

# INTEGRATION OF ECONOMIC, ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE PERFORMANCE AND REPORTING IN ENTERPRISES

J. Hřebíček, J. Soukopová, M. Štencl, O. Trenz

**Received: August 30, 2011**

## Abstract

HŘEBÍČEK, J., SOUKOPOVÁ, ŠTENCL, M., J., TRENZ, O.: *Integration of economic, environmental, social and corporate governance performance and reporting in enterprises*. Acta univ. agric. et silvic. Mendel. Brun., 2011, LIX, No. 7, pp. 157–166

Current trends of corporate performance evaluation, i.e. the measurement of environmental, social, economic and governance performance of company and corporate sustainable reporting are discussed in the paper. The relationship between company performance and reporting its key performance indicators is important, therefore, the development of modern and advanced methods and metrics to identify these indicators mainly based on the quantification with the possibility of utilization of information and communication technology are discussed.

performance evaluation, ESG performance, key performance indicators, sustainability reporting, GRI, UN Global Compact, UNEP FI, OECD, ISO 26000

## 1 INTRODUCTION

Faculty of Business and Management of Brno University Technology (FBM BUT) and Faculty of Business and Economics of Mendel University in Brno (FBE MENDELU) started to work on the project No. P403/11/2085 *Construction of Methods for Multifactorial Assessment of Company Complex Performance in Selected Sectors* funded by the Grant Agency of the Czech Republic (GACR) in January 2011. The main goal of the research in this project was specified by its partial research targets (Hřebíček, Soukopová, Štencl, Trenz, 2011):

- 1) *Analysis of the state-of-art* on economic, environmental, social and corporate governance (CG) aspects of company performance through targeted research of the world literature and database sources available at FBM BUT and FBE MENDELU with using available ICTs tools.
- 2) *A detailed analysis of the implementation of economic, environmental, social and corporate governance reporting in chosen economic activities and its justification*. In case it is, analysing the way of its performance, its role,

its informative capability and decisive value, all this to be done in agreement with the company information system and overall company performance. If not, focus on identifying the reasons why, possible motivation for future steps to implement it.

- 3) *Examine, analyze and categorize contemporary characteristics of the individual pillars: economic, environmental, social and corporate governance* (or the attractive sustainability of success) in relation to the measure of progress or dynamics of development of the overall company performance, so that the basic data and preparation for the construction and defining of multifactor methods in a rational and useful manner identify the system of conditions as the support to subsequent creation of an applicable methodology. The research will focus on the critical partial processes in the fields: *Integration of economic performance; Integration of environmental performance; Integration of social performance; Integration of corporate governance; Sustainability of success*.

- 4) *Specification of possibilities for company overall performance measurements* in chosen economic activities based on analyses of previous findings. (Considering possible utilization of the already acquired data, information and findings resulting from the previous scientific-research activities of the project participants. Identification of the importance and relative roles of economic, environmental, social and governance (ESG) factors with using ESG data and key performance indicators (KPIs) in the company overall performance).
- 5) *Construction of methods of multifactor measurement of complex company overall performance* in chosen economic activities through the advanced quantitative and qualitative methods (in detail mentioned above) while using the ICT tools and defining their practical implementation ability, functionality, modifiability and embracing a broad spectrum of factors.
- 6) *Application of methods for multifactor measurement of company overall performance* of chosen economic activities in practice with feedback for possible change correction aimed at further improvement.
- 7) *Methods assembly* while considering target 6, description of the methodology and of the software, creation of a specialist monograph and further dissemination of the project outputs (international conference) to do these publicly available.

### 1.1 Investigation in the area of corporate performance evaluation and reporting

The research in the area of corporate performance evaluation and corporate sustainability reporting in the Czech Republic (Hřebíček, Soukopová, 2008), (Hřebíček, Hájek, Chvátalová, Ritschelová, 2009), (Hřebíček, Soukopová, Kutová, 2010a), (Hřebíček, Soukopová, Štencl, Trenz, 2011), (Chvátalová, Kocmanová, Dočekalová, 2011), (Kocmanová, Dočekalová, Němeček, Šimberová, 2011), (Kocmanová, Hornugová, Klímková, 2010) and (Ritschelová, Sidorov, Hájek, Hřebíček, 2009) reflect the overall global world trends (G3.1, 2011), (Bassen, Kovacs, 2008), (Schaltegger, Wagner, 2006). Corporate successful sustainability, that is the capacity of an organization to continue operating over a long period of time, depends on the sustainability of its stakeholder relationships. The available statistics show that through all objective benefits the corporate performance evaluation and corporate sustainability reporting can bring to businesses an appropriate feedback. Existing motivation is not sufficient to make this to normal business practice as compared to the financial accounting and reporting.

