires effective strategies for their development in such conditions.

4. The sustainable development of the tourism market depends directly on its constituents' behavior and the national governments of the host countries.

5. Market participants' objective territorial separation requires a developed information infrastructure aimed not only at advertising and at tourist's products promotion, and at ensuring the relationship between the tourist and the travel agent, but also aimed at ensuring the implementation of the sustainable development concept. Thus, the efficiency of the tourist services market, which operates on the basis of sustainable development, depends on the quality of the service offered, as well as the level of balance between economic benefits, social and environmental needs of the tourist area during such services consumption.

Thus, the tourist services market development is ensured by effective and equal interaction of its subjects on the basis of economic growth, rational use of recreational resources and social justice, taking into account the natural and socio-historical features of certain tourist areas. Taking into consideration the dynamic pace of tourism development, its impact on social and economic development, as well as the global mankind problems and the depletion of natural resources, which are key to shaping the tourism market infrastructure, the introduction of sustainable development is an objective necessity.

The tourism development in Ukraine is one of the most promising areas of socio-economic growth, which can be ensured by the intensification of activities and high efficiency of tourist services market. The legal entities activitiesin the market of tourist services in Ukraine are represented by tour operators and travel agencies. Tour operators are directly producers of a tourist product in the form of creating a tourist service, providing journeyand accommodation. Travel agents act as intermediaries between the tour operator and the consumer. Their purpose is to receive commissions for the tourist services provisionin

the market.Besides, tour operators can work with the consumer directly without travel agents.

Regardless of the peculiarities of tour operators and travel agents, the main principle of effective functioning of the market of tourist services is to achieve the following goals: maximization the number of tourists who agree to travel; maximizationthe sales of tourist vouchers to the population; optimization of the cost of tourist vouchers sold to the population.

A number of scientists such as Kolosinska M. [14], Kovaliov V. [13] investigated the theoretical and methodological principles of forming a strategy for tourism entities integrated development and the effectiveness of their activities in the context of transformational changes in the economy of Ukraine. Some authors like Kozak Y., Derkach T., and Huz D. [10] considered the components of strategies to ensure the effectiveness of tourism entities, and namely: the economic security strategy; financial strategy; investment strategy; innovation strategy; information strategy. Such scientistsas Pulina T., Zaytseva V. and Shcherbakova N.[12] identify priority areas for implementing the strategy of tourism services market in Ukraine: increasing the competitiveness of regions and strengthening their resource potential, ensuring human resources development and interregional cooperation.

A number of scientists [10, 13, 14] studied the potential and competitiveness of tourism in the regions of Ukraine. Kovalchuk Y., Furman I., Humenyuk H., and Kucher A. conducted a study of the potential and opportunities for tourism development in the regions of Ukraine in the modern context, using the analysis method of the functioning environment. The authors acknowledged that twelve regions of Ukraine have a high potential for tourism development, but the other thirteen have not had sufficient income from tourism services to cover labor and operating costs, which indicates the search for new methods in strategic and operational planning of tourism in Ukraine and improving the efficiency of the tourism business [10]. Kovalov, B., Burlakova, I., and Voronenko, V. found in their studies that in 88% of the regions of Ukraine there is a positive trend of changes in the competitiveness index of travel and tourism, which negatively affects the efficiency of tour operators and agents [13]. Mazaraki A., Boiko M., Bosovska M., Vedmid N., and Okhrimenko A. emphasize in their research on the national tourist system formation in Ukraine [7].

Kolosinska, M., Petrashchak, O., Kolosinskyi, I., and Katana, A. [14] proposed a method for assessing the competitiveness of tourism, which indicated a significant number of available positive factors for the effective tourismdevelopment. The positive point is the significant level of competition among travel agents, the presence of major segments of the tourism market and providing tourism with national resources. Sofiichuk K. has researched the theoretical basis of risks in tourism and the dynamics of tourist profits and the number of tourist enterprises on the basis of research; it has been developed a model of risk management in tourism [11].Ivanov S., Gavrilina M., Webster C. and Ralko V. emphasize in their research the negative impact of political instability on the efficiency of the tourism industry [15].

At the same time, despite the significant amount of research in the field of tourism, the problem of economic efficiency of tour operators and agents in the market of tourism services in Ukraine remains insufficiently solved.

The purpose of the study is to identify the economic efficiency of tour operators and agents in the market of tourist services in Ukraine, which revealed opportunities to reduce the cost of tourist vouchers and increase the volume of sold vouchers and served tourists.

The study uses a combination of parametric and nonparametric methods of analysis, including correlation-regression, the method of analysis of the operating environment, the method of adjusted least squares to build the positions of regions of Ukraine in the market of tourist services, where tour operators and agents operate.

Results. The main criterion for sustainable development of tourist services the market is the ability of its subjects to continuously and dynamically maintain the rational proportionality between the factors of reproduction and the necessary pace of its development in uncertainty and variability of the environment to meet the needs of recreation, entertainment, etc.which happens at the expense of resources both now and in the future, taking into account the responsibility for creating the necessary social conditions and preventing environmental pollution.

The mechanism for ensuring the market sustainable development of tourist services, as a management tool, in this context should be based on certain principles (Table1). They should become the basis for creating optimal management decisions.

Table 1

Effective activity principles of tour operators and agents on the tourist services market

Principle	Characteristic
Systematic	When forming the sustainable development ensuring mechanism of the tourist services market, its objects and subjects are considered as a whole. In this case, each of them is considered as an open system, which also has its components.
Goal setting	Consists in determining the direction of market development in the future. The principle is a qualitative definition of the general purpose in order to create settings and goals for the marketfunctional elements.
Competences	The formation of a mechanism to ensure the sustainable development of tourist services market that covers all areas of its subjects activity, andtherefore - must ensure the free implementation of their functions.
Hierarchy	The organizational structure of the mechanism should have several levels with the delegation of some powers for the management solutionsadoption
Feedback	The principle provides for the creation of channels for constant and timely receipt of information about the state of objects and market participants' actions in order to make effective management decisions
Quantification of objective reality	When forming a mechanism to ensure the sustainable development of the tourist services market, the market is divided into a finite number of elements, connections, etc. to create a recognizable analogue of a complex opensystem.
External addition	To understand the better mechanism for ensuring sustainable development of the tourist services, knowledge of the external environment market should be used.
Coeherance	Consistency of decisions at related levels of the market system.
Compatibility	The presence of information homogeneity in the relations of the market system.It provides the ability to combine parts of the whole, understanding the information transmitted, the ability to process it, etc.
Coordination	The mechanism for ensuring the sustainable development of the tourist servicesmarket should take into consideration the possibility of influencing subordinate parts of the system, and therefore, it should provide for the existence of appropriate connections and relationships.

Source: compiled by the author.

The method of analysis of the operating environment (Farrell's model) [1] is the most acceptable method of assessing the effectiveness of legal entities in the tourist servicesmarket. In our case, we propose to use the scheme of calculating the coefficients of return on the cost of tourist vouchers sold by travel agents and tour operators on the number of tourist vouchers and tourists (Chart 2) similar to Farrell's example of the ratio of capital and labor costs to sales.

Farrell's model was originally used to calculate the effectiveness of businesses under natural monopolies, but further improvements have allowed it to be more widely used in marketing research. The peculiarity of the method of analysis of the operating environment is its universality, which allows you to use its principles for different sectors of the economy, economic activities, regardless of the studied indicators [4-6; 8; 16; 17]. So, Horban H., Petrovska I., Kucher A., Diuk A. (2020) used this method to study the effectiveness of the tourism entities functioning in the regions of Ukraine.

Thus, X1 - the number of tourists served by travel agents or tour operators in Ukraine in 2018.

X2 - the number of tourist vouchers sold to the population by travel agents or tour operators in Ukraine in 2018.

Y - the cost of tourist vouchers sold to the population by travel agents or tour operators in Ukraine (thousand UAH) during 2019.

Table 2

Coefficients of return on the cost of tourist vouchers sold to the population by travel agents and tour operators by the number of tourist vouchers and served tourists by regions of Ukraine in 2019 (number of tourist vouchers and served tourists per 1000 UAHvalue of tourist vouchers sold to the population).

Region	Travel agents		Tour operators	
	X_1/ Y	X_2/ Y	X_1/ Y	X_2/ Y
Vinnytsya	0,127	0,071	0,442	0,231
Volyn	0,08	0,047	0,188	0,119
Dnipropetrovsk	0,061	0,034	0,06	0,047
Donetsk	0,105	0,074	0,153	0,089
Zhytomyr	0,086	0,053	0,799	0,246
Transcarpathian	0,066	0,037	0,264	0,128
Zaporizhya	0,078	0,042	0,218	0,14
Ivano-Frankivsk	0,094	0,056	0,13	0,128
Kyiv	0,072	0,032	0,047	0,022
Kirovograd	0,076	0,039	-	-
Luhansk	0,184	0,174	-	-
L'viv	0,082	0,069	0,094	0,249
Mykolaiv	0,054	0,036	0,076	0,05
Odessa	0,056	0,038	0,212	0,205
Poltava	0,06	0,041	-	-
Rivne	0,07	0,042	0,069	0,069
Sumy	0,077	0,048	0,06	0,051
Ternopil	0,073	0,037	1,192	0,627
Kharkiv	0,072	0,044	0,016	0,013
Kherson	0,151	0,13	0,231	0,231
Khmelnytsky	0,122	0,085	1,286	1,286
Cherkasy	0,076	0,033	0,104	0,059
Chernivtsi	0,101	0,042	0,564	0,278
Chernihiv	0,061	0,03	0,093	0,036
City of Kyiv	0,1	0,046	0,086	0,04

The coefficients are calculated on the basis of data from the State Statistics Service of Ukraine [2] on tourism in Ukraine in 2019.

Based on the results of Chart 2 for travel agents, we have built according to the Farrell's model the environment of functioning of these business entities and have determined the direction of development in order to attract tourists and the sale of tourist vouchers to the population in 2019 in the regions of Ukraine (Fig. 1).

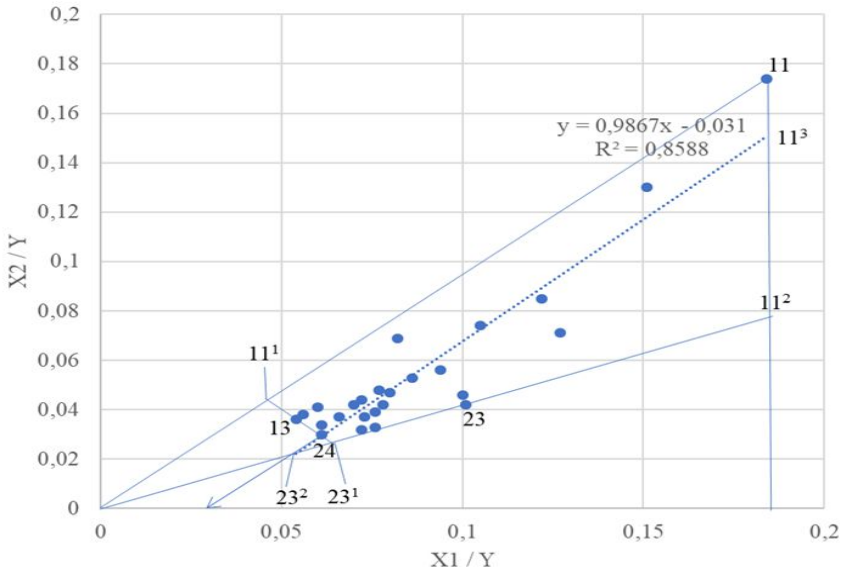

Fig. 1. Determining the direction of development of legal entities (travel agents) in order to attract tourists and the sale of tourist vouchers to the population in 2019 in the regions of Ukraine.

Correlation-regression analysis revealed a high bond density (correlation coefficient equals to 0.93). The regression equation y = -0.031 + 0.9867x (x = X1 / Y) shows the condition for achieving zero (y = X2 / Y = 0) is x = 0.0314.

However, based on the features of the trend line and regression equation, it is impossible to determine the positions that ensure the efficiency of the tourism market of Ukraine and the directions of its further development, as the value of 0.0314 can be achieved by many combinations between the number of tourists served by travel agents to the population of tourist vouchers by travel agents. Moreover, the continuation of the regression line allows to determine the boundaries of its intersection with the abscissa and perpendicular from position 11 (Luhansk region), which characterize not the efficiency of economic entities in the market of tourist services, but the limit constraints of parametric dependence X2 / Y on X1 / Y.

In addition, the high density of communication does not allow to fully apply the method of analysis of the operating environment, as there are only two positions that can form a line of technical efficiency - 13 (Mykolaiv region) and 24 (Chernihiv region). Considering the above parameters, we propose to design a line of technical efficiency by applying the method of adjusted least squares.

To fulfil this, we draw two lines from the origin passing through the positions of the regions of minimum value (23 - Chernivtsi region) and maximum value (11 - Luhansk region). Thus, the triangle 0-11-112 is the direction of the modern market development of tourist services of Ukraine during 2019. The trend of this development is aimed at the beginning of the coordinates, which indicates the possibility of reducing tourist vouchers cost.

If we extend the segment of the technical efficiency line (length 13-24) to the intersection with lines 0-11 and 0-112, we obtain a hypothetical technical efficiency line 111-13-24-231. Accordingly, the triangle 0-111-231 is the direction of effective development of the market of tourist services of Ukraine in 2019. The tendency to achieve efficiency is aimed at the beginning of the coordinates - increasing the number of tourists, the volume of trips sold by travel agents, and the narrowing of the space at the beginning of the coordinates indicates "directional efficiency", where it may not be a line of technical efficiency(in this case, its existence is a design calculation for the future), and the direction to zero (reducing vouchers cost). As a result, instead of the technical efficiency line, the position of the region that is technically effective for other regions of Ukraine can be used in the case of its location near the origin.

The trend line allows to analyze the position of the regions of Ukraine in combination with two border lines on the activities of travel agents in the market of tourist services within the areas 111-11-113-24 and 232-112-113. Note position 11 (Luhansk region) as a certain exception, which explains the peculiarities of the situation in the whole market. In this area the lowest cost of tourist vouchers, but the least of them were sold to the population and tourists were sent.

Positions of regions located within the area 111-11-113-24 are regions where vouchers are bought at a higher price compared to the whole of Ukraine and in which the majority of tourists are served: Dnipropetrovsk, Donetsk, Transcarpathian, L'viv, Odessa, Poltava, Rivne, Sumy, Kharkiv, Kherson. The positions of regions within the area of 232-112-113 are regions where, on the contrary, vouchers are purchased at a lower cost compared to the whole of Ukraine and where a minority of tourists are served.

Similarly to travel agents, tour operators (Chart 2), we will build according to the Farrell's model of the environment of these entities and determine the direction of development to attract tourists and tourist trips to the population in 2019 in the regions of Ukraine (Fig. 2).

Kharkiv region (position 19) is technically efficient in relation to all regions of Ukraine where tour operators operate. Attention is drawn to the high density of regions positions in the triangle 19 (Kharkiv region) - 12 (L'viv region) - 5 (Zhytomyr region), which determines the direction of the modern market development of tourist services of Ukraine during 2019.

Thus, it can be concluded that there is no direction of effective development of the tourist services marketin Ukraine, as position 19 (Kharkiv region) is as close as possible to the origin. The activity of tour operators in the tourist services domestic market is a guarantee of development and effective provision of the optimal tours cost and maximum touristsattraction.

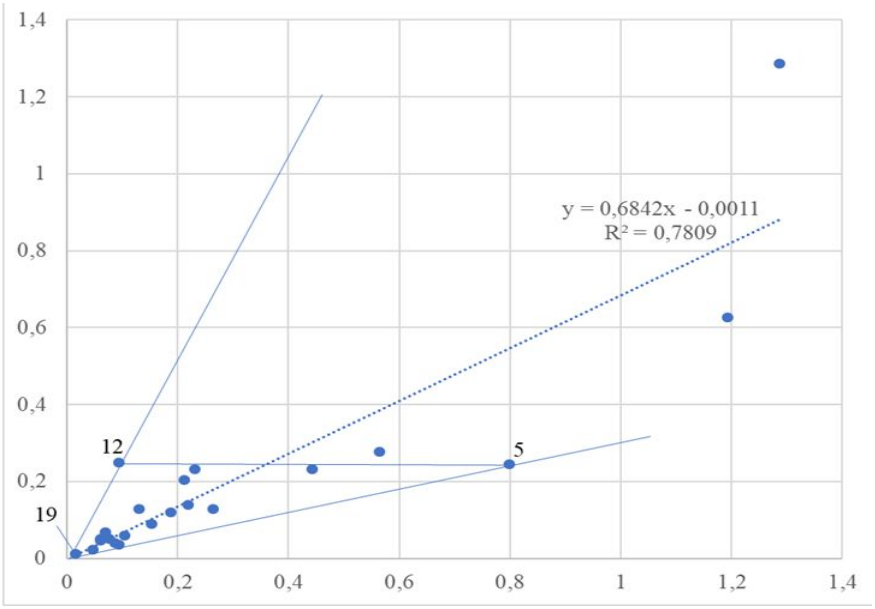

Fig. 2. Determining the direction of development of legal entities (tour operators) to attract tourists and the sale of tourist vouchers to the population in 2019 in the regions of Ukraine.

Exceptions are only three areas outside the triangle area19-12-5: Ternopil, Khmelnytsky and Chernivtsi.

Conclusions. Analysis of theoretical and methodological approaches to the formation of a management system for the development of the market of tourist services suggests that in the list of factors that ensure the successful development of territories, strategic management methods based on the principles of complexity, proportionality, adaptability, continuity, optimality, economic security, performance, etc.

The development of the tourist services market in the regions of Ukraine is mainly due to the tour operators' activities, which allows to significantly reduce the tours cost and attract new customers. Therefore, the trends in the development of the tourist services market in relation to the tour operators' activities coincide with the trends of their effective functioning in the regions of the state.

Travel agents' activity in the market of tourist services of Ukraine is not optimal. As a result of the study, improved positions on their functioning in some regions, in particular Luhansk region (two positions) and Chernivtsi region (two positions) have been proposed. Based on mentioned above, the direction of tourist services modern market development of Ukraine is outlined based on the possibility of the efficiency of travel agents achieving by reducing the tours cost and increasing the number of tourists. The research results can be used in planning tour operators and agents activities in the market of tourist services in Ukraine.

References

1.Official site of the State Statistics Service of Ukraine. Available at:http://www.ukrstat.gov.ua

2.Farrell, M. J.1957. The Measurement of Productive Efficiency. Journal of Royal Statistical Society, Series A. CXX. Part 3: 253–290.

3. But, T., Pulina, T., and Zaytseva, V. 2020. Justification of Ukraine's tourist services development strategy. Management and Entrepreneurship: Trends of Development, 1(11): 23-40.DOI: https://doi.org/10.26661/2522-1566/2020-1/11-02

4. Sakhno, A., Hryvkivska, O., Salkova, I. and Kucher, L. 2019. Evaluation of the efficiency of enterprises by the method of analysis of functioning environment. Journal of Environmental Management and Tourism, 3(35): 499–507. DOI:https://doi.org/10.14505/jemt.v10.3(35).04

5. Sakhno, A., Salkova, I., Broyaka, A. and Priamukhina, N. 2019. Methodology for the impact assessment of the digital economy on agriculture development. International Journal of Recent Technology and Engineering, 8(3C): 160–164. DOI:https://doi.org/10.35940/ijrte.C1027.1183C19

6. Sakhno, A., Salkova, I., Polishchuk, N., Kucher, L. and Stashko I. 2020.Efficiency of managing liabilities of enterprises of different types of economic activities. European Journal of Sustainable Development, 9(1): 423-423. DOI: https://doi.org/10.14207/ejsd.2020.v9n1p423

7. Mazaraki, A., et al. 2018. Formation of the national tourism system of Ukraine. Problems and Perspectives in Management, 16(1):68-84. DOI: http://dx.doi.org/10.21511/ppm.16(1).2018.07.

8.Sakhno, A., Salkova, I., Polishchuk, N., Kucher, L. and Kudyrko, O. M. 2020. Mortgage lending system of agricultural enterprises of Ukraine. Revista Espacios, 1015 (41): 7.

9.Kovalchuk, Yu., Furman, I., Humenyuk, H. and Kucher, A. 2020. Potential and opportunities for development of tourism in Ukraine. Journal of Environmental Management and Tourism,1(41): 194–201. DOI: http://doi.org/10.14505/jemt.v11.1(41).22

10.Kozak, Y., Derkach, T. and Huz, D. 2019. Forming the strategy of integrated development of tourism enterprises. Baltic Journal of Economic Studies, 5(4): 105-115. DOI: https://doi.org/10.30525/2256-0742/2019-5-4-105-115

11.Sofiichuk, K. 2018. Risks of the tourism industry in Ukraine. Journal of Environmental Management and Tourism, 9(26): 334-342. DOI: https://doi.org/10.14505//jemt.9.2(26).15

12.Shcherbakova, N. A. 2019. State and trends of sustainable development of tourism in Ukraine and theworld. JournalofEnvironmentalManagementand Tourism,9(8): 1712–1724. DOI:https://doi.org/10.14505//jemt.v9.8(32).10

13.Kovalov, B., Burlakova, I. and Voronenko, V. 2017. Evaluation of Tourism Competitiveness of Ukraine's Regions. Journal of Environmental Management & Tourism, 8(2(18)): 460.DOI: https://doi.org/10.14505//jemt.v8.2(18).19

14.Kolosinska, M., Petrashchak, O., Kolosinskyi, I. and Katana, A. 2018. Tourism sector in transition economy on example of Ukraine: determinants of competitiveness. GeoJournal of Tourism and Geosites, 21(1): 239–252. DOI: https://doi.org/10.30892/gtg.21119-284
15.Ivanov, S., Gavrilina, M., Webster, C. and Ralko, V. 2017. Impacts of political instability on the tourism industry in Ukraine. Journal of Policy Research in Tourism, Leisure and Events, 9(1): 100-127.DOI: https://doi.org/10.1080/19407963.2016.1209677
16.Sakhno, A., Salkova, I., Broyaka, A. and Priamukhina, N. 2020. A methodological analysis for the impact assessment of the digitalisation of economy on agricultural growth. International Journal of Advanced Science and Technology, 8s (29): 242-249.
17. Sakhno, A., Polishchuk, N., Salkova, I. and Kucher, A. 2019. Impact of credit and investment resources on the productivity of agricultural sector .European Journal of Sustainable Development, 8(2):335–345. DOI:https://doi.org/10.14207/ejsd.2019.v8n2p335
18. Horban,H.,Petrovska,I.,Kucher,A.,Diuk,A.2020.EfficiencyofTourismActivitiesinUkraine:ARegionalComparison.JournalofEnvironmentalManagementandTourism,(VolumeXI,Summer),4(44):874-882.DOI:10.14505/jemt.v11.4(44).11

II. FORMATION OF THE GLOBAL INFORMATION SOCIETY: PROBLEMS, TRENDS, PROSPECTS

2.1. SCIENTIFICPROBLEMS OF FORMATION AND DEVELOPMENT OFINFORMATION SOCIETY

Abstract. The theory of information (post-industrial) society, revealing the main provisions of economy and society. The process of globalization is accompanied by the avalanche spreading information flows The phenomenon of information picture of the world as a scientific and methodological means of study of information reality reflects an important aspect of social life. Internet is a universal communication space, in which very different interests and values coexist. The purpose of this section of the monograph in a scientific and practical study of the problem of forming a global information society. The structure of the section includes consideration of the following issues: scientific problems of formation and development of information society; information as a strategic resource; formation of a virtual segment of the information market; the development of information and communication technologies; introduction of elements of the digital economy in Ukraine and the world; innovative business development and the startup ecosystem; the growth of the role of institutions of culture and values in the information society. During the study, various scientific methods were used, in particular: monographic, comparative, analytical, graphical, forecasting.

Keywords: information, communication, information society, innovative business, startup ecosystem, globalization, information market, digital economy.

Introduction. Modern feature of the development of civilization in the XXI century, undoubtedly, the globalization of companies. Informational globalization is a unique phenomenon in the modern economic and social life all sta. Its essence is determined by the information dependence of agents in this environment mediated by new technologies, flow of information, the formation of an increasing number of sources and channels of information. Information globalization has significantly contributed to progressive changes in the economy and society as a whole. Thus, the process of globalization is accompanied by the avalanche spreading information flows, so gradually in the world formed a unified information space (Dicker P., 2012). There is something that is called "global virtualization". So today in the world of Informatization, the term "virtual" is the key. Already talking about the emergence of virtual companies or an Internet civilization.

The theory of information (post-industrial) society, revealing the main provisions of economy and society, has become the methodological basis for determining logical steps in civilization progress, a clear periodization of human history as a unity of pre-industrial, industrial and information, postindustrial society. Nearly 15% of the population of our planet ("golden

billion"), live in developed countries, in which the information mode of production and the information society information technology are becoming.

The phenomenon of information picture of the world as a scientific and methodological means of study of information reality reflects an important aspect of social life. Various areas of modern science in some way take into account information factor. The hour of information reign, the hour of its study and systematization of knowledge about this phenomenon in the socio-economic world has come.

At the same time, it is necessary to admit that now the scope of human activity is based on the power of information and knowledge, the rate of appearance of which increases daily, and the spread of information and communication technologies is uneven across countries and sectors of society. Therefore, issues related to information as a strategic resource for technical security is extremely important and requiring further deeper investigation.

One of the forms of systematization of knowledge about the information reality is informational world picture, which is characterized by a number features (Nekrasov S., 2015).

First, the current socio-economic world is experiencing technical and information stage of development, it exists in the form of information civilization.

Second, world picture is transforming due to changes in the information environment of a person, on the basis of information and increasing globalization of the world.

Third, intensive research of information has created the preconditions for determining information first as discipline and than in interdisciplinary research area.

Fourth, the development of information sphere actualized the problem of the relationship of goals and objectives, tools, values and rules of scientific research.

The information picture of the world can be interpreted as the World Bank of Information that allows a person to perceive adequately the surrounding world. By providing specific information resources, classifying them accordingly, organizing access to them, the information picture provides a choice of particular system of values (Basalaev Y., 2014). The formation of an information society and changes in information world picture are prerequisites for the evolution to the next stage of human development, the civilization and technological foundation of which is the information industry, production of intellectual innovations, and continued modernization of the economy and the formation of cultural standards on the basis of intellectual innovations. Information nature of the present stage of civilization evolution determines the situation when no country without an effective entry into the world information space can't successfully compete in the sectors of high and medium technology not only on external but also on the domestic market. Today it is not enough to link the development of the information society only with the solution of problems transmission, access, processing and storage of information or information

products. Strategic planning processes of producing information in the form of new knowledge and the mass production of information technologies, which determine the modern condition of the productive apparatus and social-economic development of the country.

The fourth industrial revolution means more and more automation of absolutely all processes and stages of production: from digital product design, creating a virtual copy of it – to remote configuration of equipment in production under the technical requirements for the release of a specific "smart" product (Schwab K., 2017). This revolution is unique in terms of the pace, dimension, and consistency of transformations. It was driven by digitalization and networking. It blurs the boundaries between the physical, digital, and biological spheres while changing entire systems, basic concepts (money, power, partnership, property, identity).

The parameters of global business are formed in a hypercompetitive environment, where the information resource becomes a key factor in achieving efficiency and long-term competitiveness in global commodity and financial markets (Aaker D., 2010). The formation of the international business environment takes place on the scale of intensive investment and innovation processes, where the motives of all actors in the world economy are common. The distribution and redistribution of value added becomes relevant as a result of changes in the technological component of the reproduction process within large corporations or countries.

Innovative business is based on the constancy of the external environment, understanding it as a necessary condition for a stable organization and effective functioning of the economic system as a whole. It should be noted that most countries face the problem of lack of investment resources necessary for the development of innovative business, there is a structural imbalance between supply and demand in the field of financing innovative projects.

The purpose of this section of the monograph in a scientific and practical study of the problem of forming a global information society. The structure of the section includes consideration of the following issues: scientific problems of formation and development of information society; information as a strategic resource; formation of a virtual segment of the information market; the development of information and communication technologies; introduction of elements of the digital economy in Ukraine and the world; innovative business development and the startup ecosystem; the growth of the role of institutions of culture and values in the information society. During the study, various scientific methods were used, in particular: monographic, comparative, analytical, graphical, forecasting.

Information society is defined as a society in which economic development, social change, quality and way of life depend on the know ledge and methods of operation of information and expression of which can be characterized by the following criteria (Zhavoronkov V., 2016):

- technological- a key factor -information technology, widely used in all areas of society;

- social- information serves as an important stimulator of changes in quality of life in which "information awareness" in free access to information is formed and states;
- economic- information is a key factor in the economy (as a resource, product, source of value added and employment);
- political -free access to information provides the political process with increasing participation and consensus between different classes and social strata of population;
- cultural- recognition of the cultural value of information as a means for promoting information values in the interests of the individuals and society as a whole.

Of course, the concept of the information society should not allow rude technological determinism. It must take into account the difficulty, complexity, contradiction of new technologies introductions in public life, the interaction among various factors of social development, including the prominent role of the human factor.

Economic theories, existed in the late twentieth century, concerned mainly the sphere of material production. However, the development of information technologies on the basis of modern computer technology began to operate with new concepts, such as an information resource, the product of intellectual work, information environment. It determined the necessity of study of the important methodological issues of economics for information activities, which includes objectives, tools and result of the process. There was a fundamentally new concept - the national information resources, which were considered as new economic category. It is believed that in the XXI century information resources will be fundamental national wealth, and efficiency of their industrial exploitation will increasingly determine the possibility of the country.

According to Daniel Bell, post-industrial society comprises five main components of this concept (BellD., 1973). Fritz Mahlupin 60-ies of the XX century considered more than 30 industries of "industry knowledge". He grouped them into the following five classes (Mahlup F., 1966). American scientist Mark Porat proposed a typology of information areas (Porat M.U., 1977):

1. Production of knowledge and innovation;
2. Distribution of informatics and communications;
3. Risk Management;
4. Search and coordination;
5. Processor transmission of information;
6. Information products;
7. Means of information activities providing.

In the system of socio-economic development, the information economy as a social resource of labor is one of the most important evaluation criteria of rationality, including the effectiveness of the socio-economic system organization. George Stigleris the founder of "information economy" and "economic governance". One of his essay "The information on the labor market" (Stigler G., 1961) is the starting point for all further works. He noted

that information is a valuable resource, and "knowledge is power". According to him, "our understanding of economic life will be in complete if we do not systematically take account of the cold winds of ignorance".

Kevin Kelly was one of the first to describe the main features of "new economy" in his book "New Rules for the New Economy" in 1995 (Kelly K., 1998). According to him, most obvious in a changing world, are:

1) the global nature of the changes taking place;

2) operating with in tangible benefits: ideas, information and relationships;

3) close inter weaving and interaction among individual segments of the new economy.

He formulated twelve new laws: communication, completeness, exponential growth, turning points, increasing returns, reverse pricing, generosity, devotion, temporary descent, replacement oil fights, inefficiency.

In an economy based on information and knowledge, human and intellectual capital, which produces innovation and contributes to productivity growth, put forward on top. Thus, efficiency of intellectual capital and intellectual labor deter mines the prospects of the economy. Due to the dialectical relationship between intellectual capital, globalization and information economy, latter is self-sufficient and has a stable mechanism for self-development. There are a number of approaches in the methodology of scientific research of an information society that reflect the data in Table 1.

We will follow the definition done by Anatoliy Chukhno, "Information society is the most developed civilization according to the technological mode of production, which arises due information and computer revolution and is based on information technology, "smart" computers, automation and work of all spheres and sectors of the economy and management, unified fullest integrated communications system" (Chukhno, 2010).

Table 1

Scientific approaches to determining the nature of the information society (Zhavoronkov V., 2016)

Approach	Representatives	The principle of definition
Economic	D. Bell, V. Geyets, F. Mahlup, M. Porat	Economic component- a part of financial sector in the GDP growth - dominates
Information	A. Chukhno, J. Hayashy, J. Ito, T. Umesao	It is based on the theory of "information explosion", according to which the amount of available public information increases, leading to quantitative changes in the economy and the information society
Technological	A. Duff, A. Mink, P. Nora, L. Fedulova	The main determinant of the information society is the spread of information and communication technologies
Synthetic	J. L. Salvadzhio, K. Steynfild, G. Zhavoronkova	The basis is a separate group of "synthetic" theories, which combines listed above approaches

Prospects of socio-economic development of society are determined by the possibility of formation of synergetic interaction between innovation and human values, which makes this restructuring of organizations and institutions that would ensure positive relationships between productivity, security, cooperation and responsibility within the new model of development that can ensure economic, social and environmental sustainability in the country.

Mostly, disagreement between social and economic policies is caused by misunderstanding of the origins and hidden content of transformation, that is taking place. Therefore, it is necessary to apply to the processes that are its driving mechanism, in particular, on the one hand, modern stage of society development is a traditional, and, on the other hand is a radically new. Its principal novelty is that all processes are supported by the latest information and communication technologies(hereinafter - info communications), which are the basis for additional sources of increased productivity, creation of new organizational forms and the formation of the global economy.

Information technologies are not the main reason for the changes that society is experiencing at the present stage of its development. However, such changes would not have been possible in the absence of new information and communication technologies. Moreover, our planet is incorporated in the global telecommunication computer network, which is the basis for local information systems and communication processes.

Leading countries have taken an active position on the formation of information society. They have identified and formulated the policy of its development. International organizations whose purpose is to contribute to building the information society are established (for example, Information Society Forum, European survey of the Information Society (ESIS)).

It is known that the information in a society with a market economy is considered by scientists and practitioners as a strategic resource that provides acceleration of production processes, helps to economize all existing types of resources and allows to increase productivity, create areal opportunity to accelerate the scientific and technological progress, including through information and communication technologies.

In the information society universal benchmark is the achieved level of development of the system requirements that are inherent in the human potential of the population. The main sphere of realization of human potential – initiation of future needs. They give an impetus to qualitative changes in the knowledge economy (Kumar P., 2008). Therefore, policy must achieve the goal to improve development in the long term, which is accompanied by a profound change of mentality and national culture. Consequently, the institutionalization of the process of economic development reflects a moving synthesis of tradition and innovation, old and new values. At this point it is very important not to turn traditional values into an ideological dogma, and the new values in the repressive rule relatively traditional values (Zhavoronkov V., 2015).

The end of XX – beginning of XXI century is characterized by changing socio-economic structure. There is a transition from the industrial to the creative economy. The basis of such economy are intellectual potential, knowledge and creativity, i.e. the ability of individuals to generate new ideas and adoption of innovative solutions. Therefore, the proposed author's model of structure of the information society in the form of a circular model (Fig. 1.). The ratios among the various concepts that characterize the information society, we have reflected in the form of circles of different diameters, the core of which is a journal of creative economy.

The creative economy refers to a special sector of the knowledge economy. It is associated with intellectual activity of people today because the external environment requires new laws of business, because it changed the structure and motivation of consumers. There is a need in products with a high content of intellectual capital. Therefore, entrepreneurs should be familiar with the new trends of behavior and customer needs. Understanding of the creative economy provides the opportunity to turn your creative ideas as business owners and their employees on profitable activities.

In terms of creative economy a key element of global competition is not a struggle for the expansion of markets and attracting investment. There is competition the key players in the international economic arena for the use of talent and know-how highly educated and competent workers.

