

Human Capital as an Element of Integrated Reporting

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Abstract—The article is devoted to the discussion of the concept “human capital” in general and in terms of its representation in the Integrated Reporting and the Sustainability Reporting. Scientific views on the concept “human capital” are systematized and its main characteristics are highlighted. A theoretical model for presenting human capital in the reporting of a new generation has been proposed, and a grouping of specific indicators for public disclosure of information about human capital has been developed.

Keywords—*labor resources, human capital, innovative economics, integrated reporting, system of indicators, qualification, report’s transparency.*

I. INTRODUCTION

At present corporate reporting is being developed integrating the key indicators dealing with not just traditional financial data (such as property, capital, debt, income, expenses, profit etc.) but also non-financial data of various sides of business (social, ecological etc.). Reporting has to evolve as there is a demand to reflect changes in users’ needs, informational technologies, peculiarities of doing modern business [7, 11, 15].

The present model of financial reporting that focuses on the further moments is being criticized [21]:

- financial reporting cannot solve the required problems, creates false impression about the company because it is “historic”, quantitative and just “financial”;
- inadequate reflection of intangible assets in reporting – the most of intangible assets created “inside” the company do not take the test on recognition of assets in accordance with International Financial Reporting Standards (IFRS) and therefore they are not shown in the balance sheet;
- insolvency of assessments on historical value – it’s necessary to base a new approach on current value; fair value is relevant nowadays.

One of the main disadvantages to be considered is a complete absence in financial reporting such key aspect of modern companies’ work as human capital. If to take into consideration the basic principles of innovative economics, for example, that profit is mainly created by innovator’s intelligence and informational environment, but not by material production and concentration of finances, we see that this is human capital that provides superiority of the majority of the developed countries. But at the same time, it is not reflected in many companies’ reporting. As the consequence, reading annual financial reporting users concerned are not able to understand all factors that create the company’s value [13].

So, what indicators, what data must be include into The New Reporting? Global Reporting Initiative (GRI) and International Integrated Reporting Initiative (IIRC) are trying to answer this question (Fig. 1). The organizations mentioned above develop standards that are used by companies when forming the Integrated Reporting and the Sustainability Reporting. As we see in Fig. 1, a disclosure of human capital data is taken into consideration in both sources [22], [23].

II. RESEARCH OUTLINE

According to the data of Russian Regional Network on Integrated Reporting [30], in 2017 the Integrated Reporting and the Sustainability Reporting was represented by 48 companies, that is 7,7% less than in 2016 but 9% more than in 2015 (Fig. 2).

