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**OSTAPENKO T.G.,**PhD in Economics, Associate Professor of Department of Management  
of foreign economic activity of NAU**IMPORTANT IMPACT OF THE EVOLUTION OF THE GLOBAL MARKETS OF HIGH AND NANOTE TECHNOLOGIES ON THE NATIONAL ECONOMIC SYSTEM OF UKRAINE AND ITS NARRATIVES**

**Abstract.** *The article considers the directions of influence of the global markets of high technologies on the national economic system of Ukraine and its nano-level. Three phases of the development of the nano-economy - the baby-economy, the human economy and the nano-technology economy – have been analyzed. It is noted that in Ukraine there are all grounds for the development of the baby-economy within families and individual households, as well as within pre-school, school and university settings. The conditions of formation of economic behavior of the individual individual as the basis of the nano-economy and the conditions for the creation of nano-technologies and their distribution in the international environment are outlined. It is noted that the levers of the influence of the evolution of the global markets of high and nano-technologies on the development of the national economy are the consideration of the phases of the nano-economy and their development and introduction into the activities of economic agents, individuals and the economy as a whole.*

**Key words:** high technologies, nano-technologies, global markets, national economic system, baby-economy, human economy, economics of nano-technologies.

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**ВАЖЕЛІ ВПЛИВУ ЕВОЛЮЦІЇ ГЛОБАЛЬНИХ РИНКІВ ВИСОКИХ І НАНО-ТЕХНОЛОГІЙ НА НАЦІОНАЛЬНУ ЕКОНОМІЧНУ СИСТЕМУ УКРАЇНИ ТА ЇЇ НАНО-РІВЕНЬ**

**Анотація.** *У статті розглянуто напрями впливу глобальних ринків високих технологій на національну економічну систему України та її нано-рівень. Проаналізовано три фази розвитку нано-економіки – бебі-економіку, економіку людини та економіку нано-технологій. Зазначено, що в Україні є всі підстави для розвитку бебі-економіки в межах сімей та окремих домогосподарств, а також в межах дошкільних, шкільних та університетських закладів. Окреслено умови формування економічної поведінки окремого індивіда як основи нано-економіки та умови створення нано-технологій і поширення їх у міжнародному середовищі. Зазначено, що важелями впливу еволюції глобальних ринків високих та нано-технологій на розвиток національної економіки є врахування етапів нано-економіки та їх розвиток і впровадження у діяльність економічних агентів, окремих індивідів та економіки в цілому.*

**Ключові слова:** високі технології, нано-технології, глобальні ринки, національна економічна система, бебі-економіка, економіка людини, економіка нано-технологій.

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**РЫЧАГИ ВЛИЯНИЯ ЭВОЛЮЦИИ ГЛОБАЛЬНЫХ РЫНКОВ ВЫСОКИХ И НАНО-ТЕХНОЛОГИЙ НА НАЦИОНАЛЬНУЮ ЭКОНОМИЧЕСКУЮ СИСТЕМУ УКРАИНЫ И ЕЁ НАНО-УРОВЕНЬ**

**Аннотация.** *В статье рассмотрены направления влияния глобальных рынков высоких на национальную экономическую систему Украины и её нано-уровень. Проанализировано три фазы развития нано-экономики – беби-экономику, экономику человека и экономику нано-технологий. Отмечено, что в Украине существуют все условия для развития беби-экономики в рамках семей и отдельных домашних хозяйств, а также в рамках дошкольных школьных и университетских учреждений. Очерчены условия формирования экономического поведения отдельного индивида как основы нано-экономики и условия создания нано-технологий и распространения их в международной среде. Определено, что рычагами влияния эволюции глобальных рынков высоких и нано-технологий на развитие национальной экономики являются учет этапов нано-экономики и их развитие, а также внедрение в деятельность экономических агентов, отдельных индивидов и экономики в целом.*

**Ключевые слова:** высокие технологии, нано-технологии, глобальные рынки, национальная экономическая система, беби-экономика, экономика человека, экономика нано-технологий.

**Relevance of the problem.** High technology markets are actively influencing the development of national economic systems in different countries of the world. Especially those whose economies are directly dependent on high-level foreign technological solutions and those who export their technology to other countries of the world. Ukraine is a state that is neutral in international technology exchange, although it has a large number of patents and know-how, which can be implemented both inside and outside the country. It should be noted that Ukraine also does not attract

enough foreign innovative technologies. However, staying away from the evolution processes of global high tech markets is not a promising technology policy.

