

Relation between sustainability-related communication and competitiveness in the chemical industry

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Abstract

Interests of companies in sustainability-related communication have risen considerably in recent years. This paper focuses on the current state of sustainability-related reporting in chemical industry companies registered in the Association of Chemical Industry in the Czech Republic. It deals with the form and the content of reporting, the importance of different stakeholders in this process as well as benefits of sustainability-related communication and its impacts on competitiveness of the company. This paper summarizes the results of research executed in year 2014. The results of the research showed that chemical industry companies were aware of the significance of sustainability-related communication and they utilized for this communication various types of sustainability-related reports. Companies prefer to report on the environmental and social aspects of their activities primarily in their annual reports, or they issue separate environmental reports. The research verified the relationship between sustainability-related communication and competitiveness. A suitable established high quality system of communication that provides for sufficient information and meets the information requirements of the key stakeholders may significantly contribute to reputation improvement, to increased attractiveness of the company as an employer and thereby to maintain, to improve respectively, the level of company competitiveness.

Keywords: chemical industry, communication, competitiveness, corporate sustainability, social responsibility, sustainability-related reporting, environmental and social aspects

Introduction

Social responsible company represents a complex concept which is interconnected with all company's actions and activities and its implementation in practice needs critical analysis of its principles and procedures together with communication with relevant stakeholders (Pätäri, Arminen, Tuppurä et al., 2014). The implementation of the concept is connected with several significant opportunities for improvement, which are afterwards seen as cost effectiveness, reducing of expenses or leads to better understanding of the environment and community, where a company realizes its business activities. Simultaneously, risk of conflict situations is much reduced. Therefore it is obvious that the concept may be source of significant financial savings and benefits. Realized studies confirmed positive impacts on company's reputation, reducing of operating costs, lowering of risks, positive impact on involvement of employees in company's actions and activities and on business productivity (Russo, Fouts, 1997; Weber, 2008; Aguinis, Glavas, 2012). The concept of social responsibility is connected also with lower costs of capital (El Ghouli, Guedhami, Kwok et al., 2011) and with higher attractiveness of a company as a preferred employer, which is closely connected with quality of human

resources and human capital (Greening, Turban, 2000). Studies and researched made also point out that the concept is important in the cases of negative or extraordinary events, when a good reputation of a company may help to lower negative impacts of such events (Godfrey, Merrill, Hansen, 2009). The sustainable performance is connected also with customer satisfaction (Lev, Petrovits, Radhakrishnan, 2010).

The paper therefore focuses on current way of sustainability-related communication of companies in the chemical industry in the Czech Republic and discusses the relation between sustainability-related communication of a company and its competitiveness with respect to the specifics of the chemical industry.

Materials and Methods

Business successes and financial performance of a company in the existing global and fast developing business environment is influenced by a number of various factors and aspects. The approach of a company to environmental issues and social issues (that is the environmental and the social performance of a company) has been a very important factor in the last twenty years. Thereby many companies voluntarily (doing more than required by relevant legislation) take into account the environmental and the social aspects in their strategy and they strive to profile themselves as socially responsible companies (CSR companies) (Wells, 2013; Epstein, Rejc Buhovac, 2014; Krause, Tondlová, 2014). The dialog with important stakeholders plays an important role in the CSR approach. The relevant stakeholders should be informed regularly and in a transparent manner about the goals defined by the company and about how these goals are fulfilled by the company (Epstein, Rejc Buhovac, 2014).

