Corporate Sustainability Reporting Towards Sustainability Network

Andreas Solsbach[1] and Jorge Marx Gómez

Abstract

Corporate sustainability reporting is an essential part of corporate communication, which focuses on the environmental impact of business acting. The changed perceptions of the triple bottom line – economical, environmental, and social aspects – accompanied by new technologies, such as eXtensible Business Reporting Language, offer the potential to automate the processing of corporate sustainability reports. In addition by using frameworks, such as enterprise information portals, allows a personalized exchange of information between companies and stakeholders. The approach presented in this paper will show how a sustainability network can be structured and how corporate sustainability reporting will provide an added value for such a network.

1. Introduction

Corporate sustainability reporting (CSR) is increasingly recognized in the 21st century and becomes a vital challenge in the corporate communication. The interest of stakeholders in Germany [1] and the demands of government agencies reflect this development, which could be noted as a sign of a change in the environmental view. The general public request more information about the environmental impact of companies in the last decade [2], this development is reflected by conferences, such as CeBIT 2008 with the topic "CeBIT green IT" [3]. The conference has the aim to present the idea how the environmental impact of the companies can be reduced to a level which allows a sustainable operation without rape the environment.

This development in CSR can be highlighted by "*We believe that the leading global companies of 2020 will be those that provide goods and services and reach new customers in ways that address the world's major challenges – including poverty, climate change, resource depletion, globalization, and demographic shifts*" [4, p. 4] which represents the view of companies involved in the World Business Council for Sustainable Development.

2. Sustainability reporting trends

The technical advances in using the internet as the most important information flow medium between companies and stakeholders and the developments in electronically data interchange by using extensible formats, such as Extensible Markup Language (XML), allows a personalize presentation of CSR by establishing an adaptable structure for different stakeholder groups. Research initiatives, such as „Forschungsinitiative zur internetgestützten Nachhaltigkeitsberichterstattung des Fachausschusses 4.6 Informatik für Umweltschutz, Nachhaltige Entwicklung und Risikomanagement der GI", want to support this development by generating document structures for the document engineering and to automate the sustainability reporting by using the eXtensible Business Reporting Language (XBRL) and software tools [5].

[1] Section Business Information Systems I, Department of Computing Science, Carl von Ossietzky University Oldenburg
26129 Oldenburg, Germany, andreas.solsbach@informatik.uni-oldenburg.de, jorge.marx.gomez@uni-oldenburg.de

3.   Sustainability network

The approach of a sustainability network of corporate communication is well founded with the trends and developments described in the sections above. Sustainability networks can be networks of interested stakeholders and experts in the field of sustainability, which use the digital medium of the internet via newsletter, homepages and other technologies or frameworks to generate a network of expertise in the field of sustainability [6, 7]. The aims of sustainability networks are to share information, ideas and solutions to overcome environmental problems and to highlight the environmental demands. One focus of the environmental network will be to share environmental information and the relations to different environments, such as company, and personal neighborhood. For companies environmental information's are reflected in sustainability reports with the overview about economic, environmental, and social aspects and the relation between these aspects.

3.1   Sustainability reporting

A survey conducted by "Institut für ökologische Wirtschaftsforschung" identified three major motives for sustainability reporting [8]:
- market-oriented motives,
- management-oriented motives, and
- public relations-oriented motives.

Sustainability reporting emerges to a digital medium which satisfies stakeholders' demands in a personalized way and which supports the whole process of generating and publishing a sustainability report.

This development supported by the technical advance enables new forms of dialogs between companies or companies/ stakeholders. The approach wants to highlight possibilities and questions how sustainability reporting can be used to generate a sustainability network between companies. A sustainability network can emphasize the corporate efforts to fulfill the corporate principles. The list below presents a small selection of advantages by implementing such a system.
- Enhanced corporate communication by using standardized interfaces and document structures
- Automated processing of sustainability reporting by using the technologies (software tools) and generated standards, such as the XBRL taxonomy for sustainability reporting [5]
- Forming a network of interest with the possibility to identify different stakeholders by generating case studies for the participating companies
- Reducing developing costs and risks for participating companies in the developing, testing and release process
- …

The list above presents some incentives for companies to share information in a sustainability network, which can establish an exchange of processes. Sustainability reporting and the transparency of the life cycle of products shown in the reports can be one main reason to choose products, processes, or services of one company by companies or end costumers. The sustainability reporting creates better insights for the management to adapt business processes, services or other operations into the operational procedures. These are reasons why sustainability reporting encourages the establishing of business networks.

3.2   Technologies for generating networks

The technical advances in extensible languages, such as XBRL, and XML, enable the possibility to automate the processing to avoid an information overflow which is one of the central issues in the environmental information management. By using stakeholder oriented technologies, such as portals, companies are able to present their environmental data and decrease the risk of such an information overflow.

33

The XBRL is able to support the automating process of corporate sustainability reporting by decreasing the manpower involved in the generating process. The structure of the sustainability report can be adopted easily by using the XML scheme provided by standardization organizations, such as Global Reporting Initiative (G3 guideline) [9]. An environmental standard is the Eco-Management and Audit Scheme [10].

Technologies used to establish a network can be wikis [11] to increase the collaboration between the stakeholders and the companies (knowledge management), portals in particular enterprise information portals (EIP) [12], which can use XML as basis technology and act as a gateway for companies' information and contact point for customer. The benefits of using portals compares' to wikis is based on features, such as "single-sign on" or that EIP are closed portals. Instead of wikis EIP's have implemented several techniques and features to secure companies data from unauthorized access, which supports the possibility to include the environmental issues into companies strategic and information management. The data will be protected from unauthorized access from external and internal access. By using a portal with a user management system the environmental impacts of the companies will be presented in a stakeholder-oriented way. The idea of including environmental impacts into the companies' principles will underline this statement for external stakeholders and improve the public opinion for these companies.

