

Investing in Sustainability: A Practice-Oriented Approach to Analyze IT-Investments in Sustainability Reporting Systems

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ABSTRACT

Given the increased stakeholder focus on sustainability, companies are facing the challenge of systematically collecting and processing sustainability information. Identifying sustainability indicators will become imperative for small and medium-sized enterprises (SME), especially in the extremely segmented and highly specialized food industry – entailing opportunities, but also costs and risks. This article is a management approach and a basis for discussing the classification of sustainability reporting systems in existing Information Technology (IT) infrastructures from an economical point of view. Supported by a case study from the meat industry, the authors discuss to what extent sustainability information is reflected by an existing Enterprise Resource Planning (ERP) System, or which investments would be required for companies to facilitate the communication of sustainability data. Additionally and as a result, the article gives a schematic explanation how process changes can be evaluated economically by capturing and processing sustainability information, and thus how to decide in favor of or against a certain level of IT-based environmental information processing functionality.

Keywords: *Environmental Information System (EMIS), Environmental Management Information System, Evaluation of IT Investments, Food Industry, Meat Industry, Small and Medium-Sized Enterprises (SMEs), Sustainability Reporting, Total Buyer Ownership, Total Cost Ownership*

1. INTRODUCTION

Society has long been demanding from businesses to focus on sustainability (Ball & Grubnic, 2007). Stricter regulations and standards as well as the prospect of a potential increase in

efficiency and sales caused by positive image effects lead more and more to the implementation of the required political and social objectives.

It is obvious that the communication of sustainability action comprises the chance to create positive corporate image effects. For this purpose, the target-oriented communica-

DOI: 10.4018/ijesd.2013040106

tion of sustainability information is necessary. Especially in the food industry, the prevailing skeptical mood of stakeholders causes the need to provide information based on high quality data. To conduct this kind of social and environmental disclosures, IT systems for sustainability accounting and reporting offer support. Because of the increasing qualitative and quantitative complexity of sustainability reports and the entered information these systems once again are becoming more relevant. Although information for sustainability reporting is costly to capture and although ICT can simplify data collection, there is a lack of ICT supporting sustainability accounting and reporting in SMEs.

In this process linking sustainable action and economic performance seems to be a challenge (Morsing & Perrini, 2009). Since especially in SMEs resources are comparatively scarce (Welsh & White, 1981; Simpson et al., 2004) the question of the profitability of sustainable action has to be answered before companies intend to invest. This concerns especially IT investments (Schröder & Wömpener, 2011).

Moreover the investigation is motivated by the problem that there is a lack of precise, established theory-based concepts to support the strategic management of SMEs. Although they count for 99% (in total about 23 million in Europe) of the existing companies (OECD, 2005), SMEs seem to be only slowly integrated into the scientific discussion about sustainability.

On these grounds we address the question *which criteria shall be applied to evaluate future investments in IT Systems for sustainability reporting*. In response to the research question, we have to continuously discuss *how sustainability reporting systems can be integrated into the IT landscape of SMEs*. Particularly ERP-Systems are of outstanding importance in SMEs. The introduction of such integrated information systems has the potential to bring about substantial benefits while its introduction entails certain risks (Caruso & Marchiori, 2003). Correspondingly it has to be discussed for SMEs if

best practice IT-support for capturing, assessing and communicating sustainability information should be available as add-on functionality in existing ERP systems.

2. RESEARCH METHOD

The exploratory approach of this article is methodologically supported by a summary based on literature research presenting the economical importance of sustainability (Chapter 3). In particular, the impact of IT systems for generating sustainability information as well as the special requirements of SMEs will be elaborated in this context. Focusing on the food industry as object of experience, the object of understanding, i.e. the process integration of sustainability, will be examined by means of a case study in a selected food company of the meat industry (Chapters 4 & 5). This case study was conducted in the scope of a Master thesis in 2011. The case study has been used to thoroughly understand the various aspects of the phenomenon investigated, especially with reference to the study of small and medium sized businesses which are widely used in the SEAR research field, too. The preceding random survey of 2011 (Chapter 4) was designed to investigate the aims and objectives of this study. It is used for the monitoring characterization of the object of experience and does not claim providing representative results.

This approach provides a triangulation effect (Yin, 2009), utilizing multiple sources of both primary and secondary data to investigate the situation. The results of field research are supplemented in the next step by literature research in the area of the general meaning of economical efficiency of IT (Chapter 6). Finally, the results will be summarized, projecting an approach for determining the economical efficiency of IT systems with regard to process integration of sustainable company management. Guided by the preceding case study, the article concludes with a proposal for determining this economical efficiency (Chapter 7).

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