A sustainable company is a company that is able to satisfy needs of important stakeholders while at the same time company's ability to meet such needs also in the future is not compromised (Dyllick, Hockerts, 2002). Management of a company having the objective of long-term sustainability of the company is very closely linked with internal and external communication processes (that is also with external and internal reporting) (Hyršlová, Vávra, Hájek, 2007; Hyršlová, 2014). In case information on environmental and social aspects and impacts are the subject of such communication then this reporting is labelled as *sustainability-related reporting* or *sustainability reporting* (Schaltegger, Bennett, Burritt, 2006). The objective of this reporting is to increase transparency, to promote the brand and to improve reputation, to promote compliance with legislation, to allow comparison with competition, to demonstrate competitiveness, to stimulate employees (an important stakeholder) and to support company information and management processes (Herzig, Schaltegger, 2006). According to the opinion of some authors – e.g. Lozano, Huisinigh (2011) – sustainability-related communication represents a very important factor contributing to long-term sustainability of the company.

This paper deals with sustainability-related communication of the chemical industry companies that operate in the Czech Republic territory. The paper presents fundamental approach to communication and research into the relation between sustainability-related communication of a company and its competitiveness. A specific emphasis is put on the issues of sustainable development and sustainable business operation in the chemical industry. This business sector, no matter how important the sector is regarding the useful value of its products, often, in the past, profiled itself in a controversial manner with regard to socially respected values. In the present days sustainable business operations have become a standard and meeting this standard helps to change the image of the chemical industry in the general public's perception. Sustainability is even more critical for the chemical industry due to high barriers to entry of this sector, the cyclical behaviour of this sector development and the existing competitive environment.

The paper is supported by the analysis of secondary and primary data sources. The content analysis of secondary sources was used to compile theoretical background of the paper. The primary data were collected by questionnaire survey in 2014 in organisations which were in that time part of the Association of Chemical Industry in the Czech Republic (87 members were contacted; only companies were contacted, excluding high schools and universities). The main aim of the research was to identify the importance of sustainable business to maintain competitiveness of organisations which are members of Association of Chemical Industry in the Czech Republic. The research also focused on the determination of the current state of sustainability-related communication in chemical companies and on the importance of this communication for their competitiveness. To determine the primary information, electronic inquiring was used. In total, 87 organizations were addressed. The questionnaire was completed by 40 organisations across size categories (small organisations till 49 employees, middle-sized organisations with 50-249 employees and large organisations with over 250 employees). The overall return of the questionnaire was 46%. The inquired sample represents manufacturing organizations (63%) as well as organizations involved in trade and provision of services.

The data was gathered through a quantitative survey using a questionnaire technique of data collection which respected the ethical aspects of research. The questionnaires were completed by managers on the middle and top management level. The statistical tools used for the data analysis were chosen based on the type of the question (descriptive statistics, and contingency tables, absolute and relative frequency and correlation analysis). To evaluate the data, the MS Excel was used.

Results

This section of the paper firstly focuses on the characteristics of current use of sustainability-related communication and secondly, attention is paid to its importance for competitiveness of companies in the chemical industry, as it is perceived by respondents.

Sustainability-related Reporting of Chemical Companies

In the area of sustainability-related reporting, the stakeholder considered by respondents to be the most relevant are local authorities; 78% of respondents ticked off this stakeholder as important (see table I). The major stakeholders with which it is necessary to communicate include owners (ticked off by 73% of respondents) and customers (ticked off by 72% of respondents). The least significant stakeholder perceived by respondents are non-governmental organizations focusing on environmental protection (15% of respondents ticked off these organizations as entirely unimportant stakeholder) and competitors.

97% of companies issue periodic reports that include environmental information or information on corporate sustainability. In terms of form, companies use various report types (some companies issue more report types):

- 57% of respondents make available to the stakeholders their environmental policy as well as quality policy and occupational health and safety policy.
- 55% of respondents incorporate the information on approach to environmental protection and social aspects of business activities in the annual financial report (the obligation to issue an annual financial report is laid down by the Act No. 563/1991 Coll., on Accounting). In the opinion of the respondents, such information is paid adequate attention in the report.
- 55% of respondents are involved in the Responsible Care (RC) initiative and thus have a system of communication in matters of health, safety and environmental protection with the stakeholders created.
- 32% of respondents release separate corporate environmental reports.

