Human capital reporting as a source of reliable information for marketing communication process in a socially responsible company

Wojciech Koziol1,a

1Accounting Department, Cracow University of Economics, Cracow, Poland

Corresponding author: koziolw@uek.krakow.pl

Abstract: Over the last years, we can observe the rise of social awareness in relations to the social responsibility of enterprises, especially in the developed countries. The rise of demand for this type of information is primarily faced from the side of stakeholders, especially the customers. In effect, the information on the socially responsible actions of companies is becoming a topic of marketing communication. At the same time, the company’s efficiency measures in relation to the undertaking and communicating of socially responsible actions is an important information for stakeholders, especially investors. The aim of this paper is to present the original method of the company’s human capital reporting. The report can be a basis of standardized and reliable information on the value of human capital and the level of monetary compensation for the human capital. This information can be very useful for the marketing communication as it allows for the evaluation of fulfilment of company’s obligations towards employees. The article represents a case study of two Polish companies. For each employee of the researched companies, the value of human capital has been estimated according to the original measurement method fully based on the measurement principles applied in accounting. It led to the construction of a report allowing for the structure analysis of employees’ human capital. Moreover, the report allows for defining of the human capital compensation level. The cost of human capital is 8% annually – as a result, the report allows for the statement of fairness of real pay. Development of human capital reporting represents not only the social aspect of the CSR research but also comes up against expectations placed on a financial reporting in the face of the increase of importance of intangible resources for the company’s output.

Keywords: Corporate Social Responsibility, CSR reporting, marketing communications, human capital, human capital reporting.

1. Introduction

One of the most frequently mentioned tasks of enterprises is generating of profit and multiplying the owners’ capital. Half a century ago M. Friedman claimed, that companies have only one duty towards the society – taking actions to maximize profit, together with abiding by current rules of a market game [1]. However, in
contemporary enterprises one can see more and more frequent attempts to combine economic effectiveness with carelessness of preserving ethical rules with reference to the society and natural environment. The effect of these actions is the creation of a concept called Corporate Social Responsibility (CSR). In the last three decades, Corporate Social Responsibility has become an important issue in the business community. It has broad consequences for the process of management, especially in the aspect of strategic management.

The Concept of Corporate Social Responsibility is defined as the integration of social and environmental aspects in everyday activity of organizations and in the relationships among stakeholders based on voluntariness. Within the CSR activities one can distinguish the ethical, ecological and social aspects. The European Union was ratified in 2000 in Lisbon resolution, which next year led to work out and publish by European Commission “Green Book” [2]. In 2000 in Lisbon, the EU ratified a resolution which one year later led to publishing of the “Green Book” by the European Commission.

The specificity of the CSR concept is its voluntary character. On the other hand, participation of a company in the global market, arises obligations towards the society and natural environment. It includes commitments towards stakeholders which are not imposed by administrative methods or the necessity to rely on the voluntary methods. To take actions in this field enterprises are motivated by the international institutions’ reports, social pressures and above all the observed potential financial benefits. As a result, CSR often amounts to promotional activities, directed to a chosen group of stakeholders, that ensure a big probability of achieving financial benefits within a relatively short period of time [3].

The activities undertaken in the sphere of CSR are undoubtedly socially useful, however, there appears a question of the range of advantages for enterprises if the activities are introduced. The direct benefit is the improvement of a company’s reputation. The reputation and image of a company are basic elements of its competitiveness. It is worth mentioning, that the social awareness and pressure on the issue of society and ecology are growing steadily. The lack of reaction to these issues from the side of an organization creates its negative image. Moreover, the combination of activity in the field of CSR with a proper reporting generates additional benefits. It favors the reduction of information gap concerning the functioning of an organization, increasing in this way the interest of investors. What is more, well-formulated reports allow the management staff to realize the existence of important problems, enable identification of trends in researched areas and finally to give an incentive to constructive changes [4]. In the western societies we can notice the growth of sensitivity and interest in the social issues. Consumers are becoming less materialistic and more often search for the moral stabilization. As a result, they more often engage with helping others and pro-social actions [5]. They are willing to devote their own time and money to organizing actions against the irresponsible companies. For around 70% of consumers in Western Europe it is important if a company fulfills its obligations towards the society. One out of five consumers is willing to pay more for products offered by socially responsible companies [6]. CSR actions affect also the investors’ behavior. It is caused by the correlation between the growth of company’s market value and the scope of information disclosed in annual reports related to the employees’ competencies [7].