Plenty of organizations in the Czech Republic have implemented and certified quality (ISO 9000), environmental (ISO 14000 and EMAS) and occupational health and safety (ISO 18000) management systems and some of them are going

to implement corporate social responsibility (ISO 26000) management system discussed in (Carroll, 1999).

Therefore, environmental, economical and social corporate data and information are being monitored, codified, registered and aggregated into *Key Performance Indicators* (KPIs) (Bassen, Kovacs, 2008), (DVFA, 2008), (Hřebíček, Mísařová, Hyršlová, 2007), (Hřebíček, Růžička, 2007), (Hřebíček, Soukopová, Kutová, 2010b), (Kocmanová, Hornugová, Klímková, 2010). This fact indirectly indicates that in the case of such needs the organization is able to aggregate these data and incorporate it into the corporate sustainability or environmental report, (Ritschelová, Sidorov, Hájek, Hřebíček, 2009).

The great importance is attributed to the defining of KPIs in the economic, environmental, social and governance areas for specified economic activities (NACE) with subsequent measurement of sustainable development. NACE is the acronym standing for Statistical Classification of Economic Activities, used by the European Union (or the European Communities) since 1970. It was updated several times, and the current list of this classification is in (NACE, 2011). NACE provides a framework for statistical data relating to activities in many economic areas (e.g. production, employment, national accounts etc.) and sectors. The corporate sustainability reporting and overall performance of a company in a specific economic activity would thus be defined by the integrated achievement of ESG performance measures. The sustainability performance is, however, often understood as performance in environmental, social and economic/financial terms, thus excluding governance performance (Schaltegger, Wagner, 2006). However we will consider also the corporate governance like (Bhojraj, Sengupta, 2003).

The *Global Reporting Initiative* (GRI) has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI drives sustainability reporting by all organizations. GRI produces the world's most comprehensive *Sustainability Reporting Framework* (GRI Reporting Framework, 2006) to enable greater organizational transparency. In March 2011 GRI released the G3.1 Guidelines (G3.1, 2011), an update and completion of the G3 Guidelines from 2006. The Framework, including the *Reporting Guidelines* (G3.1, 2011), sets out the *Principles* and *Indicators* and organizations can use these to measure and report their economic, environmental, and social performance.

In March 2011 the GRI launched expanded guidance for reporting on human rights building on this policy framework. A new introduction and new content for the *Disclosure on Management Approach* re-emphasizes the role of human rights in sustainability. New indicators cover assessment of operations and grievance remediation.

Although the G3.1 Guidelines (G3.1, 2011) has served as an essential and very useful tools in improving the standardization of company reporting in many sectors, companies continue to have differing degrees of compliance with the G3.1 Guidelines and sometimes differing interpretations of the best tools to apply these standards to their reporting. The integration of financial performance with environmental, social and governance performance reflects a growing desire by stakeholders for more information on a broader range of issues. To be comparable across all companies, and thus useful for mainstream investment analyses, it is important that financial, environmental, social and governance (ESG) data are transformed into consistent units and presented in a balanced and coherent manner in ESG indicators.

We summarize in the paper chosen results of project No P403/11/2085 *Construction of Methods for Multifactorial Assessment of Company Complex Performance in Selected Sectors* on the analysis of the state-of-art on economic, environmental, social and CG aspects of company performance.

Further we focus on the critical partial processes in the research areas: integration of economic performance; integration of environmental performance; integration of social performance; integration of corporate governance; and sustainability of success.

Specification of possibilities for company overall performance measurements in chosen economic activities based on analyses of previous findings will be discussed also in the paper.

## 2 New approach of GRI

In this chapter we introduce some results of our analysis of the state-of-art on economic, environmental, social and CG aspects of company performance, where we focused on the collaboration of GRI with other organizations on common approaches to ESG performance and reporting.

### 2.1 United Nations Global Compact initiative

In a push to strengthen the quality of sustainability reporting in the corporate sector, the *United Nations Global Compact* (UN Global Compact, 2010) and the GRI announced on 28 May 2010 the agreement to align their work in advancing corporate responsibility and transparency. The agreement is intended to provide companies in the Global Compact with a clear set of reporting principles and indicators to meet the initiative's compulsory annual disclosure requirement, also known as the *Communication on Progress* (Communication in Progress, 2010). The GRI Reporting Framework is applicable to organizations of all sectors, sizes and regions and also offers a series of supplements developed to address sector-specific circumstances and challenges.

In addition to creating a reporting framework that will be implemented universally, the

new collaboration is also intended to provide a benchmark for financial analysts and other stakeholders to better analyze and identify risks and opportunities as they relate to ESG issues. *The agreed collaboration, combining the expertise and efforts of GRI and the UN Global Compact, will allow us to significantly extend our outreach and support an increasing number of companies and stakeholders around the world which seek to improve their sustainability performance*, added Ernst Ligteringen, GRI's Chief Executive.