- Only 1 company informs on corporate sustainability in a separate report (sustainability report).

Tab. I. Importance of individual stakeholders

Stakeholders	Relative frequencies					MOD	AVG	STD
	1	2	3	4	5			
Employee	6%	9%	23%	44%	18%	4	3.59	1.08
Customers	3%	6%	19%	41%	31%	4	3.91	1.03
Suppliers	3%	9%	33%	46%	9%	4	3.48	0.91
Competitors	6%	28%	38%	28%	0%	3	2.88	0.91
Owners	6%	9%	12%	33%	40%	5	3.91	1.21
Creditors	12%	18%	9%	49%	12%	4	3.30	1.26
Insurance companies	9%	12%	9%	33%	37%	5	3.76	1.32
Local authorities	6%	3%	13%	39%	39%	-	4.03	1.10
Media	12%	9%	30%	40%	9%	4	3.24	1.15
NGO	15%	21%	31%	27%	6%	3	2.88	1.17
Local community	6%	15%	6%	55%	18%	4	3.64	1.14
General public	6%	9%	27%	40%	18%	4	3.55	1.09

Note: 1 = no consequence; 5 = of great importance; MOD = modus; AVG = average; STD = standard deviation

Source: Authors

Of great importance to the creation of the system of communication and its effective operation are, in particular, information needs of stakeholders. 52% of respondents confirmed to monitor information needs; 71% of them regularly (repeatedly) monitor information needs and adapt the disclosed data to those needs. 48% of the entire studied set, however, do not monitor the information needs of stakeholders. Based on this, we can deduce that these companies only fulfil reporting obligations ensuing from the law or from the involvement in voluntary initiatives or they produce one-way communication without the knowledge of the information needs of relevant stakeholders.

In the area of reporting, the respondents respect primarily the information needs of local authorities (72% of respondents), which they consider to be the most relevant stakeholder. The respondents confirmed to take into account also the information needs of owners (70% of respondents) and customers (62% of respondents).

According to the respondents, attention within the framework of reporting should be primarily paid to information on corporate economic (financial) performance and environmental performance. The results show that the reports are primarily focused on the issues of economic performance; companies use for communication mainly annual financial reports, where information on environmental performance and social aspects of the business is only complementary. In the case of reports issued in connection with the involvement in the RC initiative or separate environmental reports the companies act in accordance with the recommendations under the RC initiative or they have their own report structure created. The main communication channel is company websites, on which reports are made available to users. 30% of respondents also release reports in printed form. The most common frequency of publication of reports is once a year.

RC reports and separate environmental reports are issued by companies on the basis of company management decision (i.e. obligation comes from involvement in voluntary initiatives); only 5 respondents confirmed that the company started to publish reports based on the requirements of external stakeholders (local authorities). These voluntary reports are

intended primarily for employees, owners, local authorities and the public (near the company).

75% of respondents have confirmed that a properly established system for communication with external stakeholders on the issues of corporate sustainability enhances the credibility of the company and consider sustainability-related reports to be an adequate form of this communication.

The Impact of Sustainability-related Communication on Competitiveness

The aim of this section is to present the relation between sustainability-related communication of a company and its competitiveness with regard to the specifics of the chemical industry. The research was mainly focused on the importance of sustainable business and its impact on company's competitiveness. For the construction of the research all factors of competitiveness defined by Porter (1985) and Malik (2005) was used. The questionnaire used therefore following factors which play key role in company's competitiveness: supply chain management, innovation activities, productivity, differentiation in competition, reputation, attractiveness of company as preferred employer, market share (position), communication, value created for customer, customer's willingness to pay for high perceived value of products, payment procedures (liquidity) and ability to generate profit. The outputs of the research are shown in table II.