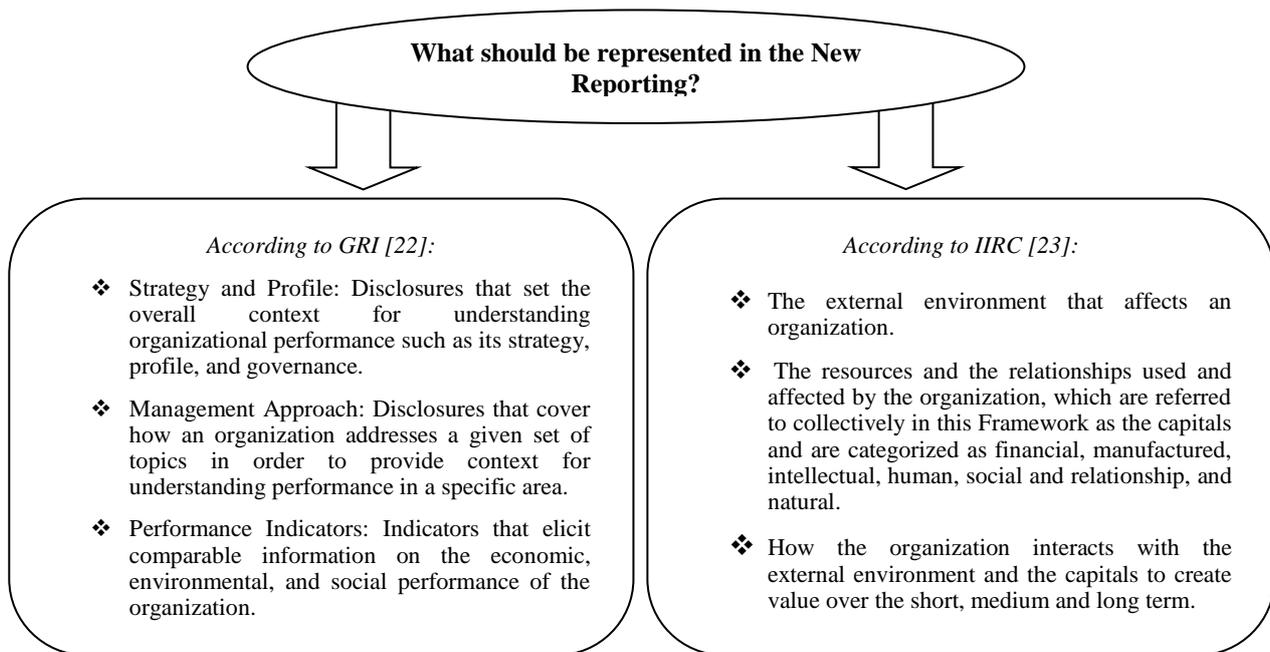


Fig. 1. Recommendations of GRI and IIRC regarding disclosure of information in the New Reporting
Source: compiled by the authors on the source data [22], [23]

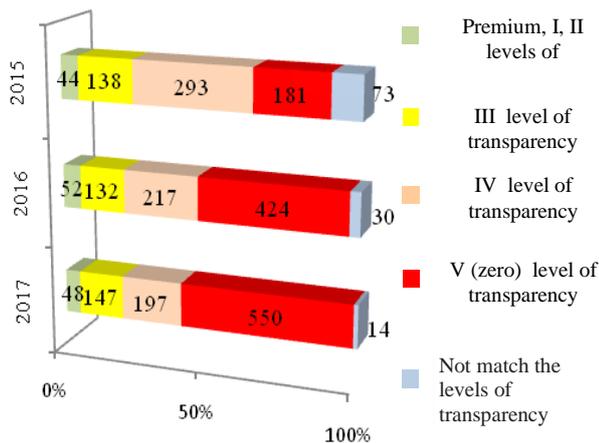


Fig. 2. Structural dynamics of Russian Companies by the level of transparency, 2015-2017
Source: compiled by the authors on the source data [30]

The analyses show, that although the number of companies, publishing new reporting, has increased for 3 years, but in general there is a tendency of transparency decreasing. We think that one of its reasons is a lack of methodological recommendations on how to represent certain sections of such reporting.

In the frames of the research the authors had an aim to study such section of the Integrated Reporting as Human Capital (HC). According to financial reporting, published by the majority of organizations in Russia, it is impossible to understand what human capital is as because it is not any information in the reporting about labor at all. Even those organizations that supply their reporting with an explanatory statement, do not reveal HC indicators. The only source of information about labor resources is statistical reporting that is not available in public access.

To understand the term “human capital” the authors used comparatively-historical method that allowed identifying the main characteristics of this concept.

After studying the scientific references [1, 2, 6, 8, 13, 18, 22, 23, 31] the authors have made an attempt to systematize the human capital indicators in the Integrated Reporting. The empirical evidence is based on the Integrated Reporting and the Sustainability Reporting in 2017 represented by five foreign and five Russian organizations, chosen by accident: AXA Equitable Holdings, Inc. [24]; Hitachi, Ltd. [25]; Konica Minolta [26]; SAP [28]; Solvay [29]; JSC “ATOMREDMETZOLOTO” [17]; PJSC “NPO ROSNEFT” [27]; JSC “Siberian Coal Energy Company” [17]; JSC “Ural Electrochemical Plant” [17]; JSC “Electrochemical Plant” [17].

III. HUMAN CAPITAL FRAMEWORKS

The approach to consider human capital as one of the factors of economic processes effectiveness was prevailing for a long time in XVIII-XIX centuries (for example, A. Smith, K. Marx). Human knowledge and skills as well as an ability to use them became the more noteworthy priority by the middle of the XX century. The question how to build effective social systems, that could continuously update qualifying level of labor force, arose. A question of great importance at that time was to build such system of human capital management that could keep productivity at the appropriate level as well as calculation of the optimum costs on education, health care, labor safety etc. Employees` education and qualification as well as scientific and intellectual potential have become the decisive factor of the economic growth.

The term “human capital” was used for the first time by J. Mincer [16] in 1958, although it is known that T. Shults and G. Becker are considered to be the founders of the modern Theory of Human Capital. T. Shultz introduced the

term “human capital” as a productive factor that can influence the results of business entities` activity [19], [20]. T. Shults believed that improving quality of the labor force is a natural result of additional investments in education as well as the technical progress. G. Becker [4], [5] justified the effectiveness investment into human capital and formulated the economic approach towards human behavior. He transferred the notion “human capital” on the level of a company and offered the theory of the direct relationship between investments growth in human capital the company`s profitability growth.