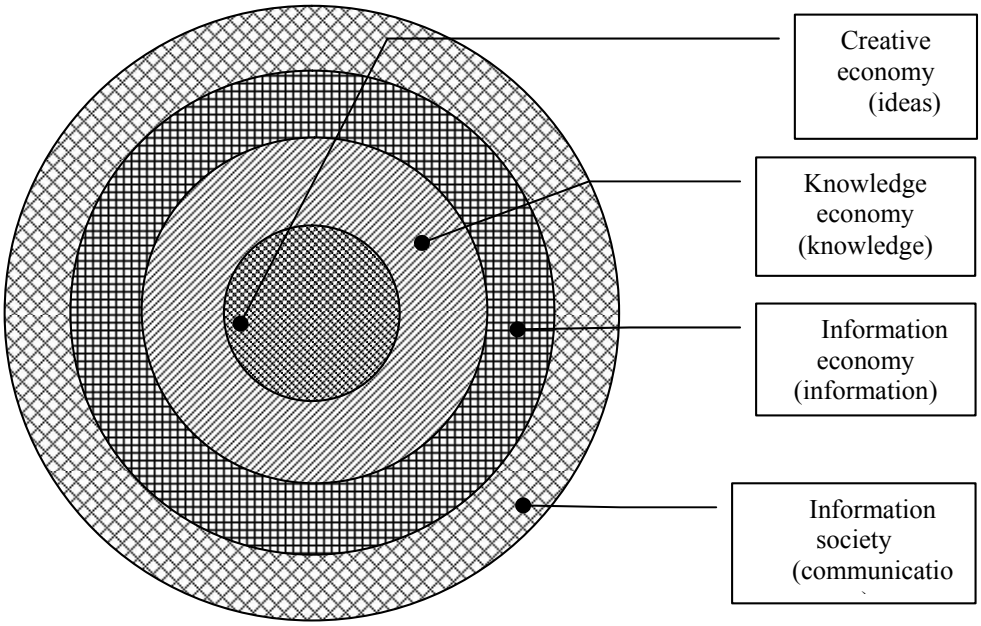

Fig. 1. The model structure of the information society (Melnyk L., 2017).

During the transition to the knowledge society is a qualitative leap in the structure of needs. The criterion for this transition is the saturation mass needs in material goods and intangible growth. The changing role of and needs significantly changes not only the culture of consumption, but also turns it into a factor of business development. This culture has a negative impact on human potential, creates a insatiable consumer for which consumption is the main content of his life. In society changing the nature of personal consumption and its interaction with the needs and production. Need give not only a signal for the production of the relevant goods, but also dictated a particular pattern of consumption. The deployment mechanism needs affects the development of human potential, there is a growing needs in intangible benefits.

In the structural model of creative paradigm of the knowledge economy the core as a cognitive imperative is creative. The second level (protective shell) are types of activity: scientific-educational innovative-greeting and information and communication. The third level is the results of the mentioned types of activities – intellectual (structural) capital, human capital and social capital.

Staging of cognitive creativity as the imperative paradigm for the formation of the knowledge economy, technology and social interaction in the development of the information society, understanding the new way of being – this is our attempt of conceptualization of current trends, awareness and consideration of which leads to a new civilization.

In cognitive creativity bet on the person and his potential is the greatest, people fully involved as an integral personality in the unity of the conscious and the unconscious. Here we get a qualitatively new form of government based on open and honest communication, a combination of a person's interests with the interests of the team, frankness of assessments, and the voluntary assumption of responsibility. This new quality that borders on wisdom as the ability to access and to design the future, finding this the only possible, the most accurate form of implementation. Informatization is the tool of construction of an information society.

Unfortunately, we must note the following negative factors in informatization of Ukrainian society:

- unsatisfactory providing the appropriate authorities with complete and accurate economic information, and simultaneously receiving by them the information that prevents the adoption of management decisions adequate the situation;
- very large range of organizations engaged in legal practice on informatization, which leads to contradictions in the norms and terminological confusion;
- lagging of the domestic info communication technologies, orientation on the purchase of imported unlicensed technics, allows unauthorized access to the information resources and increases the dependence of domestic consumers of foreign manufacturers of computer and telecommunications equipment.

Today, the function ally new info communication technologies are equivalent to the electric current in the industrial age. Nevertheless, they are notable to solve social and economic problems in society. However, access to information and communication technologies and their use in the context of our reality, are the prerequisite for social and economic development, and ultimately they lead to the construction of the information society. Economic researches show a director relation between the spread of information technology, productivity and competitiveness of companies, firms and countries as a whole.

The crucial role of information and communication technologies in promoting development has two aspects. First, they allow countries to rapidly develop the economy, modernizing the production system and increasing competitiveness. Second, the gap becomes cumulative for countries that are not able to adapt to the new technological system (Archibugi D., 2013).

The industrial epochs fundamentally different from the information epoch by the fact that information and know ledge have always served authorities and production. But when new info communication technologies made it possible incessant growth of know ledge and experience for human kind, the production potential became unprecedented, and the relationship between intellectual activity and industrial production– extremely dense. Consequently, reducing the gap between social development and economic growth with the help of technological innovation, information management and equitable global development is one of the most urgent issues of the XXI century.

Marginal social unevenness of globalization correlates with the flexibility and global scope of informational capitalism. Education, information, science

and technology play a key role in the current conditions. The transformation of education on general has led to the fact, that the level of education has become more important than the number of educated people. Disadvantages of education and lack of information infrastructure lead to such condition when a large proportion of the countries is dependent on the functioning of the globalized economies and, as a result ,becomes more sensitive to crisis and instability, which, in turn, influence on the global financial market.

Believed, that the possibilities of information society are endless. There are four tasks in its establish ment and further development:

1. Creating a legal framework that improves and protects existing democratic rights and freedoms.

2. Establish ingpractical rules that en courage people to use new technology.

3. Ensuring awareness about the real opportunities for every citizen.

4.Guaranteeingconformityof products and markets to the highest quality standards and consumer protection.

Thus, there are some features of the information society:

• information is production power;

•the problem of informational crisis is solved, and the contradiction between the information avalanche and hunger is eliminated;

•priority of information compared to other resources;

• info communication technologies acquire universal character;

•information al unity of all human civilizationis formed, that is, society is globalized;

• increase in the share of high technology products and services in the production.

Forest ablishing the organizational processes of information society formation and effective functioning of the information economy, it is necessary to provide the legislative support and legal protection. One of the main problems of legal regulation of information sphere sits complexity, because these processes cover a wide range of not only legal, but also economic and technological problems.

Analysis of international experience shows that flexible legal and economic mechanisms, which determine the actions in the development and distribution of information products and services, operate in functioning of an information sector of some countries. They have developed system of legislation, regulating the information activity, called information law. Legal support of information society in Ukraine is developed in the following areas: the process of informatization, securing the right of citizens to information, clarification of copyright, creation of uniform information space, administrative and judicial protection of information sphere.

The main objects, that require the legal regulation, are: the right to information; the results of scientific, technical and production activities as a source of information; protection of the interests of participants of the processes of creation, storage and use of information; financial and economic activities of scientific and technical information agencies.

The current state of legal support for some aspects of the information economy functioning:

Freedom to information(right to information and access to information). Freedom of speech and freedom of expression in the mass media are guaranteed by the Constitution of Ukraine and the Law" On the print media (the press in Ukraine)". The right of every citizen to freely and independently seek, receive, record, store, use and disseminate any information through print media is determined.

Protecting information. The system of normative acts, aimed at protecting information resources, is insufficient and can only partially solve the problem of public relations. Protection should begin at an early stage, when the real loss have not caused.

The rules that prohibit un authorized access to the computer and familiarization with computer data, as well as the modification or destruction of data are necessary. Storage and development of means too btainil legal access would lead to criminal action.

Legal acts, regulating relations in information activities, are combined into a single comprehensive legal unit- information law. It has been proposed to introduce in it also the laws on patent and licensing activities, scientific and technical expertise, copyright, intellectual property and technical protection of information. The set of legal norms should cover the relationships between all entities that exist in the information field, information activity and capitalization of market agents.

It is necessary the formation of coordinated legal and regulatory framework that clearly defines the conditions of commercialization and distribution of information products, the criteria for measuring their cost, allows to build a flexible mechanism of civilized realization of the rights of businesses and individuals on information resources on domestic and foreign markets.

The need to introduce legal restrictions on dissemination of information to guarantee national scientific, technical and economic interests should be taken into account. It is necessary to raise awareness in society, to establish the general agreed principles for the regulation of intellectual property protection, to provide privacy and information security in Ukraine and in Europe, and, whenever possible, internationally.

Information as a strategic resource

The information revolution can be seen as an important geopolitical factor that can change the relationship between power centers, regions and states. This thesis puts forward the complex of information problems of international character to each state:

1)building a system of international relations in the new conditions of information transparency of state borders;

2) development of public policy in relation to the world open net works and providing the entry of national and corporate information and telecommunication networks in them in terms of national interests protection;

3) the possibilities of the use of information technology as information weapons, and the threat of information terrorism.

A small article of the future Nobel Prize winner George Stigler contained an attempt to answer the question: how long will the problem of search of information about the seller of a particular product that offers the best price be ignored? Later he said in his Nobel lecture: "The proposal to explore the economics of information were adopted quickly and widely and even without any decent minimum objections" (Stigler G., 1982).

So, regarding the new factor of production – information – Ukrainian economists use two approaches. The first, which is embodied in the government's modernization program, focuses on intelligence and innovation, which means intellectualization and innovatization of economy, the widespread use of information and communication technologies as an important condition of solution of problems of economic modernization. Second, as academician A. Chukhno (2010) considered, – it is a confusion, denial of information and knowledge as an independent factor of production, limitation of its action with the sphere of material production. Figure 1 represents a modern system of the factors of production and incomes, proposed by Ivan Maliy. Therefore, the information is the only resource that can be simultaneously owned by unlimited number of agents of the global economy.

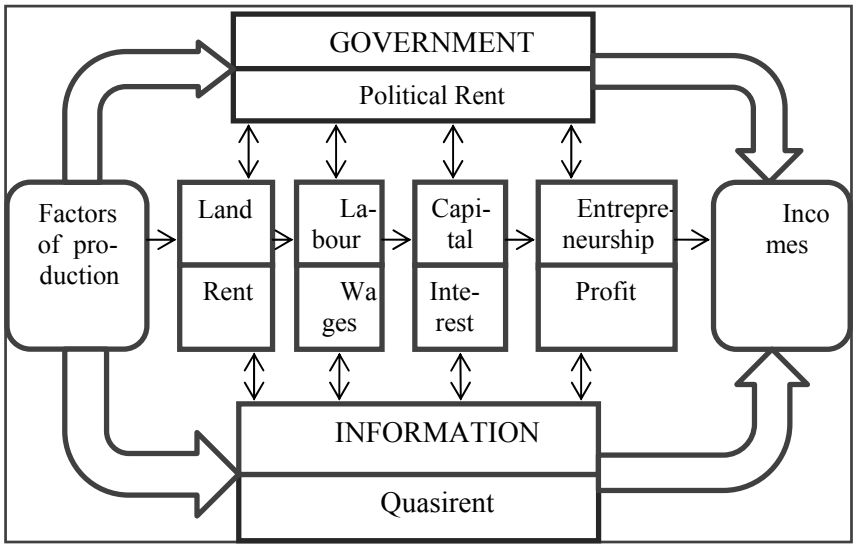

Fig. 2. The information in the modern system of the factors of production (Maliy I., 2013).

The main difference is the use of information as a resource, as a result this activity is the information it is regarded as a productive resource and as a commodity. On the one hand, information resource has a number of features that are common to all resources, and, on the other hand, those features, that are inherent to this type of resource and increase its value (Table 2).

Robert Sternberg identified three types of intelligence components that are responsible for processing information (Sternberg R., 2002):

I. *Metacomponents - management processes* that regulate the processing of specific information. They include:

1) recognition of the problem;
2) awareness of the problem and selection of processes suitable for its solution;
3) selection of strategy;
4) selection of mental presentations;
5) distribution of "intellectual resources";
6) control over the solution of the problem;
7) assessment of effectiveness of the decision.

Table 2

Features of Information Resources (Zhavoronkova G., 2016)

The same with other resources	Inherent only for information resources
Increase the value of products and services	Repeated use without additional costs
Allow to collect, store and transfer, improve own consumer qualities for users	Synergism the use of information – combining information with other types of resources, as well as other information enables a greater effect than the conventional combining of certain beneficial effects caused by each resource
Can utilize used information as a archiving with the ability to restore your data as secondary information resources	Operate in various forms of electromagnetic fields as communications and data display in memory of the entity (person, vehicle), as well as a variable structure of different physical media
Are created in a process of specific – higher human activity – intellectual work	Are transmitted by various channels on almost any distance and for 24 hours a day
Create only information products and services	A new form of knowledge provided in the alienated from the direct producer form

II. Executive components – processes of lower hierarchy level. According to R. Sternberg they include coding, identifying relationships, attitude, which calls to actions, use of comparison, justification of answers.

However, Uiric Nayser, criticizing the R. Sternberg position argues that the number of executive components can be infinite, and their specificity is determined by the characteristics of tasks (Nayser U., 1976). Scientist believes that at least this part of the concept of researcher less detailed and justified.

III. *Components of acquiring the knowledge* necessary to the subject to learn to do what the megacomponents and executive components do. According to R. Sternberg they include:

1) selective coding;
2) selective combination;
3) selective comparison.

The essence of the phenomenon of information asymmetry was investigated by George Akerlof. It consists in the fact that subjects of business that operate in a particular market and act as potential or actual business partners, have unequal or asymmetric information on :the subject of the transaction – counterparty of the agreement; object of the transaction; possible or quite likely future events, that may cause business risks to subjects who do not have such information (Akerlof G., 2005). Analysis of information situations that arise during negotiations and agreements, makes it possible to classify types of asymmetric information on different criteria.

The phenomenon of unilateral asymmetric information occurs when one of the two partners of the agreement is better informed about the subject of the transaction, the unfavorable factors of external environment and so on. If the partner can get additional information, which his/her counterparty do not have, then such in formations intuition is transformed in to a phenomenon of bilateral asymmetry information. If the agreement for the period of its implementation brings together three or more participants, each of whom is informed about the subject of the agreement or terms of cooperation in differing degrees, informational situation at the moment of signing the agreement or contract can be characterized as a phenomenon of multilateral asymmetric in formation.

Typically, partial information asymmetry occurs when concluding agreements, since the subjects of business avoid transacting business under conditions of complete uncertainty. Full information asymmetry occurs when concluding transactions in the market with asymmetric information, also called market with imperfect competition. The level of acceptability shows: acceptable or unacceptable asymmetry information according to the law, terms of the contract and so on.

In particular, systematic information asymmetry arises at completing transaction on the emerging market of information. Specific information asymmetry is caused by the financial possibilities of business agent on collecting (buying) of the necessary information, and his/her experience, competence, degree of specialization, etc. The potential information asymmetry becomes available simultaneously with the emergence of real events that make up the content of asymmetric information.

The phenomenon of information asymmetry is typical at completing transaction in the market of information services. Because the presence of asymmetric information between the buyer and seller leads to the need for agreements of such type.

According to the proposed classification, a situation, typical for agreements on sale information, can be considered as a phenomenon of unilateral, intentional and systematic asymmetry. Such information could meet the situation of complete or partial, acceptable or unacceptable asymmetry, depending on the certain circumstances.

Therefore, the information asymmetry reduces the efficiency of the economy as a whole and the effectiveness of the entities in particular. Such information situation is caused by several reasons:

1) macroeconomic cause of information asymmetry is the immaturity of the market of information services;

2) collecting and acquiring information involves additional previous costs of partners and, in addition, collected information may be irrelevant;

3) better awareness of a single business partner enables him/her to control the situation and dictate the terms of the transaction;

4) information capacity of each partner depends directly on his/her experience, competence, level of specialization and other objective factors that influence the situation;

5) doubts about the reliability of the information.

The advantages in information support of a party of economic relations create conditions for receiving additional incomes, so-called information rent. In this case the information is a resource that has economic value. Also it is a source of competitive advantage and a means of reduction in uncertainty and risk.

In the conditions when there are no methods of evaluation of information or it is not enough fulfilled, the negative impact of asymmetry will increase: buyers try to artificially understate prices for information, and sellers refuse from the providing of information services through their unprofitability. Must admit that some information products, or their fragments, in some cases, can be provided free. Sometimes certain set prices "per unit" of the product are an indicator, table, company, analytical development. Often the price is contractual, and the buyer is difficult to understand how it has been compiled. In general, the prices set by different vendors on similar information products (such, which can be conditionally comparable on the subject, scope and structure) fluctuate widely.

The deterioration of these parameters information (information resource) as confidentiality, integrity, availability, reliability, etc. can lead to significant negative effects:

- disruptions in the operation of technological process control systems and other systems;
-disclosure of data constituting commercial and other secrets;
-reduction in the reliability of financial documentation;
-unauthorized access to personal data of individuals and others.

The result of these actions may be:

- rupture of business relationships with partners;
- the failure of negotiations, the loss of beneficial contracts;
- failure to fulfill of contractual obligations;
- the need for additional market research;
- rejection of the decisions that have become ineffective because of publicity of information and ultimately financial losses associated with new developments;
- loss of opportunities to patent the results of scientific and technical activity or sell license;
- price reductions or sales of products;

- loss of reputation;

- more strict conditions for obtaining loans; difficulties in the supply and purchase of equipment and so on.

As already mentioned, in certain situations, the neglect of the protection of information can lead to complete loss of business.

Thus, it is important to detect and prevent threats to information. These threats can be divided into four groups: software, technical, and physical and regime.

To counter this threats, such measures should be implemented:

firstly, to develop a technique of analysis and assessment of threats of information security of entity and corporate standards of system of its provision;

secondly, to organize and carry out specific activities on the protection of information;

thirdly, to organize the operation of technical means of information protection;

fourthly, to implement technological audit and control of the system of information security.

2.2. THE DEVELOPMENT OF INFORMATION AND COMMUNICATION TECHNOLOGIES

From a scientific point of view, the space of virtualization include: virtual market, the virtual Corporation (enterprise), and virtual reality.

Virtual market is a market of goods and services that exists on the basis of telecommunication and information capabilities of the global Internet, basic elements of which are: free market access for all comers; the possible influence of participants on what is happening in the market; equal to the degree of awareness of the participants. Virtual market operates continuously in real time, covers the whole world.

The virtual environment opens for business new opportunities in the economic sphere, including through electronic Commerce. Occurs as the creation of new enterprises, focused only on e-Commerce and traditional businesses use electronic Commerce in their practice (Barry C., 2006).

The virtual Corporation is a temporary form of voluntary integration of multiple, usually independent partners (companies, institutions, individuals), which is due to the system optimization advantages of production provides the advantage of customers. In a different interpretation under the virtual Corporation refers to marginesie flexible enterprise, which is temporarily created and the main purpose is to obtain benefits through the expansion of the range of goods and services (Khrushch N., 2002). In other works a virtual enterprise to define such terms – "world enterprises" (Wytrich A., 1999), "infinite enterprise" (Paturel R., 1997) and the "extended enterprise" (Tarasov V., 1998).

The virtual Corporation, like other companies operating in the market are General purpose, namely, profit and competitive advantage in the market. Feature of achieving this goal is that the virtual enterprise in its activity oriented to the whole market, all the competitive environment and not become attached to his particular segment, and work on the scheme. A prerequisite for the creation of a virtual Corporation is the receipt of a market order. For the order creates a virtual network, which through its core competencies provides the virtual enterprise with the necessary resources and determine their capabilities (personnel, raw materials, management structure, financial and other resources, know-how, expertise and rights in a particular industry). With the help of electronic means are provided information and communication services and executed a market order. For subsequent orders, on the basis of existing entrepreneurial pool creates new virtual network.

Virtual corporations have significant advantages in comparison with other organizational forms of enterprises. The most important thing is that they can choose and use the best global resources, expertise and opportunities with the lowest variable costs. These features and their specific organizational structure allows you to become a leader in a competitive environment due to competitive advantages, namely the speed of execution of market order;

the decrease in the level of total expenditure; the possibility of choosing partners and entering new markets; the use of information from all over the world.

Virtual corporations have institutional characteristics that distinguish them from traditional forms of integration (table. 3). Virtual reality is the simulation of real processes of development and production in cyberspace, which is both a medium and a tool. Virtual reality as a tool allows you to intuitively build complex structures, and the environment gives the opportunity to abstract to a product, production building, workplaces, machines and equipment before they will really exist.

The services offered by the Internet, there is a variety of. But there are six basic economic models virtual economy (information production): Retail model; Media model; Advisory model; Made-to-order model; Do-it-yourself model; Information services.

The market for Internet services are characterized by some characteristic features, namely: economical. Very low cost almost always possible to achieve maximum results; globality, that is, the General ability of the global network. There is also the concept of local markets for Internet services, under which we understand the body providers, Internet companies, e-business infrastructure and Internet users in a certain area. It is the nature of the placement, the circulation of information flows and use of information makes the market global; the rapid pace of development and changes, because the market of Internet services is one of the most dynamic businesses.

Table 3

The differences between traditional and virtual corporations (Zhavoronkova G., 2017)

Form integration	The main goal	Traditional signs	Differences from virtual Corporation
Project organization	Individual projects to address complex and risky task	Interim organizational structure. Cooperation of various departments and hierarchical levels of the organization	The restriction of certain areas of knowledge that dictates the market system. The lack of strategic management concept
Intra-corporate organizational structure	Pseudocume ne structure to improve performance in the solution of separate tasks	Pseudocumene units. Self-organization. Internally the brand enterprise	Integration is not a temporary network. Competence does not coordinate with a third party
"Keiretsu" (Japan)	The merger of trading, several industrial companies and one major Bank (insurance company)	The Association is based on cultural ties. Close contacts with politicians and the administration. The use of a synergistic effect to gain market	Integration for a certain period. Low flexibility in changing partners. Complex financial linkages (cross-holding)
Strategic Alliance or joint venture	Economic integration to benefit in time, cost, know-how	Long-term cooperation with mutual participation. The use of a common production process	Long-term integration with partners. As a rule, mutual participation in the capital. Hard links
Outsourcing firm	The allocation and transfer of certain tasks to a third party	Focus on your own competencies. A contractual relationship. The individual phases of the production of goods	The classical approach to "make-buy". Contractual relationship with a partner. The transfer of production outside the enterprise
Multinational Corporation	Taking advantage of	The legal agreement between the	A legal unit for a long-term period. Stability of

	the global activities due to the scale of production (range)	companies. General economic policy	the partners. Weak market mobility

High growth services. In different countries depending on local conditions and the development of the market, the annual growth of Internet services ranges from 15 to 250% (Veretelnikova Y., 2001). Subjects of the market of Internet services can be divided into three large and interrelated categories:

-service providers – companies producing and selling Internet products and services for use or consumption;

-users – individuals and legal entities who buy these products and services for use or consumption;

-infrastructure, regulatory bodies and research institutions.

In the new EU strategy "Europe 2020" deserves attention in the context of our study, the category of "Plan for the development of digital technologies in Europe".

The purpose of this direction of development is the creation of a sustainable economy and social benefits by creating a common digital market based on fast Internet and common applications.

E-business – e-business in Web developing rapidly. Today in its third stage of evolution of e-business that already focuses not on the provider and on the consumer and allows you to automate complex patterns of business relationships.

Under e-business we understand the organization or person, in which basic business processes and internal and external communications are implemented and provided by an electronic technology and which are focused on profit. Internet selling may not be the main characteristic of e-business that makes it different from ecommerce, ACET contributes to buying and selling on the Internet.

There are three main components of e-business: electronic document management; e-Commerce; the electronic payment system. Peter Drucker in the emergence of the phenomenon of e-Commerce sees the most vivid manifestation of the impact of information technology. Today, in his opinion, worth talking about: "the explosive emergence of the Internet as a critical channel for global distribution of goods and services... which fundamentally changes the economy, markets, industrial structure, nature of products and services and their flows, values, behavior, and segmentation of consumers, jobs and labor markets"(Drucker P., 1999).

One of the types of e-business is electronic Commerce, which can be defined as the business processes for the sale, carried out between subjects with the help of information and telecommunication technologies to ensure the achievement of economic and financial objectives of the subjects as well as help reduce costs. When using new technologies, e-Commerce enterprise open new markets and get a number of additional advantages, namely:

- increases the efficiency of obtaining information;

- improving the quality of customer service;
- reduces the production cycle and sales;
- you receive the savings by reducing inventory;
- significantly reduced costs associated with the exchange of information;
- enterprises are becoming more open to customers;
- appears the ability to quickly and around the clock to inform partners and customers about products and services;
- allows you to create new sales channels like e-shop, there are new markets and consumers;
- increasing the competitiveness of;
- increases the value of companies for shareholders.

Today there are a number of models of electronic Commerce: electronic Department stores with a particular trademark; e-shop of the manufacturer; e-market intermediary firms; the electronic catalogue is the representation of a large amount of products from different manufacturers; an electronic auction; virtual community; manufacturers of systems of the technological chain of e-Commerce; consulting services; information brokers; research services.

The creation of national centre's of e-Commerce and their integration into the intergovernmental network will eliminate information barriers between producers and consumers of products and services, will provide conditions for the search of new markets in rapidly changing conditions, the structure of demand and supply, which will significantly stimulate the development of market infrastructure and create better conditions for the presence of domestic producers in regional and global markets for goods and services, and will also affect the development of small and medium-sized businesses.

In the era of the protracted revolution in Economics of the information business, the majority of analysts agree in opinion that it is necessary to take into account such principles of "survival" information company on the Internet:

- rate on income from online advertising;
- full use of modern Internet technologies with information flows, including quality of aggregation of information materials and search engines, cross links, personalized content, sending automated reminders and notifications;
- the development and cultivation of strong brands, which only can be formed a loyal and stable user base (Mitilino S., 2000).

Thus, e-business is a strategic area of development for most business processes. For corporate projects started consistent and painstaking work in two aspects: on the one hand, to develop new horizons of the Internet business, and improving technology, but first and foremost, of management techniques Internet business systems. Therefore, to successfully compete today, you need to quickly and accurately performed via the global Internet network for the exchange of information between companies and States, to conduct virtual marketing, e-Commerce and generally e-business (Dubenska O., 2015)..

In connection with the increase in the number of Internet users, the use of virtual technologies in government, banking, scientific, and educational institutions, especially with the advent of e-business has emerged the need

for regulation of corresponding social relations at the legislative level. It should be noted that the main feature of the Internet is that in the global network no national boundaries, there is no Central governing body, which would be able to initiate legislation. This feature determines the specificity of law-making, the necessity of harmonization of national legislation with international regarding these relations. The most active group of users of information technologies in the world are private companies. The questions that interest them, – negotiating and concluding deals with legal power, with computer communications, that is using electronic document management systems (EDMS).

International legal harmonization in the regulation of the SED took place gradually, taking into account the needs of practice and differences in the legal systems of States. At the beginning of this process was developed by the UNCITRAL model law "On electronic trade". The basis for regulation was taken "functional equivalent approach", based on the analysis of goals and functions of the traditional requirements for the preparation of paper documents in order to determine how those purposes or functions can be achieved or performed through electronic Commerce techniques.

An attempt of considering the possible impact of Internet Commerce on the structure of interaction of market participants was carried out by the European Commission. in 2010, when was the document on the settlement of vertical restrictive agreements (HEU) in the EU, which was introduced a number of innovations, taking into account the development of the Internet (Commission Regulation, 2010). One of the controversial points of the new document were the conditions under which restrictions on the Internet are eligible. In this context, there are a number of issues which require consideration, namely (Shalashova M., 2011):

1) outright ban on Internet sales. It is necessary to distinguish "active" and "passive" sales. Active sales are sales that are carried out against individual consumers, specific groups of consumers or consumers that pertain to specific areas. Passive sales are carried out in the case of the reaction of the distributor on the individual needs of the consumer;
2) a ban on Internet sales according to the territorial principle to protect the exclusive territories;
3) restrictions to Internet retailers;
4) the conditions imposed on Internet Commerce. For example: dual pricing, high quality requirements, encourage customers to attend exhibitions distributor, etc;
5) the minimum resale price.

Thus, in accordance with the new box exceptional measures for settlement of vertically restrictive agreements and "Principles of leadership", the European Commission attempted to strike a balance between market participants, allowing consumers to effectively use Internet Commerce, and at the same time allowing suppliers to determine the optimal model of distribution and selection of distributors. From time to time the European Commission will provide additional clarification to the new rules, and the rules themselves will remain in force until 2022. However, the activity of subjects of information relations

in the global computer network Internet requires further improvement of legal regulation. Relevant laws and regulations should take into account the achievements of international organizations in this field and, in particular, the EU.

Information society can be considered as a new stage in the human development, which is characterized by the domination of information, information products, information technologies (IT) and communications both in the field of production (Industry 4.0) and in the sphere of consumption, as well as the formation of the information industry as part of the national economy.

There is a close relationship between the processes of globalization and the informatization of public life. Such interdependence is obvious, because "on the one hand, information technologies cause "compression" of space, provide an opportunity for rapid interaction between different points of the globe, and on the other hand, there are global processes such as: liberalization, transnationalization, internationalization of production and capital allow the spread of the latest technology everywhere" (Zhavoronkova G., 2017).

Information technologies are the use of computer technology and communication systems for the creation, collection, transmission, preservation, processing of information in all spheres of public life. Recognizing technological advances in the era of information technologies, one can identify the main directions of their development (Figure 3).

Ensuring the use of information technology is as a complex of interrelated scientific, technological and engineering disciplines, that study the methods of efficient organization of labor engaged in the processing and preservation of information; computer techniques and methods for organization of their interaction with people and production equipment, and related social, economic and cultural issues.

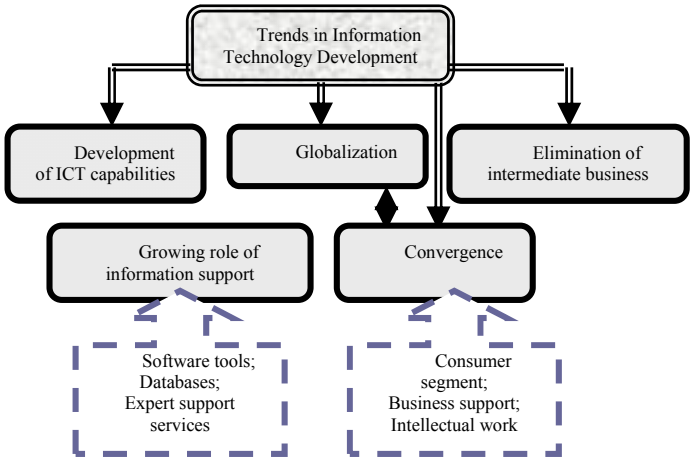

Fig. 1. Trends in Information Technology Development (Zhavoronkova G., 2018 b).

Globalization is directly related to the convergence that forms today the potential market for information technologies, the main segments of which are the following elements:

- consumer segment – it includes transfer of information to private individuals;
- business support – it includes the use of products and services of information technologies in the implementation of various types of business activity;
- intellectual work – it refers to the use and transfer of information among managers and other professionals.

Information market through the use of information resources, products, technologies and services and with the help of IT performs one of its main objectives – providing information in all spheres of public life.

It is well-known that IT and communications provide an opportunity for the rapid transfer of information, funds regardless of distances, and thereby ensure the creation of a global information space. Thanks to IT, it became possible for more free placement of production, without binding to developed countries.

The main trend that changes the IT infrastructure is virtualization. Virtualization technology makes information resources autonomous and independent. A global study by Penn & Berland Associates shows that 86% of IT executives plan to virtualized 75% of existing IT resources in the nearest future. According to CIO Research, 85% of companies use virtualization of servers, 37% - virtualization of storage systems, and 34% - virtualization of office systems.

Virtualization of storage of information separates physical storage systems from their logical representation. The basic idea is to concentrate all the resources of different physical systems in one large pool, from which it is easy to allocate storage space of different servers with different operating systems. The virtualization effect is especially noticeable where you need to replace a large number of physical servers. The cost structure of the virtualization project includes: equipment – 20-30%, software licenses – 30-40%, consulting and implementation work – 30-40% (Zhavoronkova G., 2017).

Cloud computing technology provides network access for each user to a flexible and defined set of physical or virtual resources at a certain scale, which can be independently used and regulated as needed. Referring these technologies to breakthroughs, experts and scholars predict that in the nearest future, their strong influence on markets, economics and society will grow.

In a cloud computing environment, all data is on many network resources that allows access to data through virtual machines. Since these data centers can be located in any part of the world beyond the reach and control of users, there are various security issues that need to be addressed.

At the same time, in terms of business, the following requirements are put forward:

1) the continuity of the service;
2) reservation;
3) scaling the data cluster;
4) automatization of technological operations.

The specified requirements allow to increase demand, and also to minimize expenses for maintenance of necessary level of service. At the same time, cloud providers have additional problems. After all, customers need a dynamic real-time scaling, which provides elasticity of replenishing or removing resources as needed. In turn, this process allows you to use a variable cost model and provide dynamic allocation of resources in real-time with correction for peak load, computing power, bandwidth and storage resources.

Today there is a tough competition for the redistribution of world market space in the field of information and computer technology. Due to the spread of "cloud technologies", that were previously in different business segments of the market, the interests of the largest global companies are confronted and aggravated.

The formation of the information society and infrastructure has played an important role in the innovative activity of the developed countries, as the key to the active introduction of innovation in the economy is the exchange of information. All this requires the further development of information infrastructure.

International Scientific Congress "Information Society in Ukraine: The Current State of the IT Segment and Its Development Trends", held in Kyiv on October 25, 2012, formulated the main thesis for the further development of the information economy: "The development of "a new economy" was impossible without the telecommunications sector – the main instrument of management of the information flows of modern society and the basis of the economy in its modern sense". Rating Ukraine on the level of development of information and communication technologies may be see on Figure 4.

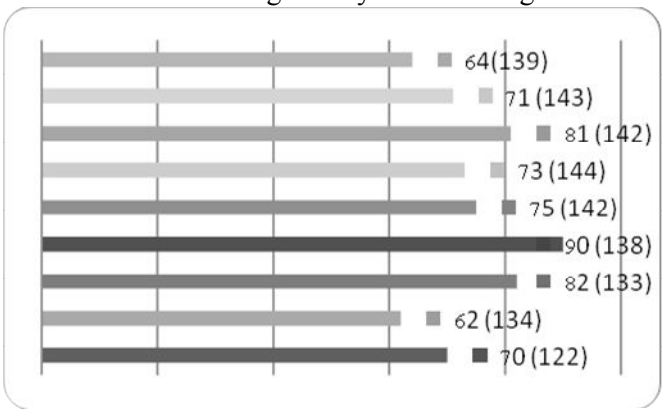

Figure 4. Rating Ukraine on the level of development of information and communication technologies (http://edclub.com.ua).

However, the section "Information Society" appeared on the official web-site of the State Statistics Service of Ukraine (www.ukrstat.gov.ua) under the heading "Publications" only in the Statistical Yearbook of Ukraine for 2015 (for example, in the United States, regular IT surveys of companies on IT spending started with 2003).

According to the Table 4, it can be seen that in the field of informatization in 2016 there were 11932 enterprises and organizations, the main type of activity of which was the provision of services. That indicator was by 5.6% less than in 2010. The total number of IT specialists in Ukraine at the end of 2016 was 157.1 thousand people, which was 31.2% less than in 2010.

For 2016, the sales of services in the spheres of information and telecommunications are 117407.2 million UAH. The operating profit margin of the information and communication enterprises in 2016 increased by 1.1 percentage points compared to 2010.

Access to information for the public is becoming more and more accessible. Number of users of computer communication, including Internet, is growing at a fast pace (Table 5).

Table 4

Key structural indicators of enterprises about providing information and communications in Ukraine (www.ukrstat.gov.ua)

Indicators	2012	2013	2014	2015	2016
Number of enterprises, units	13448	14885	13319	13617	11932
Number of employed workers, thsd. persons	219,5	218,1	192,7	166,4	157,1
Sales of goods and services, mln. UAH	79354,9	80410,4	84103,6	100590,4	117407,2
Computer programming consulting and related activities, mln. UAH	11654,2	14486,9	18547,3	29670,6	31550,1
Telecommunications, mln. UAH	44574,5	44088,7	44832,7	47650,8	48330,1
Earnings before tax, mln. UAH	6300,1	6817,7	-15379,9	-10166,6	4197,9
Operating profit margin, %	10,5	11,8	-1,6	0,5	8,5

In the information and telecommunication aspect, Ukraine today has no competitive advantages in international markets compared to developed countries. This applies both to qualitative and quantitative indicators that characterize the relevant segment of the domestic market at the present stage. The greatest cumulative value for the development of the domestic economy is concentrated in the telecommunications sector of the following types of communication: mobile, satellite, as well as computer, which is responsible

for incorporating the Ukrainian economy into the global Internet information space.

