

## IMPACT OF HUMAN CAPITAL ON COMPANY'S VALUE

Edyta Ilczuk  
Maria Curie-Skłodowska University, Poland  
edyta.ilc@gmail.com

### Abstract:

The 21st century is the time of effective human capital management. Today, a major factor that makes the company competitive advantage in the market is human capital. Experience, hard skills and soft skills of employees make it possible to increase profitability and the value of the company. The purpose of this article is to present the impact of measuring human capital on the value of an enterprises. In the future the use of reporting on human capital will be even more important in achieving competitive advantage, and managers pay more attention to the development of skills of workers. The proper measure of human capital is very important in a growing economy.

*Keywords: company valuation, value of human capital, human capital, financial method*

Knowledge is considered to be the main source of values for modern companies. Economists emphasize more frequently the value of nonmaterial components; one of them is intellectual capital that consists of human capital, intellectual assets and intellectual property<sup>1</sup>. Human capital is becoming one of the factors determining competitive advantage; the growth of its meaning is caused by constant changes in economic reality<sup>2</sup>, which is transferring from industrial age economy (based on economies of scale) to knowledge-intensive economy (based on technological potential and high level of human capital)<sup>3</sup>. It is confirmed by research conducted by Educational Research Institute (IBE) on 941 companies. Respondents were asked to point out the most significant sources of values for organizations; 47% indicated that the most important factor influencing the value of organization is human capital<sup>4</sup>.

The notion of human capital has been known since 1960s; it was associated with employees investing in themselves (additional education and obtaining new skills), which led to the increase in income and improvement of labor efficiency<sup>5</sup>. There are numerous definitions of human capital in literature and economic practice; they are listed in Table 1.

**Table 1:** Human Capital – Definitions

| Author                   | Definition   |
|--------------------------|--|
| A. Bron,<br>M. Armstrong | Knowledge, skills and potential used for development and introduction indicated by people working in a certain company   |
| D. Ulrich                | Competences multiplied by engagement   |
| A. Sajkiweicz            | People permanently connected with company and its mission, characterized by the ability to co-operate, attitude creativity and qualifications. They compose company's motto and heart, without whom further development of company is no longer possible |

<sup>1</sup> A. Paździor, *Zarządzanie wartością współczesnego przedsiębiorstwa*, Politechnika Lubelska, Lublin 2015, s. 15.

<sup>2</sup> D. Lewicka, *Zarządzanie kapitałem ludzkim w polskich przedsiębiorstwach. Metody, narzędzia, mierniki*, Wydawnictwo Naukowe PWN, Warszawa 2010, s. 29.

<sup>3</sup> E. Dworak, *Mierzenie gospodarki opartej na wiedzy w krajach Unii Europejskiej*, E. Dworak, T. Garbia, W. Kasperkiewicz, W. Kwiatkowska, *Gospodarka oparta na wiedzy innowacyjność i rynek pracy*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2014, s. 13.

<sup>4</sup> Ł. Sienkiewicz, *System zarządzania zasobami ludzkimi w oparciu o kompetencje w świetle badań ilościowych*, Ł. Sienkiewicz, K. Trawińska-Konador, K. Podwójcic, *Polityka zarządzania kompetencjami pracowników*, Instytut Badań Edukacyjnych, Warszawa 2013, s. 36.

<sup>5</sup> *Kapitał ludzki a kształtowanie przedsiębiorczości*, red. M. Juchnowicz, Poltext, Warszawa 2004, s. 121–127.

|  |   |
|--|---|
| A. Gableta   | It is inseparably related to physical, psychical, intellectual as well as moral traits of certain human beings  |
| B. Kożuch  | Knowledge and skills resource obtained in the process of education and professional training as well as health and virtual energy resource  |
| M. Rybak   | People supposed to cooperate with each other – people permanently connected to company and its mission  |
| J. Grodzicki   | Knowledge, skills and possibilities of human beings that have economic value for organization   |
| A. Pocztowski  | Specific traits and properties personalized in employees (knowledge, skills, abilities, health and motivation) that have a specific value and constitute the source of forthcoming income both for employee – the owner of human capital as well as for organization that makes use of this capital on defined conditions |
| Centrum Badań Edukacyjnych i Innowacji                 | Knowledge, skills, competences and other traits possessed by employees, which are essential from the point of view of business activity   |
| Organisation for Economic Co-operation and Development | Knowledge, skills, abilities and other proper attributes that allow to create a personal, social and economic welfare   |