**Analysis of research and publications.** Problems of the development of the national economy are devoted to the work of various scholars such as Philipenko AS, Sidenko VR, Dudchenko MA. Also in the textbook "National Economy" under the editorship of V. V. Reshetyla. [4] examined the theoretical foundations, patterns and evolutionary stages of the development of the national economy, their analysis in various economic theories and schools; reveals the main problems of functioning of the national economy of Ukraine, the strategy of the state development in terms of the crisis, and selected promising models of development. Soskin O.I. [7] analyzes the economic models of development inherent in various socioeconomic systems, reveals the modern features of the Ukrainian economy, which is currently developing in three models: state socialism, state monopoly capitalism, and national capitalism; the author argues that the implementation of the model of national capitalism corresponds to the greatest extent to the national economic interests of Ukraine as a European state.

Issues of the development of global markets for high technologies are devoted to the work of such scholars as Didkovskii M.I. [2], which outlines the theoretical basis for the analysis of international technology transfer, considers the mechanism of international technology transfer, the current state and prospects of the development of the global technology market and the system of legal protection of intellectual property objects; Cherevko G.V. [10] investigates intellectual property protection and dissemination in the world; Ostapenko T.G. [5] explores the impact of international technology exchange on the competitiveness of the national economy on the example of Italy; Privarnikova I.Yu. and Kostyuchenko M.K. [6] consider the state of the high technology sector of Ukraine and the state program of development of the scientific-technical and innovation sphere, analyze similar programs of other countries and formulate recommendations on how to improve the situation of the high technology sector in Ukraine.

We note that the issues of the impact of the development of global markets of high technologies on the evolution of the national economic system in the works of domestic and foreign actors are not given enough attention.

**The purpose** of the article is to determine the conditions for the impact of the development of global high technology markets on the nano-economic system in Ukraine, in particular on the baby-economy, human economy and the economy of nanotechnology.

**Presenting main material.** The first stage in the development of the nano-economy is the formation of the baby-economy, namely the demographic conditions of the development of Ukrainian society, family centers, pre-school, secondary, vocational and higher education.

So, the demographic situation in Ukraine has the following characteristics. The total population in 2016 amounted to 42.8 million inhabitants. As early as 2001, this figure amounted to 48.9 million people. There is a known tendency to reduce the total population in our state. 69.2% - urban population, and 30.8% - rural population. The Ukrainian population is female, because 53.7% are women (in 2016) and 46.3% are men. The advantage of the female population is that women have a greater influence on development in particular and economic policies in the middle of the country, women have to play one of the decisive roles in the development of Ukrainian society. However, there is the possibility of finding a couple abroad, emigration streams show that women are more likely to go to find fate, both feminine and professional.

The natural population movement in Ukraine is characterized by negative indicators when mortality is higher than birth rate: in 2015 the number of registered live births was 411781 people, the number of registered deaths - 594796 people, the natural decrease in the population in that year was 183,015 people. This means that the population of Ukraine has decreased by 183,015 inhabitants. The number of pensioners in our country also declines from 14487 thousand in 1996 to 12293 thousand in 2016. There is a tendency to increase the average age population, so the age-old structure [8, p. 33] has the form of sinusoids - an increasing population of 1 to 15 years. The smallest population is the population that was born in the late 1990s. After increasing the payment for a newborn child, the number of births has slightly increased and the number of birth boys is higher than the number of births of girls: 212846 and 198935 respectively, in 2015.

Global markets for high technology affect the demographic situation in such a way that advanced penetration technologies are gradually being used in Ukrainian maternity hospitals. After all, babies born prematurely can survive and not be considered a fruit, but a full-fledged small person, use the technology of non-disturbance of the central nervous system of the child and minimize cases of cerebrovascular disease at birth. These are important issues that need to be implemented not only in the relevant medical research institutes, but also in local maternity homes in the regions of Ukraine.

The thesis is that a person who is growing and socializing in a family is a full-fledged person. Yes, marriages and divorces are also indicators of the development of the baby-economy in our country. In 1995, 431,7 thousand marriages and 198,3 thousand divorces were registered, and in 2015 - 299,0 and 129,4 thousand respectively. The social institution of the family is experiencing a crisis, it is obvious that the young population is not trying to associate their lives with marital relations. In the same year in 2015, men who never married had 224509 people for the registration and registration of marriage and 22,990 women. The marriages were 3623 men and 6516 women. 70,906 divorced men in 2015 and 69,621 divorced women married the same year.

