# EDITORIAL PREFACE

# Special Issue on Sustainability Reporting

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#### INTRODUCTION

Sustainability commonly is used in the sense of sustainable development and describes "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations General Assembly, 1987). Companies that want to act in a sustainable way typically have to address three dimensions, also known as triple bottom line (Elkington, 1997): the economic, the environmental, and the social one. In an ideal setting, a company can fulfill its own economic goals, contribute to the economy in countries affected by productions, distribution and sales, and offer its employees a beneficial setting. Additionally, it would protect or even develop these countries in terms of environment and social issues.

The importance of sustainability for companies can partly be attributed to the awareness of end-consumers. To an increasing extent consumers asks about the origin of products, which is reflected in terms such as ethical consumption and ethical consumerism (Newholm & Shaw, 2007; Strong, 1996). This goes along with media coverage that reveals unsustainable production practices such as exploitation of human labor and destruction of environment. As a consequence, not caring for sustainability can have severe economic consequences for companies due to damages to the public perception. A recent example is the report of extremely bad working conditions at a supplier of Apple, namely Foxconn. Its operations in China are reported to be harmful both from an environmental and a social point of view (Duhigg & Barboza, 2012). Despite being an independent business entity, accepting the situation would lead to extremely bad press for Apple. Moreover, sustainability requirements find their way into laws and regulations (Ioannou & Serafeim, 2011). Besides external influences, companies might see economic

impact in acting sustainable (Beheiry, Chong, & Haas, 2006) – or strive for ethical practices for reasons of idealism.

Reporting about issues that can be attributed to sustainability is done for decades: for example, separate environmental reports have been issued as early as 1989 (Kolk, 2004). However, reporting non-financial data such as figures about social responsibility and pollution is a rather new trend that lead to the Global Reporting Initiative (Dumay, Guthrie, & Farnetti, 2010). With sustainability reports, informing stakeholders – including the general public – about a company's economic, environmental and social performance becomes structured. In the form of frameworks such as provided by the Global Reporting Initiative it also becomes standardized.

At the moment, sustainability tools are a mostly voluntary tool – only few countries demand them: Denmark and – for state-owned companies – Sweden are first movers in this respect (Ioannou & Serafeim, 2011). However, market pressure and presumably perceived chances in addressing stakeholders lead to an increasing number of reports. It is subject of discussion to which extent performance of companies is reflected in reports, though (Adams, 2004).

#### ONGOING RESEARCH

Reporting sustainability performance has been extensively studied (cf. e.g. Roca & Searcy, 2012). Even a lot of work on the Global Reporting Initiative has been published. Nevertheless, sustainability reporting is a topic with many open questions for research. This particularly applies to the adoption of reporting, the relationship to stakeholder, and future developments:

- Which companies issue sustainability reports? Which departments are responsible for collecting data and for publication?
- What is the relation between reporting and actual performance?

- Are there differences between industrial sectors or with regard to other criteria such as company size?
- What is the status of reporting by noncommercial entities such as public organizations?
- How feasible are current reporting frameworks and practices? Are there best practices?
- What are the links to other disciplines, particularly to business administration, the social sciences, and information technology (including information systems research)?
- How is data collected and how is it used for decision making (Adams & Frost, 2008)?
- Do company operations change with sustainability reporting or do they merely adapt to issue reports?
- Can a shift to sustainability reporting be seen as a strategic investment?
- How can the road towards sustainability reporting for late-adopters look like? How can caveats be circumvented?
- If sustainability reporting becomes a mandatory practice, how should rules and supervision look like?

Some of these questions have been discussed in neighbouring fields. An integrated view, thus, is another target of future research. This special issue seeks to contribute to answering some of the questions and to provide directions for future investigation.

### **CONTRIBUTIONS**

The special issue is formed by six articles. All have an empirical background although emphasizing the theory greatly differs from article to article. They draw from a rich base of previous work particularly on accounting and corporate social responsibility (CSR). At the same time, each article fills a gap in the current literature by not just presenting an additional study on a known topic but by adding a novel perspective

or target of study.

The first article, "Sustainability Reporting in State Universities: An Investigation of Italian Pioneering Practices" by Benedetta Siboni, Carlotta del Sordo, and Silvia Pazzi, focuses on the public sector rather than on companies. Their study scrutinizes the adoption of sustainability reporting by universities in Italy.