Tab. II. Importance of factors for competitiveness of companies in chemical industry

N=40	AVG	MOD	MED	MAX	MIN
Supply chain management (A)	3.80	4	4	5	1
Innovation (B)	4.15	4	4	5	1
Productivity (C)	4.08	4	4	5	1
Differentiation (D)	3.83	4	4	5	1
Reputation (E)	4.44	5	5	5	3
Employer attractively (F)	3.74	4	4	5	1
Market-position (G)	3.64	4	4	5	1
Communication (H)	3.72	4	4	5	1
Customer value (I)	4.15	4	4	5	1
Willingness to pay (J)	3.62	4	4	5	1
Payment procedures (liquidity) (K)	3.62	5	4	5	1
Profit (L)	4.21	5	4	5	1

Note: 1 = no consequence; 5 = of great importance; AVG = average; MOD = modus; MED = median; MAX = maximum; MIN = minimum

Source: Hyršlová, Vnoučková, Hájek (2015)

The most important factor of competitiveness is according to the answers of respondents positively reputation of a company. Other important factors are, according to respondents, ability of company to generate profit, innovation activities, ability to create customer value and productivity. The significance of presented factors was perceived similarly by respondents from small, medium-sized and large organizations. Only respondents from small organizations paid attention also to involvement in the supply chains.

The research also evaluated correlations between the studied factors of competitiveness. In table III there are stated the results of testing by means of Spearman's rho. Statistically significant correlations are marked with * (statistical significance at the level of $\alpha=0.05$) and ** (statistical significance at the level of $\alpha=0.01$). Factor E has not been further tested since all respondents verified its significance.

Tab. III. Correlation matrix – competitiveness factors

	A	B	C	D	F	G	H	I	J	K	L
A	1.000	.348*	.498**	.119	.368*	.224	.370*	.196	.263	.481**	.368*
B	.348*	1.000	.698**	.563**	.562**	.424**	.563**	.698**	.320*	.348*	.562**
C	.498**	.698**	1.000	.474**	.369*	.305	.806**	.473**	.458**	.545**	.805**
D	.119	.563**	.474**	1.000	.278	.466**	.279	.369*	.095	.368*	.278
F	.368*	.562**	.369*	.278	1.000	.465**	.640**	.369*	.116	.116	.278
G	.224	.424**	.305	.466**	.465**	1.000	.179	.259	.189	.423**	.465**
H	.370*	.563**	.806**	.279	.640**	.179	1.000	.370*	.332*	.368*	.640**
I	.196	.698**	.473**	.369*	.369*	.259	.370*	1.000	.170	.194	.369*
J	.263	.320*	.458**	.095	.116	.189	.332*	.170	1.000	.428**	.568**
K	.481**	.348*	.545**	.368*	.116	.423**	.368*	.194	.428**	1.000	.617**
L	.368*	.562**	.805**	.278	.278	.465**	.640**	.369*	.568**	.617**	1.000

Source: Authors

Company communication (both the internal and external) significantly correlates with all the competitiveness factors, with the exception of the competition differentiation and the market position.

In view of the fact that stakeholders have a major impact company competitiveness (Spirig, 2006), under the existing conditions, company competitiveness is influenced, next to its financial performance, also by other aspects. Based on expert research results the company's approach to the environment (management of environmental aspects and impacts) and the social impacts of its activities (management of social aspects and impacts) play also an important role (Bansal, Roth, 2000; Wagner, Schaltegger, 2004; Bansal, Clelland, 2004). Table IV summarizes the results for the area of importance of the individual aspects that have impacts on company performance towards its sustainability and its competitiveness as perceived by the chemical industry representatives participating in the research. The selection of aspects included into the research is based on those factors that Wagner, Schaltegger (2003) identified as factors influencing company performance toward its sustainability, primarily with respect to environmental management systems, management of occupational health and safety, RC initiative, socially responsible business operation and relations with stakeholders, that are considered to be the key – see Spirig (2006). Also environmental communication was included into the set of aspects, communication with both the external stakeholders and the employees.