### 2.2 United Nations Environment Programme Finance Initiative

Investors have been a key driver in promoting the uptake of corporate sustainability reporting – as a result of further initiatives such as the *United Nations Environment Programme Finance Initiative* (UNEP FI), (UNEP FI, 2010). They are increasingly asking companies for economic, environmental, social and governance (ESG) information to help them make investment decisions, see (WBCSD and UNEP FI, 2011).

*UNEP FI Asset Management Working Group* (AMWG) and the *Markets & Valuation Work Stream* of the *World Business Council for Sustainable Development* (WBCSD) have jointly published the new report: *“Translating ESG into sustainable business value”* (WBCSD and UNEP FI, 2011). This report providing key insights for companies and investors on how their business and investment philosophy and practices going forward can better address the why, what and how of communicating corporate ESG performance to the capital markets. Business leaders and investors can use this report as a tool to advance the integration of ESG factors into corporate and investment decision-making, and to continue discussing the needed evolution towards more holistic and realistic capital market valuation processes.

The AMWG is a global platform of asset managers that collaborate to understand the various ways ESG factors affect investment value and the evolving techniques for the inclusion of ESG criteria and metrics.

The UNEP FI PWG recognises the importance of understanding the social impacts of buildings on the communities in which they are situated and the related impact they have on investment performance. As they pointed out in 2007 (UNEP FI PWG, 2007), such metrics could include assessments of how urban revitalisation, health and safety for workers and visitors, worker and customer well-being, contributions to community life, fair labour practices, historic preservation, and other social and community-based actions can contribute positively to investment performance.

### 2.3 OECD Guidelines for Multinational Enterprises

In December 2010, GRI announced a partnership with the OECD to give companies worldwide greater guidance and support on how to conduct



their business responsibly and report on their sustainability performance. The partnership aims to help companies make greater use of the *OECD Guidelines for Multinational Enterprises* (OECD Guidelines, 2010) and the GRI Sustainability Reporting Framework, bringing increased coherence and consistency to their efforts to act more responsibly and be more transparent about their sustainability.

Companies should apply high quality standards for accounting, and financial as well as non-financial disclosure, including environmental and social reporting where they exist. The standards or policies under which information is compiled and published should be reported. An annual audit should be conducted by an independent, competent and qualified auditor in order to provide an external and objective assurance to the board and shareholders that the financial statements fairly represent the financial position and performance of the enterprise in all material respects.

Teresa Fogelberg, Deputy Chief Executive of the GRI, said: *Today's updates mark a huge milestone for the OECD and for sustainability in general. This is the only government-led sustainability framework for companies and disclosure now plays a key role. This is great news, and we believe it will drive transparency and, ultimately, a sustainable global economy. However, I had hoped for stronger content on disclosure.*

## 2.4 GRI and ISO 26000

The first ever ISO Guidance Standard on Social Responsibility, ISO 26000, published in November 2010, emphasizes the value of public reporting on social responsibility performance to internal and external stakeholders, such as employees, local communities, investors and regulators. ISO 26000 provides guidance on the underlying principles of social responsibility, the core subjects and issues pertaining to social responsibility and on ways to integrate socially responsible behaviour into existing organizational strategies, systems, practices and processes. ISO 26000 also emphasizes the importance of results and improvements in performance.

This represents an important new level of international attention to the issue of reporting, and is aligned with GRI's vision that disclosure on economic, environmental, social and governance performance becomes as commonplace and comparable as financial reporting (GRI and ISO 26000, 2011).

## 2.5 GRI and the Carbon Disclosure

GRI and the *Carbon Disclosure Project* (CDP) announced in July 2011 the release of *Linking GRI and CDP: How are the GRI Guidelines and the CDP questions aligned?* The first edition was published in 2010 and has now been updated to incorporate changes in guidance. Linking GRI and CDP features a table that compares specific environmental Indicators from GRI's Guidelines with questions

from CDP's Investor and CDP Supply Chain 2011 programs (GRI and CDP, 2011).

## 2.6 GRI and XBRL Reporting

Reporting tools like *eXtensible Business Reporting Language* (XBRL), (XBRL, 2011), designed for the ESG performance together with Corporate Social Responsibility (CSR), (Carroll, 1999), GRI, UN Compact Global, UNEP FI, ISO 26000 and OECD Guidelines for Multinational Enterprises – appear as essential at present. We will use them in the development of ICT tools in the project No. P403/11/2085 for company sustainability reporting.

Therefore, new frameworks of GRI (G3.1, 2011), UN Global Compact, UNEP FI, ISO 26000 and OECD Guidelines for Multinational Enterprises give the current common guideline how to process appropriate sustainability performance data to determine KPIs to identify company overall sustainability ESG performance.

