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HUMAN DEVELOPMENT INDEX AND INFORMATISATION OF SOCIETY IN CIS

ABSTRACT. Knowledge and know-how of calculation methods of indicators and indices allow to evaluate, compare and correlate if not fully then to a considerable extent the situation in different countries and regions of the world. Moreover, in countries with "transitional economy" to which Russia and other countries of former Soviet Union are attributed to, the situation has significantly changed and it is necessary to adjust the directions and perspectives of development considering the changed environment.

The article characterizes a position of Russia and other CIS's countries (Commonwealth of Independent States) on the international rating of Human Development Index and Networked Readiness Index.

KEY WORDS: network economy, information and communications technologies, Human Development Index, Informational Society Index, Networked Readiness Index, position of Russia and other CIS's countries.

INTRODUCTION

The problems of human society development, the creation of conditions for wealthy, stable and creative life of people are studied from different positions and points of view by economists, demographers, sociologists, politologists, social scientists, geographers and many other specialists. Nevertheless, these issues still remain of high priority and are not completely studied.

HUMAN DEVELOPMENT INDEX

The first Human Development Report that was published in 1990. It was aimed at distinguishing the problem of achieving the wellbeing of people in different countries of the world. The idea of human development was broadly examined in it as the main purpose of political, social and economical processes. All aspects

of human activity which also included creative personal potential, belonging to one or another society, were to be considered using a single integrated approach that would enable to compare different countries, standards of living in them by correlation of integrated indexes worked out by scientists.

Afterwards these correlations enabled to distinguish problems of population development in each country of the world, to outline the directions of development and prosperity. Profound analysis of human development assumes the detailed study of economic, politic and administrative, social and public conditions in which human life passes or might pass.

Since the first publication regarding the Human Development Index (HDI) the main components of this index have developed and changed. At the same time new indices were invented. For example, Gender-related Development Index (GDI), which examined the gender aspects of society development (characterized standards of life, health and education of men and women) began to be used. The Human Poverty Index (HPI) consideres the level of poverty, calculates the share of poorest and richest groups of population in the national welfare of countries of the world. HPI was invented in 1997 and published in the Report on Human development (*Human Development Report 1997*).

The HDI (Human Development Index) monitored by us is an aggregate indicator that includes three important human capabilities: 1) longevity (life expectancy at birth); 2) educational attainment (adult literacy rate); and 3) income (GDP per capita). As a rule those three indicators are directly correlated.

In fact, people live longer in countries where considerable importance is given to the development of healthcare system as well as in countries where people have a more high-quality food. In order to obtain a good education substantial financial means are required. In other words high level of income should be ensured for the population that in the first place can be ensured in the countries with high level of economic development. In other words, countries' ranking in accordance with GDP per capita does not differ much from the rating of countries based from on HDI. Nevertheless, this is the methodologically weak point of this indicator. Harmonious development of persons, their self-realization in society, level of satisfaction with life, harmony with themselves, all those are certainly not always determined only by the level of material wealth. Often poor people with many children look more happy than reach people preoccupied with business matters. Solitude in life also could not be replaced by wealth or even very large fortune.

However, the race for the HDI records between the countries continues. Thus, for example, in Canada (when it lost first place in world HDI rating) the new index was invented for comparison of levels of human development in the world – Human Progress Index (HPI). It comprises of the following indicators: 1) health (longevity, infant mortality, percentage of people expected not to survive

to age 60); 2) education (rate of adult literacy, same as for HDI); and 3) technology (indicators of communication infrastructure – number of TV-sets, radio-sets and telephones per 1000 people) (*Human Development Report 2001*).

It is obvious that many of such indices differing only to some extent from each other. However, neither these new indices nor the HDI cannot be considered as an index for evaluation of human happiness, life satisfaction, development or underdevelopment of human potential. Nevertheless, these indices for many decades have been helping scientists to correlate countries of the world that differ by level of economic development, and by the level and standards of living of population.

The analysis carried out by us revealed that the rate of HDI leading countries has practically remained unchanged for the last 20 years, only some minor shifts are traced (Table 1). Canada was the country-leader since 1975 till 2000 and from year 2000 – Norway.