Tab. IV. Importance of the aspects for a selected business sector

N=40	AVG	MOD	MED	MAX	MIN
Environmental aspects and impacts (A)	4.22	5	4	5	1
Company approach to the environment (B)	4.51	5	5	5	3
Environmental communication with external stakeholders (C)	4.17	4	4	5	2
Environmental communication with employees (D)	3.95	4	4	5	2
Relations with national administration and self-administration bodies (E)	4.49	5	5	5	3
Media relations (F)	3.66	4	4	5	1
NGOs relations (G)	3.23	3	3	5	1
Relations with local community and the general public (H)	4.18	5	4	5	2
Company interest in social issues (related to employees) (I)	4.17	4	4	5	2

Company occupational health and safety (J)	4.63	5	5	5	1
Employee education and development programs (K)	4.20	4	4	5	1
Knowledge sharing and exchange (L)	4.32	5	4	5	1
Collective bargaining (M)	3.16	4	3	5	1
How company deals with disciplinary offences (N)	3.63	3	3.5	5	1

Note: 1 = no consequence; 5 = of great importance; AVG = average; MOD = modus; MED = median; MAX = maximum; MIN = minimum

Source: Hyršlová, Vnoučková, Hájek (2015)

All the aspects included into the research were considered by the respondents to have from above average to very important significance for the relevant respondent's business sector (the average significance of the individual aspects ranges from values 3.16 to 4.63). Respondents identified as the most important aspects for the company to be the level of the occupational health and safety. They also considered as very important the human resources development area, in particular the area of knowledge sharing and exchange, the employee education programmes as well as general interest of the company in social issues related to the company employees. The results verified that the respondents acknowledge the importance of human resources for a company business success. Relations to the local community and to the general public and the process of environmental communication with external stakeholders are very important for doing business in the chemical industry sector. Table V summarizes the result of testing the relations between the individual competitiveness aspects by means Spearman's rho. Statistically significant correlations are marked with * (statistical significance at the level of $\alpha=0.05$) and ** (statistical significance at the level of $\alpha=0.01$). The B and E aspects have not been further tested since all respondents verified their significance.

Tab. V. Correlation matrix – environmental and social aspects

	A	C	D	F	G	H	I	J	K	L	M	N
A	1.00	-.024	-.034	-.049	.279	-.043	-.034	-.024	-.034	-.024	.277	-.051
C	-.024	1.00	.699**	.482**	.279	.563**	-.034	-.024	-.034	-.024	-.092	-.051
D	-.034	.699**	1.00	.690**	.400**	.372*	-.049	-.034	-.049	-.034	.132	.308*
F	-.049	.482**	.690**	1.00	.580**	.540**	-.071	-.049	-.071	-.049	.192	.171
G	.279	.279	.400**	.580**	1.00	.496**	.400**	.279	.138	.279	.467**	.387*
H	-.043	.563**	.372*	.540**	.496**	1.00	.372*	.563**	.372*	.563**	.055	.223
I	-.034	-.034	-.049	-.071	.400**	.372*	1.00	.699**	.476**	.699**	.397*	.689**
J	-.024	-.024	-.034	-.049	.279	.563**	.699**	1.00	.699**	1.00	.277	.481**
K	-.034	-.034	-.049	-.071	.138	.372*	.476**	.699**	1.00	.699**	.132	.308*
L	-.024	-.024	-.034	-.049	.279	.563**	.699**	1.00	.699**	1.00	.277	.481**
M	.277	-.092	.132	.192	.467**	.055	.397*	.277	.132	.277	1.00	.577**
N	-.051	-.051	.308*	.171	.387*	.223	.689**	.481**	.308*	.481**	.577**	1.00

Source: Authors

Environmental communication correlates with media relations, with public relations and with the local community relations. In case of environmental communication with company's employees there was proven a statistically significant relation with NGOs that are focused on environmental protection. Environmental communication with external stakeholders is very closely related to the environmental communication with company employees. Both types of communication are closely interlinked and influence each other.