## 3 Determination of company corporate performance and reporting

The overall company performance plays a key role in its corporate strategic policy and sustainability of success. The creation of reliable methods of ESG performance measurement where concurrent acting of multiple factors is in play can be considered a prerequisite for success not only in decision making, but also with regard to corporate governance, comparison possibilities, development of healthy competition environment etc.

One of the possible approaches is to also take into account successful solutions to economic, environmental and social issues and CG in relation to measurement of company performance, as well as its continued success (Sustainability of Success). Disregarding such aspects of performance in the unified reporting (Corporate Sustainability Reporting) by company managers may result in creating further and even deeper problems. For ESG performance data is necessary to determine KPIs. Let us consider that KPIs are organized to the four pillars (*Economics, Environmental, Social and Corporate Governance*) and fifth pillar *Sustainability of Success* (long term viability) (Kocmanová, Němeček, 2009), (Kocmanová, Dočekalová, Němeček, Šimberová, 2011).

## 3.1 Integration of economic performance

Financial reporting standards, such as International Financial Reporting Standards (IFRS) and US Generally Accepted Accounting Principles (U.S. GAAP) and ESG reporting frameworks, principally the GRI Guidelines, will act as structural supports for potential integrated reporting frameworks of integrated economic performance. We have to determine KPIs based on the G3.1 Guideline (G3.1, 2011). There are often used the economic indicators of targeted for selection strategies (maximizing profits, maximizing total

costs, company survival, etc.), using new methods of design and measurement is often reflecting the evolution of economic performance lessons from history and look to the future.

Economic performance indicators can be divided in relation to the surveyed area (Kocmanová, Hornugová, Klímková, 2010):

- a) *indicators of liquidity* (current ratio, quick ratio, cash ratio etc.);
- b) *indicators of profitability* (return on assets, return on equity, return on investment, return of sales etc.);
- c) *indicators of indebtedness* (debt ratio, self-financing ratio etc.);
- d) *indicators of financial and asset structure*;
- e) *indicators of activity and other*, e.g. Benchmarking, EVA, Balanced Scorecard and other (Varian, 1992).

We are in compliance with the G3.1 Guideline, but we extended these KPIs, see (Hřebíček, Soukopová, Štencl, Trenz, 2011) with the use of RICON approach (RICON, 2010). The further modification of these integrated economic performance indicators is

under development and will be finish to the end of this year.

We have used our developed XBRL tools to facilitate the calculations and the visualizations of above chosen economic performance indicators. XBRL allow us to prepare report to place electronic tags on specific content (graphs, numbers, text, etc.) of indicators in their reports by using an existing *XBRL taxonomy*. It enables users those are interested in finding some data e.g. on greenhouse gas (GHG) emissions, they could immediately find this data - select it, analyze it, store it and exchange it with other computers and automatically present it in different ways. Users are able to apply this to multiple reports and compare emissions information across different reports.

### 3.2 Integration of environmental performance

We have determined KPIs for environmental reporting using results of our previous research in this field (Hřebíček, Soukopová, Kutová, 2010a) using the G3.1 Guideline and EMAS indicators, which were accepted by the Ministry of Environment of the Czech Republic as its official

#### I: Environmental key performance indicators

No.	indicator	unit	value
<b>Efficiency of material consumption</b>			
EN1	annual mass-flow of different materials used	Tonnes	
EN2	ratio of the used recycled input materials expressed in units	% of the total input materials	
<b>Energy efficiency</b>			
EN3	total direct energy use	MWh or GJ	
EN4	total renewable energy use	percentage of total annual consumption of energy (electricity and heat) produced by the organisation from renewable energy sources	
<b>Water management</b>			
EN8	total annual water consumption	m <sup>3</sup> /year	
<b>Waste management</b>			
EN22	total annual generation of waste	Tonnes	
EN22a	total annual generation of hazardous waste	kilograms or tonnes	
<b>Biodiversity</b>			
EN11a	use of land	m <sup>2</sup> of built-up area use of land	
<b>Emissions into the air</b>			
EN16	total annual emission of greenhouse gases	tonnes of equivalent CO <sub>2</sub>	
EN20a	total annual air emission	kilograms or tonnes	
<b>Products and services</b>			
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation expressed	number of initiatives	
EN27	sold products sold and their packaging materials that are reclaimed by category	%	
<b>Compliance with legislation</b>			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	thousand of CZK	

methodology for environmental reporting. The proposed KPIs shall apply to all organizations in all economic activity sectors. They focus on performance of the organizations in the following key areas of the environment (EMAS III, 2009):

- a) efficiency of material consumption;
- b) energetic efficiency;
- c) water management;
- d) waste management;
- e) biological diversity;
- f) emissions into the air;
- g) other relevant indicators of the influence of the organization's activity on the environment.