There is a tight bond between CSR and the type of relationships between stakeholders and investors. Stakeholders are defined as entities that affect a given organization or that are influenced by this organization [8]. Whereas investor relationships are managing the information flow, mainly in the field of finance,
marketing and strategy, to investor society. Nowadays there is a postulate to widen the extent of duties of an organization within the framework of investor relationships to a considerably wider level of relationships with all the stakeholders. Contemporary investors are more and more frequently interested in not only data concerning a traditionally understood potential of organization, but also in its relationship with the environment [9]. One of most important group of stakeholders are customers.

CSR became the research issue as well as governance issue on the area of marketing. [10]. From the perspective of social system, marketing can be defined as ‘an integral and inherent part of society’. Marketing must take into account the value for both the society and stakeholders. This is the reason why CSR is the inherent aspect of the nature of marketing. From the marketing perspective, CSR can be defined as a concept of a social process aiming at achieving expectations of the society and stakeholders, which can be achieved through the use of marketing tools and techniques [11]. A potential of combining of CSR with marketing proves that expectations of shareholders not always are limited to the aspects which are in the interest of themselves but can take into account interests of other groups [12]. Above mentioned fact proves the observed change in the forming of consumers’ opinions on a company. Consumers form their opinion not only in a traditional way based on product-related factors but also by paying attention to the CSR aspects of a company [13].

The relationship between CSR practices of a company and a consumer expectations and perceptions are still relatively underdeveloped in the literature. Due to the increasing consumer expectations of CSR and pressures on business to behave and communicate in a responsible manner, it is essential to identify the factors that have an effect on those expectations. Research results suggest that consumers expect socially responsible actions, especially ethical, legal and philanthropic to be undertaken by companies. Achieved research results may suggest that there is an economic potential for positioning companies as socially responsible and implementing CSR in strategic marketing and communication process [14]. The research conducted by W. Elving proves above mentioned observations to be true. Moreover, the author suggests that care must be taken while communicating socially responsible actions. Inadequate selection of communication forms and its content may rise consumers’ skepticism [15]. The consumers pay significant attention not only to the content of communication but also to the motives of a company’s action. Skepticism rises when consumers are aware that the reason for the action is self-interest rather than the benefit of society. If a consumer thinks that a company uses CSR primarily to improve the self-image, then it gives a reason for skepticism and questioning of the socially-responsible attitude of a company [16]. Companies are becoming aware of the necessity to include socially-responsible themes in traditional product advertisements. According to the research, between 2002 and 2007, the amount of advertisements including pro-social and pro-ecological content increased four times [17].

Concept of CSR is based on three pillars: business, environment and social issue. There are of equal value and can’t be seen isolated from one another. These three pillars constitute sustainability triangle called by J. Elkington as a triple bottom line. This accounting framework went beyond the traditional measures of profits, shareholder value and return on investment to include social and environmental dimensions. Mentioned triple bottom line dimensions are also called 3Ps: people, planet and profit [18]. The ‘people’ dimension of the CSR relates to the human
capital. A balanced economic growth requires respecting of mechanisms of reproduction of this capital, thus creating proper conditions to preserve its value. One of them is the adequate level of remuneration of human capital workers that are at disposal of an organization. This issue demands system report solutions which allow to measure human capital and to assess the level of payment. This area, although of a vital importance, is not legally regulated and is not encompassed by regular, standardized economic practice. Moreover, reliable, systemically received and presented data on human capital in the organization, can become a database for marketing communication of implementation of obligations towards employees by a the organization.

2. Human Capital reporting as the socio-economic measure of CSR

Due to multiple publications and research of the CSR, significant amount of ideas, concepts and solutions appeared. Despite of that, reporting and operational activities from this range are discretionary and described as ambiguous [19]. The practice of functioning of CSR in organizations should be characterised by long-term strategic activities. They should determine the following elements: the range of operation, the scope of activity, measures [20]. The last of the listed element is connected with the problem of CSR reporting. It is just the question of reporting that is devoted less attention in the studies of CSR, although the research of this area increased over last years. Reports should present information formulated in a way based on a given account standard which will allow to make a comparative analysis and they ought to be objective, which will allow the user of the report make their own analysis [9].

