

3RD INTERNATIONAL MULTIDISCIPLINARY
SCIENTIFIC CONFERENCE ON
SOCIAL SCIENCES & ARTS
SGEM 2016

CONFERENCE PROCEEDINGS

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HISTORY AND PHILOSOPHY

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- [6] Bell A. P., Weinberg M. S., *Homosexualities: A Study of Diversity Among Men and Women*, USA, 1978.
- [7] CDC Fact Sheet «HIV and AIDS among Gay and Bisexual Men». URL: <http://www.cdc.gov/nchstp/newsroom/docs/fastfacts-msm-final508comp.pdf>
- [8] Owen J., *Homosexual Activity Among Animals Stirs Debate*, National Geographic News, USA, 2004.
- [9] Van de Ven P., *A Comparative Demographic and Sexual Profile of Older Homosexually Active Men*, Journal of Sex Research, UK, 1997.
- [10] Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects*. URL: <http://esa.un.org/unpd/wpp/DataSources/>
- [11] *Survey Finds 40 percent of Gay Men Have Had More Than 40 Sex Partners*, Lambda Report, USA, 1997.
- [12] *Sexuality*, New Dictionary of the History of Ideas, Volume 5, USA, 2005.
- [13] Swift M., *Gay Revolutionary*, Gay Community News, 1987.
- [14] Whitehead N., Whitehead B., *My Genes Made Me Do It! A Scientific Look at Sexual Orientation*, USA, 1999.
- [15] *Gay marriage protest draws thousands to Paris*. URL: <http://www.theguardian.com/world/2013/may/26/gay-marriage-protest-paris>

**HUMAN CAPITAL DEVELOPMENT IN KAZAKHSTAN:
SPIRITUAL AND MENTAL FACTORS**

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ABSTRACT

The purpose of article is scientific justification and development of:

- a) effective methods of improvement of the human capital as factor of spiritual progress of the country during modernization of society taking into account strategy of industrial and innovative development of the country and increase of its competitiveness in a modern human civilization (process of transformation of industrial society in post-industrial);
- b) scientific and humanitarian approach to an innovation and transformation of the human capital as set of knowledge, mentalities, abilities, skills which are used for satisfaction of diverse needs of the person and an intensive moral and psychological factor of development of society and tools of intellectual and administrative work.

A number of progressive economic, political and sociocultural transformations is carried out in Kazakhstan today, however strategic development plans aren't always evidence-based by the advanced achievements of modern sciences and national experience. Unilateral (Marxist, Post-Soviet, westernized and others) views and ideological installations which interfere the scientific analysis of a current state of the Kazakhstan society are still prevailed in methodology and theoretical approaches. For example, modern society still is considered from positions of theories of mass society and culture when these theories are considered outdated even in the West. Theories of mass society correspond to an industrialization stage with domination of economy as main social institute. Theories of post-industrial or information society assume formation of new type of society where the economic dominant is replaced by cultural, information and media. Therefore the modern scientific analysis of society has to consider the happened structural changes and place emphasis not only on the analysis of economic components, and also on the mental sphere.

Keywords: human capital, mentality, spirituality, innovations, index of human development.

INTRODUCTION

Social progress in post-industrial information society is provided not only by economic capital investments, but also by human capital, intellectual capital, and intellectual

technologies in a broad sense. If equipment and technologies were considered in theories of industrial society as the component subordinated to wider system of economy, then the theory of post-industrial society assumes equipment and technology as the independent and more fundamental system including economy and other social institutes as subsystems. The human intellectual capital, creative innovative activity in information society is put in the forefront and demands paramount attention. Philosophical, sociological, cultural, psychological, political, economic and semiotics approaches are necessary for research of conditions and determinants which form creative, critical, innovative thinking, and also form the factors promoting increase of prestige of science and education, formation of the intellectual nation.

Mental and spiritual factors of the human capital. The Human Capital (HC) is a major factor forming innovative economy and post-industrial society through education economy, high-quality life, intelligence, science and the quality human capital. Traditional resources, production factors (the capital, work, the earth) become minor in present period, and knowledge comes to the forefront according to the classic of management P. Druker [1]. It is considered that the human factor plays a key role in ensuring competitiveness of the modern companies [2].

According to study of the report of JP Morgan "U.S. Recession and Repression Are Only in Our Minds" the stock of "human capital" makes about \$70 trillion physical and financial assets belonging to the American households [3]. Experience of USA shows that investments into "the human capital" are 25% more favorable, than involvement of the prepared worker in the company, also payback and profitability of these investments are rather high and, respectively, risk degree is low [4].