Table 5

Number of Internet users (www.ukrstat.gov.ua)

Indicators	2012	2013	2014	2015	2016
Internet subscribers, thsd. persons	4904	5435,3	6122,5	6000,6	14203,2
including home internet	4432	5002,4	5645,5	5557,3	13122
Computer communications services, mln. UAH	5401,6	5697,2	6190,4	7144,3	9101,8
including providing access to the Internet	4673,1	4908,5	5348,9	6130,5	6054,6
including public	2925,3	3284,7	3733,9	4125,7	6476,8

The market of goods (services) for disabled people, and namely visually impaired, has a different range of branches. It is very diverse, as it includes: canes, talking color determiners and calculators, writing instruments, guide dogs etc.

But most of them are no longer new and, frankly, do not directly solve the problem for the visually impaired, they are rather aids.

Now, in the 21st century, in the time of the latest and increasingly unusual technologies, it will be possible to find a solution to the problem, so that it would be both convenient and easy to use, and even give its own features. This is a special earphone with GPS function that will connect to your phone and will monitor your every move while it is active. And the name of this, at first glance, strange and wonderful device – is Freedom. It will look like a small white gadget with a diameter of 5-6 cm, made of harmless to human skin plastic. For greater understanding, in simple words, it can be compared to a blue tooth headset. But the device will have a certain feature so that you can select the person who wears it and understand that this is a person with visual impairments. But if that's not enough, because most likely other people will not always look at something white in the ear. Therefore, in addition, visually impaired people will wear special bright armbands with a defining pattern, which will finally make it clear that this is the person in front of you.

There will be an application directly on your mobile device that will be connected to your headset. Its download for configuration is done in 2 steps. That is, it will not cause any problems. And this program can be safely used by children from 8-19 years and adults from 20-70 years. With the help of a small camera at the end of the device, the program will see obstacles, steps, curbs, other people, etc., and, accordingly, will send you a signal about what is in front of you. When approaching, for example, a pedestrian crossing, the program will warn you with a voice like a Google translator and at the same time will be accompanied by vibration with one amplitude, and when reducing the distance with a pedestrian,

will give a vibration of another amplitude, etc. In case of danger from pedestrians, cars or other unforeseen disasters, this will be notified in advance, as the application works in real time.

Our calculations confirm the efficiency of the invested funds and the payback of the project earlier than the third year of launch. Taking into account that the initial investment amounts is UAH 1.7 million, the payback period of this project is 2 years and 11 months. At the moment, "Freedom" is an ideal product for the visually impaired, as it includes everything that such a person needs. And the main thing is that this thing helps to start your life on a new page and feel like a full part of society.

The development of information and computer technologies and information and consulting services in Ukraine reflects the following trends:

- a rapid decline in the price of Internet access;
- mobile communications covering information processing and electronic document transfer services;
- information exchange moves from a centralized and hierarchical model to decentralized, horizontal, evenly distributed and democratic;
- the transition from the sale of computers to their free transfer or sale for a nominal fee with monthly payment for access to services;
- distribution of computerized interactive TVs;
- creation of clusters or zones of universal access to Internet services with the help of wireless technologies;
- development of electronic document circulation in all spheres.

The formation of a national strategy for the development of the ICT sector in Ukraine will lay the foundations for an integrated national strategic management system aimed at ensuring achievement, and then long-term retention, a high level of global economic competitiveness of the country. Creating favorable conditions for the development of this area requires new approaches to the development of financial services institutions that provide the accumulation and redistribution of financial resources for the implementation of effective structural changes.

The basic economic strategy for the development of the sphere of ICT in Ukraine is to not first consider ICT as a subject of state policy, but to turn ICT into the direct interest of consumers, producers and investors by:

1) encouraging the subjects of the national economy to invest innovatively in order to increase the supply of innovative products, technologies and knowledge (investing directly in the sphere of ICT and in introducing elements of ICT into traditional branches of economy and spheres of life);
2) creation of conditions for the domestic enterprises to implement an offensive strategy in foreign markets, support of constructive competition in the domestic market, which will encourage enterprises to innovate;
3) the diversification of organizational forms of the national economy functioning, the provision of cooperation between small, medium and large enterprises in the field of development, implementation, production and sales of ICT products, development of scientific and production cooperation,

industrial and financial integration, venture business, including the international level;

4) the transformation of "shadow" capital and the involvement of the "shadow" sector in investing, and expanding on this basis own enterprise resources for innovation activity in ICT.

Accelerated innovation development of information and computer technologies will allow Ukraine to:

-create new jobs and increase the level and quality of life of the population;
-balance interregional disproportions;
-ensure sustainable economic growth;
-enter the international markets of information products;
-integrate into international organizations;
-increase the inflow of foreign investments;
-accelerate economic reforms in Ukraine;
-build an information society.

2.3. INTRODUCTION OF ELEMENTS OF THE DIGITAL ECONOMY IN UKRAINE AND THE WORLD

In international practice there is no harmonized definition of the digital economy. In most foreign sources, when describing the digital economy, the emphasis is on technology and related changes in the ways in which economic agents interact. At the same time, specific types of technologies or certain forms of changes in economic processes can be mentioned. Often the definition of the digital economy is replaced by a list of areas of its impact on the economy and social sphere.

When disclosing the meaning of the "digital economy", it should be noted that today there are different interpretations of this term, which depend on the point of view of a particular scientist and method of research.

The digital economy is a form of economic activity that arises from many examples of networking between people, businesses, devices, data, and processes. The basis of the digital economy is the growing interconnectedness of people, organizations and machines, formed by the Internet, mobile technology and the Internet of Things.

The key goal of digitalization of Ukraine is to achieve digital transformation of existing and creation of new branches of economy, as well as transformation of spheres of life of Ukraine into new, more efficient and modern ones. Such growth is only possible when digitalization-related ideas, actions, initiatives and programs are integrated into national, regional, sectoral and development strategies.

Digitalization has been identified as one of the main prospects for the development of the Ukrainian economy. The share of the digital economy in Ukraine is only 3% (only $ 2.6 billion), which is close to the characteristics of developing countries. In the digital competitiveness rating of the IRF in 2019 FY, Ukraine ranked 60th out of 63 countries in Europe, the Middle East and Africa.

The digital economy is much more mature in developed countries: among countries, the digital economy ranges from 10 to 35% of GDP in developed countries, and from 2 to 19% of GDP in developing countries. This gap reflects the progress made in developed countries in the accumulation of digital assets, the adoption of digital services, and the ability of any company to use digital technologies.

Digital assets of the services sector in the field of ICT, financing and technology production are, respectively, 21.5, 15 and 13.5%. However, even traditional sectors of the economy have accumulated large reserves of digital assets: they account for more than 5% of the sector's gross value added. The digital economy is expected to account for about 24.3% of world GDP by 2025. Digital platforms are playing an increasingly important role in the global economy. In 2017, the total value of platform-based companies with a market capitalization of over $ 100 million. The United States exceeded an estimated $ 7 trillion. USA, which is 67% more than in 2015.

Some global digital platforms have gained very strong market positions in certain segments. For example, about 90% of the Internet search engine market is owned by Google. Facebook accounts for two-thirds of the global social media market, and its platform is the most popular among social networks in more than 90% of countries. Almost 40% of the world's online retail sales are made through Amazon's network, and its subsidiary AmazonWebServices accounts for about the same share of the global cloud infrastructure market. In China, the WeChat network has more than a billion active users, and its payment system, along with the Alipay system (owned by Alibaba), covers virtually the entire Chinese cellular payment market. At the same time, Alibaba accounts for an estimated almost 60% of the Chinese e-commerce market.

E-commerce (commerce) in the modern world covers such operations as: online marketing; Internet contacts with suppliers of goods; after sales service; payment system; logistics and delivery of goods (Social Marketing).

Currently, the economic effect of the use of e-commerce technologies is positive and has a positive growth dynamics. At the present stage of social development, this sphere of activity is an integral part of human life. E-commerce has a lot of benefits that lead to lower prices for services and goods. In turn, this helps to increase the volume of online commerce. The dynamics of e-commerce development in Eastern Europe is shown in Table 6.

The overall growth of e-commerce, in which Ukraine was the leader among European countries in 2015-2016, and the increase in the share of Internet shoppers allowed it to rise during 2014 - 2016 in the overall ranking of e-commerce UNISTAD by 4 positions, with 58th to 54th place (UNCTAD). It should be noted that this trend can be extrapolated only for the next 1-2 years, because, first, the growth rate of Internet penetration decreases as its absolute value increases; secondly, it is the countries with the lowest Internet penetration that show the best dynamics of Internet trade growth, with a correlation coefficient of - 0.6.

Table 6

Dynamics of indicators of e-commerce development in Europe and Eastern Europe

Indicator	2015	2016	2017	2018	2019
Volume of Internet trade in Eastern Europe, billion dollars	16,64	23,02	29,68	27,17	29,28
The volume of Internet trade in Europe as a whole, billion dollars	372,75	469,81	531,49	505,12	563,48
Volume of Internet trade in Eastern Europe, billion euros	12,95	17,34	22,45	24,49	26,50
The volume of Internet trade in Europe as a whole, billion euros	290,0	353,8	402,0	455,3	509,9
Annual growth index in Euro equivalent,%, Eastern Europe	32,58%	33,91%	29,45%	9,09%	8,23%
Annual growth index in Euro equivalent,%, Europe	17,69%	22,00%	13,62%	13,26%	11,99%

Compiled by the authors from the source Company "InternetWorldStats"

The development of e-commerce is based on attracting more and more users to the Internet, so it is not surprising that the share of e-commerce turnover in GDP and the share of e-commerce in retail trade correlates with the Internet penetration rate, it the population aged 14 to 74 that are regular Internet users. Thus, in the leading countries of Western Europe, this figure is close to 100%, while in Ukraine it is only about 63%.

The dynamics of indicators of e-commerce development in Ukraine, calculated by the authors taking into account the differences in methods of estimating and fluctuations in the hryvnia exchange rate against major world currencies, are given in table 7.

The growth of e-commerce in Ukraine is obviously due to the fact that for more and more of our fellow citizens, the Internet is becoming a natural habitat, within which more and more needs are met. According to (European B2C), the level of Internet penetration in Europe in 2019 was 75.3%, reaching 90-98% in most EU countries. In Ukraine, this level was 68% and increased by another 4% over the year, reaching, according to various data, from 69% to 80% (Vincos, 2017). At the same time, the share of Internet users who are Internet buyers has rapidly increased (Table 8), however, only 9% of Internet users have never bought anything on the Internet, while in 2017 there were 18%.

According to numerous opinion polls, the main motivator for buying in foreign online stores is the lower price, especially in the segment of electronics and home appliances, and in the segment of clothing, footwear, children's and sporting goods - even higher quality and more choice, the ability to control delivery.

In general, e-sellers in Ukraine use a variety of business models. Typical models for categories B2B, B2C, C2C are given in table 9.

Table 7

Dynamics of e-commerce development indicators of Ukraine

Indicator	2014	2015	2016	2017	2018	2019
Retail trade volume in Ukraine, UAH billion	812	888,7	901,9	1031,7	1159,3	1228,9
Volume of retail trade in Ukraine, billion dollars	99,5	111,0	76,0	47,4	45,4	43,5
Retail trade volume in Ukraine, billion euros	79,1	83,7	57,4	42,6	41,0	42,3
Volume of Internet trade in Ukraine, UAH billion	4,6	7,0	12,3	25,5	38,4	48,0
Volume of Internet trade in Ukraine, billion dollars	0,57	0,88	1,04	1,17	1,50	1,70
Volume of Internet trade in Ukraine, billion euros	0,45	0,66	0,78	1,06	1,35	1,65
Annual growth index of retail trade in hryvnia equivalent,%	20,3	9,4	1,5	14,4	12,4	6,0
Annual growth index of retail trade in dollar equivalent,%	17,5	11,5	-31,5	-37,6	-4,3	-4,1
Annual growth index of retail trade in euro equivalent,%	29,9	5,9	-31,5	-25,8	-3,8	3,2
Annual growth index of Internet trade in hryvnia equivalent,%	46,8	53,3	75,2	107,6	50,4	25,0
Annual growth index of Internet commerce in dollar equivalent,%	45,9	52,9	18,3	13,2	28,0	13,1
Annual growth index of e-commerce in Euro equivalent,%	58,7	48,0	18,8	34,9	27,4	22,3
Internet trade penetration in Ukraine,%	0,6	0,8	1,4	2,5	3,3	3,9

Compiled by the authors from the source (Elektronn_urad)

Most of the e-commerce market in Ukraine is occupied by companies that use 4 business models: e-shop (supermarket), e-bulletin board, e-marketplace and price aggregator, and many companies use hybrid models such as "bulletin board + price aggregator" (Ria.com), "supermarket + marketplace" (Rozetka.com, Lamoda.ua).

Table 8

Dynamics of Internet penetration and purchasing activity of Ukrainian citizens

Indicator	2015	2016	2017	2018	2019
Number and share of regular Internet users, million people	19,3	17,3	18,0	18,3	19,8
Internet penetration,%	51	54	58	59	68
Number of Internet buyers, million people	2,1	3,0	3,5	3,7	8,6
Average cost of online shopping, euros / person	210	220	224	286	285,5
Proportion of Internet users who shop online, %	10,9	17,3	19,4	20,0	44,0

Compiled by the authors from the source (Elektronn_urad)

Elements of "hybridity" are demonstrated by the new Shafa.ua platform, which combines elements of a bulletin board and a vertical C2C marketplace in the "Women's Clothing and Accessories" category, taking on the functions of vendor verification, moderation and publication of reviews. Among the most popular electronic sellers of Ukraine given - hybrid Internet-supermarkets-marketplaces Rozetka and Lamoda, bulletin boards OLX, Allbiz Ria, specialized online supermarkets electronics Eldorado, Foxtrot, working on the model «clicks and bricks», clean marketplaces Prom.ua, Bigl.ua, Skidka .ua and online store of cosmetics and perfumes makeup.com.ua.

Table 9

Business models of successful e-traders of Ukraine

Business models name	Interpretation	Income model	Foreign companies	Domestic companies
Electronic show-window (manufacturer's website)	Sale of goods of own production through own site	Manufacturer	Sony.com; Dell.com; Amazon.com (частково)	"Galant" factory online store:www.magazinperchatok.com.ua
Electronic bulletin board	A site where individuals or companies place advertising offers for goods or services	Mediation or advertising	Apartments; Monster; Craigslist; AllBiz	OLX (hybrid); Bezplatka; Kidstaff; Klubok; Klumba (today kloomba.com); Ria.com; Shafa.ua (hybrid)
E-shop / e-supermarket	Sale via the Internet of goods purchased from various manufacturers, on their own behalf at their own prices, mainly from their own inventories	Commercial Advertising	LandsEnd.com; Amazon.com (partly); asda.com; tesco.com	Allo; Foxtrot; Comfy; METRO Ukraine (www.metro.ua); Rozetka.ua (hybrid): Modnakasta; Leboutique; Eldorado; LaModa
Price aggregator	Search and compare offers from different companies with the establishment of appropriate links with the subsequent implementation of transactions directly between	Subscriptions (from vendors); Referral payments Mediation	Uswitch.com; GoCompare.com;MoneySuper-market.com CompareTheMarket.com	Hotline; Price; EK;MagaZilla; m.ua

	buyers and sellers			
Electronic auction	Internet platform for contacting sellers and buyers and transactions; the buyer and seller are traded in the transaction process	Intermediary (per transaction) Fee for using the platform	eBay.com Priceline.com	bitok.ua setam.net.ua

(Compiled by the authors**)**

Most of the e-commerce market in Ukraine is occupied by companies that use 4 business models: e-shop (supermarket), e-bulletin board, e-marketplace and price aggregator, and many companies use hybrid models such as "bulletin board + price aggregator" (Ria.com), "supermarket + marketplace" (Rozetka.com, Lamoda.ua). Elements of "hybridity" are demonstrated by the new Shafa.ua platform, which combines elements of a bulletin board and a vertical C2C marketplace in the "Women's Clothing and Accessories" category, taking on the functions of vendor verification, moderation and publication of reviews. Among the most popular electronic sellers of Ukraine given - hybrid Internet-supermarkets-marketplaces Rozetka and Lamoda, bulletin boards OLX, Allbiz Ria, specialized online supermarkets electronics Eldorado, Foxtrot, working on the model «clicks and bricks», clean marketplaces Prom.ua, Bigl.ua, Skidka .ua and online store of cosmetics and perfumes makeup.com.ua.

As for traffic generation, the most popular is access to sites through search engines (41.4% of traffic in Rozetka, 63.51% - in Prom.UA, 75.44% in Alibaba), direct links to the Internet address (OLX - 41 , 46%, Rosette - 25.8%). Other types of traffic are much less efficient. This distribution of traffic correlates with the data of opinion polls on the sources of information used by Ukrainians when making online purchases. At the same time, according to a Google study [25], at least 76% of Internet users search for information about the product on the Internet and compare data on different sites, regardless of whether the purchase is online or offline, and 70% read tips on choosing another product that confirms the value of working with different sources of visitors to the site and the importance of having on the site of the online merchant customer reviews or recommendation chatbot.

Airlines around the world are experiencing the worst crisis for the industry in its history. The industry, the effectiveness of which depends on the accuracy of demand forecasting, is in a state of uncertainty due to the high probability of the third wave of coronavirus and the restoration of slightly relieved constraints.

In 2020, the international tour flow decreased by 70%. Unlike companies in many other industries, airlines cannot afford to take a wait-and-see attitude. In order to meet the new requirements, to emerge from the crisis stronger than before, it is necessary to introduce new technologies. Thus, the intensification of business processes in airlines through the introduction of relevant elements of e-business is becoming more important than ever.

Increasing globalization and digitalization, the widespread use of big data analysis technologies are radically changing the organization of airspace management and the air transport market. The world's leading airlines are upgrading location systems to identify the location of aircraft, passengers and luggage as accurately as possible, speed up ground pre-flight preparations, automate and improve service (Kovalenko N., 2017).

Consider a promising direction that determines the future of the air transport industry - the Internet of Things (technological evolution of this e-business is shown in Figure 6) and RFID-marking (technological evolution of this e-business is shown in Figure 2).

The Internet of Things is a set of physical objects connected to the Internet and equipped with sensors - from smartphones, tablets to cars and jet engines, which collect data and exchange it over the network, including local or wireless. Thus, at airports, the technology allows to combine notification and monitoring systems for all objects, to make the stay of passengers more comfortable and safe by transmitting to their portable electronic devices (smartphones, tablets, etc.) data that are learning to navigate. Air hubs can more effectively control the number of passengers at any point of the airport and prevent the accumulation of large queues.

<table>
<tr><th colspan="7">Technological evolution of the Internet of Things</th></tr>
<tr><td>1999</td><td>2009</td><td>2010</td><td>2015</td><td>2018</td><td>2020</td><td>2030</td></tr>
<tr><td>Formulation of the concept of the Internet of Things by Auto-ID research group founder Kevin Ashton for Procter & Gamble</td><td>The birth of the Internet of Things (Exceeding the number of connected items over the population of the planet)</td><td>Copenhagen Airport for the first time used the collected data to track passenger traffic in Wi-Fi coverage areas</td><td>Testing of beacons that provide navigation applications in the development of the Internet of Things</td><td>Half of the world's airports use IT solutions in check-in and check-in areas, boarding areas and security checkpoints</td><td>80% of passengers use services for self-service based on IT technologies (flight check-in, baggage claim, document scanning) effects</td><td>Equipping 90% of all aircraft with IoT technology</td></tr>
<tr><td colspan="2">Effects:
Simplification of procedures
Passenger control
Optimization of passenger routes at airports
Reduction of operating costs of airports
Improving security at airports through tracking systems for mobile equipment</td><td colspan="2">Market assessment:
By the end of 2020, 16% of airlines will launch major Internet of Things programs, and another 41% will conduct research and development in this area.
The Internet of Things market is expected to grow from $ 170 billion in 2017 to $ 561 billion by 2022 with an overall average annual growth rate of 27%.</td><td colspan="3">Drivers:
Development of cloud computing, technology between machine interaction and large data analysis
Miniaturization of wireless sensors
Distribution of high-performance networks
Transition to IPv6 (Internet Protocol version 6)
Barriers:
Unresolved issues with sensor power supply
Lack of uniform data integration standards
Increasing the load on network resources due to the growing number of Internet of Things
The difficulty in maintaining the security of the Internet of Things ecosystem</td></tr>
<tr><td colspan="7">Internet of Things market volume by major sectors of the world economy (forecast for 2025, billion euros):
Transportation - 220, Industry - 120, Utilities - 33, Health - 26, Trade - 20, Security - 20, Smart City - 15, IT - 12</td></tr>
</table>

Fig. 6. Technological evolution of e-business - Internet of Things, IoT **(**Compiled by the authors**)**.

In air transport, RFID (Radio Frequency Identification) technology plays an important role in reducing costs and increasing efficiency (Fig. 7). By recording the necessary information on the RFID-tag resistant to adverse environmental conditions, you can trace the history of the movements of an object.

This technology is used to identify employees, cargo handling, maintenance of ground equipment, automation of security systems, tracking the movements of passengers.

The amount of memory of an RFID tag (radio tag) is hundreds of times greater than the amount of barcode or QR code memory. Label data is recorded or automatically read by a radio signal, which allows the identification of people or objects at a considerable distance. The technology is most widespread in the field of luggage logistics: the introduction of radio tags controlling the movement of luggage has significantly reduced the risk of its delay or loss. Tracking the movement of passengers at the airport between check-in and departure can prevent traffic jams at checkpoints, generally increase security, and in emergencies - quickly determine the location of people to evacuate from the airport, search for lost children and notify passengers late for boarding.

<table>
<tr><th colspan="8">Technological evolution of RFID tags</th></tr>
<tr><td>1948</td><td>1970</td><td>1980-1990</td><td>2006-2008</td><td>2013</td><td>2017</td><td>2018</td><td>2020</td></tr>
<tr><td>Prototype of RFID-technology (Scientific work</td><td>Application of RFID-systems in logistics, identification systems, on transport</td><td>Development of passive labels and expansion of their</td><td>Introduction of RFID-technologies in the aviation industry</td><td>Airbus has obliged suppliers of aircraft parts to mark them with RFID tags</td><td>Mandatory RFID-marking of aircraft parts</td><td>Introduction of RFID-marking of luggage 753 (Resolution</td><td>Expanding the use of labels</td></tr>
<tr><td colspan="3">Effects:
Ability to read information outside the line of sight of the label, at a great distance and during the movement of the object
Ability to simultaneously identify several hundred objects with RFID tags
Reliable protection of parts from counterfeiting and ensuring "transparency" of supply chains of industrial products
Improving maintenance and repair services
Reducing the amount of lost luggage
Optimization of production processes and increase of safety at production</td><td colspan="3">Market assessment:
Over $ 3 billion will be saved by the airline industry in the next 7 years through the use of RFID tags</td><td colspan="2">Drivers:
Development of robotic and digital production systems
Increasing the number of new routes and frequency of flights
Barriers:
Possibility of unauthorized reading of RFID-tags
Lack of regulatory and organizational and technological documentation for the operation of new technology</td></tr>
<tr><td colspan="8">World market of RFID-technologies (2016-2022, billion dollars):
Hardware - 13 (2016), 28 (2022)
Software - 4 (2016), 10 (2022)</td></tr>
</table>

Fig. 7. Development of the e-business element - RFID-tags **(**Compiled by the authors**)**.

IoT has already been used in airlines in many countries around the world. EasyJet uses the latest technology. Microphones are built into the staff's overalls for direct communication with passengers, pilots and crew members. The company used drones to inspect its fleet.

Helsinki-Vantaa Airport improves the quality of service with the help of Wi-Fi and ibeacons technologies. The operator of Finavia Airport together with Walkbase has installed dozens of sensors in the terminals to monitor the movement of passengers. In this way, companies prevent queues, send push notifications to passengers about advantageous offers.

VirginAtlantic has connected Boeing 787 aircraft to a wireless network to receive real-time data from IoT devices on the operation of aircraft components. Now Boeing planes have wireless connections to almost everything - from engines, flaps to the chassis.

London City Airport has developed an interconnected sensor network and data hub to track passenger traffic in order to provide customers with location-based services.

Lufthansa has launched a network of radio frequency tags and a mobile application that can track luggage from the terminal to the flight. Travelers can check information via Bluetooth.

Shenzhen Airport uses robots to respond to emergencies. The robot can autonomously patrol the terminal and conduct intelligent monitoring, answer passengers' questions about flight information.

The Market Research Report estimates the global market for airport smart devices by 2026 at $ 31.10 billion. The average annual market growth rate will be 11.2%. Analysts attribute the growth of the market for smart devices to a number of reasons. The penetration of smartphones, which track various large amounts of data, the desire to personalize services, improve user interaction, modernize airports, as well as initiatives of governments in different countries to use energy, reduce emissions.

Analyzing the markets, we see that IoT opportunities have great prospects. Internet of Things technologies are integrating into an increasing number of industries. Now there is the concept of industrial IoT, its specificity in technology for the telecom industry, logistics or retail. In aviation, IoT technology is already helping to make flights more comfortable, and the service of both passengers and aircraft - more efficient.

The Internet of Things is being introduced to track cargo, organize navigation at airports, control passenger traffic, taking into account new requirements; systems are introduced that allow passengers to undergo self-service procedures. Transparency Market Research predicts that the segment of security systems will be a leader in the development of airport infrastructure.

2.4. INNOVATIVE BUSINESS DEVELOPMENT AND THE STARTUP ECOSYSTEM

The fourth industrial revolution means more and more automation of absolutely all processes and stages of production: from digital product design, creating a virtual copy of it – to remote configuration of equipment in production under the technical requirements for the release of a specific "smart" product. This revolution is unique in terms of the pace, dimension, and consistency of transformations. It was driven by digitalization and networking. It blurs the boundaries between the physical, digital, and biological spheres while changing entire systems, basic concepts (money, power, partnership, property, identity) (Schwab K., 2017).

Innovative business is based on the constancy of the external environment, understanding it as a necessary condition for a stable organization and effective functioning of the economic system as a whole. It should be noted that most countries face the problem of lack of investment resources necessary for the development of innovative business, there is a structural imbalance between supply and demand in the field of financing innovative projects.

At the current stage of development of the world economy, it is clear that countries that have an innovative basis for development based on science and knowledge, a priori more opportunities to ensure stable economic growth and high competitiveness in the international arena. Therefore, the formation of effective national innovation systems (NIS) requires special attention, and in this regard, the problem of financing innovation becomes very important. However, it should be noted that recently in Ukraine there has been a tendency to reduce the amount of funding for innovations, in particular, reduced the amount of public funding. This is a big problem, because innovative development is a priority and strategically important direction for our country.

It should be noted that the experience of foreign countries confirms that rapid innovation growth is possible only if the amount of expenditure on scientific and technical activities (R&D) exceeds 2% of GDP.

The leaders in both the value of R&D funding and the relative% of GDP are the United States, Japan, China, Germany, France. These countries account for more than 75% of global R&D funding. In fact, these countries are the world's leading producers of innovative goods and scientific and technical services. However, you can see the differences between leaders in terms of cost and relative cost of innovation. Israel is currently in the lead, 1.5% higher than the United States, although it is the undisputed leader in terms of value. We also see very low rates of Ukrainian R&D spending, which indicates a lack of state support for innovation.

As a result of the analysis of state policy and funding of developed countries to support science and innovation by the degree of state regulation, we identified three poles: Anglo-American, Franco-Japanese and intermediate pole.

The first (Anglo-American) is characterized by full autonomy of entrepreneurship, and the predominance of private funding for research.

The most common means of stimulating scientific and technical processes in the United States and England include (Smorodinskaya N., 2014): preferential taxation of companies engaged in R&D; system of insurance of funds provided to venture firms; preferential regime of depreciation deductions; reimbursement of innovation costs in accordance with government programs to subsidize small innovative firms (up to 50% of innovation costs); granting tax credits.

The second (Franco-Japanese) pole is characterized by a significant influence of the state on scientific and technical processes, including non-market methods, through direct grants and subsidies to enterprises and organizations engaged in such activities. Thus, the countries of this pole create conditions for the introduction of innovations in production by providing (Odarchenko A.M., 2015): state subsidies to organizations engaged in scientific work under contracts (up to 50% of the amount of costs for work commissioned by small and medium enterprises); tax credit for the increase in R&D expenditures in the amount of 25% increase in R&D expenditures of companies compared to the level of the previous year (France); providing subsidies from state funds up to 2 million yen (Japan); preferential tax for new companies (25% income tax for 3 years); exemption from taxation of funds invested in risky projects.

The peculiarity of the third pole countries is the simultaneous development of the business environment and the use of direct government support (Canada, Germany, Sweden). In Canada, the system of incentives for financing the scientific and technical sphere of the economy includes (The World Bank): subsidies for the implementation of industrial research projects (up to 50% of the cost of salaries of research staff); tax credit (10-25% of capital and current expenditures on R&D depending on the scale of the corporation and its territorial location).

Thus, Germany is actively creating conditions for increasing the innovative activity of organizations, namely, provides: grants for advanced training of research staff (not more than– 5 employees from each company), for internships in universities, research institutes, other public or private research organizations (for up to 3 years); targeted free subsidies to organizations mastering new technology (not more than 54 thousand marks for the purchase and installation of new technological equipment, up to 900 thousand marks for the implementation of improvements for up to 3 years); compensation of expenses for technical examination of projects, assessment of possibilities of patenting of results of carrying out R&D (up to 80% of expenses for engineering and other consultations); soft loans to companies whose annual sales do not exceed 300 million marks, which invest in the development of new products, as well as in measures for the rational use of energy (up to 50% of the funds invested by the owner of the company).

As for the Swedish economy, the main source of funding for research in universities and other higher education institutions is the state. Funds for these purposes are allocated both in the form of direct grants and through various councils on science and other government agencies. But venture and project investment are also common.

Analyzing all the above, we note that each state, using a set of its own tools, solves its unique tasks of innovative development, the range of which remains quite wide.

Thus, for domestic enterprises will be relevant to the active use of instruments of tax credit, tax benefits, targeted subsidies, subsidies, preferential depreciation. Successful implementation and adaptation of the elements of the financial mechanism to ensure the innovative activity of the world significantly intensify the reform of the national economy on the way to its stable innovative development.

In the economic context, the concept of "ecosystem" is considered as a concept that describes the evolution of the nature of the interactions of economic agents, the models of their innovative activity, and their relationship with the operating environment (Mercan B., 2011). The innovation ecosystem includes economic agents, as well as an innovative environment consisting of ideas, rules of the game, social interactions, and culture.

Consequently, innovative business turns into a strategic growth factor, affects the structure of social production, changes the economic organization of society, and stabilizes the social situation in the country.

A distinctive feature of the startup ecosystem from the environments for other types of business is the close relationship with applied science. Naturally, in regions where leading universities, research institutes, scientific and technological parks operate, innovation ecosystems are more developed, which increases the success of the startup implementation (Launchopedia). The size and maturity of the startup ecosystem are determined by its ability to provide opportunities for the launch, development, and successful implementation of startup projects, as well as the further development of innovative companies.

A startup ecosystem (hereinafter referred to as SE) is an innovative and developed region where a set of institutions operates, in particular research institutes, the best technical universities, technology parks, giant firms in the field of information and communication technologies, organizations whose activities are aimed at supporting business initiatives in the technology and innovation sector. The basis for the functioning of the SE is the movement of venture capital, intellectual and human resources, the purpose of which is to introduce innovations (Startup Genome). The peculiarity of the organized SE is that the resources necessary for the introduction of innovations should be supplemented from the commercial sector (Startup innovation).

The first and most developed ecosystem is considered to be Silicon Valley in California, whose progress is stimulated by giant IT firms, as well as advanced universities. Boston and Berlin are also considered the most progressive SE, where one of the largest technoparks WISTA is located, where numerous enterprises in the field of creative industries and innovative business also operate (Startup Delta).

The startup ecosystem evolves at the macro level, overcoming certain phases. The Startup Genome organization, which studies the evolution of dozens of startup

ecosystems over several years and publishes annual reports on the state of the SE of mainly developed countries, has proposed a model for the development of an ecosystem consisting of four phases (Fig. 8).

<table>
<tr><td>PHASE #1.
OCCURRENCE</td><td>PHASE #3.1.
NATIONAL INTEGRATION</td></tr>
<tr><td>Characteristics:
accumulating resources; founding the first startups; the emergence of a community of innovative entrepreneurs
Initiatives:
organization of conferences and meetings</td><td>Characteristics:
implementation of a significant number of startups – the rapid growth of CE capitalization; active receipt of foreign resources; increasing CE competitiveness; the emergence of an innovative brand in the country; strengthening the relationship between research institutes and businesses
Initiatives:
reducing tax pressure on venture projects</td></tr>
<tr><td>PHASE #2:
ACTIVATION</td><td>PHASE #3.2.
GLOBAL INTEGRATION</td></tr>
<tr><td>Characteristics:
combining the efforts of startup leaders and authorities to raise capital and strengthen interregional ties; adapting foreign experience; increase productivity by using resources in the work of start-up teams.
Initiatives: state support programs, establishing ties with global SE.</td><td>Characteristics:
implementation of large projects (more than $ 500 million);the startups-the primary engine of the economy; active immigration: personnel, entrepreneurs; fixing the connection with other CE;SE is the main business platform in the country.
Initiative: flexible immigration policies, the content of the low cost of living</td></tr>
<tr><td colspan="2">PHASE # 4: MATURITY</td></tr>
<tr><td colspan="2">Characteristics: slowing growth rates; balancing all areas; strengthening business and research links at the global level; expanding the differentia-tion of areas in the startup sector.
Initiatives: active investment in R & D, development of effective implementation practices</td></tr>
</table>

Fig. 8.Startup ecosystem lifecycle (Zhavoronkova G., 2021).

To determine the phase of SE development, the organization uses a set of metrics that allow assessing the pace of ecosystem development, their relationships at all levels, the state of funding, state support, infrastructure, etc. The phases of ecosystem development do not have clearly defined timelines. For example, for almost 30 years, the Israeli SE has reached the last phase, while the Berlin one is in "world integration", and the Hong Kong one is only "activation".

Advanced organizations and institutions offer various models of CE,

but, according to the author, the most complete model is that proposed by the Netherlands accelerator and its research institute Startup Delta (Fig. 9). The region in which all these elements and institutions are present is considered a "strong" or full-fledged CE. The complex infrastructure of a startup provides its comprehensive support at all stages of development.

Networks		**Expertise**	**Education**
Support in entering the local market	Competitions	Transfer of knowledge and technologies	Innovation Business Centers
Cooperation	Co-working space	Industry development	Support for student entrepreneurship
Events	Startup-media	Education	Science parks, research institutes
Capital		**Support**	
Investing at the pre-seed stage	Alternative financing	State	Incubators& Accelerators
Angels	Government funding	Development of the concept	Organizations that exercise social influence
Corporate and venture capital	Private and venture capital funds	Scaling a startup	Developing a venture business

Fig. 9.Startup ecosystem model based on the startup Delta Dutch Research Institute (Startup Delta).

The state of the spheres in these five categories (networks, expertise, etc.) is studied based on the analysis of the state of commercial and non-commercial structures operating in these spheres.

1. **Science parks.** The main function of science parks is a mechanism for commercializing R & D results. A science park is defined as an organization established by a VSO or research institute based on a Cooperation agreement to transfer scientific knowledge to commercial structures.
2. **Technology transfer.** This is the process of transferring scientific achievements/discoveries from one organization to another for further development and commercialization. The sequence of the provision of technology transfer services can be considered as its life cycle.
3. **Venture capital.** The venture capital market is defined as a set of economic relations between buyers (innovative enterprises) and sellers (venture capitalists) regarding the movement of venture capital, reflecting the economic interests of market participants and ensuring the exchange of innovative products (Pilipenko B., 2015).

4. **Business incubators** are defined as structures that help projects at the initial stages to develop their idea, identify the target audience, build a team, get customers and feedback from them. **Accelerators** invest in startups by providing mentoring support and charge for their services, not money, but a share in the project (Hubs.ua).
5. **State support.** State support plays an important role in the creation of the SE. Examples of effective state support for innovative enterprises are the Netherlands and Ireland, which is a relatively short period have caught up with large countries thanks to the active policy of the state in this direction (The state program).