The company must take the responsibility for the actions influencing society and natural environment. In the case of a harm being done to the society or nature, a company has a duty to admit its fault and to repair it, even if it is going to have negative impact on the financial condition of a company [21]. It means that the organization should sufficiently refund used resources by covering real costs needed to recover the resources. This remark is obvious when it comes to financial or material resources. If an organization does not fulfill this duty, it is not seen as reliable. Moreover, there are legal and institutional tools of the duty execution. On the other hand, in the case of natural or social resources (including human capital) use, the matter of its recovery is not so obvious. Still, every aspect of an organization activities, requires introduction of reliable measurements of the organization’s responsibility. Those measurements may be expressed in monetary terms or in terms of an index. The benefit of using monetary terms measurements is its comparability, including comparability with financial aspect of an organization’s activities. On the other hand, it may be problematic to estimate value of the social or natural resources used by an organization. The use of terms of index creates difficulty with comparability with financial aspect of the organization’s activities. Still, if there is universally accepted method, it allows for comparisons between companies, geographic regions etc. The problem which can limit the universalism is the matter of wages used to construct an index. As the most important elements of socio-economic index, following can be mentioned: personal income, cost of unemployment, unemployment rate, employment distribution of sector, median household income, relative poverty, health adjusted life expectancy and crimes per capita [22].

Sweeney L. and Coughlan J. present higher value of annual reports over other forms of business communication. The authors point at possibility of establishing
better forms of CSR reporting, in a way that will enable comparison between organizations. Analysis of 28 annual reports of companies listed in FTSE4Good index suggests that preparing separate CSR reports being part of the annual report is becoming a common practice. Moreover, the authors suggest CSR communications specialists to get familiar with reporting problems from the accounting perspective. It is because of the opportunity to benefit from the use of financial reporting [19].

This article postulates the CSR reporting practice to move towards broadening expectations towards traditional financial reports. According to International Accounting Standard Board Conceptual Framework financial statement has to fulfill following qualitative characteristics [23]:

1. Relevance requires financial information to be relevant to the decision making needs of the users,
2. Materiality requires accountants and auditors to focus on financial information which is expected to affect the decisions of the users,
3. Faithful representation requires the financial information to be true and fair and free from misstatement,
4. Comparability requires the financial information to be comparable across periods and across companies,
5. Verifiability requires the information to communicate the underlying economics of the company’s business,
6. Timeliness requires disclosure of financial information not to be excessively delayed,
7. Understandability requires the financial information to be understandable by users with reasonable knowledge of business and economic activities.

Sufficient organization of reporting of several aspects of CSR may contribute to broadening of the information range of the traditional financial reporting. It may also limit the broadening information gap caused by the growth of importance of human resources for effects of the organizations output.

3. The methodology of human capital measurement and the cost of its share of the employer

Human capital as a social and economic category as well as subject of the periodic reporting, requires sufficient and theoretically justified definition and rules of measurement. Moreover, if the human capital reporting is to become a basis for the organization’s performance evaluation, it is necessary to establish criteria for such an evaluation. The model of human capital presented in this part of the article allows for the long reaching implementation of the demand of using theoretical and practical accounting achievements for the evaluation of CSR. Moreover, it allows for the reliable valuation, in monetary units, of the use and compensation of the human capital, which is a socio-economic resource.

According to classical definitions, economic sciences analyze the processes related to wealth growth, distribution and consumption. This objective from the human capital point of view, remains valid and important. Wealth growth, distribution and consumption are closely interlinked, what can be seen on field of human capital. Wealth growth mainly indicates production processes and growth understood in broad sense at all economic levels, including international unions, micro business activities and household activities. However, maintaining an optimal pace of growth requires adopting a responsible system for participation in the
manufactured products. In other words, it requires an appropriate system for distributing the generated wealth. A compensation system is one of the major mechanisms for income distribution. Compensation systems, an area of research in management sciences, include compensation strategies, practices and procedures. In practice, organizations implement their own systems, but their frameworks reflect the functioning of labour market and business environment.