Table 1. Changes of Human Development Index in top countries, 1975–2007

Countries	1975	1980	1985	1990	1995	2000	2005	2007
Norway	0.870	0.889	0.900	0.913	0.938	**0.958**	**0.968**	**0.971**
Australia	0.851	0.868	0.880	0.894	0.934	0.949	0.962	0.970
Iceland	0.868	0.890	0.899	0.918	0.923	0.947	0.968	0.969
Canada	**0.868**	**0.883**	**0.906**	**0.926**	**0.932**	0.940	0.961	0.966
Ireland	0.823	0.835	0.851	0.875	0.898	0.931	0.959	0.965
Netherlands	0.873	0.885	0.899	0.914	0.934	0.947	0.953	0.964
Sweden	0.872	0.882	0.893	0.904	0.935	0.952	0.956	0.963
France	0.856	0.872	0.884	0.907	0.925	0.938	0.952	0.961
Switzerland	0.883	0.895	0.902	0.915	0.926	0.946	0.955	0.960
Japan	0.861	0.886	0.899	0.916	0.929	0.941	0.953	0.960

Source: Human Development Report 2007/2008, 2009

The list of countries-outsiders (those that are always at the bottom of the HDI rating) also remains almost unchanged. Among them are mainly the least economically developed countries: Asian and African countries with very low GDP per capita, level of education development, where poverty and underdevelopment of economy slows down the human potential development as well.

The fact that practically all former soviet countries (especially CIS countries) are now far from taking up best positions in world rating also has to be mentioned. HDI indicator in those countries is evidently lower than those of the top countries and during the last years those countries practically did not ameliorate their positions in the ranking (Table 2). As a matter of fact former socialist countries previously had a quite high indicator of education and healthcare level. Nowadays those indicators undergo changes and not with a positive trend.

Table 2. Changes of Human Development Index and rating position of some CIS
countries, 1995–2007

Countries	1995	A	2000	A	2003	A	2007	A
Belarus	0.776	60	0.788	56	0.786	67	0.826	68
Russia	0.779	71	0.781	60	0.795	62	0.817	71
Kazakhstan	0.740	76	0.750	79	0.761	80	0.804	82
Ukraine	0.745	91	0.748	80	0.766	78	0.796	85

Explanation: A – Rating position

Source: Human Development Report 2007/2008, 2009

Countries of the world have different level of economic and resource potential, they have their history, special features and problems of development. Therefore, they are divided into different types (industrial, developing, and countries with "transitional economy"). Some of them have long-standing history of development, while others gained independence only in the second half of 20th century and they still have a vast number of problems. In some countries high figures of natality and natural population growth are registered, and the population increases at a fast pace. In other countries, such problems do not exist, but there is a number of other problems. For example, the population of those countries is growing old, there are fewer young people, etc. That is why it is not only interesting to compare countries by HDI figures and their trends. Distinguishing groups of countries, which differ by the level of development of human potential (HDI) might also be interesting. Experts of the UN (United Nations) Program of development usually divide countries into three groups according to integrated indicator of HDI (Human Development Index or Human Potential Development Index which are actually the same thing): 1) countries with high level of HDI; 2) countries with middle level of HDI; and 3) countries with low level of HDI.

The average world HDI figure for 2007 amounted to 0.753 (situation in 182 countries have been analyzed). Notwithstanding that situation, CIS states are in the group with high HDI according to the ranking (Belarus and Russia), or with middle level of HDI, and all of them take up quite low positions in the ranking (Table 2). Kazakhstan is on 82nd place, Armenia on 84th, Azerbaijan – 86th, Georgia – 89th, Turkmenistan – 109th, Moldova – 117th, Uzbekistan – 119th, Kyrgyzstan – 120th, and Tajikistan – 127th (close to it are Botswana, Namibia, Morocco and India) (*Human Development Report 2007/2008*).

Indicators of the level and quality of life in some CIS countries that are included into HDI can also be compared (Table 3). It should also be outlined that HDI can be used when studying indicators of separate territorial entities of different countries of the world (for example, by states of USA, lands of Germany, districts