In USA the total investment in the human capital makes 26% of GDP. Such successful countries as Malaysia, South Korea, and Japan relied on investments into the human capital as allowed them to create samples of "economy of knowledge". In Kazakhstan the indicator of total investment in the human capital is at the level of 9% of GDP. Businessmen in Kazakhstan are guided by receiving a raw and administrative rent, but not technological (intellectual) rent.

For achievement of the objectives put in strategy "Kazakhstan-2050" to entry into number of 30 most developed countries, it is necessary to develop the human capital which includes all indexes of human development accepted by the UN program of development. In 2012 Kazakhstan (Fig. 1) took the 69th place in the world (the Russian Federation-55, Belarus-50, Estonia-30) according to this index which defines the country level of development [5]. According to this indicator and also according to GDP per capita (12,5 US dollars) Kazakhstan belongs to the high average country. It allows to use a method of analogy to the calculations which are carried out in OECD [6]. The success in realization of innovative economy directly depends on a level of development of the human capital (further HC) and high technology. The human capital is the following high stage of development, it is a major factor forming innovative economy and economy of education, and the innovative economy is a high-quality life, intelligence, education, science and the quality human capital [7].

Production of material benefits kept its importance but it is first of all defined by new knowledge, highly qualitative experts, level of development of technology and application of a new control system. Production of material benefits, certainly, will keep the importance, but its economic efficiency will be defined first of all by use of

highly qualified personnel, new knowledge, technologies and methods of management. Thus, the way of production and transfer of knowledge and, actually, person - his intellectual potential is put in the forefront. By calculations of the World bank the fixed business assets of the USA as a part of national wealth (the building and a construction, cars and the equipment) make only 19% where natural resources is 5%, and the human capital is 76%. The corresponding indicators in Western Europe are 23,2 and 74%; in Russia - 10,40 and 11,50%. Therefore the increasing part of researchers considers that the human capital is the most valuable resource of post-industrial society, much more important than the natural or saved-up wealth. Already now in all countries the human (intellectual) capital predetermines rates of economic development and scientific and technical progress.

One of conditions of increase of competitiveness of domestic economy is development of the human capital [8]. Its value steadily increases in conditions of globalization of world economy and a modern level of development of a civilization which is a factor of social and economic development at national, regional and transnational level. Thus it is necessary to consider that insufficiently high level of the human capital is the main obstacle for economic updating of the country today. Information and computer technologies, globalization of economic activity and tendency concerning a bigger individual responsibility and autonomy, all of them changed requirements to training. The key role of knowledge and competences of ensuring economic growth gained wide recognition of economists and politicians. It is necessary to refuse passive policy to provide the advancing development of the human capital according to modern realities. The development strategy leaning on model of a social market economy is necessary. Achievements of human reason, intellectualization of production at the present stage led to a new round of development of society, created (first of all, in the developed countries) more favorable conditions for realization of creative opportunities of the person in political, economic, social and cultural life.

Now competitive advantages of economy and possibility of its modernization substantially are defined by the saved-up and realized human capital. People with their education, qualification and experience define borders and possibilities of technological, economic and social modernization of society [9].

The developed countries continue to increase industrial production, significantly modifying it under the influence of new realities. It is both base, and a condition of development of the human capital which doesn't overshadow fixed capital. They don't resist but interact and supplement each other. Progress of social development which is expressed in formation of information and industrial society is a synthesis of this interaction. There is no clear boundary between industrial and post-industrial society, one gradually develops into another.

Thus the human capital in modern economic systems is a necessary independent resource and it is important for ensuring national competitiveness. Development of the doctrine of development of the human capital as major factor of progress of society is the requirement of today. The person has to become the center of the application of the main efforts of the state. If each member of society has more opportunities (educational, intellectual, information, etc.), then the intellectual resource of all nation and the state will be higher, growth rates of economy will be more dynamic, possibilities of society will be huge.

USA and especially Russia considerably deviated the optimum scheme of accumulation of the human capital in the level of the higher education towards increase of social norm at the corresponding decrease in private norm of return. It creates prerequisites for emergence of the conflict of interests of the personality and the state. For example when today public financing of the higher school makes 50%, then the social norm of return in Russia is 15.7, and at the same time private financing is only 10%.

The founder of a number of theories and terms in the sphere of management and the public relations Peter Druker spoke: "Education is the only real capital today. Development of national education is the most important tool for the capital, and number of educated people, quality of their knowledge and use of this knowledge are the most important indicator of ability of the country to make wealth" [10].