In most cases, the activities of most science parks in Ukraine do not meet either the set priorities or the needs of the market, so these structures do not bring sufficient economic results. The state of science parks, research institutes, Western military districts and other institutions related to scientific activities has a steady tendency to decline (table. 10). There is a turnover of scientific personnel, a decrease in spending on science and innovation, a reduction in the share of innovative products, and R & D in GDP.

Table 10

State of Science, Technology, and innovation in Ukraine 2010-2017 (The state statistics)

Year	Number of organizations in the field of research and development	Number of scientists	Total innovation costs, mln UAH	Share of enterprises engaged in innovation, %	Share of innovative products sold in industry, %	Share of R&D GDP, %
2010	1303	89564	8045,5	13,8	3,8	0,90
2011	1255	84969	14333,9	16,2	3,8	0,79
2012	1208	82032	11480,6	17,4	3,3	0,80
2013	1143	77853	9562,6	16,8	3,3	0,80
2014	999	69404	7695,9	16,1	2,5	0,69
2015	978	63864	13813,7	17,3	1,4	0,64
2016	...	...	23229,5	18,9	...	0,48
2017	...	...	9117,5	16,2	0,7	0,45

Due to the weak interaction of Science and business, technology transfer has not found its development in Ukraine, which is due to the peculiarities of the state's economic development and legal aspects of intellectual property protection. Nevertheless, since 2015, there has been a jump in the commercialization of R & D in Ukraine. The graphs show a tendency for technology imports to prevail over exports, especially until 2015, which indicates a relatively low competitiveness of the innovation sector of the Ukrainian economy. In Ukraine, the total amount of venture capital as of 30.06.2016 amounted to UAH 235.46 billion, which is 4.4% (or UAH 9.92 billion) more than in 2015.

Ukrainian investors and funds invested. 68 million in startup projects in 2015.

This is three times more than in 2014 and 25% more than in 2013. The share of funds of Ukrainian investors during 2013-15 consistently exceeded the share of foreign investors, and in comparison with 2010 it increased more than 5 times (from 10% to 52%). During 2010-15, the IT sector showed a positive average annual growth trend of 80%, despite the decline in investment activity in 2014 (-55% compared to 2013). According to a study by the Ukrainian capital and private equity Association (UVCA), there are currently 17 active venture funds, 6 private equity funds and 1 corporate fund (HP Tech Ventures) operating in Ukraine. The portfolio of funds averages 20 companies; funds provide from 20 thousand to several million dollars; 16 funds are ready to invest in startups at the sowing stage, 10 funds at Rounds A and B, and 7 each at the pre-sowing growth stage, respectively (Kvasova O., 2014).

Most incubators and accelerators have been operating in Ukraine since 2012 (foreign or domestic branches), which has led to a sharp increase in the number of startups launched and successfully implemented. The volume of attracted investments for the year of operation ranged from 500 thousand hryvnias (Polyteco) to 15.5 million US dollars (GrowthUP). The largest institution among the accelerators and incubators available in Ukraine is GrowthUP which has been operating since 2007, accepting from 200 to 600 startup projects per year. The amount of funding for the project in these institutions ranges from several to 50 thousand dollars (Ekonomicheskaya Pravda). Incubation and acceleration conditions in Ukraine differ somewhat from organization to organization, although they are similar in some aspects.

The state policy in the field of innovation in Ukraine is regulated by the Law "On Innovation Activity". For the systematic development of the innovative sector of the economy, several state measures are envisaged, which, in particular, include: financial support for innovative projects and the establishment of preferential taxation of innovation entities. To provide financial support for the innovative activities of business entities of various forms of ownership, the Cabinet of Ministers of Ukraine established a State Innovative Financial and Credit Institution to provide repayable or non-repayable loans under certain conditions.

At the moment, there are several methods for evaluating the startup ecosystem in the world. The assessment of the ecosystem, by main components, industries, categories, is carried out to determine its state, phase, level of development and develop a strategy or program for the development of the SE. The need for startups, large firms, and the state to focus on the market of innovative business in the conditions of its dynamic development, determines the importance of conducting analysis and a comprehensive assessment of the startup ecosystem. Therefore, the existing methods for evaluating startup ecosystems are fragmentary, since they study ecosystems only from separate positions. Based on the considered methods and features of the Ukrainian economy, the following methodology for the assessment of the SE is proposed (Table 11).

Table 11

A comprehensive methodology for assessing SE (Zhavoronkova G., 2021)

Phase	Sequence of actions
1. Determining the phase of SE development	1.Collection of data on relevant indicators for Ukraine and, for comparison, other ecosystems in different stages of development. 2.Comparative data analysis and conclusion.
2. Evaluating the attractiveness of the SE	1. Selection of indicators by category and area. 2. Normalization of indicator values. 3. Calculation of the SE score. 4. Comparison of ecosystems and innovation sectors of countries to determine Ukraine's position on the global innovation market.
3.1. Research of the state of science, science parks	1. Collecting data on indicators for recent years 2. Analysis and conclusion regarding the dynamics of indicator values.
3.2. Technology transfer	1. Data collection on technology transfer. 2. Analysis and conclusion regarding the dynamics of indicator values.
3.2.Venture capital	1. Collecting data on the state of venture fund assets, the number of transactions and investment volumes, and key internet segments. 2. Analysis and conclusions.
3.4. Incubation	1. Comparative analysis of programs.
3.5. State influence	1. List of the main state measures in this area.
3.6. Generalizations and conclusions	

The selection of indicators by categories and spheres was carried out, the normalization and aggregation of indicators were carried out according to the formulas (Table 12).

Table 12

Normalized indicators by category and area (Zhavoronkova G., 2021)

Scope/category	0-100	Scope/category	0-100
1. MARKET	34,9	4. INFRASTRUCTURE	36,9
1.1 Performance	30,6	4.1 Transport	30,6
1.2 Attractiveness	39,3	4.2 Energy and ecology	39,9
2. FINANCE	32,3	4.3 Information and communication technologies	40,2
2.1 Resources	23,2	5. HUMAN CAPITAL	41,6
2.2 System	41,4	5.1 Education and standard of living	32,7
3. "SPACE" FOR STARTUP DEVELOPMENT	32,1	5.2 Labor market	50,5
		6. STATE INFLUENCE	24,8
3.1 technology and science	32,1	6.1 Policy aspects	27,3
3.2 Business environment	32,1	6.2 Crime	22,3

On a 100-point scale, the overall attractiveness of the startup ecosystem in Ukraine is 33.7 / 100, inferior to most ecosystems in the world. It can also be noted that in countries with a high level of development of the innovation sector, SE is also more formed and stable.

The creation of a competitive SE is associated with many political and economic aspects. The formation of an appropriate environment for the development of startups should be part of an integrated long-term strategy for economic development and be based on the strengths and prospects of the Ukrainian economy, the scientific environment, the fiscal and educational systems (Startup Ecosystem). Planning the development strategy of the Ukrainian SE can be based on the experience of successful countries in this aspect and should take into account the combination of the most influential factors (Table 13).

Table 13

Factors in the development of SE in different categories (Zhavoronkova G., 2021).

Factors by level	The factors that determine the success (advanced) SE	Basic concepts for the development of SE
Level 1. Contextual factors: a) political and legislative, b) cultural and institutional; c) national and regional ***Level 2.*** Government support for research, funding, industry; personal support and support for organizations	- availability of the right personnel in the labor market; advanced technologies; access to capital; high-quality services of incubators and accelerators; corporations with open innovations; - culture of entrepreneurship; - promotion of business development; - well-established intellectual property mechanisms; - access to the markets on an international scale and connectedness.	1) the concept of state impact: the availability of specialized; 2) the concept of free deve-lopment

The promotion of systemic changes by the public sector in the organization of a competitive ecosystem should take place by international practice, and either the state or, by agreement, a set of private structures should initiate the formation of the SE. Most of the world's ecosystems have developed both under the influence of the state (especially in the phase of emergence) and based on entrepreneurial initiatives. At the same time, the absolute majority of ecosystems (including Silicon Valley, the ecosystems of Beijing, Tel Aviv, Berlin, Stockholm, Moscow) began to form on the state initiative (Program Horizon 2020).

Government measures and initiatives should promote the emergence of a community of startup founders who will work closely with other actors in the private sector of the economy and the public sector. At the same time, the state should not assume the role of a leader, but only an initiator. In Ukraine, the government has developed some initiatives to support startups, but they do not perform their functions properly. To bring coherence, organization, and transparency to the SE of Ukraine, the state should identify target groups and direct the available tools and possible measures to stimulate their development.

The growth of the role of institutions of culture and values in the information society

Technologies not only give a lot for a person, but also force them to serve themselves, they pretend to be the universal values. However, culture rests not on technology, but on the semantics of the values. Because of technological

practice may in the short term to bring significant harm due to the destruction of traditional values that we can observe today. Technologies are not neutral, an immense interest in it can lead to human loss of the meaning of his life. So today is important and timely to study the anthropological impact mega technology in the information society.

In the early twenty-first century have seen, on the one hand, the process of active development of national identity, which is becoming a priority for policymakers in many States and with other democratic principles governing the necessity of determination of the structure of the state, the presence of the full panorama of historical and cultural mosaic that must be considered in the socio-political and educational policy. In the context of these two vectors are implemented by the core values of the state of society.

So, in the information society is radically changing the attitude of technogenic to the culture. The introduction of research directly into various forms of public action changes the structure and content of the actions, and the transformation of the research function for the production or management – creates a query on the formation of a new type of culture that becomes an integral part of social progress.

Today, the cultural industry (creative economy) is recognized as a new type of industry. Justin. O'Connor writes that people who work in the cultural industry make a more significant contribution to the social changes in our era, which he called "an epoch of post-deficiency," when "cultural hierarchies are much fragmented and numerous" (O`Connor, 1999). Cultural works are becoming commercial in the economy through a process that involves many people in marketing, advertising and public relations.

In the economic theory of the information society, the category of "intellectual activity" is called to play a key role, similar to that which was played by the category "commodity - labor" for the creation of economic science by Marx, since creative work in the form of intellectual activity is the main source of value creation and a special factor in production in the information society, as well as the final stage in the development of human evolution in economic life (Zhavoronkova G., 2018 c).

Rooting of economic science into a new reality causes paradigmatic shifts in its subject field, activating the issues of human values, trust and fairness. In conditions, when the vector of moral choice becomes existential in nature, axiological component of economic-theoretical knowledge acquires new shades and dimensions. We are talking about strengthening professional integrity, enhancing the quality of the results of scientific studies designed to embody not only pragmatically-oriented existence, but also new ideas, which are offered to the society.

The methodological position based on the values of the various actors, scientists philosophers in their observance allow to build the foundations of modern accolade system of the information society. With regard to spiritual and intellectual spheres of the modern world, then the ethical aspect of scientific research appears to be the most important component of the process of their growing anthropologists.

In this context, the attention of researchers is increasingly attracting luminozitate aspects of economic processes and phenomena embodied in the formation and development of human processes of work, socio-labor relations and employment structure, in particular the following provisions (Bazilevich V., 2015):

- a fundamental change in working conditions and implementation of the fundamental spiritual needs of human cognition and creativity under the influence of so-called NBICS-revolution, associated with the convergent development of nano-, bio-, info-, cognitive and socio-humanitarian technologies (Alekseeva A, 2013). It's not just about the latest achievements in the field of science and technology, the formation of new industries and production methods, but also about the forms of sociality, values, new understanding of the essence and nature of man. In this context, "humanitarian" economic science aims at knowledge of a human with all his feelings, faults and virtues, the underlying economic relations, events and processes (Miglovidov V., 2013);
- the formation of the economic foundations of the humanization of economic processes on the basis of the accumulation and expansion of alternatives to use of human potential;
- distribution cross-border distribution and use of labor resources, the growth of integrated workforce and increasing demands for financing its playback;

Through the system of values formed the mentality of society and the individual. Various scholars argue that the intellectual processes of life the individual most actively implemented in the system of value orientations, manifesting itself in motivation, interests, tastes, preferences, cognitive-search activities.

The system of values are (Rebrova A., 2012):

- the sphere of vital (life) values and benefits: housing, food, clothing, hygiene, comfort, etc;
- separate the spiritual values of: science, arts, management, Economics, politics, etc;
- moral values, reflecting the attitude of the subject, on his behalf and on the basis of feelings that he experiences. They are manifested in human actions but is characterized by its inner impulse, its spiritual stimulus;
- respect for human rights.

Universal values as they develop and change in the history of mankind, created the basis for the survival of civilization, have provided a convergence of different groups of people, provided taking into account mutual interests and primacy's on the world forums was included in the documents as rules, principles, this important for everyone.

Meanwhile, the weight of national values is built, first, a powerful national spiritual roots of the country; second, the fact that at the beginning of every human life should be values of respect and love in the family, identity, cultural traditions, language, country of residence. It is a spiritual source that nourishes human life.

In upbringing (family, social) of the national values should begin, not forgetting about the value of universal.

In the information society and, above all, the people who produce different kind of intellectual-spiritual products: ideas, knowledge, images that flow into the spiritual-ideological information flows. They contain educational values of the state ideology, scientific, ethical, religious and aesthetic values. The society is a source that gives impulse to the development of material values by the very fact of its real existence and its direct effects on humans, which is important in her life. To the material values include the conditions of being subjects, including those intended for creative play, sports activities.

So, values are concepts or beliefs, are ordered by relative probability. They are aimed at meeting three needs: greetings; social interaction; the development of social groups. These needs are met in the implementation of the 10 motivational types:

- tradition – respect and maintenance practices, recognition of ideas, culture and religion;
- power – social status and prestige, dominance over people;
- hedonism – the enjoyment of life, pleasure;
- achievement – personal success through competence;
- stimulation – the fullness of life feelings;
- security – stability, harmony;
- conformance – limitation of actions harmful to others;
- self – regulation – is choice, creativity, research;
- attachment – support the well-being of people;
- universalism – understanding, appreciation, tolerance and the maintenance of well-being.

Pay attention to one of the institutional forms of values – tradition. Tradition is symbolically reproduced by future generations, and, accordingly, is considered to be cultural persistence. Alasdair Makintyre argues that a living tradition is "materialized dispute that has historical duration, of those virtues which constitute a tradition" (Makintyre, A., 2000). Nobel prize winner Friedrich Hayek believes that the market, and traditions arise spontaneously and serves as a way of adapting to the unknown: "the whole structure of activities tends to adapt by means of partial and fragmentary signals to unpredictable and unknown signals." In his own words of Hayek, "despite the fact that in our conduct we are guided by the acquired knowledge, we don't usually know why we do what we do" (Hayek, F., 2009).

The authors (Negus K., 2011) believe that the radical opposition between traditional and modern society definitely implies that traditions have no place in the present. The result is a historical myth about the backwardness of tradition, but they exist in all societies.

However values have inherent contradictions (belonging to the floor, openness-closeness, win-lose...). So, values of conservation (security, conformity, tradition), the opposite values of the change (stimulation, self-regulation). Values of self-determination (universalism, benevolence), the opposite values of self-exaltation

(power, achievement, hedonism). Values and norms are complementary and, therefore, are equally important regulators of human behavior – internal and external. The fundamental difference in the standard of value is that it is a formal, rational regulator of human behavior. In its most General form the norm-the institution can be represented as a system of actions and value as a spiritual unit, which determines the direction and intensity of the activities of the individual.

Registration of legal relations that define the rights and responsibilities of individuals and social groups, marked the beginning of legal values. These include public order, law, compliance with the law. After all, the value system affects the operation of the rules, the entire legal system. In this matter, as adopted normative and legal acts conform to the value system of a particular society. If there is a conflict, consciously or unconsciously, the behavior of the individual in the first place, will be determined by internal regulators, inherent in the values, and their conflict becomes a source of legal nihilism.

Political values arise from the socio-psychological level of social consciousness. At the level of the socio-economic structure they find their concrete expression in the views of the individual about the optimal public order, the degree of freedom, stability and discipline, equality and social justice, tolerance for reformism, radicalism or conservatism. On the level of regulation of socio-economic relations political values determine the attitude of the individual to the problems of exploitation, competition, ownership, approaches to understanding the problem of justice rewards ability and effort.

A feature of economic value is the combination, integration in the form of a complex subconscious judgments of aesthetic, moral, legal, political, religious, and existential values. The wider the circle of vital phenomena reflected in them, the more complex the economic value. Economic value is manifested as reality is interpreted in a dialogical form, in the internal and interpersonal dialogue, from the point of view of the whole complex of the types of value attitude of a subject, with the involvement of his emotional activity.

Today, the involvement of scientific knowledge of the category of mentality relevant again, and not only in the historical paradigm. Due to its complexity, inter disciplinarity mentality becomes a convenient "tool" through which you can follow and practically implement integration processes in humanitarian sphere.

The mentality is the process of reflection of the world picture in particular, inherent in a particular culture, language, symbolic signs and forms that affect the quality of individual and collective consciousness, system of values, and regulating the behavior and development of the environment mentality – quality result, content generated ideas about the world. Relatively speaking mentality is a process mentality – the result of this process.

The manifestation of economic values in the economic sphere is related to labor, property, wealth, knowledge, a penchant for competition, innovation and entrepreneurship. A kind of expression in the information society is the integration of economic values in virtualized relationships, formation and distribution of symbolic values as a motive for human behavior.

Economic mentality must be considered as a significant element of the informal subsystem of the institutional structure of the national economy (table 14). Together with other informal institutions, it determines the institutional environment, and historical time interval is the basis for the formation of a subsystem of formal institutions. Peculiarities of national economic mentality is determined not only by the balance of forces of support and opposition, but also the adaptation period.

Table 14

The economic mentality in the national economy (Zhavoronkova G., 2019)

Level	Use the features of the national economic mentality
Megalevel	A positive image of the country is taken into account during strong mental traits: teamwork and statehood (when structuring negotiation processes), tolerance (in the implementation of foreign trade operations and production activities with foreign capital)
Macrolevel	The study of national mentality. The goal is to identify the ratio of strong and weak mental features of population in the country, as well as modeling on the basis of their specific management systems at all levels
Mezolevel	Development of regional socio-psychological services councils to account for the relationship to work, wealth, propensity to savings, to economic paternalism, the desire for economic independence, the interest in the implementation of socio-economic reforms, the credibility of political institutions, the degree of perception of foreign experience and other population.
Microlevel	Formation of corporate culture of organization by combination of elements of economic mentality. Updating professional knowledge, transformation of social and economic priorities, bridging the gap values with actual economic behavior

The person is approved for the real socio-cultural mechanisms, among which occupies an important place in the spiritual education of the national consciousness. Based on it arises and operates a national idea. Today, despite the long practice of "internationalization", all thinking people there is no doubt that spiritual experience is personal only then, when he becomes a private. And this is possible only when it will be put into the context of their own culture – the national.

Modern discourse defines not only the nation's ethnic unity, but also the historical memory and cultural space with which it is associated. National consciousness is connected with the formation of the "I" as an integral part of the particular community using the correlation with representatives of other groups and associations. "I" determines national identity, which differs from ethnic active state direction. According to this, every nation seeks to constitute itself in the culture, history, civilization achievements, to justify its existence

and development as a specific ethno national education in the history of society in the spiritual space and social time (Levin, V., 2001).

In the new Millennium, the relationship of leadership and opposition of the countries-leaders and countries-outsiders is based not only on quantitative indicators of economic development. The new world order is based on new relations emerging between the countries-producers of new scientific knowledge and the countries with insufficient human capital development. This means that the new supranational civilization force which accelerates the processes of globalization is cultural power in the sense that its nature is determined by the cultural factors in the modern understanding of culture, which aims at the development of intelligence, skills, abilities, qualities.

This confrontation is purely technological is cultural confrontation. This contradiction is universal, global civilization, a new cultural power that is associated with the promotion of internal markets, new technologies, transnational corporations, and national cultural forms of production and consumption. This confrontation of the new industrial culture of the new world order and the existing cultures as a form of survival (Proleev, S., 2001).

The uncertainty of humanitarian values gives a new universal culture, which is formed in the process of globalization, some inhuman, and sometimes inhumane nature weakens its cultural functions (this is one of the main reasons why on the surface you can see only a technological development, not the development of culture). This new culture (yet) capable of becoming the basis of the world values and to perform the functions of the generation of meaning and giving meaning to substantive forms of human existence and its activities (Geld D., 2003). Existing within the national borders, national culture are out of the competition. This means the inevitability of contradictions between the objective process of globalization, which is accompanied by the process of the birth of the new world of the third Millennium, and cultures, with their deep religious and spiritual foundations.

Principles of cultural approach to the formation of knowledge economy and information society can be formulated in the following way:

The principle of coexistence, interpenetration and dialogue of cultures as a reflection of the openness and dynamism of global culture.

The principle of the axiological expansion of personal meanings of cultural phenomena.

The principle of actualization of spiritual culture as the basis of self-identity in society.

Thus, the cult urological approach in the beginning of the third Millennium should be considered on the basis of the unity of the broad fundamental and deeply systematic special knowledge. It needs to ensure mastery of the foundations of legal, political, professional culture, vision for the future development of various branches of knowledge, skills of the scientific organization of studies and implementing them in their professional and creative activities, where the main should be the expediency, justice, harmony, beauty and perfection.

Conclusion.

For the efficient operation and further development of the information society it is necessary to create organizational and legal mechanism that would include a number of measures:

- focus the public information policy on complex support of producers and users of ICT;
- secure the leading role of government in the development of information industry, and promote the development of private information sector at the same time;
- bring the legal framework of information industry in accordance with national and international requirements;;
- develop a security and legal protection of both the information and its sources and systems of receiving;
- work out an information product licensing system, and institutions of its creation and distribution;
- provide unimpeded access for all levels of users to banks of information products on national and global markets;
- create the conditions for formation of own modern information channels of connection and telecommunication systems;
- determine the nature, structure, interrelations of system for collecting, processing, information sharing and information services providing at national, regional, and sector all levels;
- analyze the feasibility of scientific and technological developments in the markets determine the domestic and foreign analogs for use in the national information-analytical system;
- expand interstate exchange of information;
- provide the civilized formation of a virtual segment of information market.

Therefore, analysis of scientific issues and trends of the information society has showed that it will become a reality for some countries in the coming years, but for others - a landmark for development. The result should be a social structure based on a comprehensive, multilateral knowledge and inseparable from it information, circulating in open systems and having a synergistic effect.

Thus, the entire sphere of human activity is based on the power of information and knowledge, the rate of appearance of which increases daily. Development of software has created conditions in order to personnel can improve knowledge and develop skills much faster than at any time in previous years.

Internet is a universal communication space, in which very different interests and values coexist. Of course, the spread of information and communication technologies is uneven across countries and sectors of society. It should be mentioned prospect of transition to the information age depends primarily on the availability of education for all segments of the population, as well as the opportunities of operative learning and processing information.

Each of the directions of globalization in its own way affects the essence of international business and its form, liberalizes the movement of goods and services, capital, labor, facilitates the entry of national companies into international markets, promotes rapid dissemination of knowledge, reduces transport, telecommunications costs, significantly reduces costs. processing, storage, maintenance and use of information, equalization of business conditions for large and small companies.

However, establishing leadership and division of markets in the new global community are based on a new common cultural criterion, namely the degree of country ownership on scientific knowledge and forms of this ownership. The attitude to scientific knowledge guides the development of the world community and opportunities of each country to occupy a special place in it. It is important, that the availability of the deficit of information resources in a country cannot be regarded as a question of "non-participation" of it in the global development. On the contrary, ascertaining of availability of the problem of their shortage in the country according to the new ideology of the current stage of globalization is the fixing of the existing problem. Lack of knowledge is seen as the problem of shortage of knowledge whose solution is the key point of forms, rates of entering the country in the new world structure. Lack of information is identified as a threat to information security.

So, the Internet is evolving and requires further consideration, research and legal clearance. Already the work on the Internet has become a context of production for many companies: it is the streamlining of programs, reference websites, catalogs, specialized and popular magazines, directions for significant information flows. There is no doubt that the network becomes an independent branch of the economy. At the same time, it is important to realize that the conditions for the formation of self-sufficient Internet economies that cannot influence the government. In the modern Internet companies its true global environment activities, their global competition. The last "offline" to strict national regulation, and the only way to avoid losses is the liberalization of info-communications. And it should be remembered that today no one country has the necessary resources to single-handedly do to capitalize on the global Internet.

Accelerated innovative development of information and computer technologies will allow to create new jobs and increase the level and quality of life of the population; align interregional disproportions; to ensure sustainable economic growth; to enter the international markets of information; to integrate into international organizations; to increase the flow of foreign investments; to accelerate economic reforms; to build the information society.

Today it is not established neither theoretical nor methodological principles of virtual corporations as well as sufficient experience in their creation. The attention of practitioners devoted to the peculiarities of the creation of enterprises with the virtual principles of the organization. In our opinion, the virtual enterprise must be established in domestic conditions as they can significantly affect the level of investment attractiveness of Ukraine.

The study of trends in the development of the Internet and the possibilities of its application in economic activity also revealed that along with the structural and quantitative changes in this sphere occur the social and economic impacts of telecommunications development, as a significant gap in this area can lead to the outflow of the most qualified personnel to other countries. However, all the advantages of the virtual market can and should be used by firms to improve their business relationships.

One of the challenges of creating an information society is how the right to communicate will develop in the world of digital technology. Access to information is not only about physical access and the cost of services, but also about ensuring that the consumer can use the services with a minimum level of literacy. After all, in the world of information and communication there is a significant risk of isolation of people living in unfavorable conditions.

A startup can be started, but it cannot be implemented without the necessary infrastructure and comprehensive support at all stages of development. In Ukraine, the innovation sector is stagnating, but the startup ecosystem in the private sector of the economy is gradually growing.

The directions of stimulating the development of the startup ecosystem should be on the state initiative, which provides for a set of measures for five components. As a result of their implementation, a well-formed and controlled network of commercial and non-commercial structures that form the ecosystem of startups in Ukraine will be formed. In turn, this will allow the state to cooperate in a coordinated and effective manner with these structures, which will contribute to raising the Domestic SE to a new level of development.

Aborted scientific-methodological and socio-political framework of institutional support for cultural development of the state at the present stage, determines the uncertainty of the national interests of Ukraine in the geo-cultural environment. However, the priority values for Ukraine were historically and remain values: humanism, human dignity, patriotism, social responsibility, national consciousness, with its center – a national idea, without which to build the information society and to form a knowledge economy is impossible.

Although the skeleton of the institutions are moral and spiritual, mental and psychological dominance of the titular nation or the largest number of nationalities, ethnic groups, and only later – legislation-legal norms contained in laws, regulations and internal regulatory and administrative documents, but they are important for institutional changes in the information society.

References

1. Aaker David A. (2010). *Strategic Market Management: Global Perspectives* / David A. Aaker, Damien Mc. Loughlin. New York : John Wiley and Sons, Ltd.
2. Ain.ua. Web portal of a media resource Ukrainian startup incubators: what do they represent and what do they want in return? [Electronic resource]. Access mode: https://ain.ua/2013/01/29/ukrainskie-startap-inkubatory-chto-predostavlyayut-i-chto-xotyat-vzamen/. Accessed 11.11.2020.
3. Alekseeva I.Y. (2013). "*Technpeople" against "postpeople": NBICS the revolution and the future of the person* / I.Y. Alekseeva, V. I. Arshinov, V. V. Cheklecov. "Questions of philosophy". Vol. 3. P. 12-21.
4. Archibugi D. (2013). *The Globalization of Technology Myths and Realities* / Archibugi D., Michie J. "Research Parersin Management Studies". Vol. 18. P. 47-54.
5. Barry C. (2006). Smith. *E-Commerce and Operations Research in Airline Planning, Marketing, and Distribution.* SabreInc. USA / Texas, vol. 7.
6. Basalaev Y.M. (2014). *Formation of information picture of the world as a means of studying the methodological information reality* / Basalaev Yu.M., Basalaeva O.G. International Journal of Experimental Education. №5. P. 63-64.
7. Bazilevich V. D. (2015). *The Imperatives of economic development in the context of responsibility to the global future.* / D. Bazilevich. Paradigm shifts in economic theory of the XXI century: mater. II Int. Sciences.-pract. Conf. K., P. 13-16.
8. ***BELL D. (1973).THE COMING OF POST-INDUSTRIAL SOCIETY: A VENTURE IN SOCIAL FORECASTING. New York: Basic Books. ACCESSED 11.10.2020.***
9. Chuhno A. A. (2012). *Modernization of the economy and economic theory* / Evropeyskiy vektor ekonomichnogo rozvitku: Zb. nauk. prats. Vip. 2(13). Dnipropetrovsk: In-t im. A. Nobelya, P. 149-155.
10. Chuhno, A. A. (2010). *Post-industrial economy: theory, practice and their importance for Ukraine*. Kyiv: Lohos
11. Commission Regulation EU (2010). The application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices [Electronic resource]. Access mode: http://ec.europa.eu/competition/ antitrust/legislation/guidelines _vertical_en.pdf. Accessed 09.11.2020.
12. Company "InternetWorldStats" [Electronic resource]. - Access mode: www.internetworldstats.com/stats
13. Dicken P. (2012). *Global Shift The International of Economic Activity*. New York ; London : McGraw-Hill.
14. Drucker P. (1999) Beyond the Information Revolution / Drucker P. The Atlantic Monthly. V. 284. № 4.
15. Ekonomicheskaya Pravda. Web portal of the economic media resource

Ukrainska Pravda / the first catalog of investors in Ukraine has been published. Access mode: https://www.epravda.com.ua/rus/news/2017/04/5/623518/. Accessed 3.11.2020.
16. Enterprises Ireland. *The state program of support for the development of startups of the Republic of Ireland Enterprises Ireland* / support for startups from the Enterprise Ireland. [Electronic resource]. Access mode: https://www.enterprise-ireland.com/en/Start-a-Business-in-Ireland/Startups-from-Outside-Ireland/Funding-and-support-for-startups-in-Ireland/government-support-through-enterprises. Accessed 10.11.2020.
17. Estimation of electronic readiness of Ukraine. - Access mode: http://nc.gov.ua/menu/publications/doc/elektronn_urad/E-ocinka-2016.pdf. Accessed 20.11.2020.
18. European B2C E'commerce Report. (2020). Retrieved from https://www.ecommerceeurope.eu/app/uploads/2020/01/EuropeanBB2CBEBcommerceBReportB2016BLightBVersionB FINAL.pdf/. Accessed 11.10.2020.
19. Geld D. (2003). *Global transformation. Politics, Economics, culture* / Geld D., Gru Mac, Goldblatt, J. Perraton. / Transl. from English. Opening remarks by Dmitry Pavlenko.– K.: Phoenix.
20. Global Innovation Index Reports 2011-2019. URL: http://www.wipo.int/publications/ru/series/index.jsp?id=129. Accessed 09.11.2020.
21. Hayek., F. (2009). *The fortunes of liberalism in the twentieth century* / Hayek., F. M.: IRISEN, Musl'; Chelyabinsk: The Society.
22. Hubs.ua. *Accelerator vs business incubator*. [Electronic resource]. Access mode: http://hubs.ua/starter/akselerator-vs-biznes-inkubator-21224.html. Accessed 15.11.2020.
23. Kelly K. (1998). *New Rules for the New Economy. Ten Radical Strategies for a Connected World* / K. Kelly. N.Y.: Penguin Books.
24. Khrushch N.A. (2002). *Features create and manage virtual enterprises* / Khrushch N. A. Donchenko T. V. "Bulletin of RSTU. Economy". Rivne. Vol. 2(15). P. 406-411.
25. Kovalenko N. (2017). *Conceptual bases of public marketing strategy management for the development of enterprises innovative in aviation industry of Ukraine.* / Kovalenko N., Petrovska S., Kovalenko O. Mechanisms of interaction between competitiveness and innovation moderninternational economic relations. 2. P. 96-104.
26. Kumar Pal S. (2008). *21st Century Information Technology Revolution* [Electronic resource] / Sanjay Kumar Pal. Access mode: http://ubiquity.acm.org/article.cfm?id=1399619. Accessed 11.11.2020.
27. Kvasova O. (2014). *Razvitie Ven'churny bankovy investitsii v Ukrainy.* "Development of venture banking investment in Ukraine". P.107
28. Launchopedia financial direction web portal / launch of lifecycle financing. [Electronic resource]. Access mode: https://fundingsage.com / startup-financing-tour-and zhy`ttyevogo life cycle financing / seed-stages/.

Accessed 11.10.2020.
29. Levin V. G. (2001). Genesis of philosophy of the Ukrainian idea / Levin, V. G. Collegium. Vol.21. P. 193-194.
30. Macintyre A. (2000). *After virtue: Research of moral theory* / Macintyre, A. / Transl. from English. Alisheva V. V. M.: Academic project.
31. Mahlup F. (1962). *The Production and Distribution of Knowledge in the United States*. Princeton, New Jersey. Princeton University Press.
32. Maliy I.Y. (2015). *The impact of globalization and information ekspansiyon diffusion economics* / Paradigmaini zrushennya v ekonomichniy teoriyi XXI st.: mater. II Mizhnar. nauk.-prakt.konf. K. P. 59-62.
33. Melnyk L. and Zhavoronkova G. (2017). *Institutional and Structural Transformation of Society for the Formation of a Knowledge Economy in Ukraine* // Abstracts of Papers Presented at the 18th European Conference on Knowledge Management ECKM 2017, International University of Catalonia, Barcelona, Spain 7-8 September. P.1143-1152.
34. Mercan B. (2011). *Components of Innovation Ecosystems: A Cross-Country Study* / Mercan B, Gortas D. " Finance and Economics", Vol. 76.
35. Miglovidov V. K. (2013). "To the origins of "humanitarian economy" V. K. Miglovidov "World economy and international relations". No. 7. P. 3-11.
36. Mitilino S. (2000). *E-business-incubators, or how to organize your own shopping* site / Mitilino S. „Computer network" /ITS. No. 22.
37. Negus K. Creativity. (2011). *Communication and cultural values* / Negus K. and Pickering M. / Transl. from English. H.: publishing house of the Humanitarian center.
38. Neisser, U. (1976). *Cognition and Reality: Principles and Implications of Cognitive Psychology*. WH Freeman.
39. Nekrasov S.I. (2015). *Information factor of formation of the modern scientific picture of the world* / Nekrasov S.I., Nekrasova N.A., Ushakova A.V. Nauka i obrazovanie: sb. trudov VIII mezhd. nauch. konf. 26.06 – 6.07.2015 g., g. Bergen, Norvegiya. – Hmelnitskiy: HNU. P. 72-75.
40. O`Connor, J. (1999). *Popular Culture, Reflexivity and Urban Chang* / O`Connor, J. Helsinki: University of Art Design.
41. Odarchenko A.M.(2015). *Features of electronic commerce and prospects of its development in Ukraine* / A.M. Odarchenko, K.V. Spodar."Business Inform". Vol. 1. - P. 342–346.
42. Official web portal of the European Union Innovation Support Program Horizon 2020. - Access mode: https://ec.europa.eu/programmes/horizon2020/en
43. Panteleeva N. (2015). *New forms of money in the conditions of formation of information society*. "Bulletin of the National Bank of Ukraine". Vol. pp. 25–31.
44. Paturel R. (1997). *Creating a network of organizations of a new type* / Paturel R. "Problems of the theory and practice of management". Vol. 3.
45. Pilipenko B. (2015). *Venture capital as a source of financing for innovation processes*. / B. Pilipenko. Kiev.