Table 3. HDI components in CIS countries, 2007

Countries	A	B	C	D
Belarus	69.0 (105)	99.7 (5)	10,841 (74)	0.826 (68)
Russia	66.2 (118)	99.5 (11)	14,690 (55)	0.817 (71)
Kazakhstan	64.9 (125)	99.6 (10)	10,863 (72)	0.804 (82)
Armenia	73.6 (64)	99.5 (14)	5,693 (100)	0.798 (84)
Ukraine	68.2 (110)	99.7 (6)	6,914 (94)	0.796 (85)
Azerbaijan	70.0 (101)	99.5 (13)	7,851 (84)	0.787 (86)
Georgia	71.6 (64)	100.0 (1)	4,662 (110)	0.778 (89)
Turkmenistan	64.6 (126)	99.5 (12)	4,953 (106)	0.739 (109)
Moldova	68.3 (109)	99.2 (17)	2,551 (131)	0.720 (117)
Uzbekistan	67.6 (111)	96.9 (38)	2,425 (133)	0.710 (119)
Kyrgyzstan	67.6 (112)	99.3 (16)	2,006 (140)	0.710 (120)
Tajikistan	66.4 (109)	99.2 (17)	1,753 (144)	0.688 (127)
Country-Leader	Japan – 82.7 (1)	Georgia – 100.0 (1)	Liechtenstein – 85,382 (1)	Norway – 0.971 (1)

Explanation: A – Life expectancy, years (rating position); B – Adult literacy, % (rating position); C – GDP per capita, US $ (rating position); D – HDI (rating position)

Source: Human Development Report 2009

of Russia, etc.). Therefore it is reasonable to use this index (if the necessary data is available) not only to compare countries but also more fractional territorial objects, as all countries of the world have regional disproportions in the level of economy as well as in the level of social development. In these regards it is necessary to correct the regional policy carried out in these countries. Research of HDI can also be interesting for the countries with population structure comprised of a variety of nationalities. The correlation of HDI figures (if the statistical data is available) can be made separately for male and for female population. It will help to detect facts of female population discrimination in different countries of the world, their unequal position in society.

All abovementioned facts and analysis of the indices signify that the conditions of peoples' life in different countries are not identical. And all changes in society influence the standards and quality of life. Thus the long-term competition between capitalist and socialist systems of management encouraged enhancement of life standards in developing countries and population of socialist camp countries (according to socialism ideology the population of socialist countries was supposed to live better than people in capitalist countries, at least that was the effort). The changes in conditions of economic management during the last two decades and the transition to market economy caused such negative effects in post socialist countries as social inequality, unemployment, poverty,

"will" of employer, low salaries, absence of government care, liquidation of many companies (often in company towns), and many other consequences that substantially deteriorated the material and moral basis of human lives, as the consequence of which the level of human potential has lowered as well.

The detailed study of human development concept, the search for new ways of improving standards of live under new circumstances are reflected in programs-projects of regional and international importance. It should be pointed out that existence, condition, and level of knowledge of natural resources potential of regions and countries in whole also enables to measure the standard of living. That is why it is necessary to include the analysis of such potential as a component into the concept of human development. Under present day conditions of economic development the evaluation of natural resources may yield a quantitative estimation of social and user value of means of production and consumer goods of the population.

The interest for the issue of human development potential is enhancing. Whereupon the difference between interests of people from older age groups (that were formed during soviet regime) and young people who grew up during the transitional period (when economy underwent the transition "from plan to market") under the conditions of globalization should be pointed out. The tilt is towards the materialization of life style, towards the increase of satisfaction of individual requests of population with a reduction of spiritual and patriotic sides of a person's development. And though according to Human Development Reports (including reports for 2009) in CIS countries the indicators of the level of Human Potential Development, are shifting towards enhancement they are still quite far from indicators of economically developed countries.

A vast field opens before scientists as the final result of country's development is the development and advancement of its population, the focused improvement of life standards of population. It is necessary to continue studying the problems of human society development, because under the conditions of postindustrial society that is forming on our planet, the main treasure and main potential of civilization development is the human being himself. To live a productive and creative life in accordance with one's own requirements and interests for the benefit of one's own nation is the aim to which humanity should strive. Such a concept of human development is not finalized today and there are various ways of its realization.

NETWORK ECONOMY AND THE LEVEL
OF SOCIETY INFORMATIZATION

However, this concept has a link with other concepts or theories of society development. We have in view the fact that it is impossible to imagine the contemporary society without the impact of information and communication technology (ICT). Computerization has spread over almost all aspects of human activities in today's society and has helped to broaden the information space. In this regard the appearance of such an idea as *network (new) economy* is absolutely logical. Network economy is a business activity carried out with the aid of electronic network. In terms of technology, it represents an environment in which legal bodies and sole proprietors can contact with each other within the process of mutual cooperation.

Widespread changes in economy processes caused by extended use of information and communication technologies, the ability to pass large volumes of information at any distance quite fast and cheap (including audio and video materials) underlie the appearance of a new type of economy. One of the main features of ICT is the possibility of creating a global scale for activity of all agents of world economy, the amount of which increases.

