

Level of consensus on the content of social responsibility

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Abstract: The diverse interpretations of sustainability and corporate social responsibility makes the practical applications difficult. Exploring the personal aspects of the topic allows to understand the personal perceptions and motivations that moves improvement forwards. This paper presents the result of investigating related preferences of business economics students as future managers in Hungary (n=150). The results show that preference orders are different by gender, level of education and knowledge level about CSR. The respondents keep environmental problems more important than social one, and the corporate responsibility in the field must focus on waste reduction and developing greener technologies.

Key-Words: corporate social responsibility, sustainability, preference test, Guilford-method

1 Introduction

Domestic official researches about the concept and content corporate social responsibility are considerably limited in Hungary. Primarily bachelor, master and doctoral thesis deal with the issues, but representativeness is missing, therefore wider conclusions are hard to make. The available results show a development in the recognition of the subject.

The research institute Sonda Ipsos made a representative survey (n=1.000) in 2002 involving respondents who are interested in the topic, i.e. people who are interested in social and economic issues and corporate behavior is a topic of conversation. There is distrust expressed towards the corporate social responsibility practice of Hungarian corporations by 44% of the respondents and the practice of multinational corporations by 54% of them.

In context of responsible corporate behavior, the respondents emphasized the treatment of employees (29%), higher wages and salaries (26%), safety workplaces (26%) and job creation/job protection (17%). The opinions agree that the external focus must be on reasonably prices quality products, environmental protection, ethical behavior, including avoiding child employment and ethical information about the products.

Another Hungarian survey from 2006 (performed by the Business Council for Sustainable Development and GfK) points out that the topic is not widely known. The concept of sustainable development was known by 26% of the respondents of whom 42% claimed that also the content is known. In their opinion, sustainable development covers environmental protection, economic development, and improving quality of life, utilization of renewable energy sources, continuous

improvement and encouraging organic products. Answers related to sharing responsibility showed that corporations shall focus on healthy and safe working environment as a main duty, and supporting R&D programs in harmony with the sustainable development goals. On the other hand, governmental responsibility includes supporting NGO-s, consumer protection, health education and promotion, health care, fighting against discrimination and poverty.

There were 2.000 people involved in the investigation by Putzer et al. (2014) of whom 87.6% have heard about the concept of corporate social responsibility. 42% of the respondents summarizes it as supporting environmental and social initiatives. Corporate social responsibility means compliance with law and regulation (34.5%), ethical operation (24.6%), profit maximization (19.3%).

It is observed that comparing the results with the categories pyramid of Carroll (1991) the economic, legal and ethical ones are represented but voluntary elements are missing. Such actions are kept only a marketing trick by 10.8% and 11.5% believes that corporate social responsibility is associated with a cost-increase.

A representative customer survey (n=1.000) by Riskó et al. (2015) highlights the job creation and employment, compliance with law and regulation and environmentally conscious operations as the most important aspect of corporate social responsibility.

Scholarly investigating in the field is even more limited among higher education students. Our study subject is the perception and attitudes of business economics students towards corporate social responsibility.

2 Problem Formulation

The relevant literature shows various surveys for exploring the attitudes toward the content of sustainable development and corporate social responsibility (see e.g. Calabrese et al., 2016). The experiences show that it is difficult and unclear to define the appropriate attention to environmental, social and economic aspects in decisions neither on personal nor on corporate level. Investigation is complicated because of the varied concepts and interpretations of topics related to sustainability (see e.g. Tetřevová & Svědík, 2012).

E.g. differences between corporate social responsibility and corporate social responsiveness (Kubenka & Miskova, 2009) gives solutions to a

quite narrow scope of the corporations, an everyday delimitation misses the required background knowledge of the society as well as the need for further elaboration.

The stakeholder theory (see e.g. Freeman, 2010; Phillips, 2011) explains the conflict of interest due to the diverse goals of the interested party even if the common goals are clear and known.