The concept of HC was further developed in the works of Y. Ben-Porath, H. Bowen, E. Denison, J. Kendrick, J. Heckman, P. Carneiro and other scientists. In Russia the theory of HC was interpreted by S. Strumilin, D. L. Volkov, S. A. Dyatlov, I. V. Iljinskyi, R. I. Kapelyushnikov, Y. A. Korchagin, M. M. Kritskyi, V. Marzinkevich, I. V. Soboleva and other scientists. On the modern stage of the Theory of HC (XXI century) development the national human capital is recognized to be the main intensive moving factor of economics and the society (Table 1).

Thus, the notion “human capital” cannot be unambiguously interpreted. Although in the studied definitions we can find some common features:

1. The scientists consider the issue of human capital as a complex of such individual`s characteristics that can lead to the growth of effectiveness and innovations development on three levels – individual, corporative and national.
2. Human capital and human resources are two different notions. However, it is impossible to view this type of the capital separately from the individual himself, consequently, an employer “rents” the employee`s skills in order to get profit from human capital. But at the same time, it can happen so that there is an abundance of human resources while there is a human capital deficit that causes a negative economic effect.
3. It is necessary to invest into human capital (on education, training, health care, migration etc.).

IV. SYSTEM OF INDICATORS TO DISCLOSURE OF HUMAN CAPITAL IN THE INTEGRATED REPORTING

Taking into account the above mentioned peculiarities of HC it is quite interesting to view the methodology of its assessment to include it into the Integrated Reporting.

TABLE I. MODERN APPROACHES TO HUMAN CAPITAL DEFINING, ASSESSMENT AND CLASSIFICATION

Authors	Approaches to human capital defining, assessment and classification
N. Bontis (2001) [6], G. Roos and S. Pike (2007) [18], S.I. Agoston (2014) [2], D. Andriessen (2004) [3]	They consider HC as a part of Intellectual Capital together with Structural Capital and Relational Capital. According to them, HC plays an important role in an organization as it is the main source of innovations and characterizes the personnel`s ability to offer decisions in accordance with clients` needs. HC is everything that is connected with employees: their knowledge, talents, competencies, experience, attitude etc. The scientists consider employees` creativity and innovations to be an indicator and premise of a regional prosperity.

J. Heckman, P. Carneiro, L.J. Lochner, P.E Todd (2003, 2006) [9] [10]	They showed that HC is a complex dynamic process. Investments in HC at the early stage have a huge synergy effect, the certain skills create the other skills, early investments create late investments, and investments in non-cognitive skills at the early age turn to be more important than investments in cognitive skills at later time.
D. Acemoglu, D. Autor (2011) [1]	The authors explored the impact of modern technology on the role of the HC in the economy. They argue that the rapid spread of new technologies leads to the replacement of the HC in tasks previously performed by moderately skilled workers.
R.I. Kapelyushnikov (2012) [12]	He has valued the development of HC. To calculate the value of HC he offered the following source data: probability of surviving, levels of employment, wage indicators, education levels, enrolment rates, consumer price index. The analyses showed that in 2000s years Russian economics became more and more “man-capitalistic”. The dynamics of HC was negatively influenced by such factor as population ageing and positively influenced by decreasing death rate, changes in educational structure, educational activeness of the youth, a better situation with employment and real wage growth.
Y.A. Korchagin (2013) [14]	HC is a part of creative labor resources (creative class), their material highly qualitative supply, qualitative saved knowledge, smart and high technologies, annually producing a part of innovative and knowledge-based production in GDP, that is competitive at the world market.
IIRC (2013) [23]	“Human capital – people`s competencies, capabilities and experience, and their motivations to innovate, including their: alignment with and support for an organization`s governance framework, risk management approach, and ethical values; ability to understand, develop and implement an organization`s strategy; loyalties and motivations for improving processes, goods and services, including their ability to lead, manage and collaborate”.

If to be guided by the Handbook GRI, it is mostly oriented on opening investments into human capital, human resources movement and human rights respect. The International Standard of Integrated Reporting gives more general recommendations how it is necessary for organizations to represent the strategy of human capital management in reporting. Basically, both international documents [22], [23] provide for the possibility to calculate various rates, thus do not refuse completely from quantitative indicators.

We offer several groups of HC indicators for its disclosure in the Integrated Reporting; each group is attributed with a relevant code (table 2).

We think that it is quite logical and advisable to use the system of quantitative and qualitative indicators selected in the light of materiality criterion.