Environmental KPIs are summarized in the Table I.

We will not further discuss above integrated environmental performance indicators because they were introduced and discussed in (Hřebíček, Soukopová, Štencl, Trenz, 2011).

We have used also our developed XBRL tools to facilitate the calculations and the visualizations of these integrated environmental performance indicators.

### 3.3 Integration of social performance

The social dimension of sustainability concerns the impacts of company that has on the social systems within which it operates. We are going to determine KPIs for social performance based on the GRI social performance indicators to identify key performance aspects surrounding labor practices, human rights, society, and product responsibility (Hřebíček, Soukopová, Štencl, Trenz, 2011), (G3.1, 2011), (GRI Reporting Framework, 2006).

We have to consider that *labor practices indicators* also draw upon the two instruments directly addressing the social responsibilities of business enterprises: the *ILO Tripartite Declaration Concerning Multinational Enterprises and Social Policy*, and the *OECD Guidelines for Multinational Enterprises* (OECD Guidelines, 2010).

*Human rights performance indicators* require companies to report on the extent to which human rights are considered in investment and supplier/contractor selection practices. Additionally, these indicators cover employee and security forces training on human rights as well as non-discrimination, freedom of association, child labor, indigenous rights, and forced and compulsory labor.

*Society performance indicators* focus the attention on the impacts organizations have on the communities in which they operate, and disclosing how the risks that may arise from interactions with other social institutions are managed and mediated. In particular, information is sought on the risks associated with bribery and corruption, undue influence in public policy-making, and monopoly practices.

*Product responsibility performance indicators* address the aspects of a reporting organization's products and services that directly affect customers, namely,

health and safety, information and labeling, marketing, and privacy.

Integration process of the development of social performance indicators is in progress and the final version of KPIs is planned to finish in the project to the end of this year.

### 3.4 Integration of corporate governance performance

Corporate governance report usually contains governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight (CEO, top management etc.).

The corporate governance regulation in the Czech Republic uses usually a dualistic model: *mechanism of written law enforcement* (mainly the Act No. 513/1991 Coll., Commercial Code), and self-regulation mechanism, characterized by self-imposed observing of the required rules. This mechanism is primarily implemented through the code of company governance and due diligence principles. The company is governed by a body of shareholders – the general meeting reported to by the board of directors as an executive managing body and by the supervisory board as a surveillance authority.

Corporate governance performance is the question of risk, specifically leadership risk. We consider in company: *governance processes and structure; profiles and competencies; culture, behaviors and team dynamics*. Within the context of the company management as an effective decision-making authority for a global company, we have developed an approach to reviewing CG effectiveness that we structure around three areas of risk and underperformance.

We have used this approach to conduct our interviews with CEO and executive managers of companies in sectors *F – Construction* and *C10 – Manufacture of food products*. Conclusions from these interviews are expected to the end of this year.

### 3.5 Sustainability of success

If the performance and competitiveness of the companies on the current markets should increase, then it is necessary to develop a complete system of ESG performance evaluation, based upon the cooperation of the interdisciplinary teams, which can contribute to the growth of the total performance of the company.

The ESG performance evaluation will be indisputably reflected by the performance of the companies, in the growth of the offered value and care for the market from the side of the customers, increase of theirs satisfaction and loyalty on one side and improvement of the company image and its partners in the business, with augmentation of their position and welfare on the second side.

The system of KPIs for ESG performance evaluation offers for all companies in given

sector much higher development dynamics, as up to now (Kocmanová, Němeček, 2009), CEO decision-making is based on a qualified assessment (measurement) of a situation determined at the same time by multiple indicators, primarily in their horizontal development (Perrini, Tencati, 2006). In pursuit of an outstanding informative force an emphasis is currently placed not only on the absolute data, but in the first place on the change data and analyses of changes of these changes. That is, dynamics of systems is the focus of attention. Appropriately applied vertical analyses then add further dimension to the conditions for decision making. In this conjunction other methods have to be discussed: logical and empirical methods, methods of qualitative and quantitative research such as in particular modeling of statistics, see (Chválová, 2010).

### 3.6 Design of the questionnaire for the project No. P403/11/2085

As proposed previously in this article (see section 1 – Introduction), the project No. P403/11/2085 includes partial research targets. These targets could be joined with the particular project stages. The first stage, the state-of-the-art analysis is involved. This analysis includes survey of common knowledge about economic, environmental, social, CG performance and reporting especially in enterprises of the NACE sectors *F – Construction* and *C10 – Manufacture of food products* of the Czech Republic.