Moreover, social expectation must be considered in stated opinions in a survey (Babbie, 2000) that inspired to apply preference analysis instead of a direct attitude study.

2.1 Research goals and assumptions

Raising awareness and targeted education may moderate the dissension of opinions and it may allow the establishment of a comprehensive interpretation of the field. The future manager generation has a key role in these changes. In our research we try to explore the consistency of opinions and attitudes towards sustainability and corporate social responsibility based on the analysis of respondents' preferences. The target group is higher education students in the field of business and economics.

The paper highlights two topics of the survey, which allow the analysis of preferences:

- Which of the following do you believe the main global problems worldwide? (A multiple-choice question, maximum 3 choices are allowed)
- Which of the followings should rather deal with a company? (Pairwise comparison of 6 topics)

The hypotheses of the research are as follows:

- H1. Environmental problems are considered more important than social ones by the respondents.
- H2. The respondents have inconsistent preference orders about the corporate responsibility related to sustainability.
- H3. Respondent's' preferences about corporate responsibility can be grouped by gender, level of education, and CSR knowledge.

2.2 Research sample and limitations

The research sample is based on a survey involving three Hungarian higher education institutions (University of Miskolc 326 responses, University of Pécs 115 responses, University of Nyíregyháza, 89 responses). The survey was supported by the Evasys Survey Automation Suite.

The sample of the analysis consists 50-50 responses randomly selected from all three institutions. The grouping criteria are gender, level of education (bachelor or master) and level of CSR

knowledge. The characteristics of the sample is summarized in Table 1.

However, the research sample is not representative and the results and conclusion are limited to the sample, the large sample and the random sampling improve the validity.

Table 1: Research sample

Sample	Description	Sample size
Miskolc	Business and economics students, University of Miskolc	50
Pécs	Business and economics students, University of Pécs	50
Nyíregyháza	Business and economics students, University of Nyíregyháza	50
BA	Students at bachelor level	111
MA	Students at master level	28
Other level	Students at other (post gradual) level	11
Women	Female respondents	98
Men	Male	52
Did not learn about CSR	students who has not learnt about CSR, based on self-reporting	82
Superficial CSR knowledge	CSR was mentioned in the curricula but details are not known, based on self-reporting	51
Detailed CSR knowledge	CSR is discussed in details or known by self-education, based on self-reporting	17

Source: own survey

The perception of global problems worldwide is analysed by a question which asks to mark maximum 3 relevant elements from a list including 15 items. The items are selected by the consensus of an expert team based on reviewing the concerning literature.

The pairwise comparison about the focus point of corporate responsibility 6 topics in 15 pairs and the respondents has to choose the preferred one. The topics are as follows:

- cost reduction,
- developing greener technologies,
- financial support of environmental protection,
- higher income for workers,
- supporting schools and kindergartens,
- waste reduction.

The questions are prepared for preference analysis by the Guilford-method (Kindler & Papp, 1978) that allows to calculate:

- the personal level of consistency (K) in the order of the factors ($0 \leq K \leq 1$, where 0 is the complete absence of consistency, 1 is the complete consistency, the latter means the responder has a clear list of preferences),
- group-level preference orders on interval-scale (a limitation of the method is that quantified results between groups are not comparable!) between 0 and 100,
- group level consensus by Kendall's coefficient of concordance for pairwise comparison (v) (Kendall, 1970), including the cases $K \geq 0.75$.