Sustainability-related communication may, in the opinion of the respondents, affect the competitiveness of the company (see table VI). It contributes positively to the reputation of the company (this contribution is considered significant by 87% of respondents) and is an important part of the corporate communication towards external stakeholders (83% of

respondents). The respondents perceive also a positive effect on the attractiveness of the company as an employer (this contribution of communication is perceived by 69% of respondents). On the contrary, the respondents do not perceive the contribution of communication for the area of acquiring new customers or markets.

Tab. VI. Importance of sustainability-related communication for the individual factors of company's competitiveness

Factors of competitiveness	Relative frequencies					MOD	AVG	STD
	1	2	3	4	5			
Supply chain management	11%	11%	39%	25%	14%	3	3.21	1.17
Innovation	7%	17%	38%	35%	3%	3	3.10	0.98
Productivity	11%	15%	44%	19%	11%	3	3.04	1.13
Differentiation	3%	3%	38%	38%	18%	-	3.62	0.94
Reputation	0%	3%	10%	38%	49%	5	4.31	0.81
Employer attractively	7%	3%	21%	45%	24%	4	3.76	1.09
Market-position	14%	21%	44%	21%	0%	3	2.72	0.96
Communication	3%	0%	14%	45%	38%	4	4.14	0.92
Costumer value	7%	0%	50%	39%	4%	3	3.32	0.86
Profit	7%	14%	39%	29%	11%	3	3.21	1.07

Note: 1 = no consequence; 5 = of great importance; MOD = modus; AVG = average; STD = standard deviation

Source: Authors

Discussion

In recent years companies executed the sustainability-related communication in various manners. The results of various studies showed that while in year 1999 there did not exist a single report that could be classified as a sustainability report (companies issued separate environmental or social reports) with time these reports have become a dominant format of sustainability-related reporting (despite the fact that in a majority of cases they describe only the environmental and the social performance of the company) (Kolk, 2010). Chemical industry companies that participated in the research were aware of the significance of the sustainability-related communication and they used various types of sustainability-related reports for this communication. However, the results of the research showed that companies continued to prefer to report about the environmental and the social aspects of the company's activities and products primarily in the framework of the annual reports, or they issues separate environmental reports; sustainability report is published by only by one company. Chemical industry companies participating in the RC initiative have to report also on the specific issues related to the participation in this initiative.

The results confirmed the relation between the competitiveness of a company and its reputation. This area is discussed also in scientific literature. Scientific sources pay attention to the relation between company's behaviour in compliance with the law, reputation and corporate sustainability, which may be meaningful to gain corresponding social status and competitive advantage in conditions of current competitive environment (Czinkota, Kaufmann, Basile, 2014). These issues are researched into both on the individual company level and in the framework of the supply chains (Camilleri, 2008; Fearne, Garcia Martinez, Dent, 2012; Zulhamri, Yuhanis, 2013). The need to satisfy the requirements of the very important stakeholders who have an influence on the company business success and whose financial, environmental and social needs are different (Buchholz, Rosenthal, 2005), led to the elaboration of a number of theoretic and empirical studies and researches focused on the environmental performance and on the social responsibility and their impacts on company's

reputation. In connection with the results of these studies and research new marketing and management philosophies and concepts have been developed. The orientation toward sustainable development of a company, or the entire supply chain, is typical for these concepts and philosophies (Corbett, Kleindorfer, 2003; Hutchins, Sutherland, 2008; Czinkota, 2012; Martin, Schouten, 2012). The positive impact that social responsibility has on company reputation is mentioned, for example, in the study by Beckmann (2007).