Further we developed with researchers of the FBM BUT the questionnaire covering all four general topics (reporting is included across all the topics) of our research. According to this, the questionnaire is divided into four independent modules focusing on partial aspects of business

#### The generated questionnaire Environmental area

##### 1. Which of the environmental aspect has important impact on Your enterprise? (You may mention more aspects)

	Relevance	Exceeding regulatory requirements	Fines	Complaints
Emissions to air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emissions to water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Odour, noise, radiation, vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact to nature and landscape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

##### 2. Which of the environmental aspect has important impact on the performance of Your enterprise? (Additional aspects)

	Relevance
Accident Prevention	<input type="radio"/>
Power consumption and heat	<input type="radio"/>
Water consumption	<input type="radio"/>
Consumption of materials and raw materials	<input type="radio"/>

##### 3. What do You do to decrease the impact of Your enterprise on the environment?

	Don't know	No	Rather no	Rather yes	Yes
Energy savings, renewable energy sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimization of waste by recycling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material savings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By reducing water consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By reducing emissions (i.e. emissions to air, wastewater, noise)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pollution prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protecting biodiversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Optimization of traffic and transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Providing funds to reduce environmental impact (i.e. recycling, reduce energy consumption)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When developing new products and services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

##### 4. Did You noticed the increase or improve of the performance in Your enterprise?

	Don't know	No	Rather no	Rather yes	Yes
Did You noticed the increase or improve of the performance in Your enterprise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have led these activities to increase competitiveness of the enterprise market, i.e. as opportunities to participate in a competition for government contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1: Part of questionnaire generated for environmental area



development, particularly in the environmental, social, economic and management subsystems (see Fig. 1 – part for environmental subsystem).

The questionnaire is prepared for both printed and online version<sup>1</sup> (with identical text) and after data collection will be completed, both data sets will be merged for further data processing. Online data collection will be done via questionnaire system ReLa (Research Laboratory), which has been developed as a project of researches of the Institute of Marketing and Trade FBE MENDEL in Brno (Stávková, Souček, Stojarová, 2009).

Based on the research results of the questionnaire, it will be possible to evaluate the current state and potential performance of the investigated enterprise on the environmental, social, economical and management levels. Subsequently will be verified

the correctness of the approaches and individual indicators on enterprises of Czech Republic, or European Union.

## 4 CONCLUSIONS

The presented paper has introduced chosen results of the project No. P403/11/2085 *Construction of Methods for Multifactorial Assessment of Company Complex Performance in Selected Sectors* funded by the Grant Agency of the Czech Republic.

There were presented the results of the analysis of the state-of-art on economic, environmental, social and corporate governance aspects of company performance and corporate sustainability. Integration of economic, environmental, social and corporate governance was discussed also.

## Acknowledgment

This paper is supported by the Czech Science Foundation. Name of the Project: Construction of Methods for Multifactor Assessment of Company Complex Performance in Selected Sectors. Registration No. P403/11/1103.

## REFERENCES

- BASSEN, A., KOVACS, A. M., 2008: Environmental, Social and Governance Key Performance Indicators from a Capital Market Perspective, *Zeitschrift für Wirtschafts und Unternehmensethik*, 9, 2: 182–192, ISSN 1439-880X.
- BHOJRAJ, S., SENGUPTA, P., 2003: The Effect of Corporate Governance Mechanisms on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors, *Journal of Business*, 76,3: 455–475, ISSN 00219398.
- CARROLL, A. B., 1999: Corporate Social Responsibility: Evolution of a Definitional Construct, *BUSINESS & SOCIETY*, 38, 3: 268–295, ISSN 0007-6503
- Communication on Progress, 2010: Available: [http://www.unglobalcompact.org/COP/communicating\\_progress.html](http://www.unglobalcompact.org/COP/communicating_progress.html).
- DVFA, 2008: KPIs for ESG. Key Performance Indicators for Environmental, Social and Governance Issues. A Guideline for Corporates on How to Report on ESG and a Benchmark for Investment Professionals on How to Integrate ESG into Financial Analysis, DVFA Financial Papers No. 8/08\_e, DVFA, Dreieich.
- EMAS III, 2009: Regulation (EC) No. 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No. 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC. Available: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:342:0001:0045:en:pdf>.
- GRI Reporting Framework, 2006: Available: <http://www.globalreporting.org/ReportingFramework/ReportingFrameworkOverview/>.
- GRI and CDP, 2011: Linking GRI and CDP: How are the Global Reporting Initiative Guidelines and the Carbon Disclosure Project questions aligned? Available: [http://www.globalreporting.org/NR/rdonlyres/4A15F3C6-13D1-4AB4-9D5D-C93C38E56A3D/6248/LinkingupGRIandCDP2011\\_ARcomments\\_VBeditMF.pdf](http://www.globalreporting.org/NR/rdonlyres/4A15F3C6-13D1-4AB4-9D5D-C93C38E56A3D/6248/LinkingupGRIandCDP2011_ARcomments_VBeditMF.pdf).
- GRI and ISO 26000, 2011: GRI and ISO 26000: How to use the GRI Guidelines in conjunction with ISO 26000. Available: [http://www.globalreporting.org/NR/rdonlyres/4A15F3C6-13D1-4AB4-9D5D-C93C38E56A3D/5468/ISOGRIRReport\\_FINAL.pdf](http://www.globalreporting.org/NR/rdonlyres/4A15F3C6-13D1-4AB4-9D5D-C93C38E56A3D/5468/ISOGRIRReport_FINAL.pdf).
- G3.1, 2011: G3.1 Guidelines, Available: <http://www.globalreporting.org/ReportingFramework/G31Guidelines/>.
- HŘEBÍČEK, J., MÍSAŘOVÁ, P., HYRŠLOVÁ, J., 2007: Environmental Key Performance Indicators and Corporate Reporting. In: Ritschelová, ed.: International conference EA-SDI 2007. Environmental Accounting and Sustainable Development Indicators. Praha: University Jana