The maximum level of Kendall's coefficient of concordance is 1, on the other hand, the minimum is not fixed, it depends on the number of cases (m): $v_{\text{even}} = -1/(m-1)$ and $v_{\text{odd}} = -1/m$. In order to ensure the comparison, I calculate with a corrected coefficient of consensus as:

$$v_{\text{corr. } i} = 100 * \frac{v_i - v_{\text{min}}}{1 - v_{\text{min}}} \quad (1)$$

The significance test is as follows (Kindler & Papp 1978:187):

$$u = \sqrt{2\chi^2} - \sqrt{2d_f - 1} \quad (2)$$

where γ shows the sum of values below the main diagonal in the aggregated preference matrix, i.e. the number of non-preferred incidences; n is the number of factors and χ^2, d_f :

2.3 Methods

$$\chi^2 = \frac{4}{m-2} \left\{ \sum \gamma^2 - m \sum \gamma + \binom{m}{2} \binom{n}{2} - \frac{1}{2} \binom{n}{2} \binom{m}{2} \frac{m-3}{m-2} \right\} \quad (3)$$

$$d_f = \binom{n}{2} \frac{m(m-1)}{(m-2)^2} \quad (4)$$

3 Problem Solution

3.1 Perception of global problems

The survey shows that environmental problems precedes socials in the judgment of the respondents. Table 2. summarizes the five most important problems worldwide and the ratio of marking. Depletion of energy sources and air pollution are mentioned by about the half of the respondents as one of the most important problems. There are not social problems in the top list mentioned.

Table 2: Top-5 global problems, total sample (marked by the % of the sample)

Total sample		
1.	Depletion of energy sources	45
2.	Air pollution	44
3.	Climate change	38
4.	Water pollution	30
5.	Destruction of natural resources	23

Source: own survey

Table 3: Top-5 global problems by study level (marked by the % of the sample)

Bachelor level		Master level		
1.	Air pollution	44	Depletion of energy sources	54
2.	Depletion of energy sources	42	Air pollution	46
3.	Climate change	37	Water pollution	32
4.	Water pollution	29	Climate change	29
5.	Destruction of natural resources	23	Destruction of natural resources	25

Source: own survey

Table 4: Top-5 global problems by gender (marked by the % of the sample)

Women			Men	
1.	Air pollution	44	Depletion of energy sources	50
2.	Depletion of energy sources	42	Air pollution	44
3.	Climate change	36	Climate change	42
4.	Water pollution	30	Water pollution	31

5.	Destruction of natural resources	24	Starvation	21
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Source: own survey

The results by the level of studies (Table 3.) contain the same elements, however, in a different order. Analysis by gender (Table 4.) shows the starvation by the 21% of the men.

Crime as social problem appears in the results by CSR knowledge. 28% of the respondents without CSR knowledge and 35% of the respondents think that crime is one of the most important problem. The top of their lists is in harmony with the average results of other sub-samples.

Table 5: Top-5 global problems by CSR knowledge (marked by the % of the sample)

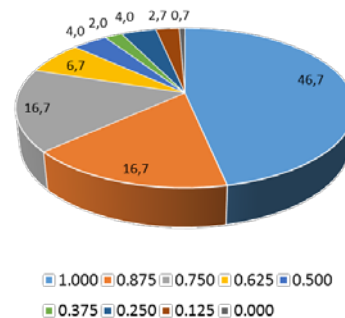
did not learn about CSR			Superficial CSR knowledge		Detailed CSR knowledge	
1.	Air pollution	46	Depletion of energy sources	45	Depletion of energy sources	59
2.	Climate change	41	Air pollution	41	Climate change	53
3.	Depletion of energy sources	41	Water pollution	31	Air pollution	41
4.	Water pollution	29	Destruction of natural resources	29	Crime	35
5.	Crime	28	Climate change	27	Water pollution	29

Source: own survey

3.2 Personal level of consistency

Based on the pairwise comparison the personal level of consistency can be calculated. Figure 1. shows the overall distribution. About the half of the respondents have an absolutely clear preference order (K=1). 80% of them has a high consistent level (K>=0.75). What is more, inconsistency (K<0.5) is a characteristic of 9.3% of the respondents.