Human capital is one of the most frequently researched areas in economic sciences in the last decades. The dominant research area is the one undertaken by T. Shultz and G.S. Becker, marked by the concept of investing in people [24]. This programme has led to researching a number of economic issues including education and household economics. It should be noted, however, that unlike in the alternative research approach presented by the Author, traditional research studies do not give much attention to the concept of "capital". Many authors offer vague definitions of capital, referring to it as something that is undoubtedly positive and valuable. This simplification has resulted in a great number of traditional research programmes focused on various economic problems. However, a comprehensive analysis of key economic issues, e.g. the triad: capital-labour-money, requires a scientific research study of capital preceded by a description of its characteristics.

The starting point for formulating a proper theory of capital (and then human capital) is the statement that capital – unlike specific and heterogeneous assets - is abstract, aggregated and homogenous in character [25]. This differentiation is reflected in the 5-century-old accounting principle of asset-capital dualism. Capital defined as the ability to perform work is represented by resources, while capital concentration in a given facility determines its value.

Capital is a dynamic category, and its understanding requires identifying the factors which have an impact on changes to its value, especially the time factor. A dynamic model of capital changes is presented by formula [26]:

\[ C_t = C_0 e^{rt} = C_0 e^{(p-s-m)t} \]

Capital is subject to three key environmental factors: natural capital flow subdued to spontaneous diffusion (s), factors diminishing the impact of destructive forces as a result of work and management (m), and an 8% natural potential growth (p). The level of 8% economic constant of potential growth is confirmed by a number of research studies, especially in the area of rates of return in capital markets where it is reflected in risk premiums in the analysis of rates of return on human capital and agricultural products [27]. These factors can increase the initial value of capital (C_0) or lead to its dispersion. Another important implication of the presented model is the fact that capital does not originate from “nothing” – it originates from initial capital (C_0).

Human capital is based on capitalized resources necessary to build the economic potential to perform work by humans. In the first place, it includes the costs of professional education increased by the costs of living. It is necessary to incur the costs of living to prepare the physical carrier of human capital – the human body. Costs are incurred in time (t), which is necessary to prepare people to perform a given profession – from the time of birth to the moment of starting a professional career. If the human body is well prepared and a young person completes his/her education as planned, it indicates that capital diffusion (s) is compensated for by parents’ efforts (parameter m). A formula of capital can be developed for employee (H_t), where initial outlays are represented by (H_0), constant economic value (p) and capitalization time (t) [26]:

\[ H_t = H_0 e^{pt} \]
This human capital model can be further extended to represent capital as the sum of capitalised costs of living ($K$) and education expenditures ($E$). These outlays lead to the ability to perform work, and this ability increases in the course of gaining experience. The supplementary formulas represent the development of human capital based on the costs of living $K$ and education costs $E$:

$$H(T) = (K + E) \cdot (1 + Q(T))$$

In the case of annual capitalization the particular human capital components can be presented in the following way:

$$K = k \cdot 12 \frac{e^{p} - 1}{p}$$

$$E = e \cdot 12 \frac{e^{p} - 1}{p}$$

where: $k$ – monthly costs of living, $e$ – monthly education costs and the remaining values as presented above.

The process of gaining work experience can be graphically presented as a learning curve. This concept assumes a slower pace of an increase in the work potential in the course of subsequent work cycles (repetitions). It can be assumed that an employee performs a given task in the following year with greater efficiency ($\%$), but efficiency increases slower in the course of time. The adjustment of the learning curve to the needs of the human capital model facilitates estimation of increased human capital in the course of work (gaining experience). This additional value of human capital is subject to valuation and is integrated into the human capital structure as capital combined with experience. Experience factor ($Q(T)$) is expressed by the function of years:

$$Q(T) = \frac{\ln(1-w)}{\ln2} - T$$

where: $w$ = learning factor, $T$ = years of work experience $T>1$

A chart which presents human capital increase for a person with a university degree is presented in Fig. 1. In the Polish education system students start their studies at the age of 19 and attend their programmes for 5 years. Consequently, the period of cost of living capitalization is 24 years, while education cost capitalization corresponds to a 5-year university programme. After graduation people are obliged to start work. Work leads to gaining additional skills which originate from experience-based capital $Q(T)$.