Source: Own elaboration based on: A. Baron, M. Armstrong, *Zarządzanie kapitałem ludzkim*, Wolters Kluwer, Kraków 2008, H. Król, *Kapitał ludzki organizacji*, H. Król, A. Ludwiczynski, *Zarządzanie zasobami ludzkimi. Podręcznik*, Wydawnictwo naukowe PWN, Warszawa 2006, M. Juchniewicz, U. Tomczyk, *Kapitał intelektualny podmiotów gospodarczych a konkurencyjność regionów*, Instytut Badań i Analiz Grupa OSB, Olsztyn 2015, s. 55, 81, *Kapitał ludzki w Polsce w 2015 r.*, Studia i analizy statystyczne, Główny Urząd Statystyczny, Gdańsk 2016, s. 3.

These definitions confirm that human resources possessed by companies are an element contributing to the increase of its competitiveness and market value.

Companies that aim at increasing their market value by making use of the increase in employees skills may achieve that by applying two strategies: “create” or “acquire” human capital, which is connected with paying certain expenses and costs that companies desire to control. The growth of the meaning of human capital for organizations (companies) has contributed to development of various conceptions and methods to measure the value of employees<sup>6</sup>.

Methods used to measure human capital may be divided into two groups:

- financial methods – represented in the form of money allowing to measure human capital on the level of human being and whole societies
- qualitative methods – showing qualitative changes in human capital by means of an array of factors.

Financial method appeared in 1960s. Human capital value was measured as discounted value of future cash flows – in income-based valuation or through costs capitalization – in cost-based method. Values estimated this way in the form of money were placed in balance sheet as a complement of physical and financial capital. Income-based method presented the value of human capital through discounting its future cash flows. The main objection for this model was its excessive simplification and exclusion of significant variables (e.g. employee's departure). Cost-based approach was based on capitalized sum of expenses incurred in order to support and educate a human being (costs of recruitment, employment and trainings)<sup>7</sup>. Current methods used to measure human capital refer mostly to cost-based method and are based upon<sup>8</sup>:

- historic cost – cost of acquiring and further training of employee
- replacement cost of human resources – costs related to departing of an employee, acquiring a new employee and further educating them
- alternative cost – opportunity costs.

<sup>6</sup> D. Dobija, *Pomiar kapitału ludzkiego i możliwości raportowania wyników*, <https://www.ipiss.com.pl/wp-content/uploads/downloads/2012/03/2dobija.pdf> (data odstony: 24.04.2017), s. 31.

<sup>7</sup> G. Łukasiewicz, *Metody pomiaru kapitału ludzkiego*, [http://ur.edu.pl/pliki/Zeszyt6/04\\_Lukasiewicz\\_Grzegorz.pdf](http://ur.edu.pl/pliki/Zeszyt6/04_Lukasiewicz_Grzegorz.pdf) (data odstony: 24.04.2017) s. 40-43.

<sup>8</sup> B. Wyrzykowska, *Pomiar kapitału ludzkiego w organizacji*, s. 6, [http://www.wne.sggw.pl/czasopi\\_sma/pdf/EIOGZ\\_2008\\_nr66\\_s159.pdf](http://www.wne.sggw.pl/czasopi_sma/pdf/EIOGZ_2008_nr66_s159.pdf)

Qualitative methods including non-financial character of human capital value are presented in Table 2.

**Table 2:** Methods Used to Measure Human Capital – Qualitative Methods

| Method  | Questions   | Indicators   |
|---|---|--|
| Indicator of condition/resource of human capital  | What human capital do we dispose?                       | <ul style="list-style-type: none"> <li>- Structure of employees based on education</li> <li>- Average period of time of hired employees</li> <li>- Average age of employees</li> <li>- Number of hired/fired employees</li> <li>- Indicator of admissions</li> <li>- Indicator of fluctuation</li> <li>- Indicator of employee movement</li> <li>- Level of motivation</li> <li>- Number of sick days attributed to/used by employee</li> <li>- Women quota in employment</li> </ul> |
| Indicators of investment in human capital         | What are we doing for the development of human capital? | <ul style="list-style-type: none"> <li>- Number of trained employees</li> <li>- Number of conducted trainings</li> <li>- Average expenditures on trainings</li> <li>- Expenditures on trainings</li> <li>- Average cost of training</li> <li>- Quota of trainings cost in relation to general company costs/work costs</li> <li>- Expenditures on health care</li> <li>- Average number of training days per employee</li> <li>- Indicator of internal employee movement</li> </ul>  |
| Indicators of investment effects in human capital | What effects do our actions have?                       | <ul style="list-style-type: none"> <li>- Labor effectiveness</li> <li>- Costs related to employees' sickness</li> <li>- Costs of fluctuation</li> <li>- Level of motivation</li> <li>- Work time</li> <li>- Accidents at work</li> <li>- Number of complaints/conflicts</li> <li>- Number of reported improvements/ideas</li> <li>- Profitability of work costs</li> <li>- Profitability of human capital</li> <li>- Added value of human capital</li> </ul>                         |