46. Porat M.U. (1977). *The Information Economy: Definition and Measurement*. US Department of Commerce. Office of Telecommunications; U.S. Government Pr. Office, Wash.B.C.
47. Proleev S. V. (2001). *Global society and modern culture* / Proleev S. V., Shamray V. V. K. P. 105.
48. Rebrova A.E. (2012). *Methodological basis of the pedagogical mentality: cultural and professional aspects*: [monograph] / A.E. Rebrova. – K.: NPU named by N. P. Dragomanov.
49. Schwab K. (2017). *The Fourth industrial revolution*: K. Schwab. M.: Publishing House "E".
50. Shalashova M. E. (2011). *E-Commerce in the EU: new forms of regulation of vertical restraints agreements and their impact on e-Commerce* / Shalashova M. E. "Scientific works of DonNTU. Series: economic". Vol. 40-1. Donetsk: DonNTU. P. 206-212.
51. Shirley, H. (2018). *Impact of Internet Financial Reporting on Emerging Markets*. / Shirley, H., Smith, M. "Business Research". Vol 8 (2). P.21-41.
52. Smorodinskaya N. V. (2014). *Network innovation ecosystems and their role in the dynamization of economic growth* // "Innovation". Vol 7. P. 27-33.
53. Social Marketing Report Ukraine (2016) : Social bakers.
54. Social Media 500 Report (2018). [Electronic resource]. Internet Retailer. Access mode: https://www.internetretailer.com/shop/2018-social-media-500-report.html. Accessed 20.10.2020.
55. Social Media Trendsin (2017). What to Watch Out For [Electronic resource] MavSocial. Access mode: http://mavsocial.com/social-media-trends-2017/. Accessed 04.11.2020.
56. Startup Delta. Web portal of the Dutch Research Institute and accelerator startup Delta. [Electronic resource]. Access mode: https://www.startupdelta.org/
57. Startup Ecosystem. Web portal of the American accelerator Found Institute/how to build your Local Startup Ecosystem. [Electronic resource]. Access mode: https://fi.co/insight/how-to-build-your-local-startup-ecosystem. Accessed 03.11.2020.
58. Startup Genome. Official web portal of the international research organization in the field of innovation Startup Genome. [Electronic resource]. Access mode: https:// www.startupgenome.com/. Accessed 12.11.2020.
59. Startup innovation. The official web portal of the international research organization in the field of startup innovation is flashing. [Electronic resource]. - Access mode: https://www.startupblink.com/. Accessed 11.10.2020.
60. Sternberg R. (2002). *Practical intelligence*. SPb.: Piter.
61. Stigler G. (1961) a. *The Economics of Information* / G. Stigler. "Political Economy". Vol. 69. P. 213-225.
62. Stigler G. (1982) b. *The process and progress of economics*. "Graduate School of Business", University of Chicago.

63. Summer A. (2013). *E-Commerce* / A. Summer,, Gr. Dunkan. NYH Publishing.
64. Tarasov V. (1998). *Causes and characteristics of businesses of a new type* / Tarasov V. / "Problems of the theory and practice of management". Vol. 1.
65. The state statistics service of Ukraine. [Electronic resource]. Access mode: http://www.ukrstat.gov.ua/. Accessed 05.11.2020.
66. The World Bank. [Electronic resource]. Access mode: https://www.worldbank.org/uk/country/ukraine
67. UNCTAD. *Creative economy report*, Widenin global development pat ways, 2013. [Electronic resource]. Access mode: http://ioeassessment.cisco.com/learn/visualizing-ioe. Accessed 13.11.2020.
68. Veretelnikova Y. O. (2001). *The Internet Market In Ukraine* – black box with many unknowns / Veretelnikova Y. O. "Marketing in Ukraine". Vol.. 3. P. 6-9.
69. Wytrich, A. G. (1999). *Virtualization as a possible way of development* / Wytrich, A. G., Andres F. "Problems of theory and management practice". Vol.. 5. [Electronic resource]. Access mode: http://www.ptpu.ru. Accessed 05.11.2020.
70. Zhavoronkov V. (2016). *Scientific problems of formation and development of information society in Ukraine* / V. Zhavoronkov, G. Zhavoronkova. "Science. Business. Society". Vol. 2.
71. Zhavoronkov, V. A. (2015). *Theory and practice of institutional change*. K.: CELJE.
72. Zhavoronkova G. (2016). *Information as a strategic resource for protection of technological security*/G. Zhavoronkova**,** V. Zhavoronkov, V. Klymenko. **"**Industry4.0". Vol. 1. P. 40-43.
73. Zhavoronkova G. (2017). *Scientific-methodological provisions of formation of a virtual segment of the information market*."Industry 4.0". Vol. 4. P.23-29.
74. Zhavoronkova G. (2018) a. *Design methodology management systems knowledge of business processes in manufacturing*."Innovations" Vol. 3. P. 98-101.
75. Zhavoronkova G. (2018) b. *Economic aspects of the development of information and communication technologies of Ukraine* / G. Zhavoronkova**,** V. Zhavoronkov, V. Klymenko. "Industry 4.0". Vol. 2. P.97-100.
76. Zhavoronkova G. (2018) c. *Knowledge, creativity and innovation in knowledge society formation* / Zhavoronkova G., Zhavoronkov V., Zavalko K. "Machines. Technologies. Materials". Vol. 9, P. 367-370.
77. Zhavoronkova G. (2019). *The growth of the role of institutions of culture and values in the information society and economy knowledge* / Zhavoronkova G., Zavalko K., Zhavoronkov V. "Science. Business. Society". Vol. 1. P. 31-34.
78. Zhavoronkova G. (2021). *Innovative business development and the startup ecosystem in the era of the fourth industrial revolution* / G. Zhavoronkova**,** V. Zhavoronkov, V. Nagieva. "Science. Business. Society". Vol.1 P. 31-34.

III. MODERN TRENDS OF INTERNATIONAL ECONOMIC RELATIONS

3.1. TENDENCIES OF FOREIGN TRADE OF UKRAINE: PANDEMIC CRISIS?

Abstract. Ukraine is a country with a small open economy, which has raw material export orientation. Both exports and imports have accounted for about 50% of GDP for many years. Accordingly, the indicators of foreign economic activity for the economy are very important. In this part the exports and imports during the pandemic crisis are analyzed.

Keywords: foreign trade, Ukraine, pandemic crisis, export, import, trade partners

Introduction. The crisis caused by the epidemic of Covid-19 has led to an almost unprecedented decline in economic development. Closed stores reduced demand for goods, and demand for some services fell by almost 100%.According to the latest estimates of the World Trade Organization, the decline in international trade due to Covid-19 this year could reach 18.5%, which will hit export-oriented economies hard. But international trade will play a fundamental role in ensuring the economic recovery of countries after a pandemic.

Overview of international trade of Ukraine

Ukraine has been an independent state for more than two decades, but the positive dynamics of economic growth has been archived only since 2000 (Fig. 1) [1]. At the same time, the importance of international trade as an important factor of economic growth in the conditions of insufficient domestic demand increased.

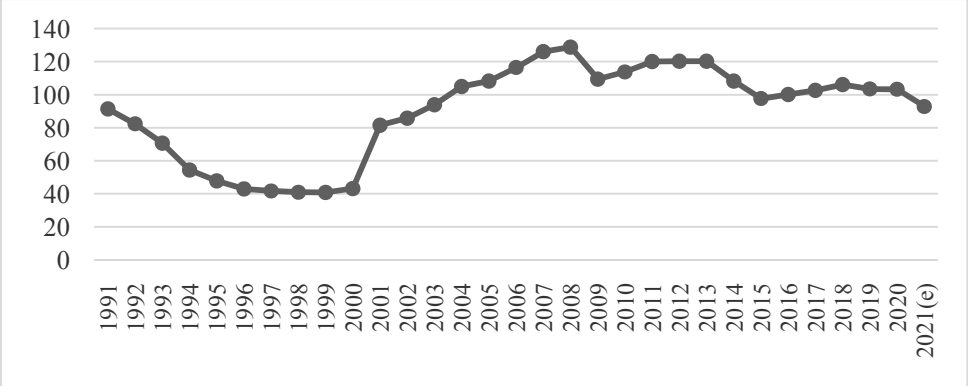

Figure 1. GDP of Ukraine,%.

In 1991-1994, the rapid development of the crisis in Ukraine was accompanied by a reduction in international trade, which was caused by a shock rise in prices

and the severance of production ties with the former Soviet republics at the initial stage of transformation. But gradually lost trade ties were restored, new ones were formed, which led to the beginning of the growth of production and increase in international trade.

In the 90's of the last century, the trends of Ukraine's international trade included constant deterioration of the structure of export-import flows-increasement in exports of the share of raw materials, and in imports - final consumer goods; uncertainty and inconsistency of legislation. Since 1996, the cumulative rate of export growth consistently exceeded the dynamics of GDP. This indicated that domestic demand was not enough to ensure economic development, and domestic producers were forced to use the external factor. This circumstance caused the formation of a high export quota of Ukraine, which in 2006 amounted to 48%and exceeded the quotas of many countries. Such a high degree of openness of Ukraine's economy caused its high dependence on market conditions on world markets.

After years of political and economic tension, the Ukrainian economy had started to stabilize, but the outbreak of COVID-19 reversed this trend. Ukraine's real GDP in Q4 of 2019 grew by 1.5% compared to the same period of the previous year, although the growth in Q2-Q3 was 3.9-4.7%.Already in Q1 of 2020, even in the absence of corona virus restrictions, GDP declined by1.5%. According to the IMF, GDP growth fell to an estimated -7.2% in 2020 (from 3.2% in 2019), and is expected to pick up to 3% in 2021 and 3.2% in 2022, subject to the post-pandemic global economic recovery [2].

In other words, the domestic economy was «ready» to fall before the corona virus crisis. The unfolding crisis starting in mid-March 2020, which was accompanied by restrictive measures, such as strict quarantine, restriction of economic activity and transport, minimization of human contact, and the like, made the situation much worse [3].

The foreign trade turnover of goods and services in 2020 compared to 2019 decreased by 10.2% (by 13.5 billion dollars) and amounted to 118.3 billion dollars. The results of foreign trade in 2019 were slightly different from 2018.The trade balance of goods and services was negative at $ 255.5 million, but improved by $3.4 billion compared to 2019.The foreign trade balance of goods was negative at $ 4.9 billion, but improved by $ 5.9 billion compared to 2019.

Exports of goods from Ukraine decreased by 1.7% in 2020 and amounted to $49.2 billion. Due to a much more significant reduction in imports, the negative balance in trade fell from $10.7 billion to $4.8 billion.

In the top 10 countries of Ukraine's exports, China, Poland and the Russian Federation occupied leading positions in 2020 (Fig. 2) [4].This situation didn't change and was the same in previous year. According to the State Statistics Service, exports to China increased by more than 98% compared to 2019 (increasement in previous period was 63%) and amounted to $7.1 billion. Exports to Poland was the same as in 2019, or $ 3.3 billion. Exports from Russia fell by 16.6% and amounted $ 2.7 billion.

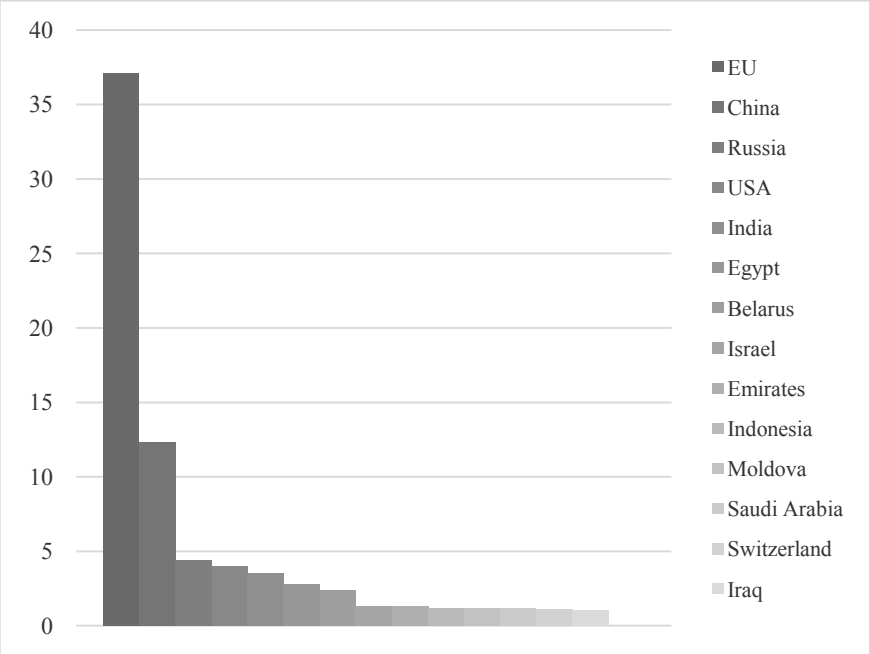

Figure2. Leading export partners of Ukraine, 2020

The following categories of goods were mostly imported to Ukraine:

- mineral fuels, oil and products of its distillation - $ 8 billion;
- reactors, boilers, machinery, equipment and mechanical devices - $ 6.1 billion;
- land vehicles - $ 5.5 billion.

The structure of exports from Ukraine is of low quality. In particular, the export of raw materials and semi-finished products include products of animal origin, crop products, fats and oils, mineral products, chemical products, wood and wood products, cellulose, materials of precious stones, gypsum, cement, metallurgical products and products from it. Over the last 15 years, raw material exports were below 70% of total exports only in 2009, 2010 and 2017.

The three most exported goods from Ukraine included:

- grain - by $ 9.4 billion;
- ferrous metals - by $ 7.7 billion;
- fats and oils of animal or vegetable origin - by $ 5.8 billion.

Ukraine were moving from the status of exporter of metallurgical and chemical products to the status of exporter of agricultural and mineral raw materials (exports of finished food increased by 10.2%, but its share in the total structure of exports was 6.6%) and metallurgical semi-finished products. Both statuses were not prestigious, it was changed the specialization, remaining in the lower league of world exporters.

However, there are encouraging trends. Exports of land vehicles, aircraft and watercraft increased by 40.8%. However, their share in total exports was only 1.7%. Exports of optical instruments and cameras increased by 20.3%. But their

share in exports is negligible – 0.3%. Exports of pharmaceutical products, part of which are high value-added goods, increased by 19.4%.

Exports of textile products increased by 2.5%. Little known that the world's leading brands make clothes in Ukraine, such as “Zara”, “Dolce & Gabbana”, “Hugo Boss”, “Prada”, “Benetton”, “Marks & Spencer”, “Triumph”, “Max Mara”, “Laura Ashley”, “Hennes & Mauritz” and others. Domestic garment factories have become to some extent mini-offshore for global clothing brands. Ukraine has cheaper labor compared to European countries, Ukrainian production facilities are much closer than Asian, which reduces transportation costs, the quality are high. There is potential for further export growth.

Trade with EU countries

EU countries (28) are Ukraine's largest trading partners (fig. 2, fig.3). The share of these countries in the foreign trade turnover of goods and services of Ukraine in 2020 was 40.7%.The foreign trade turnover of goods and services with the EU (28) in 2020 decreased by 9.0% (by $4.8 billion) and amounted to $48.1 billion. Exports of goods and services to the EU (28) decreased by 9.4% (by $2.3 billion) and amounted to $21.9 billion. Imports of goods and services decreased by 8.7% (by $ 2.5 billion) to $ 26.3 billion.

The balance of trade in goods and services from the EU (28) was negative in the amount of $ 4.4 billion, but improved compared to 2019 by $ 216.5 million. The foreign trade turnover of goods from EU countries (28) in 2020 decreased by 8.1% (by $ 3.7 billion) compared to 2019 and amounted to $ 42.1 billion. Exports of goods to the EU (28) decreased by 10.3% (by 2.1 billion dollars) and the population by $ 18.6 billion. Imports of goods decreased by 6.2% (by $ 1.6 billion) and amounted to $ 23.5 billion. The balance of trade in goods from EU countries was negative in the amount of $ 4.8 billion and deteriorated by $ 583.4 million relatively to 2019.

Ukraine's trade with the EU resumed growth in 2016, and for three years it grew faster than trade with other trading partners. The main driver of trade growth with the EU was exports against the background of the gradual introduction of the Deep and Comprehensive Free Trade Area (DCFTA).

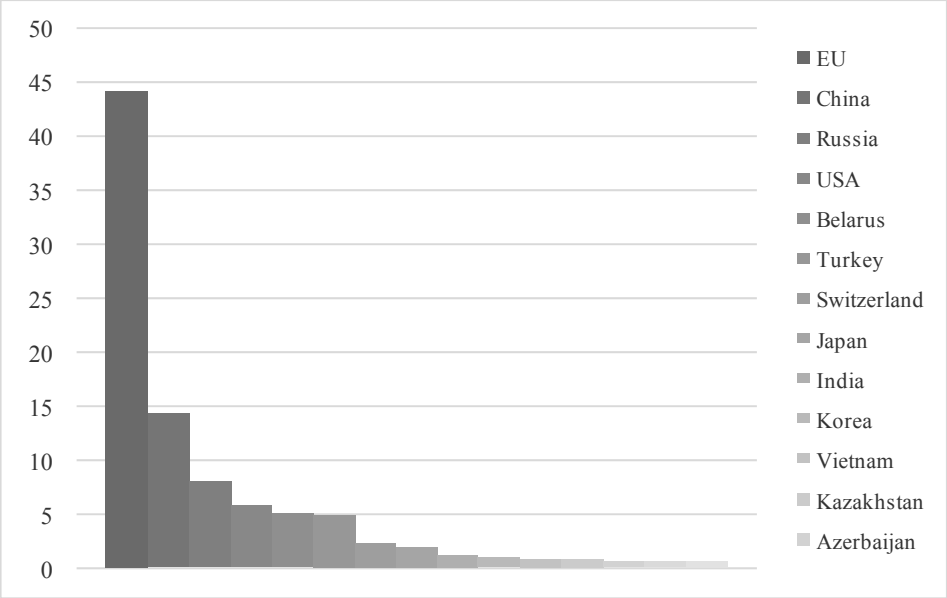

Figure3. Leading import partners of Ukraine, 2020

In 2019, trends have changed. According to Ukrstat, Ukrainian exports to the EU in January-November grew by a very modest 4%, gradually slowing down, while exports to China grew by 70% and total exports – by 6%.Exports to Poland, Ukraine's largest export destination within the EU, slowed to only 2% compared to double-digit growth over the previous three years. Exports to Germany also slowed significantly [4].

Although the general slowdown in Ukraine's exports may be due to the strengthening of the hryvnia, there are several reasons in the EU itself that are also detrimental to export growth. First, the EU has imposed definitive safeguards on steel products, which limits the expansion of Ukrainian steel exports. Second, Ukrainian exporters faced significant problems with Polish permits for transit and delivery of goods by road.

The growth of imports from the EU was also quite moderate and slowed to 8% in 2019 compared to previous years, despite the strengthening of the hryvnia. Imports from Germany, much of which are imported by road through Poland, fell by 1%, at least in part due to the problem of car permits.

The impetus for trade with the EU caused by the liberalization of tariffs under the DCFTA seems to be gradually disappearing amid the growing impact of non-tariff barriers to trade. To reverse the growth trend, Ukraine and the EU need to act together and more decisively.

In 2020, Ukraine has demonstrated some progress in concluding the Agreement on Conformity Assessment and Acceptance of Industrial Goods (ACAA), which should strengthen the competitiveness of Ukrainian industrial exports. The joint statement of the EU-Ukraine Summit in early October 2020 stressed

the need to accelerate measures in this area. Later that month, the parties agreed to launch the EU preliminary assessment mission on Ukraine's readiness to conclude the ACAA Agreement [3].

It's very important to mention that following the summit, Ukraine and the EU agreed on updating the Association Agreement. The topic of revision of the Association Agreement with the EU regarding the terms of trade in the direction of their further liberalization became the most relevant in 2020. The main aspect was the increasement in duty-free tariff quotas for Ukrainian exports to the EU. The results will be implemented in 2021.

Next year will be very important in terms of starting negotiations on the revision of the Agreement. It is already known that Ukraine and the European Union have agreed to hold a meeting of the Ukraine-EU Association Council with the participation of delegations in Brussels. During the year, Ukraine and the European Union may sign a renewed Association Agreement.

Moreover, in October 2020 the Political, Free Trade and Strategic Partnership Agreement between the United Kingdom of Great Britain and Northern Ireland and Ukraine concluded. According to this agreement, it would be stipulated permanent favorable trade conditions for businesses and consumers of Ukraine and Great Britain. The Ukrainian business will enjoy the same level of liberalization of trade, services and public procurement, which is currently available to domestic businesses under the EU-Ukraine Association Agreement. More importantly, the agreement with the United Kingdom removes potential contradictions that could arise following Brexit in terms of Ukraine's trade regimes with the EU and the UK.

The government's decision in August 2020 to initiate the process of granting transit simplifications, which is part of the Common Transit system, is very important in this context. In case of further positive developments, it will offer additional opportunities for Ukraine to develop production and exports. It can become an important incentive for improving infrastructure and integrating it into trans-European networks – not just as transport corridors, but also as logistics hubs. In particular, in late December 2020, the government approved an updated Strategy for the Seaport Development. If the country truly succeeds in increasing the volume of cargo processing, improving the efficiency of transshipment complexes and elevating the quality of services during the strategy implementation, this will significantly improve Ukraine's European maritime position, but no earlier than 3-5 years[3].

On September 10, Ukraine and Spain signed a Memorandum of Cooperation in the field of agriculture. This step was part of developing a shared vision of agricultural development with EU member states. Establishing such a dialogue with Spain is particularly important, as Ukraine is the largest supplier of agricultural products to the Spanish market.

Non-EU trade partners

The foreign trade turnover of goods and services with the Commonwealth of Independent States(CIS countries) in 2020 decreased by 31.6% (by $ 8.1 billion) and amounted to $ 17.6 billion.The share of these countries in the foreign trade turnover of goods and services of Ukraine in 2020 was 14.8%.Exports of goods and services to the CIS countries decreased by 33.8% (by $ 4.5 billion) and amounted to $ 8.8 billion. Imports of goods and services decreased by 29.3% (by $ 3.6 billion) and amounted to $ 8.8 billion. The balance of trade in goods and services with these countries was positive in the amount of $ 26.9 million, but compared to 2019 it deteriorated by $ 862.0 million.

The foreign trade turnover of goods with the CIS countries in 2020 decreased by 23.0% (by $ 4.3 billion) compared to 2019 and amounted to $ 14.4 billion. Exports of goods decreased by 12.1% (by $ 819.5 million) and amounted to $ 5.9 billion. Imports of goods decreased by 29.1% (by $ 3.5 billion) and amounted to $ 8.4 billion. The trade balance with these countries was negative at $ 2.5 billion, but improved by $ 2.6 billion relatively to 2019 [5].

The Russian Federation remained among Ukraine's main trading partners. The share of the Russian Federation in the foreign trade turnover of goods and services of Ukraine in 2020 was 8.5%.The foreign trade turnover of goods and services with the Russian Federation in 2020 decreased by 40.0% (by $6.7 billion) and amounted to $ 10.0 billion. Exports of goods and services to Russia decreased by 43.6% (by $ 4.1 billion) and amounted to $ 5.3 billion. Imports of goods and services decreased by 35.4% (by $ 2.6 billion) and amounted to $ 4.7 billion. The trade balance in goods and services with the Russian Federation was positive at $ 612.9 million, but deteriorated by $ 1.5 billion.

The foreign trade turnover of goods with the Russian Federation in 2020 decreased by 29.1% (by $ 3.0 billion) and amounted to $ 7.2 billion. Exports of goods to the Russian Federation decreased by 16.6% (by $ 536.8 million) and amounted to $ 2.7 billion. Imports of goods decreased by 35.0% (by $ 2.4 billion) and amounted to $ 4.5 billion. The balance of trade in goods with the Russian Federation was negative in the amount of $ 1.8 billion, but improved compared to 2019 by $ 1.9 billion.

In general, the declining role of Russia in Ukraine's foreign trade in goods is not new tendency. This trend accelerated in 2019 amid the introduction of new trade restrictions between countries. In December 2018, Russia imposed sanctions on the import of more than 200 goods from Ukraine, and in April 2019, about 140 more goods were added to this list. In addition, the export of some Russian goods to Ukraine, mainly energy, has either been banned or covered by the new permit system.

Ukraine has responded by expanding the list of goods banned from imports from Russia. These measures reduced Ukraine's exports to Russia by 10% and imports by 13%.Thus, the value of Ukraine's trade in goods with Russia has dropped to $ 10 billion, roughly the level of the early 2000s.As a result, in 2019,

Russia lost for the first time the position of Ukraine's largest trading partner among individual countries. This applied to both exports and imports.

The structure of imports from Russia to Ukraine in 2018 was dominated by energy sources - oil, diesel fuel, liquefied gas, coal and fuel for nuclear power plants. Kyiv paid $ 4.4 billion for them. Next are industrial products – boilers, machines, reactors, ferrous metallurgy products, chemical fertilizers, polymers and plastics, inorganic chemicals, such as ammonia. These two product groups accounted for 77.5% of total Ukrainian imports from Russia. In monetary terms, it was $ 6.25 billion.

Ukraine remains dependent on the Russian Federation for a number of commodity nomenclature. These include, in particular, the agro-industrial complex, Ukraine buys mineral fertilizers from Russia, and, of course, the oil refining industry and nuclear energy.

Determining impact on the state of national security during 2020 had traditional internal and external factors. A common threat to human security (global pandemic COVID-19), in no way did not encourage the warring parties to reconcile, but on the contrary – exacerbated the existing contradiction. Bright confirmation this conclusion is the lack of progress in settlement of the Russian-Ukrainian conflict and the use of the COVID factor to block the agreements reached. Against the background of "dead ends" in solving the problems of Donbass and Crimea, military threats have increased in the south (Azov-Black Searegion) and the northern directions (Belarus).

Ukraine's main trading partners are also China, the United States and Turkey. They account for 13.3%, 4.9% and 4.6% of the foreign trade turnover of goods and services in 2020, respectively.

The foreign trade turnover of goods and services with China in 2020 increased by 19.0% (by $2.5 billion) and amounted to $ 15.7 billion. Exports of goods and services increased by 91.2% (by $ 3.4 billion) and amounted to $ 7.2 billion. Imports of goods and services decreased by 9.9% (by $ 934.4 million) and amounted to $ 8.5 billion. The trade balance in goods and services was negative at $ 1.3 billion, but improved by $ 4.4 billion from 2019.

China has become a major partner, ahead of Poland in exports and Germany in imports. And while China's growing role in imports has been evident over the past few years, the fact that China has outperformed Poland as Ukraine's main individual export partner came as a surprise.

At the beginning of the year, Poland was the main trading partner, but later the situation changed. Exports to China grew rapidly due to the supply of agricultural products and ore, while exports to Poland began to slow down.

Already in 2019, China was ahead of Russia and became the second most important trading partner after the EU, as well as the largest partner among individual countries. In 2020, this trend only intensified. According to the results of 2020, China ranked first among all trade partners of Ukraine in terms of trade turnover.

According to the State Statistics Service of Ukraine, in 2020 the bilateral trade turnover amounted to $ 15.4 billion, while exports of goods from Ukraine to China

amounted to $ 7.1 billion (+ 98.0%), imports of Chinese goods to Ukraine amounted to $ 8.3 billion (-9.8%). The negative balance for Ukraine during this period was $ 1.2 billion.

The structure of Ukrainian exports to China in 2020 was dominated by ore, slag and ash; cereals; fats and oils of animal or vegetable origin; ferrous metals; residues and waste from the food industry; boilers, machines; wood and wood products. Raw materials really dominated in exports to China. The share was 64% due to increased supplies of iron ore and corn to this country.

The structure of imports of Chinese goods to Ukraine was dominated by electric machines; boilers, machines; land vehicles other than rail; plastics, polymeric materials; optical and photographic devices and apparatus; shoes; various chemical products; toys; organic chemical compounds; furniture; ferrous metals; ferrous metal products; rubber, etc.

For the period from January to September $ 75.7 million of direct investments from China were attracted to the Ukrainian economy. Mainly Chinese investments are made in: Ukrainian industry - 43.5%; agriculture, forestry and fisheries - 12.3%; wholesale and retail trade, repair of vehicles - 10.2%; professional, scientific and technical activities - 19.7%; real estate transactions - 3.6%; transport, warehousing, postal and courier activities - 3.4%; construction - 3.4%, etc.

Coronavirus restrictions in the word influenced all the country. And it was rather difficult to find external financing. But in 2020 Ukraine has got several international institutional solutions. The mains were:

- signing of the macro-financial assistance agreement with the EU worth €1.2 billion on 23 July 23, which significantly alleviated the financial burden caused by the delay of the next IMF tranches;
- signing and entry into force of agreements between the Government of Ukraine and the European Commission on the financing of sectoral activities: «EU Support for the Development of Agriculture and Small Farms in Ukraine» for up to € 26 million (28 January); «EU Support to E-Governance and Digital Economy in Ukraine» for up to €25 million (11 February); «EU4BUSINESS: Supporting for Small and Medium Enterprises (SMEs) in Ukraine» for up to € 20 million (13 July);
- signing of the Political, Free Trade and Strategic Partnership Agreement between the United Kingdom of Great Britain and Northern Ireland and Ukraine on 8 October 2020, and its ratification on 16 December 2020, setting the parameters of free trade between the two countries following the completion of the UK's exit from the EU;
- ratification on 14 January 2020 of the Development Cooperation Agreement between the Government of Ukraine and the Government of the Republic of Turkey of 3 November 2018, which, among other things, provides Ukraine with access to TIKA (Turkish Cooperation and Coordination Agency) programs;
- approval of the draft Agreement between the Cabinet of Ministers of Ukraine and the Government of the People's Republic of China on deepening

cooperation in the field of infrastructure construction on 25 November 2020 (Directive No.1582);

- ratification and entry into force of a number of other sectoral agreements, such as the Framework Agreement between the Governments of Ukraine and the Kingdom of Denmark on general conditions and procedures, organizational arrangements and financial conditions for Danida Business Finance in Ukraine of 14 March 2019; Agreement between the Cabinet of Ministers of Ukraine and the Government of the Republic of Lithuania on employment and cooperation in the field of labor migration of 7 December 2018; grant agreement worth up to € 10 million from the E5P Fund of the European Investment Bank (EIB) for the Higher Education project of 17 December 2018; financial agreements between Ukraine and the EIB for the projects «Development of the Trans-European Transport Network» of 22 November 2019 in the amount of € 450 million and «Transport in Ukraine – Phase I» of 17 December 2018 in the amount of €50 million. On 3 June 2020, Ukraine joined the Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (GMR) Concerning the Electronic Consignment Note, which simplifies control sand speeds up international carriage by road;
- ongoing revision of the terms of previously concluded agreements on avoidance of double taxation and prevention of tax evasion with their approximation to OECD standards. In 2020, such actions concerned the Convention with the Government of the Republic of Austria and the Agreement with the Government of the Republic of Singapore, with ratification of relevant amendments [4].

Conclusions.

The pandemic of COVID-19 was important, but not the only factor deepening of crisis manifestations and processes in Ukraine.

The openness of the Ukrainian economy does not lead to positive changes in its structure, which is clear from the analysis of exports and imports. There are examples in history when countries have diversified the structure of exports, increasing the share of technological exports in a relatively short period of time – 7-10 years (Vietnam, Slovakia, the Czech Republic). The most important role in this was played by foreign investors. Their goal was to include local companies in global value chains in order to serve foreign markets and fill domestic markets, which were dominated by imports. Off course, during the pandemic it's rather hard to realize.

In order for a Ukrainian enterprise could become an intermediate, and, ideally, ultimate in the world value chains, political stability, strict rule of law, creation of high-quality logistics infrastructure and effective tariff and customs regulation are necessary to implement.

Ukraine can become a driving force in the global economy. Under certain circumstances, the country can become a center of production for Europe and win in the global market not only as an exporter of grain and metal.

There are opportunities to create longer production chains with high added value in agriculture, heavy industry, production of power equipment. The experience of European and Asian countries shows that the pace of economic development and export growth is of great importance. They are impossible without a stable economic environment.

Despite the pandemic, Ukraine must work to attract investment, because in modern conditions there are no alternatives for accelerated economic growth. The strategy of passing this difficult period should be indicated in the export strategy of Ukraine for 2022-2026.

References

1. Gross Domestic Product. Official site of the State Statistics Service of Ukraine. Availableat: http://ukrstat.gov.ua/ (05.12.2020).
2. International Monetary Fund (2020). *Ukraine*. Available at: https://www.imf.org/en/Countries/UKR.
3. Razumkov Centre (2020). *Ukraine 2020-2021: inflated expectations, unexpected challenges.* Kyiv.
4. State Statistics Service of Ukraine. Official site: http://ukrstat.gov.ua/.
5. Ministry for Development of Economy, Trade and Agriculture of Ukraine. Official site: http:// https://me.gov.ua/.

3.2. WORLD LABOR MARKET IN PANDEMIC CONDITIONS

Abstract. The pandemic COVID -19 has affected all walks of life. There is no turning back in the international labor market. Of great importance were the processes of digitalization and remote work. They reduced the number of employees in all sectors of the economy. The purpose of this study will analyze modern trends in the development of the international labor market in a pandemic. The interdependence of the development of the international labor market from globalization, the influence of the pandemic on it was considered. The practice of human resources management during a pandemic is studied. The scenarios of the development of the international labor market are analyzed. To solve the tasks, a theoretical analysis of scientific literature, reports of international organizations was carried out. To achieve the goal in the work was used by general scientific and specific research methods. The main scientific results of the study are based on the general principles of logic and objectivity and obtained on the basis of the use of systemic and structural and functional analysis.

Keywords: globalization, digitalization, pandemic, labor, human recourse management.

Introduction. Globalization is a dominant trend of international development economic relations and, affects the international labor market, especially in a pandemic times. The processes of globalization affect more and more aspects of social, cultural and economic life of the population of national economies involved in these relations. It also has a powerful impact on the transformation of socio-economic factors of development of society.

Globalization was determined by Guidin (1990) as "the intensification of world social relations that associate long-distance places in such a way that local events are formed by events occurring in miles from him, and vice versa." Globalization leads to homogenization and convergence in organizational strategies, structures and processes and in the selection of the consumer, along with the new global division of labor, which extends the rupture of income between "wealth" and "poor" layers both inside and between countries. In the globalized world, the consequences of the COVID-19 pandemic on the international labor market are significant.

Different scholars investigated the impact of pandemic and trend of digitalization on world labor market. We can name such researchers as K. Dissanayake (2020), Brooks S. Webster (2020), M.F. Wunderlich, Lokke A.-K. (2020).

Aim of the research is to investigate the influence of pandemic and digitalization processes on world labor market development.

The methods of the study are: systemic and structural and functional analysis, synthesis.

Globalization and world labor market.

As a result of globalization, the occupied population consists of persons who are busy part-time, temporarily have a free schedule, the number of such employees is increasing.

According to C. Clott (2004), the basic idea of outsourcing is such that if the firm does not specialize in a certain function, it may transfer a certain work of the contractor, and therefore, in the future to offer better prices and quality. Global outsourcing has changed work in the company. Initially, he was sent only to such services as cleaning of premises, but now outsourcing is distributed to basic functions such as final product collection, customer service, financial services and technological services (Clott, 2004).

In terms of organizational structures and human resource management, globalization means that there is a need for a more "responsible" and "flexible organization" and employees. Globalization has led to an international division of labor.

US companies have particularly closed factories in the United States and create offshore professional and operational centers that move there, where the cheap labor is located. For example, the IT branches moved to the Indian city of Bangalore, known as Silicon Valley. Employees in India have high qualifications, but they require less payment than wants an experienced man in the United States.

Thus, the world division of labor affected the countries of the third world and contributed to joining the European Union states specializing in the supply of cheap labor and goods, while developed countries of the world, the so-called "Triad", that is, the United States, EU and Japan (Rugman, 2000) focusing on skills that allow to produce high-added goods and services of all kinds. In western countries, this has been reflected in the shifted employment from labor-intensive industries to low-employment sectors, services (financial and business services), retail (Reich, 1991).

Globalization has led to the desirability of supporting flexible and ordinary organizations. Puick (1992) notes that advanced global competitors, regardless of their national origin, have one key organizational structure. Their corporate structure is simple and flat, and not large and complicated. Simple structures increase the speed and transparency of communications and allow concentrating organizational energy and valuable resources for training, rather than control, monitoring and reporting.

In the conditions of globalization, a significant impact on the world labor market is carried out by migratory processes. In this case, it is important to correctly coordinated the country's migration policy (Okulicz-Kozaryn, 2017).