The research confirmed primarily the high importance that the approach to the environment and to the relations with the national administration and with the self-administration bodies has for chemical industry companies' competitiveness. This finding is in agreement with the conclusion of expert studies that researched into the impacts of environmentally-friendly approach on company performance - see for instance Russo, Fouts (1997). The studies confirmed that high environmental performance is linked to higher profits and to higher profitability of assets. Other studies showed that business sectors with important environmental aspects and impacts (as is for instance the chemical industry), by means of environmentally-friendly approach, meet the expectations of their stakeholders in this area and considerably decrease any non-systematic risks (Bansal, Clelland, 2004). Porter, Van der Linde (1995) in their research confirmed positive impacts of considerate approach to the environment in the area of company productivity and in the area of the innovation processes and thus the overall improvement of company's competitiveness. Jacobs, Singhal, Subramanian (2010) then verified the link between the environmental performance and the company value.

The results of the research verified that relations with the local community, with the general public and the process of environmental communication with the external stakeholders are, according to the respondents' opinions, very important for doing business in the chemical industry. This conclusion is also in agreement with the assertion that important stakeholders influence the company approach to the environment and its social impacts. For instance, Kassinis, Vafeas (2006) state, that the environmental performance of a company is influenced by the requirements and approaches of the community in the place where the company performs its business activities. The environmental and social performance of the company is thus very closely related to the requirements of significant and important stakeholders (Henriques, Sadorsky, 1999); in case of the chemical industry companies such stakeholders are the national administration bodies and the self-administration bodies and the company's environs (the local community). In the framework of the research done in the chemical industry companies the importance of environmental communication was confirmed. This finding is yet again in agreement with the expert studies outcomes that show the positive impacts of reporting on the company's approach to environmental management (recycling, waste reduction, pollution prevention, environmentally-friendly products and similar) on the company's performance primarily in the area of products and processes innovation indicators (Montabon, Sroufe, Narasimhan, 2007). The fact that the reporting on the company's environmental activities and on activities that are executed in agreement with the company's social responsibility improves company performance is verified also by other studies (Montabon, Sroufe, Narasimhan, 2007; Jacobs, Singhal, Subramanian, 2010; Reverte, 2012). Sustainability-related communication has, based on the research results, influence on company's competitiveness. Based on respondents' views in case of chemical industry companies sustainability-related communication executed in high quality (as a part of external communication) contributes to improving of reputation. At the same time it can have a positive influence on the attractiveness of the company as an employer. The results of the research showed that for chemical industry companies reputation was the most important factor in their competitiveness.

Conclusion

The companies are aware of the fact that within the framework of external sustainability-related communication there should be satisfied information needs of relevant stakeholders. The most relevant stakeholder considered by the companies are local authorities; a significant role is also played by owners and customers. The results of the research show, however, that almost half of respondents do not monitor the information needs of stakeholders. Companies use for communication mainly periodic reports. Sustainability-related information is most often included in annual financial reports. Sustainability-related information forms only supplementary information; they are not integrated in corporate economic performance. Some companies use separate environmental reports; the reports include primarily information on environmental aspects and impacts without a link to the economic performance of the company. Businesses perceive the importance of communication for the reputation of the company and its positive effect on the attractiveness of the company as an employer and, under the current conditions, they produce mostly one-way communication, which is primarily focused on the economic performance. If the information on the environmental aspects and impacts or on the area of occupational health and safety is reported, it is part of separate reports not integrated in corporate economic performance.

Company reputation is one of the significant factors of competitiveness. With regard to the fact that company's approach to the environment and to the social aspects of business (primarily to the occupational health and safety issues and to human resources quality and development) were defined by the respondents to be the most important factors for competitiveness of chemical industry companies it would be useful to create a system of communication with external stakeholders and with company employees that would include also the information on the environmental and social aspects and their impacts. High quality system of communication that meets the information requirements of the key stakeholders may significantly contribute to reputation improvement, to increasing the attractiveness of the company as an employer and finally as the ultimate consequence to retaining, or to improving, the company competitiveness.

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