Particular attention needs to be paid to the birth of children in Ukrainian families. Thus, in 1995, all liveborn children had 492 861 people, and in 2015 - 411781 children. In 2015, the largest number of children was born to women aged 25-29: 138509 children, and 109620 people aged 20-24 years old. Unlike in 1995, when 20- to 24-year-old women gave birth to 209667 babies, 108,387 children were born to women aged 25-29 years. Ukrainian mothers are

more often born at an older age, yes, women aged 40-44 in 1995 gave birth to 3921 children, and in 2015 there are already 7891 children. Ukrainian families are becoming more and more like families from highly developed countries, where they register a marriage of an older person and, accordingly, give birth to children already being financially secured. We can say that the Ukrainian model of family relations is increasingly conforming to Western standards. In addition, giving birth outside the marriage is not a sinful practice; in 2015, the proportion of children born to women who were not registered marriages was 20.6%, compared to 13.2% in 1995. This evidence suggests that a conscious step towards the birth of a child beyond marriage for a woman is associated with material and moral opportunities to provide a healthy life for a newborn baby [8, p. 36-43].

The material and mental possibilities for the development of the family environment are confirmed by the financial conditions of the existence of households. Thus, incomes of Ukrainian households in 2000 amounted to UAH 128736 million, and in 2014 - UAH 1516768 million. As you can see, growth was almost 12 times. Growing wealth allows family couples to think about the birth of descendants. It is known that wealth is greater in older families, and it is in these seven families that a small person is born.

The structure of incomes and expenditures of the population of Ukraine is shown in the table 1.

**Table 1**

**Incomes and expenditures of the population of Ukraine (mln UAH)\***

	2000	2005	2010	2011	2012	2013	2014	2014 to 2013, %
<b>Income</b>	<b>128736</b>	<b>381404</b>	<b>1101175</b>	<b>1266753</b>	<b>1457864</b>	<b>1548733</b>	<b>1516768</b>	<b>102,6</b>
Including								
Salary	55853	160621	449553	529133	609394	630734	615022	101,7
Profit and mixed income	24696	58404	160025	200230	224920	243668	254307	108,8
Property Revenues (Received)	3322	11072	67856	68004	80769	87952	85114	100,3
Social assistance and other current transfers received	44856	151307	423741	469386	542781	586379	562325	101,3
<b>Costs and savings</b>	<b>128736</b>	<b>381404</b>	<b>1101175</b>	<b>1266753</b>	<b>1457864</b>	<b>1548733</b>	<b>1516768</b>	<b>102,6</b>
Including								
Purchase of goods and services	115887	306769	838213	1030635	1194791	1304031	1316757	106,1
Property Revenues (paid)	158	3523	28844	290644	18567	21091	23495	112,9
Current taxes on income, property and other current transfers paid	8488	25461	7225	83931	97226	107345	145736	142,3
Accumulation of non-financial assets	3099	4444	19578	-1159	-2954	5378	2912	106,5
Growth of financial assets	1104	41207	142289	124282	150234	110888	27868	25,2
Available income	96609	298275	847949	988983	1149244	1215457	1151656	99,2
Real disposable income, % from the previous year	104,1	123,9	117,1	108,0	113,9	106,1	88,5	+

\*Source: [8, c. 80]

As can be seen from Table. 1, the basis for Ukrainian incomes is wages: from UAH 1516768 million. the total income of 615022 million UAH. made a salary. The wage level has increased more than 10 times in 14 years from 2000 to 2014. The level of material security of the population increased during this period and the population accordingly spent more money than in previous years, including more spent on education, when quality education is a form of investment of funds and provision of the future. Available income as the difference between revenues and real expenses also increased from 96609 million UAH. in 2000 to UAH 1151656 million. in 2014 These free funds become the basis for investments in the economy of Ukraine and in itself. Nano-economy can develop in such conditions as a factor in the activation of entrepreneurial behavior and the choice of innovative development model.

Thus, in 2015, there were 1109625 entities of the USREOU (beginning of the year), of which 723 were industrial enterprises that implemented innovations. 400 enterprises implemented new technological processes and 414 - mastered the production of innovative products. These entrepreneurial structures are the basis for the development of the economy, but 723 is a rather small amount for such a powerful state as Ukraine. There is no such category as a "family business" in the legislative framework of Ukraine, but the enterprises created are generally based on the involvement of the majority of family members in the business.

We have already noted that a researcher and a highly skilled engineer appears in the family, and is learning the first skills at a preschool institution. Preschool educational institutions in Ukraine include (nursery schools): nurseries, nurseries, kindergartens, nurseries of the family, combined, compensating type (special and sanatorium), educational complexes, etc. [8, p. 115].