The global frame offer is not enough for long-term demand, and this gap is a problem for employers around the world. The deficit between demand and proposal of personnel will probably continue to grow, primarily for highly skilled workers and for the next generation of middle and highest managers. Most developing countries with large population, including Brazil, Russia, India

and China are not able to further support net excess workforce with the necessary skills in the future.

Globalization brings certain challenges to the human resource management. Thus, it is still a big problem for the department al resources of global organizations to manage a work force with different cultures and languages. It is very important for the organization to not only be familiar with local customs and understand the needs of local consumers, but also develop a global mind set among employees. TNC sth at are at the center of globalization must learn to integrate different value systems and cultivate general global work values to create an environment where employees have the ability to communicate and coordinate their actions to achieve common goals (Rosenblatt,2011). Employees should play new role sand have new responsibilities for the organization to function successfully in globalization.

In the past, department son human resources in global corporations were usually considered as the center of administrative expenses. They were focused on short-term benefits and savings and also focused on administrative efficiency. They are usually invested in frame works but not focused on increasing short-term revenue by reducing discretionary spending on staff development (Gutridge, Kommand Lawson, 2008; Hamel, Prahalov, 1994;Schuler, Jackson,1987). Such tendencies have achieved short term success but there are long term problems when the go als have been achieved through productivity.

Modern human resources departments in global corporations are guided by long-term organizational purposes. Instead off ocusingsolelyonintra-organization a lissuesrelatedtohu man resources, modern human resource departments a reengagedin broade ractivities. The yemphasizefuture-orientedplansandtasksandvalue-addedinitiatives(Adler, Ghadar,1990;Adler,1997;Kobrin,1988).

The scientist Ulrich(1996) states that the role of human resources in global conditions is based on the following four functions:

-strategic business partner;
- the changing agent;
- master employee;
- an administrative expert.

The goals of management, how the enterprise managed to achieve these goals with the production relations suffer from pressure, which largely depends on globalization. Changes in the practice of industrial relations, namely: an increase in collective agreements at the level of enterprises, flexibility, depending on the form of employment, as well as changes in working time working functions occurred as a result of such factors as increased competition, rapid changes in production, growing importance of skills, quality and performance. These factors also had an impact on the policies and practice of the human recourse management in global conditions. In the management of changes, the main elements include employees in the implementation of amendments, a large orientation on the client, as well as ensuring that employee skills were appropriate for the production of goods and providing services in accordance

with the requirements of the world market. Consequently, managing people through their motivation to productive work is one of the most important goals of the human resource management.

In determining some trends in the world labor market development and with further analysis of how they can contribute to the achievement of management objectives, it is necessary to express certain reservations. So, even today we see that human resources functions in many American corporations remain weak and have a relatively low impact compared to other managerial functions, such as finance, marketing, production, etc. In spite of the scientific thought of the "strategic of human resource development", slight progress was made in the development of systematic theory or empirical evidence regarding the conditions under which human resources are reduced to such a position in which the firm sees and consider them as a source of competitive advantage.

Different types of pressure on enterprises have led to an increase in the appointment to effective policy and practice of the human recourse development. Two authors studying some of the successful companies, including IBM, General Electric, Hewlett Packard and Matsushita noticed that "there are a number of things related to corporate goals and culture that seems to be, are important. Agreement on the main directions of long-term development of business, and how to deal with people within the firm, are the most significant common features of these companies" (Goold, Campbell, 1986, p. 78).

An increasingly significant role of the labor development in achieving management goals finds in the transformation of the function of personnel management. There are several directions that human recourse management has changed the attitude and assumption of personnel management, which was previously about managing people (Bert, Spector, 1985). The new human resource model includes many elements important for the main goal of managing to achieve and support competitiveness. So, firstly, the human resource management previously responded to problems as they occur. Effective human resource management is now more and more striving to link the human resource with issues of the general organization's strategy, that is, to integrate the human resource policy to corporate strategy and strengthen or change the culture of the organization.

Secondly, the construction of strong cultures is a way to promote certain organizational goals, because "strong corporate culture" is aimed at uniting employees through a general set of managerial authorities ("quality", "service", "innovation", etc.), which predict the definition of the interests of employees and employers.

Thirdly, the attitude towards people as a changing value, an effective management, is replaced by such a view that people are a resource and that social capital can develop and lead to competitive advantages.

Fourthly, in a different way, the thought of the interests of workers and managers or shares owners are conflicted with each other. Human recourse management is aimed at identifying and encouraging their common interests.

Fifthly, in global conditions, corporate communications that go from the top down combined with a controlled flow of information, in order to maintain power

and control over the management, are gradually inferior to the place of exchange of information and knowledge. This change contributes to the creation of trust and affection and makes knowledge more productive.

TNCs have a significant impact on the international labor market. Taking advantage of new international opportunities, TNCs focus on creating more effective integrated international production, within which a specific system of division of labor within firms, when the appropriate links of the TNC net work are placed where they can bring the greatest profit from the position of the firm as a whole. In this case, as a result of the development of the intra corporate division of labor, there is not only an economic but also a technological dependence of the individual components of the corporations. Many of the national components of the net work cease to produce final goods in general, but switch to the production of intermediate goods and services that are technologically tied to specific foreign corporate entities.

Thus, entry in to global TNC net works may be associated not only with the formation of a technological dependency that will be difficult to overcome, but also with certain national subsidiaries be coming peripheral links subordinated to the global marketing strategies of the corresponding TNCs.

At the same time, the international labor market is affected by information and communication technologies, which have become a new language in business communication, the basis of modern business and not so much to increase the productivity of labor, as a significant change in the world system, the creation of new standards of man age menthe marketing, ac celebration of the processes of updating goods and services. Through the economies of different countries.

Digitalization and human resource practice.

The main tasks of human resource manage ment such as recruitment, adaptation, talent an age ment and career planning now depend on digitalization, especially in times of pandemic. They are complemented by chat bots, software-based HR analytics or digital on line learning platforms. Digitization allows HR to focus more on the strategic and human side, while the routine part of the work can be handed over to modern technologies. By using modern HRsystems,thetimespentbyHRteamonadministrativeprocessescanbeoptimizedby40-50%.

Key human resource practices during a pandemic period (Dissanayake, 2020,p.13):

-down sizing and Compensation,
-communication,
-coordination and collaboration,
-creating a caring culture,
-cleaning and sanitation,
-creativity.

During the COVID-19 pandemic, human resource practice shave changed significantly. Thus, the main proactive practices (Dissanayake,2020,p.11)are:

-training;

- task restructuring.

The main reactive human resource management practices are (Dissanayake,2020,p.12):

-frozen recruitment;
-voluntary/in voluntary un paid leave;;
-voluntary/in voluntary pay cuts;
-cross-training;
-realignment of duties;
-additional time off;
-special leave policies;
-flextime work;
-various forms of remote working(e. g. teleworking, working from home);
-heal than dsfety measures for employees.

Here, the influence of digitalization on the development and practice of human resource manage men tisevident. Combining social net works, mobile applications, cloud technologies and augmented reality, digital human resource practice is a new plat form to improve employee and can did ate performance and process their experiences.

Developersofdigitalsolutionsprovidethetechnicalcomponentofdigitalhumanresources,atthistimeasbusinessleadersandhuman resourcedepartmentsshouldbuildtheirownintegrateddigitalhumanresourcemanagementstrategiesandprograms.

So, the key benefits of human resource practices digitization the condition of pandemic are:

- human resource data analytics;
- times a vings for human resource employees;
- increase in productivity of the entire organization.

Technological change and digitalization in global conditions is associated with two new trends:

-a faster improvement in the capital to which work must adapt;

-a greater flexibility in the organization of the production process, which entails a greater variety of work forms.

The second trend can be witnessed by the increase in the number of: non-standard (atypical) workers (for example, ‘green’ jobs (Stukalo, Simakhova, 2019) and concomitant; decrease in the number of full-time permanent employees.

In different countries of the world business during pandemic times use a lot practice of digitalization of HRM. Mainly in application of integrated mobile applications and automation of HR-processes, digital integration with cloud systems, HR analytics and Big Data HR (Rudakova et al., 2020).

COVID-19 pandemic impact on world labor market.

The COVID-19 pandemic has negatively affected the development of the world labor market. During 2020, the number of unemployed through economical crisis,

bankruptcy of enterprises has been increased. In the world unemployment rate in 2020 grew (see Figure 1).

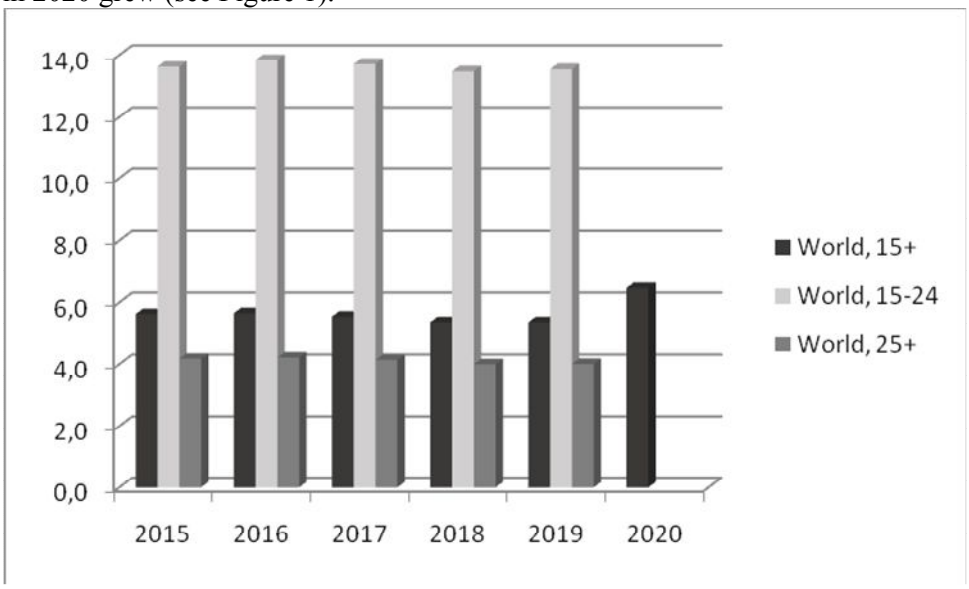

Figure 1. Unemployment rate by age in 2015-2020.
Source: ILO, 2020.

The un employ men trade for age 15 increased by more than 1% in 2020 compared to 2019.The un employ men trade for 15-24 year olds is nearly table at 13.5%. The group with the highest un employ men treaties representatives of 15-24 year olds, which are young professionals starting with their employer. The lowest un employ men treaties for represent actives aged 25+ at 4%.

If we analyze the level of un employ men tin country groups (see Figure2), we can see that the lowest indicators are found in low-income countries. For this group of countries, the un employ men trade at age 15 h a sin creased by 0.5% compared to 2019.

The un employ men trade at age15-24 is 8% an date age 25 + is 3.7%. Consequently, low-income countries have the lowest un employ men trades. The population is filled with low-skilled workers and the proportion of self-employed is high. In this case, the external economic situation does not have a significant impact on the changes in the labor market in low-income countries.

The un employ men trade for 15-year-olds increased by more than 1% in 2020 compared to 2019. For15-24 year olds, the un employ men trade increased to more than 15%. This is a larger indicator of the world average. For representatives 25+, the un employ men tratein this group is the lowest- 3.1%.

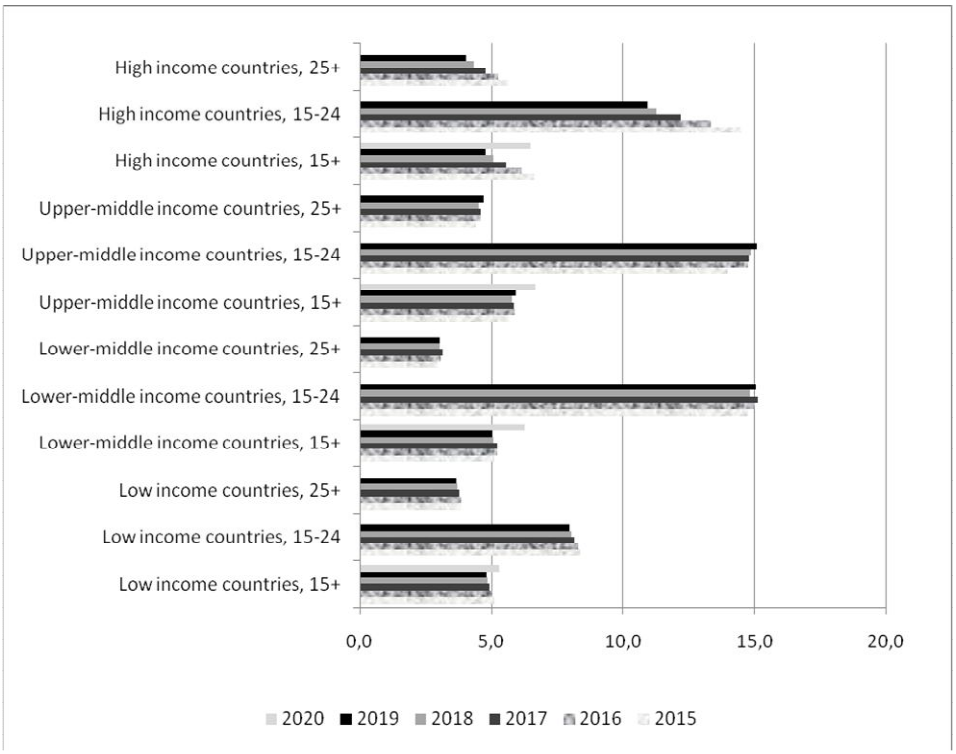

Figure 2. Unemployment rate by age and group of countries in 2015-2020. Source: ILO, 2020.

For countries above the average income level, the un employ men trade for 15 years in 2020 increased by more than 1% compared to 2019. The level of un employ men tin creased and 15-24 year olds increased. This is a larger indicator of the average world. For representatives 25+, the un employ men trade in this group of countries is also higher than in the world-4.7%. This indicates that countries with average income levels are more dependent on world conditions and crisis phenol men a that affect their labor market.

For countries with high income levels, the un employ men trade for 15 year sin2020 increased by more than1.5% compared to 2019. The un employ men trade for15-24 years was about 11%, which is a lower index than the average. For representatives 25+, the un employ men trade in this group of countries is low-4.1%.

The preliminary assessment of the impact of COVID-19 on the world labor market conducted by International Labor Organization shows that the consequences of the pandemic will be far-reaching, with millions of people losing their jobs, becoming partially employee do run employed.

The ILO also offers measures for a decisive, coordinated an dim mediate response.

AccordingtoanestimatebyInternationalLaborOrganization,theeconomiccrisisandlab

or market crisis caused by the COVID-19 pandemic may lead to an increase nun employ men tin the world of nearly 25 million.

However, if internationally coordinated policies are implemented in response, as happened in the context of the global financial crisis of 2008-2009, then the impact on global unemployment may be much smaller.

The ILO press release on the preliminary assessment of the impact of the pandemic calls for urgent, large-scale and coordinated action in three directions (PON, 2020):

-protecting workers in work places;

-stimulating the economy and employment;

-supporting jobs and incomes.

These measures include the expansion of social protection, support and employment (ie, the transition to reduced working hours, paid leave, other privileges), as well as financial and tax benefits, including micro, small and medium-sized enterprises. In addition, the document offered measures of fiscal and monetary policy, as well as lending and financial support for certain sectors of the economy.

Conclusions.

The impact of the global crisis caused by theCOVID-19 pandemic on the development of the world labor market is firstly, the reduction in demand for labor, the growth of unemployment. Of course, this is associated with the unemployment of the youth. In directly, this affects the well-being of the population (Simakhova, 2012), living conditions, quality of life, etc.

According to a pessimistic scenario, the recovery of the labor market in 2021 will be much slower and the loss of working hours will remain at a high level-4.6% (based on the last pre-crisis quarter), which corresponds to the full working hours of 130 million workers. This scenario envisages: slow deployment of vaccination, long and severe impact of the pandemic, reduction in business and consumer confidence, and insufficient budgetary incentives for job creation. According to this scenario, the loss of working hours will not be compensated in all countries, with the exception of high-income countries (NQA, 2020).

Due to an optimistic scenario, the volume of working hours will recover in 2021 due to growing business and consumer confidence, and the pandemic will be brought under control. Never the less, even in such a scenario, the loss of working hours in the North and South America, as well as in Europe and Central Asia, will remain at a level above 2% in 2021 (NQA, 2020).

According to the experts' forecasts, employment will recover in 2021 along with working hours. It is also expected that the loss of working hours in 2021 will primarily lead to a reduction in employment rather than a reduction in working hours.

In modern conditions, it is important for minimizing the consequences of the pandemic for the international labor market:

- improving the quality of human potential, consisting of well-educated, diligent, highly-initiative labor force;

- realization of the potential or generation and effective implementation of scientific and technical ideas of the work force or effective adaptation of foreign technologies to national conditions;
- implement action of immigration policy reform;
- creation of better quality opportunities to increase the number and raise the professional qualifications of employees, introduction of training programs based on advanced achievements of science, creation of flexible mechanisms to improve the qualifications of employees and en sure their competitiveness in the labor market.

References

1. Adler N.J. (1997) *International Dimensions of Organizational Behavior*, 3rd edition. Cincinnati: South-Western College Publishing.
2. Adler N.J., Ghadar F (1990) *Strategic Human Resource Management: A Global Perspective*, in Pieper R. (ed.) *Human Resource Management in International Comparison.* Berlin: de Gruyter
3. Bert M., Spector B. (1985) *Corporatewide Transformations In Human Resource Management* in Walton R.E., Lawrence P.R., *Human Resource Management. Trends and Challenges,* Harvard Business School Press, Boston, USA.
4. Brooks S. Webster, et al. (2020) *The psychological impact of quarantine and how to reduce it: rapid review of the evidence*. "The Lancet",395.10227, 912-921
5. Clott C. (2004). *Perspectives on Global Outsourcing and the Changing Nature of Work,* "Business and Society Review*",* 109:2, 153-170.
6. DissanayakeK. (2020). *EncounteringCOVID-19: Humanresourcemanagement(HRM) practices in a pandemic crisis*, "Colombo Journal of Multi-disciplinary Research", 5(12), 1-22.
7. Giddens A. (1990). *The Consequences of Modernity*, Cambridge and Oxford: Polity and Blackwell.
8. Goold M., Campbell A. (1986) Strategies And Styles: The Role of the Centre in Managing Diversified Corporations, U.K, Oxford: Blackwell.
9. Hamel G., Prahalad C.K. (1994). *Competing for the Future*. Boston Mass.: Harvard Business School Press.
10. Hutchinson S., Purcell J. (2003) *Bringing policies to life: the vital role of front line managers in people management. Executive Briefing*, London: Chartered Institute of Personnel and Development.
11. ILO (2020). Available at: https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/ (accessed: 20.11.2020).
12. Kobrin S.J. (1988). *Expatriate Reduction and Strategic Control in American Multinational Corporations*, "Human Resource management", 27
13. NQA (2020). Available at: https://nqa.gov.ua/news/rinok-praci-v-umovah-pandemii-scenarii-rozvitku/ (accessed: 21.12.2020).
14. Okulicz-Kozaryn W. (2017). *Polskie innowacje w zarządzaniu polityką imigracyjną (Polish innovations in management of immigration policy)*, "Management - Education - Science & Society Technology - Economics Journal", 70-77.
15. PON (2020). Available at: https://pon.org.ua/novyny/7725-mop-mayzhe-25-mlyonv-pracvnikv-u-svt-mozhut-vtratiti-svoyi-roboch-mscya-cherez-covid-19.html (accessed: 25.11.2020).
16. Puick V. (1992). Globalization and Human Resource Management. In Puick, V., Tichy, N. M. and Barnett, C. (1992). *Globalizing Management. Creating and Leading the Competitive Organisation.* New York: John Wiley and Sons Incorprated.

17. Reich R. B. (1991). *The Work of Nations*. New York: Knoph.
18. Rosenblatt V. (2011). *The impact of institutional processes, social networks, and culture on diffusion of global work values in multinational organizations*, "Cross Cultural Management: An International Journal", Vol. 18, No. 1.
19. Rudakova S.G. et al. (2020). *Digital HR - the future of personnel administration*, "Business Inform", 1, 265–270 (in Ukrainian).
20. Rugman A. (2000). *The end of Globalization*, London: Random House.
21. SimakhovaA.O. (2012). *Theoretical substantiation of innovation and investment aspects of providing positive social and economic dynamics*, "Economic space", № 68, 114-119. (in Ukrainian)
22. Stukalo N., Simakhova A. (2019). *Social Dimensions of Green Economy*, "Filosofija. Sociologija", 30 (2), 91–99.
23. Ulrich D. (1996) *Human Resource Champions-The next agenda for adding value and delivering results.* Boston, Mass.: Harvard Business School Press.
24. Wunderlich M.F., Lokke A.-K. (2020). *Human Resource Management Practices in Times of the COVID-19 Pandemic.* Denmark: AARHUS University.

3.3. GLOBAL AIR TRANSPORTATION MARKETS: CURRENT SITUATION AND PERSPECTIVES

Abstract. The spread of acute respiratory disease COVID-19 caused by the coronavirus SARS-CoV-2 has had a negative impact on the development of global air transportation markets that are influenced not only by economic factors, but also environmental, social, technical, and political ones, which directly shape the external environment of a specific air carrier and directly or indirectly affect its internal environment. Ensuring the effective functioning of airports and airlines in the international air transport market as a whole is an urgent problem in today's conditions, especially during quarantine measures being implemented. Some experts recommend a kind of resolution regarding certain complications, taking into account the interaction of various component parameters in order to identify "bottlenecks" in customer service at the airport in terms of maximum loads on the infrastructure; meeting the demand for air transportation; providing the required level of service and obtaining maximum profit.

Keywords: globalization, international markets, pandemic, air transportation, revenues of airlines

Introduction. The modern transport system is the most important component to be incorporated into the economic system of any country. The smooth operation of such systems is a prerequisite for the efficient formation and evolution of relations taking place at the international market.

The present time is the one associated with the dynamic development that has transpired in all areas of activities performed by the world community. The last few years can be characterized by the intensification in reference to globalization processes at the micro, me so, macro and supranational levels of the global economy. These processes are objective and irreversible, so to take advantage of globalization and minimize the negative consequences, each participant in international economic relations should adapt to the conditions of global markets.

There has been some analysis conducted on global air transportation markets, which allows identifying the main elements of influence and certain factors of environmental, social, technical and political nature. Formation of the external environment of a specific air carrier may directly or indirectly depend on its internal environment. An example of such dependence is the suspension of air services, the cause of which is the COVID-19 pandemic.

It is clear that the purpose of the studies described in the paper is to complete a comprehensive assessment regarding perspectives for the development of global air transportation markets. Nonetheless, to respond quickly to changes in the external environment, including proactive and global environments, is a task to be fulfilled by the air transport industry when overpowering the unforeseen difficulties that have taken place lately.

Global air transportation markets

Over the past ten to twenty years, air transport has acquired new functions and capabilities. Being presumed as the safest one, air transport has become the main international communication including a connecting network credibly made. This network has managed to unite all continents, faraway areas, small islands and hard-to-reach places on the planet. According to some experts, about 8% of world GDP is annually provided by the aviation industry.

The international air transportation market is one of the most important areas of the world economy, the technical and service achievements of which get it considered a highly effective tool for the development of modern global society.

International passenger traffic has precipitated a certain mobility in diplomacy and management of international business. This mobility has led to a significant reduction in pending time and negotiation processes, which may bring on an operational and targeted impact on the outcome of geopolitical and geo-economic decisions.

Nowadays, air transport appears to have been globalized the most in comparison with road, water, rail and pipeline transport. Currently, trends towards the globalization of the air transportation market might be observed. The basis of these processes has been formed owing to international cooperation and expansion of world economic relations in the aviation sector. Having this in mind, one can deduce some acceleration of the integration processes going on in air transport enterprises at the supranational level.

International flights are regulated by a large number of international agreements, which in turn makes it possible to organize international air transport services between countries and regions of the world. The agreements specified above are deemed to be legislative fundamentals for air travel, aircraft maintenance and much more, thus enabling aviation to be made more efficient and safer.

Leading international organizations such as ICAO, IATA, ISA and aircraft manufacturers, so called ‘giants’, such as Airbus and Boeing are engaged in aviation research and management of the international air transportation market.

All activities of international air transportation markets are regulated by international legal acts which must comply with the following requirements:

- the national legislation of the state pertaining to the territory of which, from the territory of which or through the territory of which the international air transportation is performed;
- the national legislation of the state pertaining to the flag of the carrier which operates international flights;
- bilateral and multilateral agreements governing international flights and international air transportation.

The global air transport market consists of the global air passenger market and the global air cargo market. The air transportation market is a large dynamic and complex system containing constantly interacting and interdependent parts *(Kulayev, 2010)*. Here are the main components of the aviation system, among which are the following:

- subsystem of world airports;

- airline subsystem;
- air traffic organization subsystem;
- air transport regulation subsystem, etc.

The systematization carried out in reference to the market performance in 2010-2020 has allowed us to identify the most significant trends in the development of the air transportation market in the context of globalization, in particular:

- international economic integration at the macro level – uniting airlines into powerful conglomerates, marketing, strategic and global alliances located in different regions, in order to increase the efficiency, joint Research & Development, fuller implementation of competitive advantages with synergistic effect;
- dynamic integration processes at the macro level – involvement of more and more countries in international aviation organizations, unification of the airspace of the countries in order to create a single common aviation market;
- progressive liberalization and deregulation of the air transportation market, which is manifested in the elimination of existing barriers between the markets of countries;
- an increase in the number of new air carriers – low-cost companies that have entered the market of air passenger transport;
- organizational restructuring of airlines that have long been operating in the air transportation market in order to increase the efficiency and productivity.

Low-cost airlines contribute to a significant expansion of the air transportation market, creating the effective competition that leads to improved services, the development of regional and local airports and their integration into the international air transportation system.

Despite the different structures of economic activities and different business owners, the basic interests of the airport and the airline coincide. They solve common problems, including the following: improving the quality of air transportation services; ensuring flight safety;ensuring aviation security; increasing traffic volumes.

Interacting with each other, the airport and the airline are components of the global civil aviation system. The development of economic activities performed by both the airport and the airline depends on their cooperation. The effectiveness of the mutual functioning of airlines and airports can be attained by improving the arrangement of the process related to transportation of passengers and cargo by air, as well as the provision of quality in ground handling *(Lytvynenko, 2017)*.

To assess the impact of the national environment on the development of economic sectors and, accordingly, the international air transport market, it is appropriate to use the concept of M. Porter, which is based on the following groups of features: state of demand;conditions for factors; stable strategy, structure and rivalry; related and supporting industries. *(Porter, 2008)*

The group of determinants relating to the conditions for factors presumes the presence of factors necessary for the development of the industry. These factors are the most essential for achieving certain goals. In this regard, one may find it reasonable to look into factors influencing the development of the international air transportation market (Table 1).

Table 1

Factors influencing the development of the international air transportation market

Group of factors	Factors that stimulate the growth of demand for air transportation	Factors that reduce the demand for air transportation
Factors that depend on the general state of the economy and socio-political situation	GDP growth, foreign economic relations, income growth, market liberalization	GDP decline, quarantine restrictions, devaluation of the national currency, reduction of exports and imports, high customs duties
Factors that depend on the activities of airports	The presence of an airport network, the development of non-aviation services at airports, the ability to service aircraft of various types	The presence of a monopoly company, insufficient number of airports, underdeveloped airport infrastructure, inability to service modern aircraft
Factors that depend on the activities of airlines	Introduction of new technologies, modernization of aircraft, development of the company's sales office network	Low efficiency of the aircraft fleet, an increase in operating costs, underdeveloped network of air routes, difficulties pertaining to attracting investment
Group of factors	Factors that stimulate the growth of demand for air transportation	Factors that reduce the demand for air transportation

(ICAO – Doc 9562, 2013)

Generating capabilities of air transport contribute to the formation of the factors that are considered the main force in the air transportation area. It goes without saying that the problems of world politics affect the functioning of international air transport in many aspects. Realistically speaking, for now, there exist groups of countries within a single global system of air transport.

Factors influencing the development of the international air transportation market are divided into three groups. The first group includes those which depend on the economic and socio-political situation in the country as a whole. The second group of factors should include those which depend on the activities of airports. The third group includes factors that depend directly on the airline. Contemplating the contention given above, to attain the successful development

of the international air transportation market, a comprehensive approach is required thereto.

Airports and airlines are parts of the subsystem belonging to the globally large civil aviation system. Their interaction should be aimed at improving the organization of the process and the development of the international air transportation market.

The development of air transportation is influenced not only by economic factors, but also environmental, social, technical, and political ones, which directly shape the external environment of a specific air carrier and directly or indirectly affect its internal environment, for example, the partial closure of airways due to the spread of the acute respiratory disease COVID-19 caused by the SARS-CoV-2 coronavirus. In addition, these factors are characterized by two-way communication, which is to some extent influenced by the activities performed by certain categories of air carriers.

Currently, most of the criterion indicators are available from open sources, including periodic reports from international aviation organizations with punctuality comprised. The punctuality of airlines is an external indicator related to the efficiency of business processes and communications. Owing to the developed integration interactions with other air carriers, airlines can ensure the growth of their punctuality indicators by using their airport slots.

There are many external and internal factors that influence the effectiveness of the interaction between airlines and airports, the main purpose of which is to improve passenger service in the air transport market.

Ensuring the effective functioning of airports and airlines in the international air transport market as a whole is an urgent problem in today's conditions, especially during quarantine measures being implemented. Some experts recommend a kind of resolution regarding certain complications, taking into account the interaction of various component parameters in order to identify "bottlenecks" in customer service at the airport in terms of maximum loads on the infrastructure; meeting the demand for air transportation; providing the required level of service and obtaining maximum profit.

The symbiosis of air transport and resort tourism has led to a significant synergistic multiplier effect. Many international resorts have become easily accessible places for resting of wealthy and not very wealthy tourists. The Seychelles, the Maldives, the still little-known islands of the Pacific Ocean and other once exotic places on Earth have turned into fashionable international resorts only because of the capabilities of air transport. Thanks to the efforts made by marketers and the international formation of preferential customs (Duty Free) and tax (Tax Free) regimes outside the border control zones, international airports have gained the abilities of shopping centers, where, in addition to goods on the road, world-famous and pilot models of popular brands can be bought.

The high level of competition with a comparable level of quality in relation to services provided to passengers by airlines has led to numerous bonus programs for the accumulation of concessionary miles, under which passengers can claim free flights in the nearest future. Recently, commercial banks, in which large

international air carriers are credited, have actively joined the bonus system of accumulating miles. On international flights being served by various national airlines under the Codeshare Agreement, there is an annual 3-4 per cent reduction concerning the cost of passenger traffic. It should be noted that the participation of airlines in international alliances also contributes to reducing costs and expanding the flight network.

The direct annual economic effect of the activities performed by the world's civil air fleet is more than 700 billion US dollars. The annual growth of passenger traffic in recent years is equal to 4-6%. Sales conducted by almost 25% of companies in the world depend on air transport, while for 70% of business representatives, the use of civilian aircraft is a key factor in expanding the market *(GTP editing team, 2020)*.

The constantly increasing need for various types of air transportation has brought on the creation of a comprehensive air transport system of a new generation with sufficient flexibility and cost-effectiveness*(*Shchelkunov V.*., 2007)* During the construction of a promising transport system, solving the problem of achieving maximum mobility in the airspace becomes one of the main factors influencing the further development of the international air transportation market.

The new configuration of the international air transportation market requires the development of structurally improved aircraft capable of flying on complex trajectories under the conditions of intensive air traffic.

Strict standards for constructing a next-generation system in the international air transportation market also engage special requirements to the development of airport ground infrastructure and to airlines themselves.

The current conditions of international air transportation markets

Contemplating the growing competition in the international air transport market, airlines face the need to provide large amounts of services to passengers during the delivery of goods either. The introduction of gate-to-gate travel allows one to combine all stages of passenger flights and cargo movements. At the same time, the main criteria relating to comfortable being of passenger remains a convenient schedule and its exact observance, quality services on board, the availability of compensation for possible delays in taking-off or landing.

The growing rate of the world economy, the need to provide new jobs, meeting future demand for air transportation, ensuring quality services in accordance with the needs of passengers and airlines, as well as sustaining the image of aviation as the ecologically friendliest and safest mode of transport in the foreseen period are key factors influencing the dynamic development of the international air transport market.

According to the expectations of most analysts, the main economic growth in the next ten years (2021-2031) is associated with the Asia-Pacific region and China, the growing rates of which are going to be shown way ahead of the world average ones, as shown in Figure 1*(Aksenov, 2020)*.

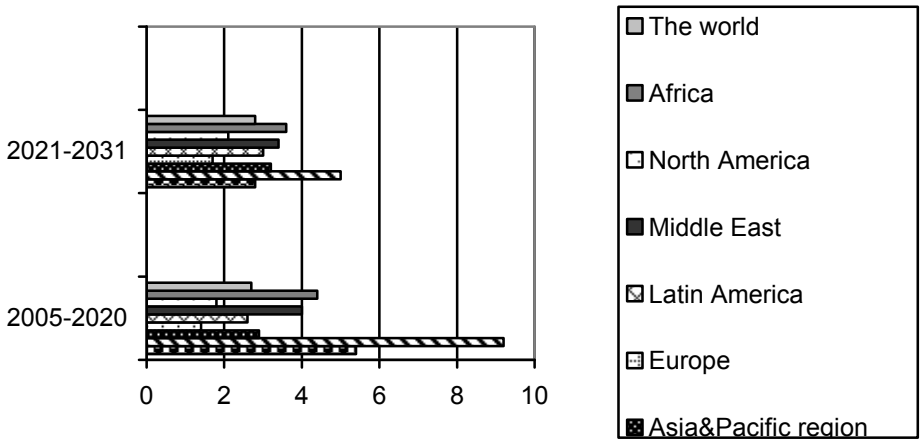

Fig. 1. Regional growth of world GDP in 2005-2020 and forecast for 2021-2031, %.

According to some forecasts by the International Air Transport Association (IATA), in 2020, more than 3 billion people used air transport services for business and tourist travel. Compared to 2019, the number of transported passengers decreased by 18% due to the coronavirus pandemic. Judging from current assumptions of some expert, by 2022 this number should exceed 4.2 billion people. The dynamics of passenger traffic and the growth/decline rates in the international air transport market are presented in Figure 2*(Aksenov, 2020)*.

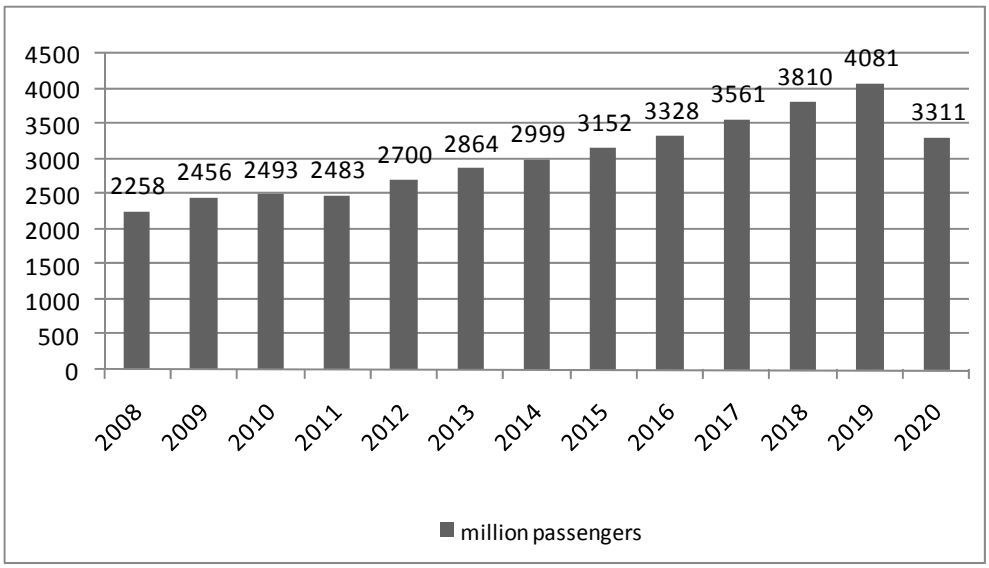

Fig. 2. Dynamics of passenger traffic and growth/decline rates in the international air transportation market in 2008-2020, million passengers.