1 [https://rela.mendelu.cz/auth/vyzkum/zobraz\\_vyzkum.pl?vyzkum=6145](https://rela.mendelu.cz/auth/vyzkum/zobraz_vyzkum.pl?vyzkum=6145)



- Evangelisty Purkyně, 147–155. ISBN 978-80-7044-883-0.
- HŘEBÍČEK, J., RŮŽIČKA, P., 2007: *Key Indicators of Environmental Performance and their Assessment*. In: International conference Sustainability Accounting and Reporting at Micro-Economic and Macro-Economic Levels. Pardubice: University of Pardubice, 35–42. ISBN 978-80-7194-971-8.
- HŘEBÍČEK, J., SOUKOPOVÁ, J., 2008: *Voluntary Company Assessment Report on the linkages between environment, economy and society* (in Czech). Praha: Ministry of Environment of the Czech Republic, 61. ISBN 978-80-7212-495-4.
- HŘEBÍČEK, J., HÁJEK, M., CHVÁTALOVÁ, Z., RITSCHELOVÁ, I., 2009: Current Trends in Sustainability Reporting in the Czech Republic. In: EnviroInfo 2009. Environmental Informatics and Industrial Environmental Protection: Concepts, Methods and Tools. 23. International Conference on Informatics for Environmental Protection, Aachen : Shaker Verlag, 233–240, ISBN 978-80-7044-883-0.
- HŘEBÍČEK, J., SOUKOPOVÁ, J., KUTOVÁ, E., 2010a: *Methodology Guideline. Proposal of Indicators for Environmental Reporting and Annual Reports of EMAS*. (in Czech). Praha: Ministry of Environment of the Czech Republic, 26.
- HŘEBÍČEK, J., SOUKOPOVÁ, J., KUTOVÁ, E., 2010b: Standardisation of Key Performance Indicators for Environmental Management and Reporting in the Czech Republic. In: USCUDAR 2010. Recent Advantages in Urban Planning, Cultural Sustainability and Green Development. USA: WSEAS Press, 76–82, ISBN 978-960-474-227-1.
- HŘEBÍČEK, J., SOUKOPOVÁ, J., ŠTENCL, M., TRENZ, O., 2011: Corporate Key Performance Indicators for Environmental Management and Reporting. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis* 59, 2: 99–108, ISSN 1211-8516.
- CHVÁTALOVÁ, Z., 2010: Company Sustainable Development and Measuring of its Environmental, Social and Governance Factors. In: Management, Economics and Business Development in European Conditions - VII. International Scientific Conference, Brno: FBM BUT, 40–49. Available: [http://konference.fbm.vutbr.cz/atlantis/useruploads/files/VII\\_International\\_Scientific\\_Conference.pdf](http://konference.fbm.vutbr.cz/atlantis/useruploads/files/VII_International_Scientific_Conference.pdf).
- CHVÁTALOVÁ, Z., KOCMANOVÁ, A., DOČEKALOVÁ, M., 2011: Corporate Sustainability Reporting and Measuring Corporate Performance, In: Environmental Software Systems. Frameworks of eEnvironment. 9th IFIP WG 5.11 International Symposium. ISESS 2011. Heidelberg: Springer, 398–406, ISBN 978-3-642-22284-9.
- KOCMANOVÁ, A., NĚMEČEK, P., 2009: Economic, Environmental and Social Issues and Corporate Governance in Relation to Measurement of Company Performance. In: Proceedings of the 9th International Conference Liberec Economic Forum 2009. Liberec: Technical University of Liberec, 177–186, Available: [http://seb.soc.cas.cz/publikace\\_download/publikace/lef2009\\_sbornik.pdf](http://seb.soc.cas.cz/publikace_download/publikace/lef2009_sbornik.pdf).
- KOCMANOVÁ, A., HORNUGOVÁ, J., KLÍMKOVÁ, M., 2010: Sustainability: The Integration Environmental, Social and Economic Performance of Company (in Czech). Brno: CERM, Akademické nakladatelství, s. r. o., ISBN 978-80-7204-744-4.
- KOCMANOVÁ, A., DOČEKALOVÁ, M., NĚMEČEK, P., ŠIMBEROVÁ, I., 2011: Sustainability: Environmental, Social and Corporate Governance Performance in Czech SMEs. In: The 15th World Multi-Conference on Systemics, Cybernetics and Informatics. 2011. IFSR, Orlando, USA: WMSCI 2011, 94–99, ISBN 978-1-936338-42-9.
- NACE, 2011: List of NACE codes. Available [http://ec.europa.eu/competition/mergers/cases/index/nace\\_all.html](http://ec.europa.eu/competition/mergers/cases/index/nace_all.html).
- OECD Guidelines, 2010: OECD Guidelines for Multinational Enterprises. Available [http://www.oecd.org/document/28/0,3746,en\\_2649\\_34889\\_2397532\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/28/0,3746,en_2649_34889_2397532_1_1_1_1,00.html).
- PERRINI, F., TENCATI, A., 2006: Sustainability and Stakeholder Management: the Need for New Corporate Performance Evaluation and Reporting Systems. *Business Strategy and the Environment*, 15: 296–308, ISSN 1740-8008.
- RITSCHELOVÁ, I., SIDOROV, E., HÁJEK, M., HŘEBÍČEK, J., 2009: Corporate Environmental Reporting in the Czech Republic and its Relation to Environmental Accounting at Macro Level. In: 11th Annual EMAN Conference on Sustainability and Corporate Responsibility Accounting. Measuring and Managing Business Benefits. Budapest: AULA, 55–60, ISBN 978-963-503-370-6.
- RICON, 2009: Sustainable Environmental Management. Available: <http://www.ricoh.com/environment/management/method.html>.
- SCHALTEGGER, S., WAGNER, M., 2006: Integrative Management of Sustainability Performance, Measurement and Reporting. *International Journal of Accounting, Auditing and Performance Evaluation*. 3,1: 1–19, ISSN 1740-8008.
- STÁVKOVÁ, J., SOUČEK, M., STOJAROVÁ, Š., 2009: Rela system. Software, Brno: Mendelova univerzita v Brně.
- UN Global Compact, 2010: United Nations Global Compact. Available: <http://www.unglobalcompact.org/>.
- UNEP FI PWG, 2007: Responsible Property Investment: What the Leaders are Doing, Geneva: UNEP FI Property Working Group.
- UNEP FI, 2010: United Nations Environment Programme Finance Initiative. Available: <http://www.unepfi.org/about/index.html>.
- UNEP FI PWG and SBCI, 2009: UNEP FI/SBCI's Financial & Sustainability Metrics Report: An international review of sustainable building performance indicators & benchmarks (authored by Claire Lowe and Alfonso Ponce), Geneva: UNEP FI.