The outstanding features of network economy are assumed to be: the changes of the nature of commodity distribution network and delivery networks; invention of new mechanisms of trade (virtual trading sites, auctions, network on-line exchange); global character (due to communications development the geographic borders of information transfer are being erased); ICT usage for increasing labour productivity, for enhancing economical growth and development, maintaining low level of inflation and unemployment; and changes in financial environment (web money, Internet-banking and Internet-trading) among others.

According to our deep conviction in current conditions it is the network economy that gives Russia and other CIS countries an opportunity to adopt to complicated process of integration into the world economy and to improve its position in the globalizing world. In this context the level of society informatization is one of the most important indicators of the country competitiveness.

From 1996 two organizations, World Times and IDC (International Data Corporation), jointly measure Information Society Index (ISI) and publish the information. The indicators are aggregated into four blocks (computer, information, social infrastructure and Internet infrastructure). Since 2001 the Global Information Technology Report is published by World Economic Forum and business school INSEAD (*The Global Information Technology Report 2001–2002*). Countries of the world are ranked in accordance with Networked

Readiness Index (NRI) that measures the level of information technologies development by 67 criteria. In fact NRI is a composite of three data blocks: 1) availability of network infrastructure; 2) readiness to use it by civil society, business environment and government institution; and 3) the actual level of NRI usage.

The index gives information to business-leaders and politicians about the main factors influencing the NRI development with the aim of recording in-state policy. In the long run such information shall contribute to more people, organizations and communities being involved into network economy. The index does not only measure the readiness of that or another country for participation in informational world, but shows what is the basis for differences between the countries. Thus Denmark, Finland, Iceland, Norway and Sweden almost always are in the top ten countries-leaders by Network Economy Readiness Index. From 2002 to 2005 the leading position was taken by the USA, later Singapore became the new leader.

Let us characterize the position of CIS countries in the rating prepared according to NRI (2008/2009). At present time Russia is only on 74th place in the list. It is outpaced by Estonia (18th place), Lithuania (35th), Latvia (48th), Azerbaijan (60th), Ukraine (62nd), and Kazakhstan (73rd). Georgia takes up only 88th place, Moldova – 99th, Tadjikistan – 104th, Armenia – 114th, Kyrgyz Republik – 115th. Situation in 134 countries have been analyzed (*The Global Information Technology Report 2008–2009*).

The population ability to use ICT is determined by the level of human potential development. Let's study the results from our calculation of correlation ratio between two indexes: HDI and NRI for the period from 2006 to 2009. The total index (102 countries) comes to 0.8 that means strong direct dependency, i.e., increase of one variable cause increase of thy another variable.

In most developed countries (first group by HDI level – "very high human development" or developed) we can also observe very close positive correlation between two indexes – 0.71 (2006) and 0.66 (2007–2009). In countries composing second group by HDI level ("high human development" or developing), including Russian Federation and Poland, a middle positive correlation can be seen (0.67 and 0.56 respectively). In the third place (third group by HDI level – "medium human development" or developing) a positive correlation can be seen (0.44 and 0.47 respectively). In the least developed countries with low rate of HDI and NRI indexes ("low human development"), we can notice a weak positive correlation (0.15–0.32). Nevertheless a growing dencity of correlation can be evidenced between examined Indexes in the group of medium and low human development which means that HDI index increases its influence on NRI ratio in the group of less developed countries.

It should be outlined here that the main problem of efficient integration of information technology in Russia to a considerable extend consists in a different level of development of Russia's regions. Thus there is a differentiation of Russian regions in terms of their readiness for network economy, moreover, the situation in many regions is unconsoling. Only in leading regions, namely in Moscow and St. Petersburg the figures of indices correspond to the figures of European countries. Moreover, countries that intensively invest into NRI development are on the leading positions in the rating, shifting Russia to more and more lower positions (year 2001 – 61st place, 2003 – 63rd, and by 2008/2009 already 74th place). To the indicators that lower the place of Russian Federation in the world rating may be attributed: the general situation in Russian economy, disproportions in level of socio-economic position of country's regions, the number of NRI specialists per total population size, and the rate of information technology expansion in the country.

Russia, nevertheless, is ready for changes in this area, which allows to make forecasts regarding the further improvement of Russia's position in NRI rating in comparison with other countries. For our country this is the only chance to engage the high level of human capital and to integrate into the community of economically developed countries that benefit from innovation development.

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