According to ICAO, the year 2019 is associated with a certain stimulating impulse for the development of the international air transportation market,

which has increased the amounts of investment in the economies of many developing countries and the number of low-cost air carriers offering tickets at minimum prices with a minimum level of service. In 2020, low-cost air carriers transported 1.1 billion passengers, which is about 35% of the total number. Freight traffic in turn increased by 19%, which allowed to observe significant growth in the modern conditions for activities of the society. It would be appropriate to add that in 2020, low oil prices allowed airlines to restrain rising prices in the international air transportation market.

Analyzing the retrospective of passenger traffic in the international air transport market over the past twenty years, it is necessary to emphasize that there have been periods of slowdown in overall growth, which have been connected with complex processes of global economic and geopolitical importance. The prediction pertaining to passenger traffic dynamics until 2031 envisages an increase to 5% per year, if new dramatic events and coronavirus-related epidemics do not interfere with current forecast expectations.

If we compare the dynamics of national and international passenger traffic in the world in 2010 and 2020, we can deduce that the number of passengers during the study period have increased almost 2 times. The total number of passengers carried on scheduled flights in 2019 increased to 3.8 billion passengers, which equaled 7% more than in the previous year, and the number of aircraft departures in 2019 reached 35 million, which equaled 4% more than in 2018.

The volume of scheduled passenger air traffic, expressed in the number of commercial passenger kilometers performed, has shown an increase of 8%, so the amounting approximates to more than 7,000 billion passenger kilometers performed in 2019. According to ICAO forecasts, in 2029, passenger air traffic volumes will amount to 11.5 trillion passenger kilometers, in 2034 – more than 14 trillion passenger kilometers. A peak volume of passenger air traffic is predicted to be in 2039, namely 17.1 trillion passenger kilometers, as shown in Figure 3*(Joh Wayne, 2014)*.

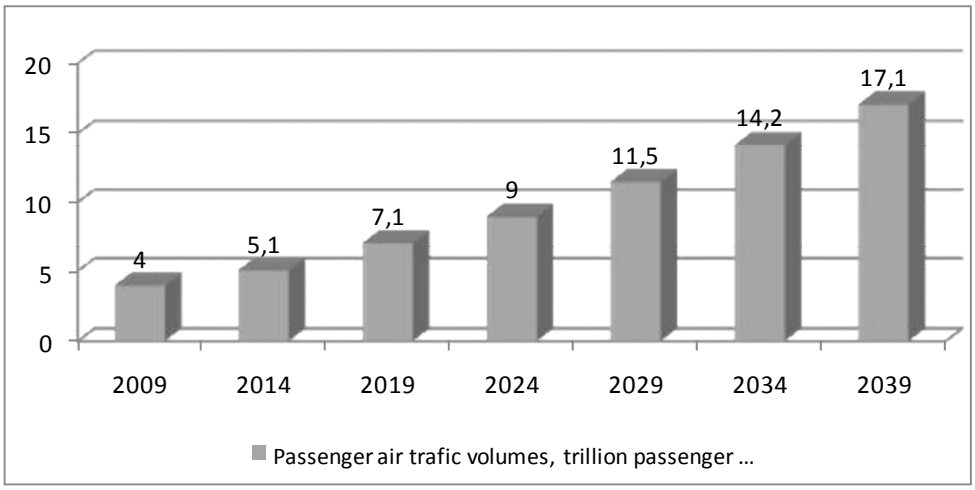

Fig. 3. Dynamics of world passenger air traffic and its growth/decline rates.

From air service consumers' point of view, low-cost air carriers ought to be paid special attention in the international air transportation market, taking into consideration the fact that these carriers are intensively capturing different market segments. In this regard, it is wisely to analyze the main economic and operational indicators of system-wide global commercial airlines for the recent years of 2015-2021. The results of the specified analysis are presented in table 2.

Table 2

The main economic and operational indicators of income System-wide global commercial airlines

Indicator	2015	2016	2017	2018	2019	2020	2021 (forecast)
Revenues (billion USD)	721	709	755	812	838	328	459
Changes, %	-6.1	-1.6	6.5	7.6	3.2	-60.9	39.9
Revenues (billion USD):							
- passenger transportation;	545	545	584	610	612	191	287
- cargo transportation	83.8	80.8	95.9	111.3	102.4	117.7	139.8
Traffic volumes:							
Changes in the volume of passenger traffic, %	7.4	7.4	8.1	7.4	4.2	-66.3	50.4
Planned number of passengers, millions	3.569	3.817	4.095	4.378	4.543	1.795	2.808
Changes in the volume of freight traffic, ton-kilometers	2.3	3.6	9.7	3.4	3.2	-11.5	13.1
Tonnage of transportations, millions	54.8	57.0	61.5	63.3	61.3	54.2	61.2
The overall rate of change in the international air transportation market, %	3.1	2.7	3.4	3.2	2.5	-4.2	4.9
Revenue from transportation of one passenger per mile, %	-10.2	-7.0	-0.9	-2.2	-3.0	-8.0	0.0
Revenue from transportation of one ton of cargo per mile, %	-11.9	-6.9	8.1	12.3	-5.0	30.0	5.0

(IATA Economics, 2020)

Upon invoking the data presented in the table, one can draw the conclusion that revenue growth is clearly visible from 2015 (721 billion US dollars) to 2019 (838 billion US dollars) in relation to system-wide global commercial airlines. However, in 2020, there was a stark decline in revenues of system-wide global commercial airlines to the level of 328 billion US dollars, i.e. the fall equaled 60.9%.

In 2021, IATA analysts predict an increase in revenue to 459 billion US dollars, i.e. by 39.9% in comparison with the level of 2020, but to restore the market to the level of income in 2019 requires growth at 60.8% in 2021.

Most of system-wide global commercial airlines' total income consists of revenue from air transport. The vast majority of the mentioned income is provided by passenger and cargo transportation. There are airlines involved in passenger transportation, and there are airlines involved exclusively in cargo transportation.

In 2020, airlines conducting passenger transportation incurred losses that equaled 421 billion US dollars in total in comparison with the level of 2019, i.e. the decline in the area of passenger transportation by air in 2020 compared to 2019 equaled 69.25%.

The freight market, in contrast to the passenger market, has been on the rise. According to IATA statistics, airlines conducting cargo transportation had a revenue of 14.9% in 2020 compared to 2019. In 2021, the revenue of air carriers is projected at 18.7% compared to 2020. In addition, attention is deservingly paid to the rate of revenue coming from the transportation of one ton of cargo per mile in per cents, which was able to increase by 30% in 2020 compared to 2019.

The impact of the pandemic on global air transportation markets

Economic and operational indicators and the current state of the international air transport market in general have been affected by several factors, but the main one is the pandemic caused by the spread of acute respiratory disease COVID-19, also known as coronavirus, and the implementation of precautionary measures intended to stop the virus.

In this context, taking into account the situation with traffic in the international air transport market, it is desirable to analyze the revenues of airports for the brief period of time on the basis of the data given below in table 3.

Table 3

Impact of the pandemic on quarterly airport revenues* by region in 2020

Region	1st quarter	2nd quarter	3rd quarter	4th quarter	2020 total
Predicted baseline **					
Africa	1000.0	1000.0	1.200	1.100	4.300
Asia-Pacific	12.400	12.200	12.600	12.700	49.900
Europe	11.600	15.700	18.500	13.500	59.300
Latin America and the Caribbean	2.700	2.500	2.700	2.600	10.500
Middle East	3.300	3.100	3.600	3.200	13.200
North America	8.000	9.000	9.100	8.600	34.700
The world	39.000	43.500	47.700	41.700	171.900
*** Estimations of income with the impact of the pandemic taken into consideration					
Africa	800	30	200	300	1.330
Asia-Pacific	7.800	2.200	4.400	5.900	20.300
Europe	9.000	700	5.700	3.100	18.500
Latin America and the Caribbean	2.200	100	600	1.000	3.900
Middle East	2.500	100	500	400	3.500
North America	6.400	1.000	2.600	2.600	12.600
The world	28.500	4.500	13.200	14.800	60.130
Decreasing					
Africa	-10	-57	-57	-45	-169
Asia-Pacific	-313	-698	-571	-467	-2.049
Europe	-114	-641	-558	-448	-1.762
Latin America and the Caribbean	-24	-157	-141	-109	-431
Middle East	-15	-87	-84	-82	-268
North America	-91	-484	-397	-359	-1.331
The world	-568	-2.124	-1.808	-1.467	-6.011
Changes in %					
Africa	-17.8	-97.4	-84.0	-73.8	-69.5
Asia-Pacific	-36.4	-82.1	-65.2	-53.1	-59.2
Europe	-23.2	-96.3	-72.5	-80.0	-70.8
Latin America and the Caribbean	-13.9	-94.1	-79.0	-61.5	-61.8
Middle East	-16.1	-96.0	-84.0	-87.8	-70.6
North America	-19.1	-89.1	-71.9	-69.2	-63.6
The world	-26.3	-89.4	-71.1	-64.1	-64.2

(ACI, 2021)

** Revenues are calculated taking into account the constant income of the airport per passenger on the basis of economic reports provided by the ACI regional offices.*

*** Projected baseline scenario for the pandemic, considering the adjusted forecasts provided in the ACI Annual Report (WATF 2020-2040) on airport traffic, taking into account information from the ACI regional offices.*

**** Estimated passenger traffic volumes based on a wide range of data provided by ACI regional offices and aviation experts.*

Analyzing the impact of coronavirus SARS-CoV-2 on quarterly revenues and implementing precautionary measures to prevent the virus from spreading, the airport industry hoped to generate revenue of 172 billion. US dollars in 2020.

The impact of the pandemic on the total revenue of airports was unprecedented, which led to a reduction of 111.8 billion US dollars from the revenue of airports in 2020. The decrease in the revenue was equaled to 65.0% compared to the projected baseline.

In terms of passenger traffic (according to ACI – Airport Council International), the largest losses were recorded in the second quarter of 2020 with a reduction in revenues by 39 billion US dollars compared to the projected baseline and amounted to 89.7%.

The European region is the most affected region in absolute terms regarding projected revenues (deficit amounted to 40.8 billion US dollars in 2020). In relative terms, the starkest decline was recorded in the Middle East (revenue decline is 73.5% in 2020 compared to the planned amount of income);

At the beginning of 2020, the forecasts for the fourth quarter of 2020 in the field of airport activities were quite optimistic. Indeed, the situation in the fourth quarter of 2020 got slightly improved in comparison with the previous two quarters, yet the fourth quarter of 2020 ended much worse than the previous quarters.

These forecasts are based on ACI data. Representing the interests of airports when developing a respective policy and its key stages, ACI makes a significant contribution to ensuring global air transport safety, orientation on customers and environmental sustainability of the transport system.

The international air transport market is still abiding in a state of uncertainty. The same might be applied to the activities performed by international airports. Only after the resumption of air traffic, it is possible to restore the aviation industry as a whole.

For the time being, three scenarios have been developed for the recovery of the international air transportation market, but there are certain assumptions worth considering.

The optimistic scenario concerning recovery of the international air transportation market is connected with the expectation that in 2021, the invented vaccines will show the efficiency and vaccination will be completed successfully, the level of a disease worldwide will decrease to an acceptable level, there will be a demand for air transportation and the market will rapidly regain key traffic indicators. According to the optimistic scenario, traffic will be restored to the level of 2019 by 2023.

The baseline scenario is also dependable on positive vaccination results, but with less demand for air travel and less rapid recovery of the market to 2019 levels. Resumption of traffic in this scenario is possible only by 2024.

The pessimistic scenario is related to the assumption that effective vaccines will be invented, but complex requirements to supply chain (low storage temperatures, limited load capacity) and other difficulties in transporting and vaccinating or limited vaccine supply will slow down the vaccination process. Therefore, the fear of travel combined with the prolonged economic crisis will diminish demand and market recovery. Under this scenario, the market should not be restored to the level of 2019 before 2025.

The scenarios described above are shown in more detail in Figures 5 and 6. Thus, with regard to passenger traffic, we can predict the following conclusions:

- It is expected that under the baseline scenario, domestic passenger traffic will resume to the level of 2019 in the second half of 2023. Worldwide, the level of domestic passenger traffic is equal to 58% of the total number of passenger traffic in 2019;
- It will take another year after the resumption of domestic traffic to resume international passenger traffic. Consequently, the full volume of international passenger traffic will be restored to the level of 2019 only in 2024;
- Domestic air passenger markets with significant volumes (United States, People's Republic of China, etc.) are expected to recover in 2023, while markets significantly involved in international passenger traffic will recover much later and are unlikely to return to the level of 2019 in 2024;
- Some aviation experts presume that in the long run, the international air passenger market will return to the previously forecasted performance before the pandemic in just a few decades;
- ACI interviewed 65 aviation experts in order to predict the recovery of the air transportation market and air transport in general. The assessments of these aviation experts largely coincided with the abovementioned conclusions and their answers were used to construct a forecast by the Delphi method, which is consistent with the results of our research described in this paper. The Delphi method, or expert evaluation method, is a scientific method that allows one to get an objective assessment based on a set of individual opinions given by experts. This scientific method makes it possible to predict behavior of the investigated area for rather extended intervals of time, having processed existing or received data.

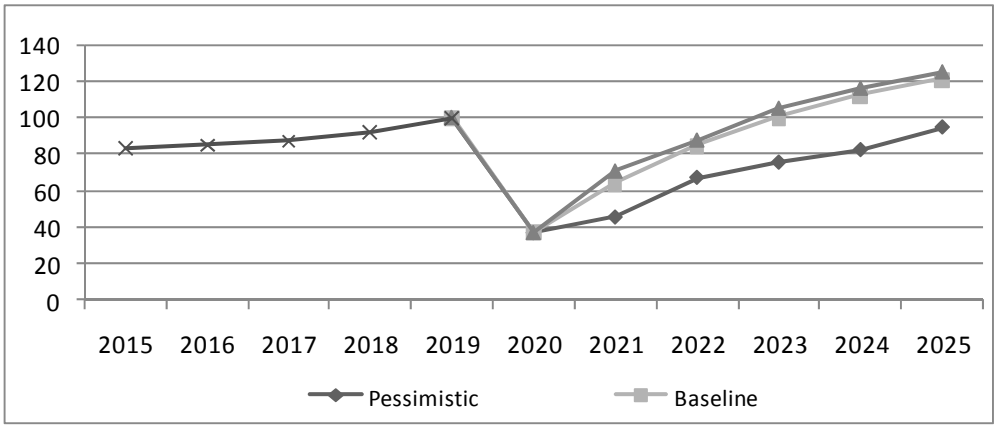

Fig. 4. Short-term forecast pertaining to global passenger traffic *(ACI, 2021)*.

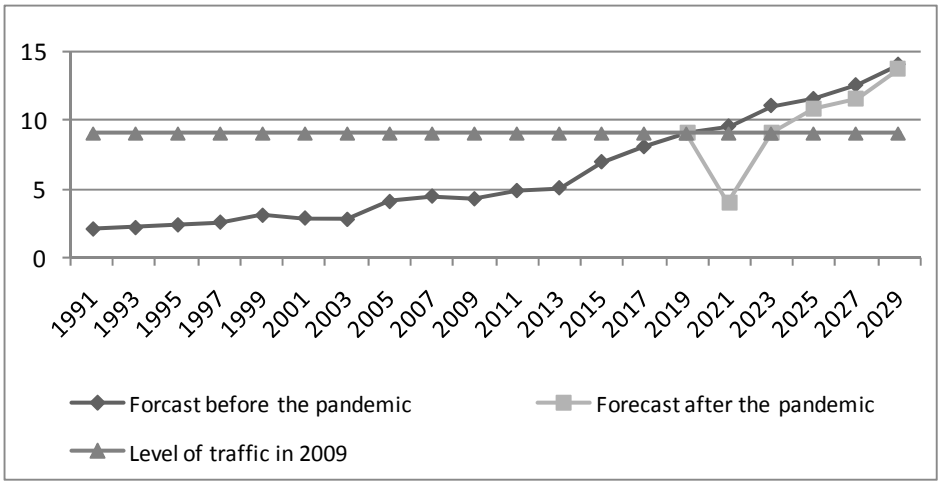

Fig.5. Long-term forecast pertaining to global passenger traffic, billion passengers *(ACI, 2021)*.

Some experts predict that global growth in air mobility will slow compared to the previous decade, due to market saturation and the coronavirus pandemic. However, the population's ability to use air transport in the next 20 years will continue to grow, and the leaders of such growth will be China, Latin America and the Middle East.

According to IATA, in the regional forecast of the industry until 2022, China will overtake the United States in terms of cargo and passenger traffic and will become the leader in the world air rating. Recently, Chinese airlines have significantly increased the number of their international flights. The expansion of the aviation market is getting officials focused on how to develop infrastructure and making manufacturers create new aircraft. The Chinese government has set

a goal to build 33 new airports during 2019-2022 in addition to the 26 ones being currently under construction.

IATA also predicts that in the next 20 years, Europe's influence on the world air transportation market will decline, so Asia will prevail therein. The top ten countries will include India, Thailand, Indonesia, and Turkey. Apparently, France and Italy will lose the top positions in the ranking of the international air transport market.

Although air traffic and the operation of international airports have not been completely suspended, the number of passengers has fallen to an unprecedented level since the 1950s, in particular, during the first weeks of the pandemic, the number of passengers fell by more than 90%.

The experts note that the coronavirus can lead to particular consequences that the airline industry will have to suffer like it used to do after the tragedy of September 11, 2001. In this connection, a completely new infrastructure had to be created to accommodate passengers to feel safe again at international airports.

Because of the pandemic, commercial aviation has faced difficulties for the first time in decades. Even though the number of passengers is slowly growing, it is still far from the previous level. The long-term crisis striking the industry has already confounded the prospective plans for the future, so the pandemic and economic complications could weaken people's interest in expensive travel. With this in mind, one can surmise that the companies not capable of adapting to the new requirements of public health, may disappear most assuredly.

Perspectives for the development of international airports in today's market conditions ought to be systematically and comprehensively assessed using various methods, techniques and types of analysis. Justifying a critical assessment of the financial performance both in statistics for a certain period and in dynamics for a number of periods, a comprehensive approach to this matter should be achieved in order to allow one to identify "vulnerabilities", development-related problems, and ways to use all resources more efficiently applying their rational allocation.

Only a systematic and comprehensive assessment of the perspectives for the development of international airports in the circumstances that have transpired can ensure a quick response to economic and political changes in the process of proactive and global management. The financial conditions of international airports play a major part in their further development. It is vitally important to provide the understanding of timely and qualitative analysis, the selection of methods necessary for such analysis and a functioning system of indicators that ensures an efficient study on the activities of aviation entities. This contention makes it possible to observe the fundamentals of management decisions to address issues related to the perspectives for the development of international airports, improving their effectiveness, competitiveness and profitability in the international air transportation market.

International airports, including European airports, are currently concerned about the detrimental effects of the deteriorating COVID-19 pandemic and demand urgent support from governments. With regard to European airports, some experts

say that it is necessary to continue the employment protection programs to be applied to airport staff, as well as the payment of compensation to international airports for loss of profit.

In Europe, by the end of 2020, almost 200 airports were on the verge of insolvency. The financial situation of the European airport industry is predicted to get worse in the first months of 2021. This may happen due to the return of local restrictions and lockdowns in many countries around the world *(GTP editing team, 2020)*.

Thus, 2020 has shown that the aviation industry is able to recover extremely fast and quickly respond to varying demands in international relations. The experts note that the long-term task to be fulfilled in 2021 is to preserve the staff of the airport. Sooner or later the aviation industry will have to get out of the crisis caused by the COVID-19 pandemic and it is significant to involve a high-quality staff and specialists in this process. The rapid resumptions of the activities to be performed by international airports is possible only if the preservation of operational capabilities and highly qualified staff is ensured.

References

1. Kulayev, Yu. *Economy of Civil Aviation.* Monograph / Kulayev, Yu., Shchelkunov, V. – 2nd edition, amended and rearranged. – Kyiv: Publishing house "Fenix", 2010. – 736 p. ISBN 978-966-651-790-9
2. Lytvynenko, L., Lytvynenko, S. *Mechanisms related to airlines' adaptation to global markets of passenger and cargo transportation.* Monograph. – Kyiv: Publishing house "Condor", 2017. – 300 p.
3. Shchelkunov, V., Miziuk, S., Astapova, G., Miziuk, V., Buglak O. *Methods of ensuring financial stability and investment attractiveness of corporate airlines.* Monograph. – Kyiv: Publishing house "Naukova dumka", 2007. – 160 p.
4. ICAO Doc 9562 *"Airport Economics Manual"*, third edition, 2013. – 152 p.
5. Porter, M. *Competitive Advantage: How to Achieve High Results and Ensure Their Sustainability.* Moscow: Alpina Business, 2008. – 715 p.
6. Pavel Aksenov, Olesya Volkova. *Empty sky. How coronavirus and quarantine have changed global air traffic.* BBC, 28 April 2020. URL: https://www.bbc.com/russian/features-52462444
7. John Wayne. *Airport economic impact study – final report*. [Electronic recourse] / Inter VISTAS Consulting LLC_Accessed_mode: http://www.ocair.com/reportspublications/EconomicImpact/JWAEconomicImpactStudy.pdf.
8. IATA Economics: www.iata.org/economics.2020
9. https://aci.aero /All rights reserved ACI World 2021. Covid-19.
10. Grancay, M. *Evaluating competitiveness of airports – Airport competitiveness index*. – Bratislava: MPRA, 2009. – 10 p.
11. GTP editing team. *Covid-19: Airlines Allowed to Delay Payments of Air Traffic Control Charges.* Available at: https://news.gtp.gr/2020/04/08/covid-19-airlines-alloweddelay-payments-of-air-traffic-control-charges (date of issue: 01.07.2020).

IV. ECONOMIC ASPECTS OF SOLVING GLOBAL ECOLOGICAL PROBLEMS

4.1.ECOLOGICAL FACTOR IN THE DEVELOPMENT OF INTERNATIONAL ECONOMIC RELATIONS IN THE CONTEXT OF TRANSNATIONALIZATION

Abstract. The development of the modern world economy largely depends on the economies of the leading developing countries. At the global level, environmental problems are becoming an important aspect of international economic relations, for the current stage of development which is characterized by an increase in the extraction and consumption of natural resources. The latter leads to a deterioration in the state of the environment, which, in it sturn, contributes to the deterioration of the quality of life of the population. The search for ways and tools to resolve the contradictions that have arisen for the most part as a result of the globalization of the world economy is the key to an effective solution to the global environmental problem. At the same time, the key points are: overcoming the negative attitude towards the environment within the framework of he existing mode of production; transition of countries to resource and energy saving technologies; formation of environmentally friendly production at the level of corporate strategies of leading transnational corporations (TNCs). The aim of the study is to develop environmental aspects of increasing the competitiveness of Ukrainian companies, considering the accumulated foreign experience and measures taken in the context of the need to ensure environmentally sustainable development and considering the minimization of the burden on the environment.

Key words: global environmental issues, green marketing, environmental efficiency, environmental management, transnationalization.

Introduction. The modern stage of development of the world community was the era of globalization, which affected all spheres of human activity. The main driving force of globalization is economic globalization, which has a great impact on the environment. Over the past 20 years, there has been an acceleration of globalization processes. The main problem of globalization is that the social and technological spheres are changing quite rapidly and all this leads to new imbalances in the world economy. To a greater extent, this applies to the uneven development of national economies. In the twentieth century, world GDP increased fivefold, particularly in developed countries - six times, and in the poorest, less than three times, which led to an increase in the gap between rich and poor countries (Dkhili, 2019).

The aim of the study is to develop environmental aspects of increasing the competitiveness of Ukrainian companies, considering the accumulated foreign experience and measures taken in the context of the need to ensure environmentally

sustainable development and considering the minimization of the burden on the environment.

The methods of the study are: historical analysis, functional analysis, synthesis.

The role of TNCs in the modern world

Since the 1970s, ecological problems have been exacerbated around the world, such as lack of resources, pollution and depletion of the environment, which are life-threatening and reduce opportunities for the development of modern society. This situation is due to uncontrolled economic growth, which requires increasing consumption of natural resources, as virtually all economic activity is associated with a certain burden on the environment. Around the middle of the XX century, due to the high growth rate of the world economy, the environment is suffering more and more damage. By the beginning of the XXI century, compared with 1950, the world's industrial production increased sevenfold, and its population - 2.5 times (population reached 7 billion people) (Chen, 2016). According to forecasts, in 2000-2050 the population will increase by an additional 50%, while the world economy will grow by 500% (Assche, 2019). By 2030, population growth will increase food and energy consumption by 50% (by 2050 - by 70%), clean water - by 30% (Dergachova, 2020). At present, the scale of world production and consumption has already led to a serious imbalance in the balance of natural and social systems, and has also led to the fact that the environment can no longer cope with the effects of anthropogenic impact. It is estimated that the ability of the natural environment to cope with the consequences of human activities has already been doubled, and «humanity's debt to the environment is equal to about 4 trillion. dollars USA»(Pimonenko, 2018).

The main criteria for assessing the degree of globalization for the development of a particular sector of the world economy are: homogeneity of demand; use of the international division of labor; economies of scale; global competition; high share of research and development costs; availability of international strategic alliances, mergers and acquisitions.

The structures that have the greatest impact on the environmental situation in the context of globalization are primarily TNCs; they are becoming a key player in modern international economic relations. The basis of economic growth and socio-economic development of any country is the formation of an efficient economic system based on the production of competitive goods and services. All countries of the world and major economic entities, such as TNCs, are involved in competition aimed at increasing their international competitiveness.

TNCs are the main driving force of the process of economic globalization. There are many reasons to explain such a large increase in the scale of TNCs, such as competition, which forces to reduce costs, while introducing the latest technology, increasing the scale, and looking for cheap labor, locating its production in countries with relatively low taxes, and so on.

Since the 1990s, TNCs have linked the competitive advantage to the globalization of economic life. Currently, the world market is characterized by a certain blurring of boundaries between industries, shortening the life cycle

of goods and increasing attention to environmental issues. Globalization allows TNCs to raise new funds, diversify production, reduce production costs through standardized goods, work with other corporations, banks to create and expand business networks. Thus, all this leads to increased competitiveness of multinational corporations.

The competitive advantages of TNCs are laid at an early stage in the development of corporate strategy, which in modern conditions is determined by the radical changes taking place in the global market environment. The main factor in increasing the competitiveness of TNCs is to increase its size through foreign direct investment (FDI) in the implementation of new projects; cross-border mergers and acquisitions; strategic alliances; use of the effect of economies of scale.

The strategic competitiveness of TNCs is based on such key economic conditions at the macro and micro levels as: opportunities and resources of the company itself; the level of competition in the industry; home country, as well as international factors of production. The management of TNCs makes financial, investment and strategic decisions at the international level, synthesizing and considering regional specifics (features of local markets) for additional competitive advantages in the world market which is intensively developing and growing.

To ensure a favorable competitive position of TNCs on the world stage, the management of the corporation must use resources and opportunities. In turn, TNCs contribute to strengthening the national economy of their country on the basis of increasing productivity, creating additional jobs and increasing wages in the economy. In the table 4.1 the main organizational advantages of large TNCs are shown.

When global competition intensifies, it almost always leads to cross-border mergers and the creation of strategic alliances, which provides additional opportunities for raising capital in foreign markets. This leads to a change in competition rules and allows TNCs to achieve global leadership. Thus, the total amount of cross-border mergers and acquisitions has increased almost 10 times over the past 20 years (Jaworek, 2015).

Table 4.1

Organizational advantages of TNC operation

Advantage	*Its content*
Mergers and acquisition	Ability to use the synergy effect in production, development and research
Diversification of activities	A situation where several types of production are integrated within one TNC;this leads to reduced risks and reduced costs, using varying degrees of crisis in the industries of different countries
International marketing	Knowledge and access to the markets of different countries reduces risks, increases the company's share in the world market, enables the optimization of sales, pricing and product policies
International management, access to information and technological resources, a single reporting and accounting system	Ability to use management skills simultaneously in several countries, creating the conditions necessary for the effective functioning and development of international production activities
Innovations of Corporation	Research and development, introduction of new production technologies, improvement of the management system

Source: compiled by the authors

It should be noted that most cross-border mergers and acquisitions took place in the banking, pharmaceutical and chemical industries, insurance, and telecommunications. The main share in cross-border mergers and acquisitions belongs to TNCs from the United States, followed by TNCs from Great Britain, France and Germany. Only about 80% are cross-border mergers and acquisitions of companies from highly developed countries in the world economy (UNCTAD World Investment Report 2018).

Mergers and acquisitions, cross-border strategic alliances and other similar forms of cooperation, all this contributes to increasing the international mobility of goods and services, technology, capital, as well as the integration of foreign units of TNCs. They affect economic growth and employment, especially if host countries pursue policies that promote economic modernization.

Innovations and innovative activities of TNCs are becoming the main factors of their competitiveness in the world market and the main tool of competition. High risk (economic, political, environmental) is an incentive for the development of new technologies, and this necessitates TNCs to make significant investments in research and development, which can reach 50% of total sales of companies (Assche, 2019). The latter allows you to implement strategies more efficiently and provide technological benefits of doing business. TNCs, which are strategically

committed to occupying the most important position, make large investments in research and development.

An important role of TNCs in the world economy and their significant impact on economic and social processes is reflected in attempts to create codes of conduct for TNCs within the UN (United Nations) and the OECD (Organization for Economic Cooperation and Development) in addition to existing international corporate social norms. responsibilities developed in the TNCs themselves.

Analysis of the reports of the United Nations Conference on Trade and Development (UNCTAD) on global investments, which are published annually, allows us to track current trends in TNCs, as well as the impact they have had on the global financial and economic crisis. According to UNCTAD, TNCs control half of world industrial production, 75% of trade in raw materials and 80% of trade in technology, licenses and know-how (Aaron R. Brough, 2016). At the same time, the impact of the crisis has forced TNCs to resort to new mechanisms of operation, both in global and regional markets.

In general, TNCs in the long run can have a significant impact on further economic growth and socio-economic development of the world economy by: creating jobs with decent working conditions, expanding exports, promoting workers' rights, caring for the environment, fair taxes, capital and technology transfer, as well as ensuring business cooperation to accelerate development.

However, it should be noted that the penetration of TNCs in developing countries and countries with economies in transition, which is characterized by a variety of uses of production and investment models, such as, for example, industrial and agricultural production, outsourcing, franchising and licensing. Such models of interaction create opportunities for developing countries, as well as for countries with economies in transition, for deeper integration into the global economy, as well as to increase their domestic production capacity and competitiveness in the world market.

With increasing global competition, the process of cross-border mergers and acquisitions, the formation of strategic alliances, which, of course, provides additional capital and, consequently, changes the rules of competition in the strategies of TNCs. Innovations and innovation activity are becoming major factors in the competition of TNCs and this is especially important in a crisis when TNCs try not to reduce the cost of research and development.

The impact of TNCs on the greening of the economy

TNCs are the main service providers and producers of goods that pollute the environment and are the main consumers of natural resources today. When they move their «dirty» production to more favorable and politically and economically favorable conditions and sell environmentally hazardous products in order to minimize environmental costs, it causes enormous damage to the environment in the economies of host countries. TNCs are characterized by the use of differences in investment and environmental legislation of developed and developing countries. They often save on expensive investments

in the environmental sphere in the least developed countries, thus simply bypassing environmental requirements.

As the world economy has evolved, consumer demand has become more environmentally friendly, and some TNCs have begun to improve their environmental practices and use the environmental factor in their competition. Sometimes the same TNCs in different countries are characterized by different options for implementing environmental policy. An example is the oil and gas company Shell, which has earned high praise from environmentalistsin Canada, and in countries such as Russia, the Netherlands, Nigeria, this company has not found recognition among the «green» activists. Domestic and foreign economists have tried to determine which trends in the environmental practices of TNCs are most prevalent, which has led to several contradictory hypotheses (Iksarova, 2014). Let's pay attention to some of them, which are systematized in table 4.2.

FDI has the greatest positive effect in the host country when the investor company itself adheres to a single corporate standard of environmental practice, which has a stricter framework than environmental regulation in the national market in the host country.At the same time, state regulation in the field of environmental protection at the local, national and international levels is not the only factor in the formation of environmental practices of TNCs.Moreover, for them it is not completely exogenous.

Table 4.2

Environmental aspects of foreign investors in host countries

Scientific hypothesis about ecological aspects	*Its content*
Search by investors of host countries where environmental regulation is least developed	TNCs are shifting production to countries where environmental regulation is least developed (they are thus seeking to avoid strict environmental legislation). In turn, states can reduce environmental requirements in order to attract foreign direct investment (FDI). This hypothesis was not confirmed, and a number of examples were found only on the basis of situational analysis. Meanwhile, almost all researchers have noted a trend of relocating production to developing countries, where production costs are relatively low. Statistics generally show that the share of environmentally hazardous investment in FDI is generally higher than the similar average for total fixed capital investment in host countries (both developing and developed).
«Freezing» of environmental regulation	This hypothesis is directly related to the previous one, and proponents of the hypothesis in their conclusions are more moderate. They explicitly claim that the country is weakening their environmental regulation in order to attract FDI, but note that developing countries may refuse to improve their environmental regulation in the future. In countries where environmental standards are almost non-existent, this improvement may not even develop. This hypothesis, as, in fact, the previous one, was confirmed only in some cases only on the basis of situational analysis, as it is impossible to evaluate the data on failed measures to strengthen environmental regulation by statistical methods.
Positive impact of foreign direct investment on the environment	This hypothesis arises from the thesis that the environmental practices of foreign investors in some cases may be more perfect than domestic companies. As a result, FDI has a relatively lesser impact on the environment. Proponents of this approach also believe that host countries are able to compete with each other for FDI by improving environmental regulation. To refute or confirm this hypothesis is possible only through situational analysis

Source: compiled by the authors

TNCs account for about a quarter of world production and about two-thirds of world trade, which allows them to significantly influence the governments of host countries, including from an environmental point of view. Usually environmental investments have a long payback period. The advantages for TNCs

in the medium and long term are the transition to the best environmental technology, considering the trends of constant strengthening of environmental regulation.

However, a significant disadvantage for TNCs in the short term may be the cost of environmentally friendly solutions. It is for this reason that TNCs, when planning the transition to best environmental practices, form their strategic plan in the long run (approximately 5-20 years or more) than corporations with medium-term (3-5 years) and short-term (1-3 years) planning horizon.

In the 1960s and 1970s, the significance and scale of environmental problems were realized, and it became clear that TNCs had a special role to play in solving environmental problems, as it is at the corporate level where green technologies are developed and implemented. Table 4.3 presents the evolution of approaches of foreign countries in solving environmental problems.

Table 4.3

Evolution of approaches to solving environmental problems (foreign experience)

Stage	*Direction of foreign innovations*	*Approaches to the implementation of innovations*	*Basic concepts*	*Reporting forms*	*Criteria for the effectiveness of companies*
1960-1970 years	Construction of treatment facilities	Compliance with state requirements (formal)	Environmental protection	State regulation of waste and emissions	1.Payback period. 2.Net Income
1980th	Environmental management (the main tool - the production of «green goods»)	Response to consumer needs for environmentally friendly products	Environmental management	-	Maximum market capitalization
1990th	Resource and energy efficiency	System management by environmental factors	Sustainable development (Triple bottom line)	International environmental legislation and environmental management standards (e.g. ISO 14000)	-
2000-until now	Investment in renewable sources energy;waste processing;information systems for modeling and monitoring climate and the state of ecosystems	Integration of environmental factors in the overall strategy of the company	Low carbon production, zero emissions CO2 (carbon neutrality), «green» economy Kyoto Protocol, etc.	Voluntary reporting systems about sustainable development, participation in corporate associations	-

Until 2030	Conservation / restoration of biodiversity and natural ecosystems	Social and ecological orientation of goods / services	«Green» companies	Integrated reporting enshrined in law	Maximum public utility
Until 2050	Transition to closed-cycle production systems / supply chains	The company as a socio-economic system	Economy based on a closed cycle of resources	Reporting on the impact of business processes on society and the environment	Maximum quality of life

Source: compiled by the authors

From the table 4.3 one can see that at the initial stage, TNCs mainly considered environmental protection mainly as a system of coercive measures and costs, seeking to reduce to zero their risks and limit themselves to formal compliance with state requirements. Since the 1970s, the total number of natural disasters has increased fivefold, averaging 70 to 350 per year, leading to a sharp increase in environmental damage. Already in the 1980s it became clear that environmental factors began to significantly affect both the production infrastructure (there was a need to increase costs for treatment facilities and the development of cleaner technologies and production processes), and the promotion of products on the market (thus there was a steady high demand of consumers for ecological goods).