Note that the number of DHS was gradually reduced from 21.4 thousand units in 1995 to 14.8 thousand in 2015 [8, p. 116]. In cities, such a reduction was more pronounced than in rural areas. The coverage of children by institutions (% of the number of children of the corresponding age) was 44% in 1995 and 55% in 2015. As you can see, DHS covers about half of the children in need of education in such institutions. 50% of children are raised by nannies or close relatives (grandparents and grandparents). In addition, there is statistics on the queue for visits to the DNR in Kyiv, this queue includes thousands of applicants, but these applicants are provided with places in the DHS with a rather slow turn of the queue. SODAS have to perform the function of adapting the child to society, so parents understand the importance of such upbringing. However, alternative Domestic - family type - do not occur quite often, for this there should be a legislative basis, which is only developed by the Ministry of Education and Science and relevant institutions.

Note that Ukrainian is the language of education in 95% of primary schools, which confirms the state approach to education.

In general education institutions (HEIs) in Ukraine are [8, p. 115] schools, lyceums, gymnasia, colleges, educational complexes (associations), sanatorium schools of all degrees, as well as special schools (boarding schools) and social rehabilitation schools. Secondary education institutions of the first degree (elementary school) provide basic general education, second degree (basic school) - basic general secondary education, third degree (high school) - complete secondary education.

Statistics of Ukraine testify [8, p. 120] that there were 26069 general education establishments in the 1914/15 academic year, in 1960/61 - 37660 - the largest number in the history of Ukraine. In today's conditions, in the 2015/16 academic year, there were 17337 institutions of higher education. The number of pupils studying in the country's health center was 3783 thousand people in 2015/16. The largest indicator was observed in 1965/66 academic year - 8671 thousand students. The decrease in the number of pupils in the primary school is associated with a complex demographic situation, when during the existence of statistical observations the number of births gradually decreased.

It should be emphasized separately that the prestige of teaching at school as a teacher gradually increases after a significant fall in the 1990s. Today, pedagogical universities produce teachers, who are still going to work at the National Geographic. Thus, the number of teachers in 1995/96 was 596 thousand teachers, and in 2015/16 academic year, there were already 444 thousand people. The aspect of teaching in the NEC is very important, since it depends on the teacher that the conditions for acquiring skills and competences depend on whether the future adult can be creative and resourceful. The teacher himself must have a creative approach to upbringing and learning, which should be acquired while studying at a pedagogical university.

Note that secondary education in Ukraine is in a state of reform. It is about the acquisition of skills and competencies and the definition of specialization in training since the seventh grade of high school. Training in such a specialized school will include not only teaching the theoretical foundations of different areas of science, but also acquiring the skills of practical use of theoretical knowledge in the practical life of an individual. Ukraine is a fan of the Bologna process, and in order to prepare the future student, it is necessary to train the graduate of the school in such a way that there is no barrier between school education and university studies. The practice of external independent evaluation (EIT) is a positive aspect in overcoming this barrier.

Separate is the question of studying in vocational schools after the school, which, after the collapse of the USSR, became less prestigious in comparison with universities. Thus, the number of people studying in colleges gradually decreases - from 555 thousand in the 1995/96 academic year to 304 thousand in 2015/16. Graduates of schools that have not overcome the ITO fall into the vocational and technical institutions, and in this connection there was an increased demand for persons with labor professions (millers, builders, locksmiths, drivers of specialized equipment, etc.). In the cities, these positions are occupied by those who came from rural areas, who then try to obtain the appropriate education, having entered the university's external qualifications and entered the university. This situation is similar to that which exists in industrialized countries of the world. For example, in Germany, there is an increased demand for workers in various sectors of the economy, and this demand is met at the expense of immigrants from countries such as Turkey or Libya.

According to the statistics of Ukraine, higher education institutions (universities) include technical schools, colleges, colleges, institutes, conservatories, academies and universities.

In Ukraine, 01.07.2014 the Law of Ukraine "On Higher Education" No. 15656-VII was adopted, the main categories of this Law are as follows:

- Higher education - a set of systematized knowledge, skills and practical skills, ways of thinking, professional, ideological and civic qualities, moral and ethical values, other competences gained at a higher educational establishment (a scientific institution) in the corresponding field of knowledge at a certain level of higher qualification education that is more complicated than the level of complete secondary education;
- Higher educational institution (Higher Educational Institution) - a separate type of institution that is a legal entity of private or public law, acts in accordance with the license issued for conducting educational activities at certain levels of higher education, conducts scientific, scientific and technical, innovative and / or methodical activities, ensures

the organization of the educational process and the acquisition of higher education, postgraduate education, taking into account their vocations, interests and abilities;

- Competence is a dynamic combination of knowledge, skills and practical skills, ways of thinking, professional ideological and civic qualities, moral and ethical values, which determines the person's ability to successfully carry out professional and further educational activities and is the result of studying at a certain level of higher education.