- UNEP FI Report, 2011: An Investors' Perspective on Environmental Metrics for Property, Geneva: UNEP FI, Available: <http://www.unepfi.org/fileadmin/documents/EnvironmentalMetrics.pdf>.
- VARIAN, H. R., 1992: *Microeconomic Analysis*, Third Edition, New York: W. W. Norton and Company, ISBN 0-393-95735-7.
- WBCSD and UNEP FI, 2011: Translating environmental, social and governance factors into sustainable business value. Key insights for companies and investors. Report from an international workshop series of the WBCSD and UNEP FI. Available: <http://www.unepfi.org/fileadmin/documents/translatingESG.pdf>.
- XBRL, 2011: An Introduction to XBRL. Available: <http://www.xbrl.org/WhatIsXBRL/>.

#### Address

prof. RNDr. Jiří Hřebíček, CSc., Ing. Michael Štencl, Ph. D., Ing. Oldřich Trenz, Ph. D., Ústav informatiky, Mendelova univerzita v Brně, Zemědělská 1, 602 00 Brno, Česká republika, Ing. Mgr. Jana Soukopová, Ph.D., Ekonomicko správní fakulta, Masarykova univerzita, Lipová 41a, 602 00 Brno, Česká republika, e-mail: [hrebicek@mendelu.muni.cz](mailto:hrebicek@mendelu.muni.cz), [xstencl@node.mendelu.cz](mailto:xstencl@node.mendelu.cz), [xtrenz@node.mendelu.cz](mailto:xtrenz@node.mendelu.cz), [soukopova@econ.muni.cz](mailto:soukopova@econ.muni.cz)