Source: Own elaboration based on: A. Rutkowska, *Istota kapitału ludzkiego i wybrane metody jego pomiaru* ([http://jmf.wzr.pl/pim/2012\\_1\\_3\\_29.pdf](http://jmf.wzr.pl/pim/2012_1_3_29.pdf)).

Financial productivity analysis of human capital is allowed by indicators presented in Table 3.

**Table 3:** Measure of Human Capital – Quantitative Indicators

| Indicator                                   | Means of calculating   |
|---|--|
| Human Capital Return On Investment (HC ROI) | Revenue – (operating costs – capital costs)/capital costs                        |
| Human Capital Value Added (HCVA)            | Revenue – (operating costs – capital costs) / number of employees (FTE)          |
| Human Capital Revenue (HCR)                 | Revenues from sales of products, goods and materials / number of employees (FTE) |
| Profit per Full Time Equivalent (PFTE)      | Sales revenue / number of employees (FTE)  |
| Pre tax & interest profit per FTE (PPFTE)   | Gross revenue / number of employees (FTE)  |

Source: Own elaboration based on: Mentel G., Migala-Warchol A., Sobolewski M. (2014), Wpływ kapitału ludzkiego na wyniki finansowe organizacji, Zeszyty Naukowe Uniwersytetu Szczecińskiego nr 803, „Finanse, Rynki Finansowe, Ubezpieczenia” nr 66, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin, s. 395–408.

The Polish Agency for Enterprise Development (PARP) conducts research related to implementing Human Capital Measurement Tools. The results reveal that over half of the responded companies carry out an analysis or measurement of human capital. Respondents pointed out cost reduction (81%), possibility to take better personal decisions (80%) as well as defining human capital return on investment

(70%) as the main purpose to measure human capital. Areas that are most frequently subjected to analysis are: costs of remuneration, absence and employees' trainings. To a lesser extent measures based on employees' manners, return on investment and economic value added are applied. One of the barriers against analyzing and measuring human capital is insufficiently qualified employees and overly high costs of conducted measurement; some do not recognize the need to measure human capital. There tends to be a belief in most companies that investments in human capital constitute an unnecessary cost that could be avoided by company. Moreover, companies are unable to indicate simple circumstances that would dictate investment in employees; most companies do not have sufficient knowledge on the subject of measurement methods and according to many managers improving competences of employees increases a probability that they would leave to work for a competitive company.

It also turns out that the market lacks tools to measure human capital that would include sectional research considering cost, performance, quality, time-quantity and financial measurements. Human Capital Measurement Tool is distinguished through regarding qualitative and quantitative data, it also allows to analyze research and is adapted to the conditions of the Polish economy; its authors point out a low cost of conducted research by means of this tool. One of the advantages of the Human Capital Measurement Tool is the possibility to generate reports on the condition of human capital that comprise essential information both for internal and external users<sup>9</sup>.

The main advantage of measuring human capital is indicating to entrepreneurs directions of actions leading to increasing engagement and satisfaction of employees, which translates into increasing their job performance, thus financial results and goodwill are also increasing. Other advantages include: creating a common organizational culture, more effective communication, strengthening of processes fostering cooperation between various groups of company's stakeholders, smaller employees rotation and greater community of objectives<sup>10</sup>.

The development of economy based on knowledge leads to increase in the meaning of human capital. It generates a need to measure and further analyze human capital. Methods presented in literature of the subject are mostly foundation to theoretical considerations in regard to their imperfection or inaccessibility of indispensable data. An innovative solution to measure and report human capital is suggested by PARP; tool presented by this agency has been positively tested and is gaining interest among a greater number of entrepreneurs. Measurement and analysis of human capital has undoubtedly an impact on improving companies operation and increase in economic results. It is required to further improve available methods to measure human capital in order to create a model suited to modern companies.

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<sup>9</sup> Zmierzyć najtrudniej mierzalne. Dobre praktyki pomiaru kapitału ludzkiego w przedsiębiorstwach, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa, 2015,  
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