It should be noted that higher education is a complex system of education, based on the latest knowledge, fundamental and applied, transforming into further professional activities on the skills of a highly skilled specialist. Higher education is the link in the economical space of the country, on which the quality of the scientific and innovation sphere depends. Universities are part of the scientific field of the country's innovation system. Of course, there is an interaction between scientific institutions, universities, innovation enterprises and the state. However, let's say, the beginning of the reform of the innovation system in Ukraine began precisely with changes in higher education. Countries such as Singapore, Finland and the United States have an effective system of higher education, reflecting the sustainable development of the economic system of these countries as a whole. Universities are an important stage in the development of the baby-economy. The process of sociologization of a young man ends at the university, when an adult person, an expert and, as a result of active professional activity, a highly professional specialist, are created on leaving the university. In Ukraine, reforming the system of higher education can be an impetus for the development of the entire baby-economic system (from the culture of marriage, quality of preschool institutions, general secondary education, vocational education) and an impetus for the development of the scientific sector of the innovation system. However, higher education should not be separated from practical activities and be aimed at the formation and use of fundamental knowledge and applied technological solutions.

Note that state policy in higher education is based on the following principles:

- 1) Promoting sustainable development of society through the development of a competitive human capital and the creation of conditions for lifelong education;
- 2) Availability of higher education;
- 3) Independence of obtaining higher education from political parties, public and religious organizations (except for higher educational establishments);
- 4) International integration and integration of the higher education system of Ukraine into the European Higher Education Area, subject to the preservation and development of achievements and progressive traditions of national higher education;
- 5) Continuity of the process of obtaining higher education;
- 6) State support for the training of specialists;
- 7) State support of educational, scientific and innovative activities of universities;
- 8) Promoting the implementation of public-private partnerships in higher education;
- 9) Openness of formation of the structure of educational and professional training of specialists with higher education.

These principles confirm the importance of the priority of the higher education system in the development of the Ukrainian state. The new Law is intended to improve and optimize the entire system of higher education in Ukraine. The law states that the training of specialists with higher education is carried out by the corresponding educational-professional, educational-scientific, scientific programs at the following levels of higher education: the initial level (short cycle) of higher education, the first (bachelor) level, the second (master's) level, the third (educational-scientific), scientific level. The degrees of higher education in Ukraine are as follows:

1. Junior Bachelor;
2. Bachelor;
3. Master;
4. Doctor of Philosophy;
5. Doctor of Science.

The system of higher education in Ukraine is in a state of transformation and transformation. Statistics from previous years show that higher education was issued by junior specialists, bachelors, specialists and masters of universities of I-II and III-IV levels of accreditation. Thus, there were 782 institutions of higher education institutions of the I-II accreditation levels in the 1995/96 academic year, and in 2015/16, there were 371 institutions. As you can see, there was a reduction in the number of institutions. The number of HEIs of the III-IV levels of accreditation in 1995/96 was 255, and in 2015/16 the academic year there were 288 institutions, there was obviously an increase of the higher educational establishments of this level [Annals, p. 129]. Accordingly, the number of students of higher education institutions of the I-II level of accreditation gradually decreased over the period of 20 years from 1995/96 to 2015/16 from 617.7 thousand people to 230.1 thousand people. The number of students of institutions of higher education of III-IV accreditation levels increased from 922.8 thousand to 1375.2 thousand students. This is a positive trend as more and more entrants want a profession with a master's degree. Thus, 50.0% of the accepted in 2015 for the initial cycle of training at the expense of the state budget - according to the local qualification level "master". 36.1% - according to the qualification level "specialist", 49.0% - "bachelor" and 49.3% - "junior specialist" [8, p. 129].

Note that according to the new Law of Ukraine "On education" and training of PhD doctors are part of the higher education system of the country. These statistics will be soon, but de facto Ukraine preparations were postgraduate (for obtaining a PhD degree) during the years of independence. Thus, the number of organizations having

postgraduate studies in 1995 was 374 establishments, and in 2015 - 490 [8, p. 134]. The number of postgraduate students in 1995 was 17464 people, and in 2015 - 28487 people. Candidate's theses were prepared in 1995 - 3372, and in 2015 - 7493 units.