All this served as a prerequisite for the emergence of new directions in the environmental activities of corporations: the international system of standards; eco-labeling of goods; environmental marketing and management; environmental accounting and audit; environmental transparency.

A brief description of these areas is presented below:

I) *International system of standards*. The main reasons for the emergence of international quality standards were: fear of the global crisis in the environmental sphere, as well as the need for a unified environmental policy, ineffective management methods; elimination of international trade barriers. The main objectives of the implementation of the international system of standards were: to promote high quality products and services; introduction of effective quality management methods; improvement of technological processes and equipment; development and production of products within the framework of state target programs; export of domestic goods and services. This prompted the creation of several standards, which began to provide a basis for environmental management and to some extent the elimination of environmental problems through production.

The main groups of standards and regulations have appeared (Bustaman, 2015):

1) National standards: this standard is a guide and contains certain principles for the implementation of environmental management systems. In the field of environment was the first standard BS 7750 and was introduced by the British Institute for Standardization in 1992, which was revised in 1994.
2) International standards ISO 14001 is a standard for the formation of an environmental management system, which was developed by the International Organization for Standardization. ISO 14000 is optional in nature, does not replace the requirements of the law, but only determines how the company affects the environment, as well as the degree of compliance with the law. TNCs can use ISO 14000 standards for domestic use. The creation of this system provides an effective tool for the company, which is a reliable tool in managing its impact on the environment and conducts activities in accordance with various requirements.

II) *Ecolabeling of goods*. This requirement has been used for over 100 years. This term is recognized by the European Union (EU), the Organization for Economic Cooperation and Development (OECD) and others. Ecolabeling of goods - special graphic symbols or text that confirm the compliance of goods or services with environmental safety standards for the environment and the consumer. Ecolabels are applied to those goods that can harm the environment during the production, use, recycling and disposal of goods. Ecolabeling informs the buyer that the products on which it is applied are environmentally friendly.

Only a company that has passed the examination and proved the environmental safety and high quality of its products can receive the ecolabel. Verification of compliance can be carried out by government agencies or environmental organizations. The Swedish Society for Nature Conservation (SSNC) is a successful example of working with ecolabels in Western countries. Ukraine, Russia, and Belarus do not have a developed ecolabeling system, but there is a mandatory state certification and quality control of products. It is also mandatory to inspect any food product by sanitary inspection experts, i.e. to obtain a hygienic certificate. Community environmental organizations and non-profit organizations are developing their own ecolabels so that consumers can choose a safe product.

III) *Environmental Management* (EMAS) is a modern approach to considering the priorities of environmental protection in the planning and implementation of the organization, an integral part of the modern management system. The concept of environmental management includes a full range of management issues related to environmental processes as an object of management. The need for environmental management is determined not only by the sharp deterioration of the environmental situation, the environmental crisis, but also the natural trends in modern production, such as: differentiation of regional location of production; increase of production capacities according to the needs of new technologies; exacerbation of the impact of production not only on regional nature, but also

the general world space; division of countries in the world economy into producers of hazardous waste and their absorbers (waste concentration); the emergence of the political content of environmental consciousness and worldview; trends in scientific and technological progress (biotechnology, nuclear technology, etc.).

The main goals and relevant criteria for assessing their achievement in environmental management are related to the processes of continuous improvement in all environmentally significant aspects of economic entities, where it is practically achievable. Such an improvement is generally impossible to imitate and falsify, which creates the necessary basis for assessing the environmental performance of economic agents. Thus, effective environmental management provides the company with a credit of trust in relations with all stakeholders in its activities. This is the main advantage of environmental management compared to traditional formal environmental management.

The basis of environmental management are the following principles:

ecological imperative - priority of ecological goals;

ecological and economic balance - the location and development of production in any area should be carried out considering its environmental intensity.

The main tools of environmental management are:

- ecological expertise and environmental impact assessment;
- ecological audit;
- ecological control;
- ecological certification;
- ecological reporting;
- ecological monitoring;
- ecological labeling and advertising.

Ecological examination - the procedure for establishing compliance of the planned economic and other activities with environmental requirements and determining the admissibility of its implementation. Any economic activity related to the impact on the environment is allowed only in the presence of a contract for integrated nature management, concluded between the nature user and local executive authorities.

Ecological audit (from English - inspection, audit) means the analysis of various aspects of the enterprise, which is carried out periodically, in terms of compliance with environmental requirements or compliance with the requirements of man-made environmental safety and environmental safety of the enterprise. Environmental audit is carried out: in real estate transactions; privatization; ecological substantiation of the investment project to identify the degree of ecological risk of the enterprise; concluding an agreement on environmental insurance; expansion of the facility without technical re-equipment; assessment of compliance of environmental management systems at the enterprise with regulatory requirements; analysis of financial indicators of the company's environmental activities.

The advantages of implementing environmental management in the strategies of TNCs are: first, increased corporate responsibility in the field of safety

and health of employees, the environment and the local population; secondly, the growth of production levels and product quality under the influence of strengthening production control; third, the reduction or complete disappearance of the costs of penalties and fines associated with non-compliance with environmental requirements and regulations; fourth, the formation of a favorable image of corporations.

No less important trend in the evolution of the system of economic management in the strategies of TNCs became the emergence of environmental marketing.

IV) *Environmental («green») marketing* is the process of meeting the needs of consumers by promoting goods or services that minimize environmental damage at all stages of the life cycle and created with the minimum possible amount of natural (including energy) resources. The very concept of «environmental marketing» emerged in the 1990s as a result of the contradictions of traditional marketing with the deterioration of the environment, shortage of natural resources, population growth, inflation and the negative state of social services. «Green» marketing gives consumers and companies the opportunity to preserve the environment and try to solve the standard problems that accompany any marketing campaign.

Nowadays there are a large number of people who are willing to overpay for a high-quality product that has the appropriate certificate. All this brings big profits to the largest corporations, even though obtaining the necessary licenses and environmentally friendly production require large financial costs and investments. A large number of consumers are willing to buy more expensive but environmentally friendly products that are directly proportional to corporate marketing companies, which aims to increase demand for «green» products.

Thus, modern marketing has reached a new level, creating such a new trend as a «green» brand, and, as a result, the largest companies are on the path of greening their production. Ecomarketing has great potential in the long run to become one of the most profitable and successful areas of strategic development of TNCs. Limited natural resources, increasing consumption and environmental pollution are the main reasons for the implementation of environmentally friendly ideas around the world.

At the present stage, a large number of the largest TNCs are guided by the criteria of environmental marketing in production.

In 2017 alone, sales of the Toyota Prius in the European market increased by 1,000 units. It is estimated that by 2021 eco-cars will account for 16% of the total volume of cars produced. Hybridization has also affected the bicycle industry. Thus, sales of electric bicycles in Europe in 2017 amounted to about 900 thousand units, an increase of 40% over the previous year.

TNCs such as Apple, IKEA, Levi's, Coca-Cola and others engaged in the processing of used goods, sending them for reuse. Here, marketing strategies play a crucial role in promoting such actions by TNCs. Another clear example is the global market for organic food. In the United States, 72% of supermarkets have organic products. Estimates of the Organic Trade Association show that the global market for organic food is growing by about 20% each year and is already

estimated at $ 30 billion (this market is growing four times faster than the world food market as a whole). In 2017, sales of organic products in Europe doubled, even though their cost is quite high (the cost of organic products in Europe is about 50% higher than ordinary goods) (Assche, 2019).

Most TNCs began to provide environmental reporting on their own initiative. Many questions arise when assessing the burden that TNCs place on the environment, when assessing the environmental impact of corporate activities. The reason for this is often the incompleteness or lack of information about the technologies used by the corporation. Employees and management of TNCs are the first persons interested in disseminating reliable environmental information about the corporation and creating environmental «transparency».

In general, the attitude of TNCs to environmental activities has evolved significantly in recent decades. The initial, predominantly consumerist attitude and lobbying against strict environmental requirements was replaced by a response to the sharp rise in world energy prices in the early 1970s, when the task of seriously reducing energy consumption became urgent, especially in resource-intensive industries. Later, in the 1980s, most TNCs in developed countries began to actively implement resource-saving technologies. In particular, in the period 1970-1990th for chemical corporations of developed countries was characterized by doubling production, as well as doubling the energy consumption per unit of output, reducing water consumption, the transition to the use of closed production cycles and waste processing technologies.

In the period 1990-2019th, accounting for environmental requirements became a strategic priority in the activities of leading TNCs, which was also due to a set of factors, in particular: the need to comply with strict legislation, public influence, improving the international image of companies, opportunities to increase competitive advantage TNCs in foreign countries.

Conclusions. The main direction of greening the production activities of TNCs is the system of state regulation, which primarily means compliance with legal requirements for environmental protection, the strengthening of which requires a rapid response from business. Another important stimulus is the economic tools of the state's environmental policy, the use of which gives TNCs more opportunities for business development. The formation of new social values also had a significant impact on the production activities of TNCs, in particular, after the major industrial accidents in India and Chernobyl, which resulted in severe consequences for the environment.

In today's world, consumer demand for products has undergone some changes and has been determined by both the properties of the product and its environmental component, and its environmental image in the media. For example, such an example of the formation of the environmental component of demand under the influence of environmental movement, as well as the media, is a campaign against aerosols, which contain substances that can destroy the ozone layer of the planet. Therefore, the greening of demand for various goods or services is increasingly reflected in the strategies of TNCs.

References

1. Aaron R. Brough, James E. B. Wilkie, Jingjing Ma, Mathew S. Isaac, & David Gal. (2016). Is Eco-Friendly Unmanly? The Green-Feminine Stereotype and Its Effect on Sustainable Consumption, *Journal of Consumer Research*, 43 (4), 567–582, https://doi.org/10.1093/jcr/ucw044.
2. Abzari, M., Faranak Safari Shad, Ali Akbar Abedi Sharbiyani, & Atefeh Parvareshi Morad. (2013). Studying the effect of green marketing mix on market share increase, European Online *Journal of Natural and Social Sciences*, Vol 2, No3 (s), 641-653 Available at:: http://european-science.com/eojnss/article/view/477/pdf.
3. Assche, Ari Van & Gangnes, B. (2019) Global value chains and the fragmentation of trade policy coalitions. *Transnational Corporations*, Vol. 26, N. 1, 31-60. Available at:*https://unctad.org/en/ PublicationChapters/diaeia2019d1a2_en.pdf*
4. Banerjee, S. (2013). Environmental Marketing (Green Marketing Rudiments), IOSR Journal of Business and Management (IOSR-JBM), *7th International Business Research Conference* IESMCRC Special Issue, Vol. 2, 69-74.
5. Baumann, H., Boons, F., & Bragd, A. (2002). Mapping the green product development field: engineering, policy and business perspectives. *Journal of Cleaner Production*, 10, 409-25.
6. Bustaman, S. A. (2015). Effects of green marketing strategy 4ps on firm performance. *IJAR*, 1(12), 821-824.
7. Chan, HK., Yee, R. W., Dai, J., & Lim, M. K. (2016). The moderating effect of environmental dynamism on green product innovation and performance. *International Journal of Production Economics*, 181, 384–391.
8. Chen, Y. S., Chang, T. W., Lin, C. Y., Lai, P. Y., & Wang, K. H. (2016). The influence of proactive green innovation and reactive green innovation on green product development performance: The mediation role of green creativity. *Sustainability*, 8(10), 966–978.
9. Chaikin O.V. (2015) Ecologically certified products promotion alternative methods. *Management Theory and Studies for Rural Business and Infrastructure Development,* Vol. 37, No2, 179-188.
10. Chygryn, O. (2017). Green entrepreneurship: EU experience and Ukraine perspectives. *Waste management 243.5*, 146.
11. Dai, R., & Zhang, J. (2017). Green process innovation and differentiated pricing strategies with environmental concerns of south-north markets. *Transportation Research Part E*: *Logistics and Transportation Review*, 98, 132–150.
12. Dergachova, V., Smerichevskyi, S., Kniazieva, T. & Smerichevska, S. (2020). Tools for formation and development of the environmentally friendly food products market: regional aspect in Ukraine. *Environmental Economics*, 11(1), 96-109. http://dx.doi.org/10.21511/ee.11(1).2020.09.
13. Dkhili, H. (2019). Environmental performance and institutions quality: evidence from developed and developing countries. *Marketing and Management of Innovations*, 3, 333-244. http://doi.org/10.21272/mmi.2018.3-30.

14. Zvonar V. (2018). Sotsialna vidpovidalnist yak sotsialno-ekonomichne yavyshche: teoriia ta ukrainski realii [*Social responsibility as a socioeconomic phenomenon: theory and Ukrainian realities*]. Kyiv: Ptukha Institute of Demography and Social Research, NAS of Ukraine, 288 p.
15. Iksarova N.O. (2014) Rozvytok ekoloho-oriyentovanoho biznesu yak faktor pidvyshchennya mizhnarodnoyi konkurentospromozhnosti vitchyznyanoyi ekonomiky [Development of ecologically-oriented business as a factor of increase of international competitiveness of domestic economy]. *Finance, accounting, banks,* no 1 (20), 122-128.
16. Hossain, A., & Khan, M.Y.H. (2018). Green Marketing Mix Effect on Consumers Buying Decisions in Bangladesh. Marketing and Management of Innovations, 4, 298-306. http://doi.org/10.21272/mmi.2018.4-25.
17. Jaworek, M., Kuzel, M. (2015). Transnational Corporations in the World Economy: Formation, Development and Present Position. *Copernican Journal of Finance & Accounting*, 4(1), 55–70. http:// dx.doi.org/10.12775/CJFA.2015.004
18. Kniazieva T., Dielini M., Kovalova M. (2018) Conception of Social orientation of Marketing on Macro and Micro Level as a tool for managing the competitiveness of objects. *Scientific development and achievements: collective monograph.*London: Sciemcee Publishing London. 396-407.
19. Kniazieva T., Smerichevskyi S., RamenskaS. (2019)Methods of management by enterprise corporate social responsibility development: ecological component. *Conceptual aspects management of competitiveness the economic entities: collective monograph.*Przeworsk: WSSG. Vol. 1, 30-42.
20. Kumar P., Ghodeswar B.M. (2015). Factors Affecting Consumers' Green Product Purchase Decisions. *Marketing Intelligence & Planning*, 33(3), 330-347. *https://doi.org/10.1108/MIP-03-2014-0068*.
21. Pimonenko, T. (2018). Green investments as a driving force to the spreading of energy efficient projects: EU experience for Ukraine. *Economic space: Collection of scientific works*, 139, 229-241.
22. UNCTAD World Investment Report 2018. *Investor Nationality*: Policy Challenges; United Nations, New York and Geneva, 2018. 213 p.

4.2.INSTITUTIONALIZATION OF INTERNATIONAL ENVIRONMENTAL POLICY

Abstract. Ukraine's integration into the world economic complex must be accompanied by considering the influences of global processes and focusing on global transformations. This path is quite complex, connected with a number of countermeasures, which are formed along the lines of collision of the economy and politics of states, societies and societies, people and society. International environmental policy (IEP) has practically not been studied from the standpoint of the formation of economic mechanisms, nor its normative-legal and methodological methodology. The purpose of the article is to determine the essence of the institution and the peculiarities of the institutionalization of international environmental policy. The importance of the specified problem determines the topicality of the chosen topic of the dissertation research and forms its structural construction, the list of set tasks is their tasks. Conceptual bases of formation of institutional maintenance of the international ecological policy of Ukraine in the system of global transformations are substantiated.
Key words: international environmental policy, institutionalization of environmental policy, international institutions.

Introduction. Institutions of environmental policy are a system of interconnected structures, bodies, organizations and social relations, which together implement environmental policy through the mechanisms of territorial, corporate and international governance. Institutions in general are a certain order of social customs (Hsu, 2013), which implement the «rules of the game in society» (North), «social relationships, the knowledge of which is possessed by members of society» (Knight), «stable thinking skills» (Veblen), «rules that are the engine of social interactions» (Hodgson), «turn abstract rules into real interactions» (N. Fligistin), etc. The main role of institutions and institutionalization is to reduce transaction costs for the implementation of certain interactions. On the other hand, institutions are a «formal codification of public administration relations for the purpose of their legal support» (Kniazieva, 2014). Therefore, when we consider interactions in the system of international environmental policy (IEP), we should note that these interactions are aimed at achieving the following results:

First, the results of harmonization of interstate requirements in the field of environmental safety, prevention of environmental disasters, accidents and catastrophes, emergencies.

Second, the results of the fulfillment of internal commitments regarding certain components and requirements for the use of natural resources.

Third, the results of the implementation of global environmental treaties and agreements that can be actually audited or reported on implementation, such as the Aarhus Convention, the Kyoto Protocol, the Paris Climate Agreement, and so on.

It is appropriate to distinguish that the institute and the institution are not identical for economic theory, so the institution is, in the final sense, a mechanism for reducing (or overcoming) information uncertainty in the development and adoption of management decisions. We will reveal this statement in more detail below.

Features of institutionalization of international environmental policy

Institutions of International Environmental Policy (IEP) are a system of organizations, institutions, establishments, and incentives that implement certain interactions aimed at promoting or implementing international environmental policy through management or information drivers or levers. In general, when it comes to the institutionalization of environmental policy, we have to answer a number of fundamental questions. The first group of questions is what are the institutes of the IEP. We tried to answer these questions concisely above. The institutionalization of the IEP is a system of institutions that must implement the international component of environmental policy through a number of standardized and organizational interactions. It is the systematic nature of institutionalization that is its main feature, because without systematicity it is impossible to realize small or influential levers / driving forces of IEP. Here it is appropriate to note that institutionalization is interpreted as a system, the process of forming specific patterns of behavior and, on the other hand, the process of implementing formal structures (Khlobystov, 2016).Based on this position (by the way, expressed by Lenny Zucker in 1987, the following conditions can be determined for the institutionalization of the IEP (Fig. 4.1).

The first is international «behavior» - a system of justification, coordination, decision-making and implementation of environmental policy decisions at the level of international individuals. On the other hand, it is the birth, development and «extinction» (death) of formal structures (and, let's add, informal, in the age of postmodern economic interactions), which provide MEP for different hierarchical and subordinate levels of its «life cycle» - planning, programming, design, implementation, performance monitoring, etc.

Thus, the institutionalization of the IEP is a complex and in some way a coherent structure of formal and informal drivers, interactions, incentives for the formation and implementation of «behavior» of various economic entities and the state as a whole for international activities in the use and protection of natural resources, as well as ensuring the environmental safety of territories and populations. When we talk about the institutionalization of the IEP, we must consider that, within the changing paradigms of development, and in particular the paradigm of institutions, it is not just about the emergence of new institutions, but about «overcoming outdated rules that pull society back» (Halushkina, 2013).

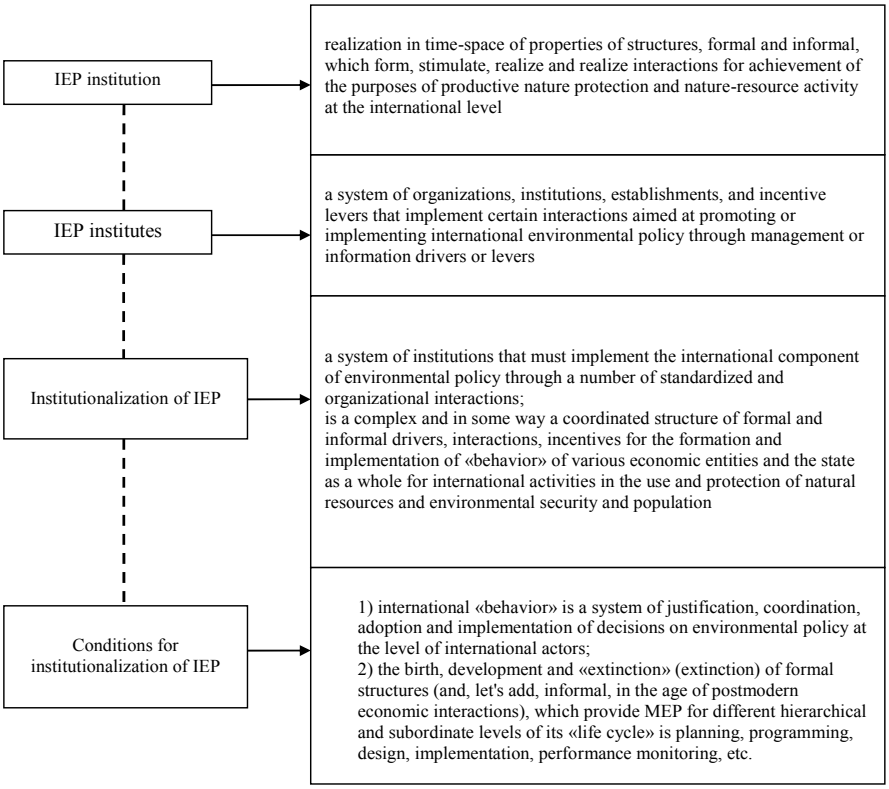

Figure 4.1.The essence and features of the institutionalization of international environmental policy

Source: compiled by the author

That is, in the context of the IEP, the new rules of operation of institutions are changes in international legal relations and changes in the international environment, changes in the state of international unions, the formation of new integrations, the demise of old ones, i.e., a constant dynamic process. a structure that responds with dignity to external challenges. On the other hand, the institution as a process and object of reality (entity), perhaps in the Heideggerian sense, that is, as something that can be revealed through the «presence» which is characterized by «non-openness», as the dominant in the presence the present is a property of time» (Prokopenko, 2014). The IEP institution is the realization in time-space of the properties of structures, formal and informal, as they form, stimulate, implement and realize interactions to achieve the goals of productive environmental and natural resource activities at the international level. The institution can be defined using the following approaches: restrictive, functional and behavioristic (Kivimaa, 2010).

The functional approach for the IEP involves the existence of formal and informal institutions that facilitate these activities at the level of: the state, local governments (regional administrations), businesses (corporate level),

public and non-governmental organizations involved in international relations and environmental protection. The functional level should consider the following features of the IEP: first, inertia (established rules of the game and the slow process of negotiating new arrangements and agreements, and secondly, political dependence. The practical implementation of numerous agreements within the framework of international environmental relations depends on other political relations and foreign policy «landscape», as well as on factors that are not directly related to the environmental component, but affect the level of implementation of agreements (change of political leadership, relations with international institutions, the presence of political, military, civil conflicts, etc.). Third, initiative. The state can act as an initiator of steps, measures, programs within the IEA and you will change the general level of international environmental policy, such as strengthening the environmental status of certain areas, modes of use, creating the latest economic mechanisms and more. Fourth, informativeness and media. This means that the MEP has, within the framework of effective implementation, to have an effective information campaign, to have adequate analytical and information support, to have media support and perception in society. The level of awareness of the general public about the effectiveness and efficiency of environmental policy is the key to the successful implementation of specific plans, projects and programs.

On the other hand, at the level of corporate functional relations and corporate interest in a particular MEP, for an effective structure of institutions (effective institutionalization), it is necessary to consider such property of institutionalization for the object level as adaptability, complexity, autonomy and coherence. These properties allow to effectively implement the functional properties of institutions, in particular, such properties as prognostic, compensatory, informational, coordination, force, foreign policy.

For the IEA, we can note that foreign policy and force are hardly relevant, however, in general, as the potential of certain threats, can be considered (more about environmental threats at the level of national security is in the works of V. Potapenko (Potapenko, 2017) and Ye. Khlobystov (Khlobystov, 2016). The adaptability of the IEP is considered solely as a property to adapt to external factors, i.e., to the factors of influence that do not directly depend on the formation of environmental policy at the basic level. For example, the mechanism of the Kyoto Protocol has not been defined by Ukraine and its government, but the adaptation of environmental policy to the effective application of the Kyoto Protocol mechanisms is a task directly within the framework of environmental policy and its application at the level of decisions and proposals.

Work is currently underway to develop a practical implementation of the mechanism of the Paris Agreement. This begs the question - to what extent can this agreement affect the IEP in Ukraine? Obviously, the impact will be significant. However, the adaptive institutional capacity in the field of environmental policy-making is quite limited. Institutions of environmental policy are constantly changing, the level of responsibility for decision-making is «shifted» within one executive body (Ministry of Ecology and Natural Resources

of Ukraine). In addition, other bodies responsible for directly or indirectly influencing environmental policy, such as structural units in the field of certain types of natural resources (land, forest, water, subsoil), are constantly created and liquidated. It is worth noting that the geological service of Ukraine, after constant reductions, exists in our country mostly nominally. The level of adaptability is influenced by the potential of institutions to change their own ability to respond to external changes and challenges. This ability can be assessed through the level of openness of functional interactions and the ability to make decisions (prepare to make decisions) within different areas and by different professionals. Another assessment of adaptability is the integration of institutions into international projects, programs, negotiation processes and the participation of their representatives in international business meetings. For example, if the structural units involved in the management of nature management or environmental protection cannot take an active part in such processes, the level of adaptability is objectively reduced. For example, the level of adaptability of Ukrainian science in the field of participation in international scientific conferences is potentially low, because none of the research institution`s budget provides the appropriate business trips (as, mostly, does not provide for business trips within Ukraine). For public administration, the issue is not so acute, but international communications are implemented in a rather bureaucratic way.

Complexity is, on the one hand, the level of sustainability of the institution, and on the other - the level of its inertia, inability to respond to the challenges and threats facing the IEP. It is difficult to assess the complexity of MEP institutions because it moves both within the framework of public administration and informal institutions. Let's assess the complexity as medium, because in practice, the only body within the formal competence of which is the IEP today - is the relevant Ministry with the relevant structural unit (not even one, but between the unit responsible for environmental policy as a whole and the unit responsible for implementation international relations).

The system of institutionalization of international environmental policy

The autonomy of the IEP is realized in fragments, through the dispersion of functions within the executive branch, and on the other hand - through a network of non-governmental organizations that implement international projects that shape national and international environmental policy, but these projects are not related to certain conditions and factors which in their unity give an idea of the implementation of the MEP at a certain level. There was not even a register of areas of implemented IEP projects that would make it possible to determine how successful the IEP implementation is for various tasks at the national or regional levels.

Coherence as a feature of MEP institutions (because the coherence of institutions is not the subject of this study is due to a very broad interpretation of the «institute» in modern economics) was studied within public administration, however, the level of consistency is low. First of all, due to the lack of standardized, established interactions between different executive bodies

and corporate governance on coordinated policies within the IEP, in addition, informal institutions coordinate their participation in certain mechanisms of environmental policy at the project level and not at the level of permanent communications (there is a positive example of the Public Council under the Ministry of Natural Resources of Ukraine and the work of the Aarhus Center, however, even these projects are not combined into a single register of actions or a system of consistent actions to achieve National Environmental Policy Goals (formally agreed at state level by 2020, and later - until 2030).

In the theoretical definition of the role of institutes and institutions for MEP, we can note such a property as «formation» and «transformation». That is, for the IEP, system formation will be the structuring of formal and informal institutions, and system transformation - their dynamic development to implement the main tasks of the IEP, which have the property to be both conservative and dynamic-changing. That is why an orderly set of institutions of environmental protection forms «matrices of economic behavior, which determine the restrictions for businesses, which is formed within the state policy of environmental protection» (Pimonenko, 2019). Regarding the institutional environment of environmental activities, in our opinion, it is more correct to define what was previously proposed by Ye. Khlobystov (Khlobystov, 2016), which means an ordered set of institutions that create matrices of economic behavior, which determine the restrictions for business entities that are formed within a particular system of coordination of environmental activities. It is expedient to emphasize the coordination of activities in determining the institutional environment for the formation of MEP. Through certain assumptions about the IEP, we conclude that the definition of Ye. Khlobystov can be taken as a basis for our own understanding of the institutionalization of the IEP as a process of synergistic action of institutions that create matrices of economic interactions and solutions on international level, that are formed, changed, developed for effective coordination of environmental activities within the implementation of international economic interests of the state and business entities.

Such matrices, on the one hand, shape the effectiveness of the policy, and on the other hand, act as a precaution against undesirable actions and decisions that are not in the interests of the state within certain agreements and obligations on environmental and natural resource activities. In general, the role of institutionalization is to reduce uncertainty and is the basis for the behavior of economic entities. This is why uncertainty in decision-making, based on international agreements and commitments, is caused by two groups of factors. The first group - factors generated outside the state and over which the state (government) has no influence, the second group of factors - factors formed with the participation of the state or exclusively economic policy of the state, but where government agencies also do not have full (or unambiguous) impact. These are factors of budget formation with the participation of external borrowings, factors of investment policy or capital outflow, factors of national security, etc.

Problems of institutionalization of national environmental policy were taken care of by specialists of the Council for the Study of Productive Forces of Ukraine of the NAS of Ukraine, later - State Institution «Institute of Environmental Economics and Sustainable Development of the NAS of Ukraine» etc. An interesting methodological approach to determining the components of institutionalization.

Conclusions. We can note a certain sequence of ideas and approaches between institutional theory and economics of nature in the formulation of the concepts of «institute», «institution», and awareness of the essence of institutionalization of MEP in the system of holistic theoretical ideas of modern economics. The institutionalization of the IEP is represented: first, by a set of formal institutions, IEP implementation institutions and informal institutions. Within the framework of formal institutions, the profile bodies (the Ministry of Labor and its structural subdivisions) and the bodies participating in the MEP within the limits of their own competence or a certain set of tasks are determined. Secondly, institutions of direct implementation of MEP: institutions of management, institutions of response, institutions of monitoring of efficiency of decisions, institutions of programming of MEP, institutions of information support of MEP, directed on increase of efficiency of planning and implementation of MEP. Third, informal institutions, which may include public organizations, consulting companies and structural units of corporate entities, which within certain tasks or temporary competence to solve problems related to the IEP and private institutions of various levels that promote the IEP within the project or information-analytical activity.

References

1. HalushkinaT.P. (2013) Dzherelaekonomichnohozrostanniavumovakhmodeli «zelenoi» ekonomiky[Sources of economic growth under the green economy model]. *Formuvanniarynk. vidnosynvUkraini: zb. nauk. prats.*Kyiv. № 5. 71-74.
2. Hunt S. D. (2011). Sustainable marketing, equity, and economic growth: a resource-advantage, economic freedom approach. *Journal of the Academy of Marketing Science*, 39(1), 7-20.
3. Hsu, A., Lloyd, A., & Emerson, J. W. (2013). What progress have we made since Rio? Results from the 2012 Environmental Performance Index (EPI) and Pilot Trend EPI. *Environmental Science & Policy*, 33, 171-185.
4. Fraj, E., Martínez, E., & Matute, J. (2011). Green marketing strategy and the firm's performance: the moderating role of environmental culture. *Journal of Strategic Marketing*, 19(4), 339-355.
5. *Green economy*, UNEP reference document. Available at: http://web.unep.org/greeneconomy/sites/ (accessed March28, 2021).
6. Kivimaa, P., & Kautto, P. (2010). Making or breaking environmental innovation? Technological change and innovation markets in the pulp and paper industry. *Management Research Review,* 33(4), 289–305.
7. Kniazieva T.V. (2014) Localization in the management of international ecological policy. *Economic Processes Management.*№ 1. Available at:http://epm.fem.sumdu.edu.ua/download/2014_1/2014_1_8.pdf.
8. Khlobystov Ye.V. (2016). Osoblyvosti formuvannia ta rozvytku mizhnarodnoi ekolohichnoi polityky Ukrainy za umov detsentralizatsii vriaduvannia [Peculiarities of formation and development of the international environmental policy of Ukraine in the conditions of decentralization of governance] *Stalyi rozvytok – XXI stolittia: upravlinnia, tekhnolohii, modeli. Dyskusii 2016: kolektyvna monohrafiia* [Anderson V.M., Baldzhy M. D., Barkan V.I. ta in.] / NTUU «Kyivskyi politekhnichnyi instytut»; Instytut telekomunikatsii ta hlobalnoho informatsiinoho prostoru NAN Ukrainy; Vyshcha ekonomiko-humanitarna shkola / za nauk. red. Khlobystova Ye.V. Cherkasy, 228-234.
9. Krott M., Tikkanen I., Petrov A., Tunytsya Y., Zheliba B., Sasse V., Rykounina I., Tunytsya T. (2000) Policies for Sustainable Forestry in Belarus, Russia and Ukraine. Brill, Leiden-Boston-Köln.
10. Li, D., Zheng, M., Cao, C., Chen, X., Ren, S., & Huang, M. (2017). The impact of legitimacy pressure and corporate profitability on green innovation: Evidence from China top 100. *Journal of Cleaner Production*, 141, 41–49.
11. Pavlenko T. V. (2018) The essence of green marketing. *Ekonomichnyi visnyk NTUU «KPI».*#15. available at: http://ev.fmm.kpi.ua/article/view/132529/128991 (accessedApril 04, 2021).
12. Pimonenko T.V. (2019) Marketynh i menedzhment zelenykh investytsii: teoretychni zasady, suchasni vyklyky ta perspektyvy rozvytku [*Green Investment Marketing and Management: Theoretical Foundations, Current Challenges and Development Prospects*]: monohrafiia. Sumy: «Iaroslavna».

13. PotapenkoV.H., KornatovskyiR.B., ShylkinaO.L. (2017) «Zelena» modernizatsiiaekonomikyUkrainy: sotsio-ekonomichnedoslidzhennia. [«Green» Modernization of the Ukrainian Economy: A Socio-Economic Study]*Marketynh i menedzhment innovatsii*, №2, 344-358.
14. Prokopenko O.V. (2014) The theory and methods for investigation of the processes synchronized dealing with ecological safety within economic system. *Marketing and innovation management.* № 4, 182-191.
15. Vyshnitskaya, O. I. (2013). Environmental investments: essence, classification, principles and directions of realization. *Bulletin of Sumy State University*. Economy Ser., 2, 51-58.
16. Xie, X., Huo, J., Qi, G., & Zhu, K. X. (2016). Green process innovation and financial performance in emerging economies: Moderating effects of absorptive capacity and green subsidies. *IEEE Transactions on Engineering Management*, 63(1), 101–112.

AUTHOR

Kniazieva Tetiana, Doctor of Economics, Associate Professor, Professor of the National Aviation University
Koshetar Uliana, Candidate of Historical Sciences, Associate Professor, Associate Professor of the National Aviation University
Kovalenko Nataliia, Doctor of Economics, Associate Professor, Professor of the National Aviation University
Miziuk Svitlana, Candidate of Economics, Associate Professor, Head of the Department of International Economy of the National Aviation University
Mykhalchenko Inna, Candidate of Economics, Associate Professor of the National Aviation University
Orokhovska Liudmyla, Doctor of Philosophical Sciences, Associate Professor, Professor of the National Aviation University
Polous Olga, Candidate of Economics, Associate Professor, Associate Professor of the National Aviation University
Radchenko Hanna, Candidate of Economics, Associate Professor, Associate Professor of the National Aviation University
Salkova Iryna, Candidate of Economics, Associate Professor, Associate Professor of the National Aviation University
Simakhova Anastasiia, Doctor of Economics, Associate Professor, Professor of the National Aviation University
Zhavoronkov Volodymyr, Candidate of Economics, Associate Professor, Associate Professor of the National Aviation University
Zhavoronkova Galyna, Doctor of Economics, Professor, Professor of the National Aviation University

ISBN 978-83-65343-19-2

POLSKIE TOWARZYSTWO EKONOMICZNE

Częstochowa 2020