The following two articles address sustainability reporting quantitatively. Ken Corley, Sandra Vannoy, and Joseph Cazier present a study on the impact of sustainability reporting on consumer behaviour. Their paper "Using Sustainability Reports as a Method of Cause-Related Marketing for Competitive Advantage" describes results from an experimental simulation that tries to measure consumer perception and behaviour during online shopping. Seth Li, Marie-Claude Boudreau, Mark Huber, and Richard T. Watson provide a study on the relationship between organizations' CSR disclosure and their sustainability performance. Their article "Sustainability Performance and CSR Disclosure: The Missing Link" furthermore describes four archetypes of organizations based on their disclosure levels and sustainability performances. Interestingly, for both papers the perception of sustainability by stakeholder is of great importance.

Case studies are the foundation for the three qualitative articles. All of them profoundly address literature at the same time and incorporate case study research with a thorough look at theory. Maria Gabriella Baldarelli and Mara Del Baldo present a case study from Italy. In their paper "The Implementation of Sustainability Reporting in SGR Group: Some Challenges of Transition from 'Greenwashing' to Relational Change" they seek to give insights on the impact of sustainability reporting on the mission, governance and accountability of companies. In "Sustainability Reporting by Outdoor Equipment Vendors" by Imke Wasner and Tim A. Majchrzak two international companies for outdoor apparel are assessed with regard to their GRI-based sustainability reports. The authors also compare the companies and discuss implications for sustainability reporting in general. Particularly notable is the inclusion of ethical theories.

Finally, the article by Christoph Beckers, Oliver Marz, and Lutz M. Kolbe, "Investing in Sustainability: A Practice-Oriented Approach to Analyze IT-Investments in Sustainability Reporting Systems", has a special focus. Sustainability reporting greatly relies on information technology. Therefore, the authors discuss to which extend Enterprise Resource Planning (ERP) systems already support reporting and which investments are required for adequate support. Moreover, they propose evaluation criteria for investment in IT for reasons of improved reporting.

## **ACKNOWLEDGMENT**

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Maria Gabriella Baldarelli, University of Bologna

Mara Del Baldo, University of Urbino "Carlo Bo"

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#### REFERENCES

Adams, C. A. (2004). The ethical, social and environmental reporting-performance portrayal gap. Accounting, Auditing & Accountability Journal, 17(5), 731-757.

Adams, C. A. & Frost, G. R. (2008). Integrating sustainability reporting into management practices.

Accounting Forum, 32(4), 288-302.

Beheiry, S., Chong, W., & Haas, C. (2006). Examining the business impact of owner commitment to sustainability. Journal of Construction Engineering Management, 132(4), 384–392.

Duhigg, C., & Barboza, D. (2012). In China, human costs are built into an iPad. The New York Times. Retrieved January 6, 2012 from http://www.nytimes.com/2012/01/26/business/ieconomy-apples-ipad-and-the-human-costs-for-workers-in-china.html

Elkington, J. (1997). Cannibals with forks: The triple bottom line of 21st century business. Oxford, UK: Capstone.

Dumay, J., Guthrie, J., & Farneti, F. (2010). GRI sustainability reporting guidelines for public and third sector organizations. Public Management Review, 12(4), 531-548.

Ioannou, I., & Serafeim, G. (2011). The consequences of mandatory corporate sustainability reporting (Working Paper No. 11-100). Harvard Business School Research. Retrieved from http://dx.doi.org/10.2139/ssrn.1799589

Kolk, A. (2004). A decade of sustainability reporting: Developments and significance. International Journal of Environment and Sustainable Development, 3(1), 51-64.

Newholm, R. T., & Shaw, D. S. (2007). Studying the ethical consumer: A review of research. Journal of Consumer Behavior, 6, 253-270.

Roca, L. C., & Searcy, C. (2012) An analysis of indicators disclosed in corporate sustainability reports. Journal of Cleaner Production, 20(1), 103-118.

Strong, C. (1996). Features contributing to the growth of ethical consumerism - A preliminary investigation. Marketing Intelligence and Planning, 14(5), 5-13.

United Nations General Assembly. (1987). Report of the world commission on environment and development. Our Common Future.

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Imke Wasner is finishing her studies of Business Administration with a focus on accounting at the University of Münster, Germany. She has handed in a Master's thesis on sustainability business accounting. For the thesis, she conducted a quantitative study targeted at SMEs. Imke received a BSc degree in Business Administration from the University of Münster. Formerly, she has been working as a credit analyst in the banking sector. Imke means to continue her business carrier with a position in charge of sustainability practices.