Influence the formation of education and research component of higher education in Ukraine is possible through the participation of our scientists in research and educational activities abroad (conferences, symposia, seminars) in workshops to improve teaching and research skills, the ability to patent inventions, utility models and industrial samples abroad. Today there is a possibility, but the cost of these measures are researchers themselves, which reduces their ability in the international scientific community.

A special aspect of high impact world markets and nano-technologies for scientific development in Ukraine - is to use the experience of leading countries in scientific activities of doctors. Thus, in 1995, the number of organizations with 158 doctoral studies was 283 institutions in 2015. The number of doctoral students in 1995 was 1,105, and in 2015 - 1,821. Obviously, the number of doctoral students is increasing and it is said that the prestige of scientific activity is gradually restored. Number of performers of scientific and scientific works on scientific degrees and categories of personnel by sector of activity is presented in the table 2.

Table 2

**Number of performers of scientific and scientific works by degrees and categories of personnel by sectors of activity in 2015 (persons) \***

	Total	Of these, they have a degree							
		Doctors of Science	Including			PhD	Including		
			experiment	technick	Add. personnel		experimen	technick	Add. personnel
<b>Total</b>	<b>82921</b>	<b>4124</b>	<b>4120</b>	<b>1</b>	<b>3</b>	<b>13904</b>	<b>13813</b>	<b>49</b>	<b>42</b>
Public sector	41425	3615	3614	-	1	10919	10866	33	20
Entrepreneurial sector	35191	134	131	1	2	972	941	15	16
Higher education sector	6305	375	375	-	-	2013	2006	1	6
Private nonprofit sector	-	-	-	-	-	-	-	-	-

\*Source:[3, c. 39]

It is clear from the table that doctors of sciences and candidates conduct active research activities within state research institutions; a small number of scientists with scientific degrees work in the entrepreneurial sector, and a significant number of titled scientists work in the higher education system. The influence of foreign experience should include the identification and outline of the scientists and their transfer to innovative enterprises (to the private sector) as well as in the sphere of transfer of technological solutions, and hence to the formation of the infrastructure of the national innovation system. These links in this system in Ukraine are in a state of creation, and experienced scientists and appropriate degree will be useful. Thus, it is necessary to create technology bureaus that would be intermediaries between the scientific institutions - the owners of technologies and the private innovation sector for the introduction of the latest knowledge in the practical activities of individual business structures. Such technology bureaus can be exempted from profit tax, and in their framework innovative pension funds (private) for private reimbursement by scientists of part of the scientific salary to these funds, which would invest these funds in scientific and technological start-ups with the term of repayment for 2-3 years.

Training plays a special role in shaping the economic behavior of an individual, which, in turn, forms the emphasis of the nano-economy. George P. Murdoch [11. c. 80-86] in his work "Fundamental characteristics of culture" identified 60 universals that are inherent in a particular culture. In addition, the author noted that, depending on the seven provisions, the peculiarities of economic behavior of a particular nation are formulated. To these provisions, JP Murdoch ranked seven positions. Let us dwell on these provisions of the culture of economic behavior inherent in the Ukrainian nation.

1. Culture is transmitted through learning. So, it's about transfer of experience from parents to children, however, training in different educational institutions also involves the transfer of knowledge that form the basis of economic behavior of the representative of the given nation. Today, the latest approaches to the business stereotype of a Ukrainian are being formed - namely, approaches to entrepreneurship. Ukrainians have always had an entrepreneurial skill, which was manifested historically in that among the common people there was a sufficient number of artisans who passed the skills from generation to generation. Even the negative moments in the history of the Ukrainian nation failed to ruin this feature. Although it succeeded in shaking it - precisely because of the serfdom and the Holodomor. Today, the basis of the business stereotype of Ukrainian is individualism in entrepreneurial activity and the desire to transfer business inherited. Note that, say, in the Russian Federation, the state component of the economy becomes more relevant, unlike in Ukraine, where a large number of people count not on state support but on their own entrepreneurial ability.

2. Culture is instilled by education. The process of education involves the transfer of practical skills and experience for the formation of a vibrant individual person. In the process of education, the skills of an individual's economic activity are formed. So, the family creates conditions for working together, when together preparing

dumplings can create the skills of the younger generation to work in a team. The kindergarten and school also contribute to the education of team economic behavior. However, individuality is a feature inherent in Ukrainians, when we can do our best for ourselves and for our family alone.