Figure 1: Distribution of personal consistency levels (%), total sample

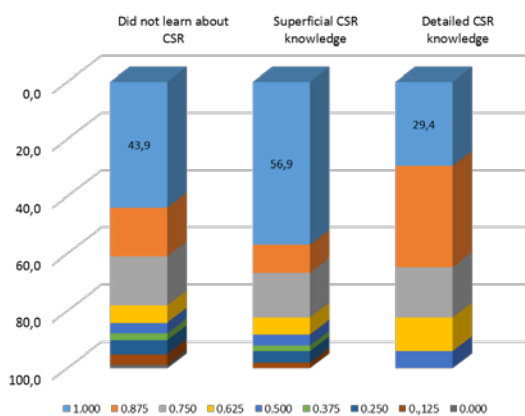


Source: own survey

Checking the results by the sub-samples there are some remarkable comments:

- Sub-samples by universities show similar ratios of consistency levels.
- Master level students represent a higher level of consistency ($K_{\text{master}}=0.86$ vs. $K_{\text{bachelor}}=0.82$) but a clear preference order is less typical (39.3% vs. 49.5%).
- Respondents with superficial CSR knowledge have the clearest preference orders. The consistency level (K) is 1 at 56.9% of them (without CSR knowledge: 43.9%, detailed CSR knowledge: 29.4%). Nevertheless, involving the level $K=0.875$ the differences disappear. It is also to note that there are no respondents under $K=0.5$ in the sub-sample of 'detailed CSR knowledge' (Figure 2.)

Figure 2: Distribution of personal consistency levels by CSR knowledge (%)



Source: own survey

The significance of the results was checked by cross-tabulation (Anderson et al., 2007) between the level consistency and the grouping factors. Based on the analysis the sub-samples by each grouping factors are different from each other. Table 5. summarizes the Pearson- χ^2 and the significance levels.

Table 6: Significance-test of grouping by personal consistency levels

Grouping factor	χ^2	df	2-sid. sign.
University	16.860	16	.395
Study level	24.861	16	.072
Gender	4.674	8	.792
CSR knowledge	14.924	24	.923

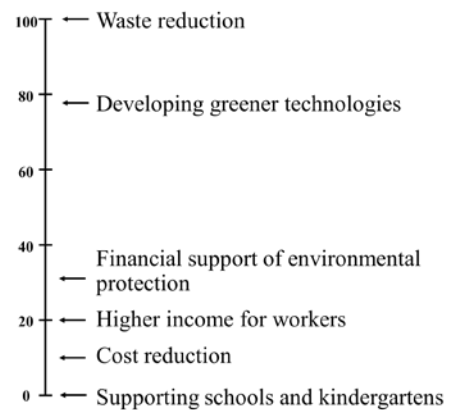
Source: own survey

3.3 Preference orders and weighting by the Guilford-method

The most important corporate responsibility is waste reduction based on the total sample of the analysis. The less important one is supporting schools and kindergartens. Figure 3. summarizes the degree of difference between the judgement on the importance of items on interval-scale.

Appendix 1. settles the results of subsamples. It is important to note that the figure does not show the between them and results in the table are not directly comparable with each other due to the characteristics of an interval-scale (Gomm, 2009).

Figure 3: Expectations about corporate responsibility focus, weights on interval-scale by Guilford-method (0..100)



Source: own survey

Based on the result in the appendix it can be stated related to the preference orders about the expected areas of corporate social responsibility:

- waste reduction and greener technology development are kept the most important,
- social issues are behind the environmental ones,
- investing in the future by supporting schools and kindergartens is at the end of the preference lists,
- the rank of financial support of environmental protection is worse if the CSR knowledge level is higher.

4 Conclusion

4.1 Evaluation of the results

Studies dealing with the future viability and success of CSR practices, sustainable technological and institutional innovations depend not only on the development and availability of management tools,

systems or regulations, but on the perceptions and attitudes of the next generations as well (Stubbs & Cocklin, 2008, Fernandez & Sanjuan, 2010).