According to the American experts, the qualitative level of the saved-up human capital was the main condition of economic growth and increase in labor productivity throughout all the 20th century [11]. According to calculations in the USA in 1929-1982 training before work gave 26% of growth of public productivity, and inservice training provided about 55%, whereas capital investments in the equipment – only 20%. If at the beginning of the 20th century mineral raw materials, energy resources, the food provided 50% of GNP, now – less than 10%, and human resources - 80% of national production of goods and services. The human capital occupies 80% of total amount of the capital in Germany, Japan, Switzerland.

25% of a manpower in the developed countries are occupied in the sphere of science and high technologies today. In USA 8% of the population create over 20% of the gross domestic product (GDP), and the country spends about 40% of universal expenses for research and development (Research and development). At the end of the 20th century the American gross national product (GNP) was created almost for 45% in scientific researches, education, health care and production of the software [12].

Along with education, *investments in health of the person are the most important*. The economic value and the importance of health for accumulation of the human capital are unconditional. Low level of life expectancy in the country automatically includes in number of priority costs of investment of maintenance of health that promotes extension of human life, and, therefore, and time of functioning of the human capital.

The basic documents of the international community, which are determined by the realization of the concept of human development in the education sector are the Jomtien Declaration adopted at a UN conference in 1990 and the Dakar Declaration adopted in 2000 at the World Education Forum in Dakar. In 1990 the index of human development (IHD) – the compound index defining the average level of achievements of the country in the following three main measurements of human development is accepted at the international level:

1. Index of the expected life expectancy which in a certain degree can be considered reflection of a condition of health system and social security of the country;

2. The education level index reflecting degree of literacy of adult population (15 years old and more) and coverage of the population primary, secondary and higher education and thus characterizing a condition of an education system of the country;

3. The worthy standard of living measured by size of GDP per capita in US dollars at par of purchasing power (PPP).

The set of factors, including civil liberties, social security, indicators of health and cultural development of the population, crime rate, environmental protection and others is considered. The index of human development is the total indicator of a level of development in the country and qualities of life accepting values from 0 to 1. The countries which have IHD 0,9 or higher are named as developed countries by definition of experts of the UN, and the countries which didn't reach this level are named as developing countries. The index of human development within 0–0,499 is considered low, 0,500–0,799 – an average, 0,800–0,899 – high, more than 0,900 – very high [13].

The choice of these indicators is caused by that, for example, the labor capacity of society increases due to reduction of incidence and traumatism that leads to increase in number of labor and expansion of scales of work.

Investments into the person become more and more favorable and priority sphere of the state and private investments. In the conditions of formation of the global society founded on knowledge, the national intellectual capital becomes a basis of economic welfare, a factor of political power of the state, defining its place in constantly changing global division of labor.

Conclusion. Today scientific and practical reserves in the world literature, and also high qualification of performers of the project allow to hope for achievement of end positive result – development of the effective mechanism of development and introduction of the highly skilled and mobile human capital during social modernization of the country and increase of its competitiveness.

The further course of reforms in Kazakhstan in many respects depends on overcoming of negative tendencies and creation of conditions for successful development of the human capital. The guarantee of economic growth of the country and welfare of the population lies on it. Kazakhstan is in great need in the accelerated development of the human capital of new type. It, first, will give chance to Kazakhstan to compete in growth of labor productivity due to progressive technologies on an equal basis with other countries, secondly, it is a renewable inexhaustible resource, and thirdly, it is the capital collecting for the future – the capital of future generation. The analysis of a labor situation in Kazakhstan shows that already now oil and gas, machine-building and metalworking branches have faced an acute shortage of qualified specialists.

Training of the person in innovative economy is the main source of innovations. Therefore transition to an innovative way of development is connected, first of all, with large-scale investments into the human capital.

The received methods of an assessment of influence of the human capital on economy (1-9), will allow to give an approximate assessment to efficiency of effort of the state in human capital development in Kazakhstan. Adaptation of results of foreign researchers to conditions of Kazakhstan is one of the most important problems of the forthcoming researches in this program.

Today it is an actual to refer expenses on fundamental scientific developments to investments into the human capital. Development of science has: creation of intellectual innovations on the basis of which new production technologies and ways of consumption are formed and also transformation of people who act as carriers of new abilities and requirements. In information society the science turns into a peculiar generator of "the human capital".

