

PROSPECTS FOR STRUCTURING A UNIVERSAL SYSTEM OF PSYCHOLOGICAL ASSESSMENT OF HUMAN CAPITAL

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Abstract

In this article are analyzed main approaches of human capital and the role of psychological component of it, as well as the selection of content elements in order to search universal algorithm of assessment of psychological components of human capital. It is supposed that transition and modification of assessment of the human resources to assessment of psychological capital will allow expanding the functional opportunities of effective usage of investments and economical resources. The results of researches and practical work of long lasting years are presented, about the introduction of psychological diagnosis methods for personnel selection in governmental, non-governmental organizations, educational organizations and sport teams. Problem of elaboration of universal and adequate system of psychological assessment of human capital gets unique actuality for countries in the stage of political and economic structural reforms.

Key words: psychological capital, human capital, transformation, universal system, psychological assessment, selection, professional activity.

Many post-soviet union countries after political system transformation, including Armenia, are interested in problem of investments in economy of the country, which will lead to development and risk reduction and this means that economic stability, breakthrough, diversification and formation of a reliable business “sphere” is achieved. In the core of political and economic reforms as a rule lies understanding of “capital” in its direct meaning and it are being analyzed by its purely socio-economic indicators.

In the human capital concept, initially developed by economist Teodor Shulz (Theodore W. Schultz, 1961), it is proved and the scientifically valid advantages of investment in education on national level are presented [1]. It is clearly defined in article published by author in 1961 that “...Economists have long known that people are an important part of the nations” and that investments in human capital can explore many questions which are linked with economic growth. [2] In this way, concept of Human Capital(HC) is being anchored in economy and is becoming more scientifically popular. Nowadays there are numerous goals and definitions linked with HC concept in numerous disciplines, including economics, political science, psychology, sociology as well as in industries of human capital and intellectual capital management. Group of Nebraska University scientists have defined non-material construct of human and social capital, meaning positive

psychological capital. Authors have presented scheme of HC links consisting of four blocks: “Traditional economic capital” – “Human capital” – “Social capital” – “Positive psychological capital”. From the first glance, authors interpretational analysis of presented scheme is simple enough: “human capital is simply “what you know,” whereas social capital is “...who you know.”” [3; p. 46]

The described scheme highlights the correlation of all blocks and emphasizes a certain meaning and deep psychological significance of HC. After many years all postulates of HC concept are not in contradiction with “Capital” of Marx, whose scientific work is involuntarily associated with the basics, specifically with roots of examined problem. For example, in one of interpretations it is said that “Human is also a product of work, as any of its produced machines and it is presented to us that in any economic research it should be viewed from that perspective. Any individuals, who have approached adulthood, can be viewed as a machine, which has needed 20 years of proper care and significant capital expenses. If an additional amount is spent on his upbringing or qualification for implementation of his work, which needs special skills, his cost increases proportionally, just as machine acquires a higher cost, if additional capital or work is spend in order to increase its production capabilities” [4]

If we use allegory to this interpretation, namely, considering individual as a “machine”, then there is a need to first design, manufacture, install, adjust and only then “use” it. This sequence is the basis of a certain system “Value of HC”. Continuing to use same vocabulary, it can be added, that “the machine” should have maintenance, meaning continue the planned and preventive repairs, change the worn out parts etc. Transferring this comparison, means that specialist (Basic term of HC), before becoming as it is, should go through certain “steps” described above.

A step-by-step examination of such a system of “value of HC” allows to distinguish the following stages: professional orientation in high school, education at a secondary or higher education, start of labor activity (narrow special education for adaptation), the main stage of labor work, additional education or training (advancing qualification or requalification) etc. At the same time, constant care, both of the person himself and his employer, about health and social needs is necessary. In this set of issues of the formation and “exploitation” of the Cheka, a special role is played by public administration institutions, which should purposefully use the levers of power, coordinating the stability of the work of this complex system.

On the other hand there is a broader interpretation of the components of HC, namely, all expenditures during lifetime (family, education, culture, organizations and state). [5] From the standpoint of task consideration, which organization is facing towards employer, it becomes obvious that that they largely coincide with

those that have been solved over the years in the human resources management system, i.e. in the context of control theory. According to I.A. Maiburova economic development of the country is impossible without a thorough understanding of the essence of human capital, and for this it is also necessary to turn to the highlighted "... K. Marx's fundamental property of the category "capital" - as self-increasing value." [6; p.57]

Further, the author emphasizes the close relationship between the various components of human capital, among which the need to improve the educational level of the individual is highlighted. And this factor, in its turn, forms additional incentives to increase the capital of health, culture and, accordingly, increases the person's motivation to engage in labor activities. The latter will lose their significance and the specialist will remain a potential resource if he, being healthy and motivated, is not included in the process of employment. [6] Thus, the importance of the relationship between the economic and psychological components of managing the development process of human capital is emphasized, which, of course, must come from a reliable system for assessing it at each stage of career growth.