3. Social culture. We have already noted that the sociology of personality is responsible for the baby-economy. So, the skills of relationships between people are formed at a young age and transmitted within the family from father to son. The economic behavior of the individual is considered within the sociology of personality - the field of sociology, which studies the personality as an object and subject of social relations through the prism of socio-historical progress, values of social systems, interpersonal relationships and social communities [www.pidruchniki.com]. Consequently, economic behavior is social and, in the case of Ukrainians, involves the impossibility of human existence outside of society. The new institute of economic behavior of an individual is the formation of a family business and its development with the involvement of future generations to the family business.

4. Ideal culture. When it comes to the habits formed in the process of sociologizing the child and turning it into an adult. Habits form life in the profession. We are talking about knowledge and skills - this is the basis of the work of a specialist, and habits are formed as a reaction to the external environment. Habits can be an expression of the development of the family, but can be acquired personally during education and training. General (tribal) habits of Ukrainians: native decorations, dances, hospitality, jokes and special religious traditions.

5. Culture provides pleasure. Satisfaction of physical, mental and psychological needs. According to the Maslow pyramid, Ukrainians first of all satisfy physiological needs. Ukrainians can be called pragmatic enough, since providing satisfaction lies in the plane of satisfaction of the primitive needs of human physiology. However, self-realization is also a condition for the development of a person, the self-realization of a Ukrainian is related to the possibility of showing entrepreneurial trust and the specifics of negotiation, when Ukrainians actively defend their own opinion, but also listen to the opinion of the counterparty. Ukrainians, according to L. Lewis's classification [1], can be attributed to polyactive cultures, that is, those that carry out a large number of actions at one time (sign a contract, talk on the phone, review and evaluate advertising, etc.) and receive satisfaction.

6. Culture is adaptive. When all acquired actions and phenomena are adapted to the specific situation in which a person falls. We adapt our skills and abilities to the realities of our time. Ukrainians consider changing the exchange rate as opportunities for obtaining additional income, lack of funds for buying potatoes - this is the opportunity to have this vegetable from the farmland and to feed it from relatives too.

7. Culture is integrative. In Ukrainian society, there is a synergistic effect when the combination of several individuals becomes the basis for the development of the future of joint business. The well-known saying "it's easier together with the father to beat" is an example of the fact that Ukrainians are a socially integrated type in a variety of personal attributes.

We also note that the modern Ukrainian nation was formed as a result of complex and prolonged historical and demographic processes from various components of the proto-Ukrainian nation, each of which had its own peculiarities [9].

Events that took place in Ukrainian history directly influenced the memory and culture of the people. There are many historical events that have diametrically opposed vectors of influence on the processes of formation of pro- or counter-capitalist features of mentality. An example is the periods of the Cossack and serfdom in Ukraine. The first case - an example of how historical circumstances contributed to the formation of the very pro-capitalist spirit. The Cossack era led to the unique synthesis of collective and individual; freedom of choice, with a sense of discipline and responsibility; the spirit of competition and cooperation; community interest and the private property of the land.

By contrast, serfdom oppressed everything that could shape the spirit of capitalism and entrepreneurship in the future, cultivating obedience, patience and the ability to be controlled. Serfdom as a source of inhibition of economic freedoms and the development of protocapitalist mentality in various parts of Ukraine because of its territorial fragmentation was abolished at the same time. As to the geographical factor: the territories in which the Ukrainian people lived were at the crossroads of different economies, religions, cultures, traditions, interests and trade routes, which promoted tolerance as a national feature, without which today the globalized and multicultural business is unthinkable.

The socialist system of social structure influenced the value orientation of the individual through the provision of basic life guarantees and satisfaction of needs. Labor was seen as a human duty in exchange for social guarantees and it was important to educate a person in a sense of duty to society for the guarantees provided.

It should be noted that the formation of a business stereotype of a Ukrainian occurs in an environment under the influence of globalization processes, when different cultures are in close connection and ensure the transformation of business rice from one stereotype to another. The first section of the monograph was about the fragmentation of the world economy, when the national becomes determinant in the formation of international economic relations. And this fragmentation is formed by the personal traits of the economic behavior of individual nations and of the Ukrainian stereotype in particular. Economic behavior is becoming more globalized, but it is based on the fragmentation of its economic characteristics. Unification of business rules (unified accounting approaches, ISO quality management system, INCOTERMS rules, etc.) requires unified approaches to entrepreneurship and the formation of global markets for high and nano-technologies.

Global high tech markets are actively influencing the third area of the nano-economy, namely, the development and implementation of nanotechnologies.