The main problems of development of the higher education are [14]:

- about 4,0% of GDP are allocated for education in Kazakhstan when this indicator in the developed countries makes up to 16% (12). Insufficient budgetary financing is the reason of low level of informatization and introduction of modern technology, decrease in level of teaching, etc.;

- shortage of qualified personnel. The main reason for shortage and leakage of qualified specialists at schools and universities is low payment of their work;

- principles of the Bologna process and the credit system introduced in the universities is not enough. Independent work of students is not fully implemented, so that the students do not develop the ability of independent work. Assessment of students' knowledge using tests inhibits their creative thinking, reduces performance skills before an audience. It is necessary to form a combination of final and interim control of students' knowledge. It should be used as a test, as written and oral knowledge of how this is accepted in the best universities of the world;

- in the Kazakh HIGHER EDUCATION INSTITUTIONS the number of scientific developments and their introduction 10 times less than at the western universities, and also the number of scientists of Kazakhstan is less than in 50-60 years of the last century. Scientific capacity of universities and research institutes is used not effectively, conditions for attraction of talented youth in science aren't created;

- lead of system of training from practice and modern requirements. Use of dual system of training of specialists which is successfully applied at the advanced universities of the West is important in the solution of this problem (14).

Results of the analysis of the International institute of the Person have shown that the following fundamental problems remain unresolved in an educational system and educations except the above-stated problems:

- traditions of a totalitarian educational system (where the basic principle is the separation from tradition and culture of indigenous people) remain in many child care facilities;

- in the middle of the 19th century colonialists in the steppe opened the displaced schools for the native people for the purpose of training of translators, clerks, "tolmaches" ... who realized policy of the owner.

One of the main features of our economy along with raw orientation are the fact that she is strongly dependent on external factors. The excessive external debt, transfer under management of the main part of economy of the foreign companies for 30-50 years, etc. is the reason for that. To minimize dependence on external factors and to provide a sustainable development of the country first of all it is necessary to develop the human capital. It, first, will give the chance to increase labor productivity due to

development of technologies which to provide competitiveness, secondly it is a never-ending and renewable resource, and also the accumulated capital of future generation.

According to the project mechanisms of the innovative production technology, information-communication systems will be developed along with education, science, medicine and the spiritual and humanitarian sphere, and also the new control system of economy will be prepared. Development of the human capital and high technology are concrete measures for implementation of the accelerated transition to innovative economy and transition to post-industrial society. Kazakhstan has great opportunities which allow to develop and use sciences and technologies for increase of global competitiveness of the country and improvement of an economic and social status of the population.

REFERENCES:

- [1] Друкер П. Практика менеджмента. Пер. с англ.: М.: Изд. дом «Вильямс», 2006. 400с.;
- [2] 2.Wilhelm, W.: Revitalizing the human resources management function in a mature, large corporation, in: Human Resource Management, Summer 1990, Vol.29, N2. URL: http://www.bea.gov/scb/pdf/2010/06%20June/0610_christian.pdf (дата обращения: 11.10.2012).
- [3] Feroli, Michael. "U.S. Recession and Repression Are Only in Our Minds." Global Data Watch. J.P. MorganChase, 30 Sept. 2011. pp. 11-12 URL:https://mm.jpmorgan.com/htp/t/c.do?i=339CCFF3&u=a_p*d_687313.pdf*h_levfkon (дата обращения: 11.10.2012).
- [4] Believe in America: Mitt Romney's Plan for Jobs and Economic Growth 160p. URL:<http://www.mittromney.com/sites/default/files/shared/BelieveInAmericaPlanForJobsAndEconomicGrowth-Full.pdf>(дата обращения: 11.10.2012).
- [5] The account about the development of a man, 2012. Human Development Report 2012: Sustainability and Equity: A better Future for All http://www.un.org/content/undp/en/home/librarypage/hdr/human_development_report,2012.html.
- [6] (Lio G. Measuring the Stock of Human Capital for Comparative Analysis: An Application of the Lifetime Income Approach to Selected Countries. OECD Statistics Working Papers 2011/06. Paris: OECD, 2011).
- [7] Аким Ж.М., Дудин И., Акимов Г.Ж. Егемен Казакстан. 18.08.2013 <http://egemenkz>.
- [8] Ваганян О.Г. Управление формированием и развитием интеллектуального капитала коммерческих организаций // Автореферат на соискание ученой степени кандидата экономических наук, М., 2008.
- [9] "Kazakhstan in the years of independence". The statistical collection. The agency of RK on statistics. Astana, 2011.-194p.
- [10] Becker G.S. The economics of crime // Cross Sections. 1995. Fall. P. 8 - 15. или в Интернете по адресу: <http://www.rich.frb.org/cross/pubs/crime.html>.