A theoretic-empiric study involved an analysis of the foundations of the concept of human capital and the role of the psychological component in it, as well as the identification of substantive elements in order to find a universal and adequate algorithm (for Armenia and similar countries) for assessing the psychological components of human capital. It was assumed that the transition from the assessment system in the management of human resources, its modification, to the psychological assessment of human capital will expand the functionality of the effective use of investments and economic resources. When considering psychological prospects in economic indicators, researchers, based on international standards, indicate that the Human Development Index (Human Development Index) is a statistical indicator of the assessment of human development in each country. This indicator is made of a combination of "life expectancy index", "education index" and "income index".[7] All these components are interdependent, and their growth, respectively, leads to an increase in the total human development index of a particular country.

Studies of international experience in the assessment of human capital indicate that mainly indirect economic and social are used. The author rightly notes that in the presence of high indicators of the human development index, the efficient use of all resources is observed. And this implies the presence of a corresponding integral indicator of the quality of human capital, which is formed by the level of development of psychological characteristics (perceptual, cognitive, personal and emotional qualities).[8] A similar assessment system should be based on integrative psychological evidence-based methods. Obviously, the economic

instrumentation, consisting of certain mathematical algorithms and modeling methods, allows you to measure financial capital, and psychological, having an extensive methodological apparatus in the arsenal, with the appropriate combination, evaluate - "human capital". This assumption requires consideration of the history of the development of formation and the current state of effectiveness of applied methods of psychological assessment (conversation, interviews, standardized and projective tests, test tasks).

While analyzing the advantage of the transition from personnel management to human resource management Andreeva (2015), focusing on the concept of "human capital", notes that the construction of this concept is associated with the consideration of those qualities that can become sources of income for a specific person, and for the enterprise, organization, and, in general, for the state . [9] For this reason, the psychological approach to the assessment of human capital is in macro importance (the state), and the assessment of human resources in micro, since it covers only the interests of the organization or, to the maximum, the industry.

It is a known fact that in the Netherlands HRM policy uses a computerized personnel information system, from which all HR information is generated monthly by HR.. Continuing to meet the public demand for more, better and faster statistics, the workforce will require selective recruitment, and investment in education and training. To support the management in implementing our HRM-policy, we make use of a computerized personnel information system, from which monthly HR management information is generated. The distribution of employees at Statistics Netherlands is fairly high percentage - 70% [10]. And in the economic literature it is noted that the largest number of studies in the theory of human capital is related to the effectiveness of investments mainly in education, and from the many characteristics that make up a person's potential, he studies those that significantly affect income changes (health, creativity, professional skills, level of education, enterprise, mobility). [11]

It is obvious that the effectiveness of both the first and second approaches will largely depend on the timely and objective assessment of not only professional parameters (knowledge, skills, abilities, competencies), but also necessarily the assessment of psychological characteristics, which were mentioned above (A.I. Yuriev , 2009). In the representative international journal *International Review of Industrial and Organizational Psychology*, the problem of human resource management was examined from the standpoint of equity, distribution of remuneration, insurance, organizational practices, motivation management, etc. It also refers to innovative concepts, contradictions and scientific contributions for the period analyzed by a number of authors in the 1980-90s (S. Haslam, N. Ellemers, S. W. Gilliland, L. Paddock and many others). [12]

However, in these works, no connection is revealed, and parallels are not drawn with issues of investment or human capital management. One way or another, the components of the human resource management process subsequently became components of the practical issues of assessing and developing human capital. N. Bontis et al, considering the problem of managing intangible resources, identified four applied aspects of its measurement, namely, accounting for human resources, added value, balanced scorecards and intellectual capital. [13, p. 391] Afterwards, human capital was characterized as a factor in the integrated intelligence of the organization, which, as its element, ensures the implementation of a number of functions necessary for the development of the organization: the ability to learn, change, introduce innovations and provide a creative approach. [13] And in this context, the question again arises of the use of psychological measurement tools. More often, problems arise due to standards that mainly relate to psychometric issues. The well-known principles of psychological assessments, first of all, relate to decision-making problems in the selection, placement or promotion of personnel. [14]

Consider the results of many years of research and practical work on the implementation of psychological diagnosis methods and participation in the selection process in state and non-state organizations, educational institutions and sports teams (police, military departments, banks, the judicial system, public administration departments, educational institutions and sports teams) . The published certain part of the results of these studies addressing the problems of completing the methods, computerizing the testing process, choosing the parameters to be evaluated, etc., indicates the need for continuous improvement of the psychological tools for evaluating a specialist, schoolchild, student, athlete and others.[15]

Compilation of the research results and the practical implementation of various methods of psychological assessment allowed us to conclude that an integrated approach is necessary, which implies duplicate parameter estimates, preliminary studies based on expert estimates, a comparison of different methods and an “accessible” interpretation of their indicators. Two options of the acquisition of psychological diagnostic methods were also tested: comprehensive computer-based testing, blank group and individual testing in complex with an interview and special test tasks.