Fig. 1. A graphical representation of human capital creation

Fig. 2 presents human capital increase for a person with an MA degree. Annual costs of living ($K$) are estimated at PLN 10,000, and they are capitalised for 24 years. Annual education costs ($E$) are at the level of PLN 4,000, and they are capitalised for 5 years. This person completes higher education at the age of 24, starts work and
gains experience which enhances work abilities resulting from capital combined with experience ($D(T)$).

![Graph showing human capital increase for a person with MA degree in Polish zlotys](image)

**Fig. 2.** Human capital increase for a person with MA degree (in Polish zlotys)

The ability of assets to perform work is a prerequisite for their existence. Retaining the value of capital embedded in assets requires taking action counteracting destructive forces ($s$). This statement refers particularly to human capital. Human capital is subject to natural dispersion and this fact is the basis of fair compensation theory. Research indicates that fair compensation must balance human capital dispersion, it need income determined by mentioned above 8-percent economic constant of potential growth and human capital value of worker. Such defined fair salary, is an equal of real cost of human capital utilization by company. Fair compensation theory is one of the factors which make the alternative human capital research programme different from the programme undertaken by T. Shultz and G. Becker [28].

A carrier of capital, including human capital, is affected by the capital dispersion process expressed in the general model as $e^{-st}$. Human capital retention is conditioned by an appropriate flow of income which compensates for human capital dispersion. In the case of humans, losses result from the nature of life. Retaining the value of human capital requires incurring compensation costs resulting from preparing future generations to perform work of the same value. In other words, fair compensation should maintain the ability to perform short- and long-term work. The loss rate expressed by random variable $s$ is at average level $p = E(s) = 0.08$/year. Simultaneously, it represents the constant economic value indicating the level of fair compensation ($W$) [26, 29]:

$$W = H(T) \cdot p$$

Lower compensation levels decrease human capital value. In practice, it manifests itself in the parents’ difficulties in ensuring the same level of education for their children. A compensation system based on human capital measurement requires individualised knowledge about employees’ competences. Information on education and experience is essential in setting the level of fixed compensation
components. Human capital measurement is a key component of compensation systems.

4. Reporting of human capital

A report on a chosen field of an organization activity is a formalized way of settling with a group of stakeholders. In some areas (especially the financial ones), reporting is legally normalized and presents the concern of a state about the stakeholders. However, these days the stakeholders’ expectations are much greater, especially while facing the growth of importance of intangible resources which are not included into compulsory financial reports. Moreover, societies expect from enterprises activities that favour a balanced development. Still, there are problems with expanding the range of reporting required by law when these two postulates are taken into consideration. According to Y. Ijiri [30], a subject of measurement can only be facts that are possible to identify, as well as there should exist a possibility of identification of measures (a precisely defined process of measurement). A basic problem is the lack of substantiation of the subject of reporting, and this concerns both non-material resources and socially responsible activities.

The resources of an organization are a subject of measurement and reporting. In a narrow depiction resources are a legal property of an company, however from the wider point of view, according to International Accounting Standards and International Financial Reporting Standards, the criterion of controllability. A company, on the basis of employment contract, receives human capital available and is responsible for its use taking the risk of disposing this capital and is obliged to fair settlement with human capital owner.

As stated before, human capital is liable to precise valuation, whilst decent level of human capital payment is written into the problem of socially responsible activity. The information required to create such a report is the data that allow to ascertain the value of human capital worker, especially the information concerning their education and work experience as well as data of a given worker’s earnings.

The research presented in this article has been conducted in two Polish organizations from the construction industry and utility sector. In total 701 employees were subject of analysis. Based on the HR and payroll documentation, evaluation of the individual value of human capital of each employee has been conducted. Data on the individual value of human capital of the employees were compared with their total income. Such data allows to create a sample report (table 1).