- [11] The account of WEF. 16-18 Apr 12 WEF on Latin America 2012, Puerto Vallarta, Mexico www.investincolombia.com.
- [12] Вершинская О.Н., Тюрюканова Е.В.. Человеческий капитал в свете электронного развития <http://www.rich.frb>.
- [13] The state program of the development of education of RK on 2011-2012. Almaty, 2011;
- [14] Meldekehanova M.K. The Human's capital and the stable development of Kazakhstan: the theory, priorities and mechanisms of realization. –Almaty: 2011.-341 p.

Additional literature

1. Майбуров И. Эффективность инвестирования в человеческий капитал в США и России // МЭ и МО. – 2004. №4.
2. ПРООН. 2004. Доклад о развитии человеческого потенциала в Российской Федерации за 2004 год / Под ред. С.Н. Бобылева. – М.: Весь мир. – с. 12.
3. Горегляд В.П. Инновационный путь развития / ЭКО № 12, 2005, С. 2-8.
4. Дятлов С.А. Теория человеческого капитала: Учебное пособие. СПб.: Изд. СПбУЭФ. 1996. С. 38.
5. Капелюшников Р. Современные западные концепции формирования рабочей силы. – М.: Наука, 1981, С. 16.
6. 7. 8. Шапошник С. Б. Мониторинг как инструмент разработки и совершенствования стратегий и программ развития информационного общества. (doklad_641.doc).
9. Бурова Е.Е. Социальные и политические аспекты развития человеческого капитала в Казахстане (Бурова.doc)].
10. Корицкий А.В. Введение в теорию человеческого капитала: К 667 Учебное пособие – Новосибирск: СибУПК, 2000. – 112 с. (Корицкий.doc)
11. Хадиуллина Ю.В. Развитие человеческого капитала в процессе становления инновационной экономики : дис. . канд. экон. наук : 08.00.01 Чебоксары, 2006 177 с. РГБ ОД, 61:07-8/1643 (Хадиуллина.doc).
12. Андреев Ю.Н. Человеческий капитал в инновационной экономике (Andreev.doc).
13. Исследование и анализ индекса развития человеческого потенциала регионов Украины. (разные ссылки.doc).
14. Мониторинг и анализ перспектив развития карьеры выпускников (карьера выпускников.doc)
15. Сущность интеллектуального капитала (капитала.doc).
16. Дж. Л. Гибсон. Организация: поведение, структура, процессы / Пер. с англ. 8-е изд. М.: Инфа-М, 2000. с. 85.
17. Доклад по высшему образованию в рамках совместного проекта МОН РК и Всемирного банка и Программы совместных экономических исследований, 2007 г. 188 с.

INFORMATION AS ONTOLOGICAL CATEGORY, TOGETHER WITH SUBSTANCE AND ENERGY

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ABSTRACT

We brought arguments in favor of the ontological character of information, along with energy and substance, as well as the structural-phenomenological unity at all scales and levels of reality. We used an interdisciplinary, inductive-deductive methodology, within the broad framework of the naturalistic conception. Our argumentation started from the current reality, which is the impact of information technology, of information networks, of virtual reality and of artificial intelligence, insisting on the role of information in the gnosiological approach. The preponderance of a logical reductionist positivism in scientific research, as well as the exaggerated focus on the particle and high energy-physics, but also a certain axiomatic blockage connected to the existence of the immaterial, made it possible that the problem of information be almost completely eluded. Even Shannon and Weaver's information theory considers information only from a quantitative viewpoint, and only through its relation to entropy and the second law of Thermodynamics. The development in the non-linear dynamics field of chaos theory, fractal geometry and topology, and especially the spectacular development of information technology in the last two decades, necessitates a systematic analysis on defining information and its importance in the structuring of reality along with energy and substance. From this perspective, all our concepts, starting from physical reality to psychological imaginary reality, can be coherently understood through the same paradigms, irrespective of whether we are talking about the conservation law, the Euclidean dimension, fractal or topological dimension or the multidimensional processing mechanism through syntactic, semantic, pragmatic and hermeneutic processing of the human and artificial language and knowledge. This new paradigm is the informational one, which assumes the existence of a functional, phenomenological, potential background represented by information and which can be mathematically modeled through topology.

Keywords: information, semantics, topology, phenomenology.