TABLE II. THE SYSTEM OF HUMAN CAPITAL INDICATORS IN THE INTEGRATED REPORTING

Group 1		Group 2	Group 3
<i>Labor Resources</i>		<i>Investments into Human Capital</i>	<i>Employees Physical and Social Security</i>
Block A. Labor Productivity Index			
Block B: Qualitative (not measured)	B1.1. Personnel Engagement, Satisfaction and Loyalty B1.2. Description of forms and payment systems	B2.1. Directions of investments in Human Capital in future B2.2. Collaboration with Universities on Training Issues B2.3. Policy of Performance Management of the Personnel B2.4. Personnel Professional Development	B3.1. Description of Labor and Health Safety Actions and Actions Providing Optimal Working Conditions B3.2. Description of social programs for the personnel B3.3. Relations with Trade Unions, Assessment Compliance with Labor Standards and Human Rights
Block C: Quantitative (measured)	C1.1. List and average number of staff C1.2. Staff Turnover according to age, gender and region C1.3. Dynamics and Structure of Personnel Number according to Qualification Level, Education, Age, Gender etc.	C2.1. Average Time of Training for one Employee a Year according to Categories of Employees C2.2. Labor Costs and their Dynamics C2.3. Education and Advanced Training Costs in the whole and per Employee C2.4. Insurance Contribution and Payroll Taxes C2.5. Ratio Wage Level to Average Industry and Regional Levels	C3.1. Employment Injury Index C3.2. Frequency of Fatal Accidents at work Index C3.3. Expenses on Social Programs for Employees C3.4. Work-Related Illnesses Index C3.5. The Number of Workers on the Conditions of Collective Agreements C3.6. The Number of Labor Disputes

Source: by the authors.

The first group includes the Indicators that characterize Labor Resources – these are classical economic indexes reflecting presence, movement and condition of labor as one of the types of the organization’s resources. Studying the structure of 10 Integrated Reporting showed that this group’s indexes are reflected in most organizations. It should be noted, that the indicator “B1.1. Engagement, Satisfaction and Employee Loyalty” (table 2) belongs to the group of qualitative ones, though, for example, in SAP company Employee Engagement Index and Business Health Culture Index are defined as quantitative. Business Health Culture Index evaluates the degree how corporative culture supports people’s wellbeing, a balance between work and private life and the company’s staff health in the whole.

The second group concerns the Indicators, characterizing Investments into Human Capital and reflects the employer’s investments into the present staff’s maintenance and development: education, re-training, advanced training, the policy of financial incentive and personnel policy. According to empirical data, qualitative indexes in this group (B2.1 – B2.4) are disclosed in 9 from 10 companies analyzed in our work. Consequently, 90% of the Integrated Reports studied here correlate with the international demands and modern tendencies of transition to qualitative characteristics orientation to perspectives (in part of Human Capital). Quantitative data in this group (C2.2 – C2.5) is represented only in 50% of reports. Thus, these indexes are quite important to understand how much the company spends on staff’s maintenance and development. However, we have to say that we can see average time of training for one employee a year (C2.1) in all 10 reports (Table II). Some companies introduce a percentage figures of workers trained.

The third group – Indicators of Employees Physical and Social Security – is characterized with low transparency. The only index disclosed in 100% cases is “B3.1. Description of Labor and Health Security Actions, and Actions Providing Optimal Working Conditions”. We can see the lowest transparency in “C3.5. The Number of Workers on the Conditions of Collective Agreements” and “C3.6. The

Number of Labor Disputes” (10%) while the other indexes of this group are presented in 30-50% of the Integrated Reports. In our opinion that the importance of this group is unreasonably undervalued. Physical and social safety are the very things every worker tries to get, these are the things that influence the personnel attracting and retaining, increasing productivity and profit, competitiveness, business reputation, personnel and investors’ confidence. Those companies trying to hide their problems in this sphere won’t be trusted.

Labor Productivity Index is placed in a separate block (Block A in Table II), as it can be referred to any of the three groups: as a rule, it appears to be the main index of effective use of human resources, effective investments in Human Capital, and it is also influenced by the factors of physical and social safety of the personnel.

V. CONCLUSIONS AND FUTURE RESEARCH

The importance of our model is that the System of Human Capital Indicators in the Integrated Reporting is structured according to two directions:

- first, they completely disclose the identified in chapter III peculiarities of Human Capital;
- secondly, the indexes are systemized according “quantity/quality” or “measured/descriptive”.

In our opinion this approach makes reporting more informative, eliminates corporative bodies of management misunderstanding on what is considered to be essential when representing Human Capital in reporting, and provides the balance between “quantitative and qualitative” without unnecessary “total (integral)” indexes in the reporting.

The further directions of the research are the issues of compilation the initial data for calculating and description of the represented HC indicators groups in the Integrated Reporting as well as the audit questions of the information given.

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