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenter</td>
<td>280876,8</td>
<td>11687,4</td>
<td>40616,2</td>
<td>333180,4</td>
<td>35830,1</td>
<td>10,75%</td>
</tr>
<tr>
<td>Accountant I</td>
<td>343214,7</td>
<td>21119,8</td>
<td>37688,5</td>
<td>402023</td>
<td>31309</td>
<td>7,79%</td>
</tr>
<tr>
<td>Construction manager</td>
<td>500736</td>
<td>44955</td>
<td>91659</td>
<td>637350</td>
<td>49140</td>
<td>7,71%</td>
</tr>
<tr>
<td>Accountant II</td>
<td>274572</td>
<td>16222</td>
<td>50216</td>
<td>341010</td>
<td>21915</td>
<td>6,43%</td>
</tr>
</tbody>
</table>
Table 2. Comparison of the results of report on human capital in the analyzed companies

<table>
<thead>
<tr>
<th></th>
<th>Utility company</th>
<th></th>
<th>Construction company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on human capital</td>
<td>Total human capital</td>
<td>Capital from the costs of living (K)</td>
<td>Capital from the costs of education (E)</td>
</tr>
<tr>
<td></td>
<td>19853477</td>
<td>17512420</td>
<td>564977</td>
</tr>
<tr>
<td>7.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on human capital</td>
<td>236952357</td>
<td>202399406</td>
<td>11137046</td>
</tr>
<tr>
<td>8.16%</td>
<td></td>
<td></td>
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</tbody>
</table>

The table 2 shows results of the report on human capital from both companies. In the company from utility sector, the level of human capital compensation is lower
– it represents 7.9%. It means that employees receive pay which covers 99% of the human capital cost. As a result, 1-2% pay rise is suggested. In the second researched company, the level of human capital compensation is 8.16%. It means that the pay exceeds the cost of human capital. As a result, we can suggest that both companies nearly fully fulfil their obligations towards employees and the society, what is represented is a sufficient level of pay.

The presented description of the human capital reporting system allows for the broader range of conducted analysis. Among others, it can be applied to the analysis of data divided according to the criteria of work type, production unit or regional unit (in the case of global companies).

**Conclusion**

A report concerning human capital can be a source of value added of an organization. Lack of regular reporting is responsible for the fact, that stakeholders can receive incomplete or incomprehensible information concerning a given area of functioning of an organization, which may result in poor use of the potential in this particular area [31]. For instance, if basing on the human capital report one can conclude, that the level of human capital remuneration is about 8% it means that the employees are well paid. The received salary allow them to recreate the human capital. This fact undoubtedly gives evidence in favour of an enterprise.

The transparency in the area of payment can influence positively workers’ morale and attitude as well as reduce the risk of perturbation in the employer-employee relationship, especially strikes. Information about the value of human capital is the foundation for the improvement of the effectiveness of its use, thus improvement of work productivity. Moreover, it can make an additional dimension of the financial planning process, especially in labour cost area.

The debate on human capital from the economics perspective takes place for decades. Just a few years after the famous publication by G. Becker [28], the first attempts of systematization of rules of measurement and reporting of human capital occurred, such as the one of Lev B., Schwartz A. [32]. Despite of the significant progression of the research and interest in this subject, no widely accepted method of measurement and reporting of human capital was developed.

The method of human capital measurement discussed and applied in this paper is based on centuries old achievements of accounting in the aspect of measurements. As a result, it allows for obtaining of an economic data on the human capital. The data may become the subject of analysis and evaluation by comparison of the reference value 8% economic constant of potential growth, with values achieved by other companies or sectors. Moreover, it allows for the analysis of dynamics changes in a one company. In order to evaluate human capital using the method suggested in this paper, one need to use real and often standardized economic indicators, such as the cost of maintenance and education.

The research proved that employees of the both researched companies receive pay which corresponds with a real human capital cost. It means that one of the key aspects of the corporate responsibility, which is an obligation to provide a fair pay, is fulfilled by the researched companies. As a result, the employees of the researched companies are provided with sufficient economic conditions necessary for functioning of their households. Data on the level of compensation for the employees’ human capital may be used in image-creating and marketing communication. Moreover, this data improve the reliability of this forms of communication and reduce skepticism of the communication receivers (mostly
customers). It is because this information are based on hard financial data relating to the most important aspects of household performance.

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