There is a great challenge of the higher education system to give a comprehensive knowledge about the topic. Cultural differences, gender, religiosity, age etc. may influence the perception of the problems and the applicable solutions, but a consensus is missing in the significant differences in various research reports (Panwar et al., 2010, Ng & Burke, 2010, Bageac et al., 2011, Zsóka et al., 2013). Our analysis presented in this paper focuses on exploring personal preference orders instead of asking the attitudes directly by elements. This approach allows to form a more nuanced picture about the value judgements.

The first hypothesis about the higher importance of environmental problems than social ones can be accepted based on the result.

The lists of five most important global problems by any sub-samples contain dominantly environmental issues. Although the order of importance is partly different, depletion of energy sources, air pollution, climate change and water pollution are kept the most worrying regardless of the surveyed groups by university, gender or CSR knowledge level.

The second hypothesis about the inconsistency of the preference orders must be rejected. Regardless of surveyed groups, it can be stated the majority have a clear preference order about the expected areas of corporate social responsibility.

The research questions suggest whether it is feasible to break down the total sample into homogeneous groups. Respondents' preferences about corporate responsibility can be grouped by gender, level of education, and CSR knowledge. Tests related to personal level of consistency show significant differences by each grouping factor. According, the third hypothesis can be accepted, grouping factors are valid.

4.2 Further possibilities

The authors' intention of the results is to draw attention to education challenges. Since using the topics of corporate social responsibility and sustainable development both in separate courses and integrated in strategic management, we believe that exploring the attitudes and perceptions is essential for adjusting the learning focus. The recent mission is to find the balance between the environmental and social issues of sustainability, i.e. show the comprehensive application of both sides instead of over-emphasizing environmental aspects.

Moreover, the related development actions shall not ignore the new organizational structures and endeavors. There is a growing attention paid to social enterprises in Eastern Europe. The linking possibilities between these enterprises, the social innovations and corporate social responsibility (Szegedi et al., 2016) can give a framework of forming the opinions of business and economics students.

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Appendix 1: Preference orders and coefficient of concordance by sub-samples

	Total sample	Miskolc	Pécs	Nyíregyháza	Women	Men
supporting schools and kindergartens	0.0	0.0	0.0	0.0	0.0	28.5
waste reduction	100.0	100.0	100.0	100.0	100.0	89.8
developing greener technologies	78.6	76.2	71.4	89.5	66.1	100.0
higher income for workers	20.7	21.7	14.9	28.0	29.8	24.7
cost reduction	11.2	15.0	2.7	20.5	30.4	0.0
financial support of environmental protection	34.0	26.6	31.1	43.0	37.6	42.7
v	0.1039	0.0377	0.1857	0.0922	0.1013	0.1312
V _{min}	-0.00667	-0.02	-0.02	-0.02	-0.0102	-0.01923
v _{corr.} (u)	11.0 (349.1*)	5.7 (57.8*)	20.2 (218.1*)	11.0 (116.9*)	11.0 (229.1*)	14.8 (164.6*)
		Bachelor	Master	Did not learn about CSR	Superficial CSR knowledge	Detailed CSR knowledge
supporting schools and kindergartens		0.0	0.0	0.0	0.0	0.0
waste reduction		100.0	100.0	100.0	100.0	100.0
developing greener technologies		72.1	100.0	90.8	62.2	93.9
higher income for workers		15.6	37.1	33.1	14.6	5.4
cost reduction		14.6	0.0	19.2	4.4	10.8
financial support of environmental protection		40.5	12.0	45.0	32.1	8.1
v		0.1037	0.1046	0.0501	0.1711	0.2059
V _{min}		-0.00901	-	-0.0122	-0.01961	-0.05882
v _{corr.} (u)		11.2 (262.7*)	12.7 (106.3*)	6.2 (104.8*)	18.7 (205.9*)	25.0 (98.9*)

*: Kendall's coefficient of concordance for pairwise comparison (v) is significant.