VI Shepel, president of the Innovation Chamber of Ukraine, notes that for any country there is such a parameter as the rate of innovation. This is % of the company's profit, which is allocated for the modernization and introduction of new technologies. If it is below 15%, then we can talk about degradation and destruction of production potential. Even if machines and workshops will serve for decades, but do not invest in innovation (or invest in less than 15%) - the enterprise is doomed to death in such circumstances. And soon the products of this enterprise will be driven out of the market by foreign competitors. For Ukraine, the average indicator of innovation implementation does not exceed 5%. This has already led to the death of many enterprises and most Ukrainian enterprises for this reason are on the brink of destruction.

Legislative acts are being drafted at the level of the Cabinet of Ministers and the Verkhovna Rada to support nano-technology developers and implementers in Ukraine. The Resolution of the Cabinet of Ministers of Ukraine of October 28, 2009 is known. №1231 "On Approval of the State Target Program" Nanotechnologies and Nanomaterials "for 2012-2014. The aim of the Program was to create the nanosecond industry by ensuring its industrial and technological infrastructure development, the use of the results of fundamental and applied research, as well as the training of highly skilled scientific and engineering personnel. The main objectives of the Program were:

Conduct fundamental research with the aim of developing and improving nanotechnologies, creating nanosystems, nanostructures, modern elemental base of nanoelectronics and nanophysics, and manufacturing nanomaterials:

Creation:

- Technological system for the manufacture of nanomaterials, nanostructures and devices;
- Industrial and technological infrastructure of the nano-industry;
- The latest elemental base for the manufacture of devices for the terahertz range, equipment by introducing nanostructures based on traditional semiconductors;

Development:

- Nanotechnologies for catalysis;
- Experimental and industrial technologies for the production of nanopowders, nanomaterials, in particular nanoparticles, nanotubes, nanostructures, nanofibers, nanowires, as well as functional consolidated nanomaterials with amorphous-nanocrystalline structure, structural nanostructured materials with gradient and volume strengthening, nano-dispersed and nanostructured luminescent and scintillation materials ;

• etc .;

Formation:

- Center for Certification of Nanomaterials, Nanostructures and Devices;
- In higher education institutions, scientific and educational centers of training and advanced training of specialists in the field of nanotechnology and the manufacture of nanomaterials.

The program notes that its implementation should enable:

develop nanotechnology for the chemical industry, energy, treatment of the most widespread and most dangerous diseases, as well as the manufacture of biologically active substances and multifunctional devices for nanoelectronics;

Prepare:

- Normative legal acts, standards and certificates regulating the development and implementation of nanotechnologies and the manufacture of nanomaterials;
- Textbooks and tutorials for higher education institutions on nanotechnology development and nanomaterials;

To create scientific and educational centers in higher educational establishments.

Approximate amount of funds necessary for the implementation of the Program amounted to UAH 1,847.1 million. The Program was funded at the expense of the state budget and other sources.

It is known that the Program has completed its activities without the adoption of additional legislative acts. In 2014 there was a proposal for the adoption of the Law of Ukraine "On State Stimulation of the Development of the Nanotechnology", but this Law was never adopted.

But for the development of an innovative nano-business, legislative support for such structures is required. Boris Movchan [www.gazeta.ua], Academician of the National Academy of Sciences of Ukraine, observes that the state structures responsible for the development of the innovative economy in the country do not pay enough attention to the organization of small innovative projects (research, development, research samples of new products) that are extremely necessary consumers for the first-time acquaintance with the technology offered - on the one hand, and developers for preliminary estimation of the possible volume of the internal and external market - on the other.

Boris Movchan notes that in developing countries, there are numerous small enterprises of different forms of ownership and organizational structure that offer samples of new products for scientific research and practical application in quantities ranging from several grams to an "experimentally" high price. Such enterprises should work in Ukraine, in order to optimize their work, it is necessary to create legislative conditions and tax characteristics of doing business. It would be desirable to create technoparks for the development of research and implementation of nanotechnologies.

**Conclusions.** Thus, the levers of the influence of international conditions for the development of global markets for high technologies are formed depending on the stages of development of an economy. Yes, these markets affect the baby-economy in Ukraine, the economic behavior of our country's economic entities and the creation of nanotechnologies. So far in Ukraine, the direction of influence "to Ukraine", and not "from Ukraine" of global markets of high technologies is taking place. To optimize the mutual influence of Ukrainian and world nanotechnologies, it is

necessary to create a network of support for Ukrainian nanotechnology solutions for their diffusion within the Ukrainian economy and the dissemination of these solutions abroad.

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