3.3 Model of a sustainability network

The figure 1 shows a model of a sustainability network as a green cloud. Companies in this network are connected with each other via EIP, which have the aim to consolidate, manage, analyze, and distribute the company information to internal and external stakeholders. These stakeholders may be strategic management, public relations, and external consultants.

The EIP are able to use the consolidated information of the sustainability reports which is one reason to use these reports as an information source. Naturally, the EIP will use all accessible environmental data sources in the company. In this model stakeholder will access the sustainability network from outside, because the focus lies on the corporate sustainability.
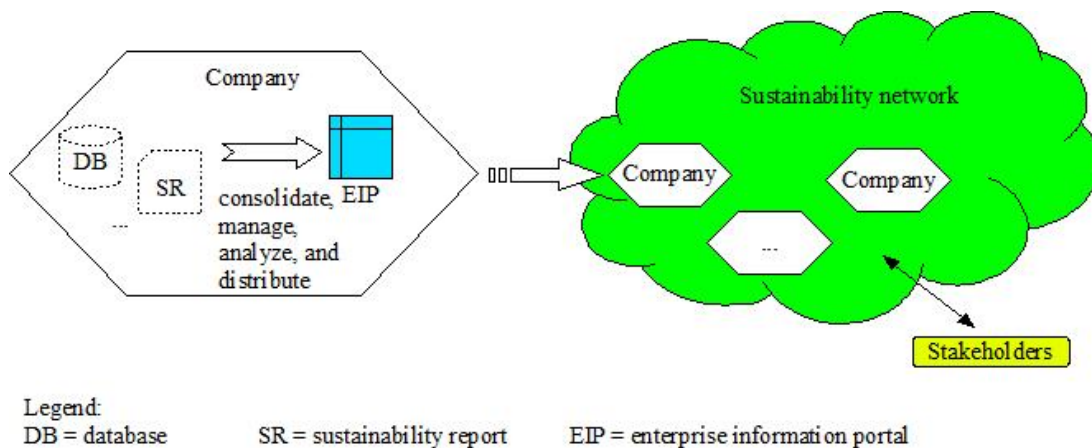

Fig. 1: Model of a sustainability network

4. Conclusions and future work

This paper presents an analysis about which technologies support establishing a sustainability network by using corporate sustainability reports. Also, the reasons of using sustainability reports are presented in this paper.

The next steps will be to investigate by using a survey, why a company should share its information with other companies; and to satisfy that the benefits out value all possible cons. Alternatives to establish a sustainability network have to be investigate e.g. multi agent systems which are able to act as a Middleware could be an option to enable the data interchange in the sustainability network but have not investigate at this stage.

References

[1]   Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit. **UMWELTBEWUSSTSEIN IN DEUTSCHLAND 2004 - ERGEBNISSE EINER REPRÄSENTATIVEN BEVÖLKERUNGSUMFRAGE**, Berlin, July 2004. Retrieved from http://www.umweltdaten.de/publikationen/fpdf-l/2792.pdf, 2008-02-21.

[2]   European Commission. **PUBLIC SECTOR INFORMATION: A KEY RESOURCE FOR EUROPE - GREEN PAPER ON PUBLIC SECTOR INFORMATION IN THE INFORMATION SOCIETY**, COM(98)585, January 1999. Retrieved from: ftp://ftp.cordis.lu/pub/econtent/docs/gp_en.pdf, 2008-02-21.

[3]   CeBIT 2008. CeBIT green IT. Retrieved from: http://www.cebit.de/greenit_e, 2008-02-21.

[4]   World Business Council for Sustainable Development. **FROM CHALLENGE TO OPPORTUNITY - THE ROLE OF BUSINESS IN TOMORROW'S SOCIETY**. Retrieved from http://www.wbcsd.org/DocRoot/ 4lcRHbx7NPrVWlwpGxaL/tomorrows-leaders.pdf, 2008-02-21.

[5]   Isenmann, R. et al. (2008): **XBRL-TAXONOMIE FÜR NACHHALTIGKEITSBERICHTE – VORSCHLAG EINER HARMONISIERTEN DOKUMENTSTRUKTUR ZUR ONLINE-KOMMUNIKATION VON ORGANISATIONEN**. In: Multikonferenz Wirtschaftsinformatik 2008, Martin Bichler et al. (Eds.). Berlin, GITO-Verlag, p. 133-134.

[6]   London 21, retrieved from http://www.london21.org/, 2008-05-26.

[7]   Population and Sustainability Network, retrieved from http://www.populationandsustainability.org/, 2008-05-26.

[8]   Hessisches Ministerium für Wirtschaft, Verkehr und Landesentwicklung und Hessische Technologiestiftung (Editor): **WETTBEWERBSVORTEILE DURCH AKTIVE UMWELTBERICHTERSTATTUNG – NEUE CHANCEN FÜR KLEINE UND MITTLERE UNTERNEHMEN**. Wiesbaden, 1999.

[9]   Global Reporting Initiave[TM] (GRI). G3 guidelines. Retrieved from http://www.globalreporting.org/ReportingFramework/G3Guidelines/, 2008-05-26.

[10]   Eco-Management and Audit Scheme (EMAS).EMAS guidelines. Retrieved from http://www.emas.de, 2008-05-26.

[11]   Klobas, J. (2006): **TOOLS FOR INFORMATION WORK AND COLLABORATION**. Oxford, Chandos Punblishing.

[12]   Großmann, M.; Koschek, H. (2005): **UNTERNEHMENSPORTALE**. Berlin, Springer Verlag.