We have also come across many times spontaneous applications for psychological diagnostics for an organization that either proceeded from the requirements of institutional reforms (modernization of the personnel selection system, increasing the objectivity of assessing professional suitability, minimizing subjectivity in recruiting specialists, and the need to obtain detailed psychological

characteristics of a person specialist and his competencies), or by order of management to improve the management system of human by sources.

Over 12 years, the results of an assessment of more than 2,000 cases have been collected. Based on the analysis of the results of this scientific practice, a universal model was developed for combining psychological diagnostic methods for organizations of various fields (state, non-state, service, educational, etc.). The model of psychological assessment of human capital provides for two blocks in which a different combination of tests and other valuation methods. So, for example, the first block is named «Computer-based testing unit»(Eysenck's PI and EPQ, Big Five and NEO personality test, DAP, Cattell's 16F test, Raven's test, assessment of perceptual processes, knowledge assessment). This group of methods was developed for computer diagnostics and implemented in the selection process carried out with the following organizations: Admission to Police Academy, Preliminary assessment of judges, Athlete Selection, Police Recruitment. The second group of selection methods is applied in the traditional format (interview, job assignments, Big Five personality test, DAP, TAT, Rorschach's test, BRAQ, A. Raven's test, EQ test, assessment of coping strategies, test assignmentc, projective tests), which has found application with the following organizations: private business companies, the state judicial system, associations, sports federations, etc.

We envisage that the proposed assessment methods will complement the well-known Psychological Capital Test ("PsyCap" Test by Fred Luthans, Bruce J. Avolio, & James B. AveyPsyCap, 2007)

Practice shows that employers formally related to psychological testing, mainly in the selection of personnel, give preference to interviews, analysis of documents and recommendations (resumes, CVs, autobiographies, diplomas, certificates, characteristics, etc.). Skepticism towards testing is present not only among employers, but also among psychologists themselves. And tests of a projective type are often ignored, apparently, due to the complexity and ambiguity of the interpretation. Most likely, this is due to the fact that projective diagnostics involves special training, special knowledge and skills.

Thus, we can talk about the need to prepare for the process of psychological evaluation, both customers and psychologists themselves. There are also questions related to the "barriers of a strictly" scientific approach, since in the process of assessing psychological parameters and interpreting them, the customer needs accessible terminology and the applied value of the data obtained.

In one of the 2018 research reports on the issue of checking the educational level in the United States analyzed statistically contradictory data for assessing student performance and highlighted additional characteristics that would allow us to develop a psychological approach to assessing human capital. Authors, citing

well known studies on the basic criterias of human capital (Becker G.S., 1964; Kiker B.F., 1966; Lubinski D., 2000) are based on psychological characteristics such as interests, knowledge, personal qualities and skills of students.

Thus, we can outline the prospects for the psychological taxonomy of human capital, which can be represented in the following sequence: "psychological assessment in vocational guidance" - "psychological assessment in the process of education" - "psychological assessment in the process of professional activity". The development of a universal construct for the psychological assessment of human capital requires a careful selection of diagnostic methods and a meta-analysis of studies on the example of countries with a similar level of economic development. At the same time, constant monitoring of the dynamics of changes in psychological parameters that can accumulate to form an individual data bank and statistical characteristics of educational and economic development trends is necessary. The main customer of such monitoring and the global policy of the development of the Human Capital is ultimately the state, and the initial stages of investing in an individual are the prerogative of the family. Moreover, in many countries in national and family traditions, the education of children has a special place. For countries with a small population, limited resources and at the stage of permanent reform, based on the principle of staged life cycle, the issues of timely and comprehensive assessment of the psychological capital are of particular relevance. The consistent implementation of a system for assessing the psychological component of human capital will create a "catalog" of potential investment paths at all stages of personality development.

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ПЕРСПЕКТИВЫ СТРУКТУИРОВАНИЯ УНИВЕРСАЛЬНОЙ СИСТЕМЫ ПСИХОЛОГИЧЕСКОЙ ОЦЕНКИ ЧЕЛОВЕЧЕСКОГО КАПИТАЛА

Ключевые слова: психологический капитал, человеческий капитал, трансформация, универсальная система, психологическая оценка, отбор, профессиональная деятельность.

В данной статье анализируются основные подходы рассмотрения человеческого капитала и его психологической составляющей, а также выбор элементов контента для структурирования универсального алгоритма оценки психологических компонентов человеческого капитала. Предполагается, что переход и модификация системы управления человеческих ресурсов на оценку психологического капитала позволит расширить функциональные возможности эффективного использования инвестиций и экономических ресурсов. Представлены результаты исследований и многолетней практической работы внедрения методов психологической диагностики при отборе персонала в государственные, неправительственные организации и образовательные организации. Проблема разработки универсальной и адекватной системы психологической оценки человеческого капитала приобретает уникальную актуальность для стран на этапе политических и экономических структурных реформ.