
Editorial

Robert Kudlak*

Research Institute for Managing Sustainability,
Vienna University of Economics and Business,
Franz Klein Gasse 1, A-1190 Vienna, Austria
and

Institute of Socio-Economic Geography and Spatial Management,
Adam Mickiewicz University,
Dziegielowa 27, 61-680 Poznań, Poland
E-mail: Robert.Kudlak@wu.ac.at

*Corresponding author

Peter Nijkamp

Department of Spatial Economics,
VU University Amsterdam,
De Boelelaan 1105 1081 HV Amsterdam, The Netherlands
Fax: +31-20-59-86004
E-mail: p.nijkamp@vu.nl

Biographical notes: Robert Kudlak is a Researcher at the Research Institute for Managing Sustainability at Vienna University of Economics and Business. Currently, he is leading two projects investigating the impacts of corporate social responsibility on competitiveness, environment and quality of jobs. His research interests are corporate social responsibility, corporate environmentalism, eco-management systems and competitiveness. He received his Doctoral in Economic Geography from Adam Mickiewicz University (AMU, Poznań, Poland).

Peter Nijkamp is a Professor in Regional and Urban Economics and in Economic Geography at the VU University, Amsterdam. His main research interests cover quantitative plan evaluation, regional and urban modelling, multicriteria analysis, transport systems analysis, mathematical systems modelling, technological innovation, entrepreneurship, environmental and resource management and sustainable development. In the past years, he has focussed on new quantitative methods for policy analysis and on spatial-behavioural analysis of economic agents. He is the former President of the Netherlands Research Council (NWO). In 1996, he was awarded the most prestigious scientific prize in the Netherlands, the Spinoza award.

If there were no market imperfections, if people were not greedy and opportunistic, and if the regulators were always public-oriented, we would live in the best of the worlds. Unfortunately, we live in a second-best world which nowadays faces the burden of a tremendous population growth, an unprecedented pace of biodiversity loss, and a massive overexploitation of all natural resources. All these processes jeopardise further economic growth and may affect human well-being. From this perspective, sustainability can be

perceived as a process of moving towards the ideal, 'first-best' world. However, achieving this goal requires an involvement of many actors, including businesses. The private sectors, and its business decisions are not so often investigated from the perspective of environment and sustainability. There is an ongoing debate though, whether and in what ways commercial-economic entities can contribute to sustainability, especially in the era of the loss of public trust in individual companies (as well as in the entire economic system) and in their ability to solve social and environmental problems, such as loss of biodiversity, climate change, and hunger and poverty. This special issue aims at taking a step forward towards a better understanding of the role of businesses on the way to sustainability.

Nigel Roome in his contribution presents a cybernetic model of corporate responsibility (CR). He draws an untraditional picture of CR understood as a practical organisational response to environmental pressures. In this view, CR is an activity of a relational character which takes place at the interface between two complex systems: an organisation and the external environment. The latter undergoes certain societal changes which are sensed by a company's managers. Then, through policy, control, coordination and implementation, the company adapts to new external conditions. Not only does this whole process affect the company's internal structure and dynamics, but in turn it also causes certain changes in its environment. Roome also investigates approaches to sensing changes in the external environment: traditional, through issues of management or stakeholder management, and through sustainable development.

In the next article, Paul Shrivastava, Vera Ivanaj and Silvester Ivanaj state that although science has been very successful in providing knowledge about sustainability, it has had very little impact on changing peoples' choices, decisions, and lifestyles. The authors claim that there is a clear contradiction between what we know about sustainability and what individuals and organisations do in order to achieve it. According to Shrivastava, Ivanaj and Ivanaj, sustainability can be achieved only through changing individual behaviour. Behavioural changes of individuals and organisations take place through passion and emotional connections. The authors argue that art represents a missing link between science and sustainability. It is through the arts, art-based methods and aesthetics that greater emotional commitment to sustainability can be created which will induce behavioural changes in individual, organisational and collective actions. The authors describe in what ways art can contribute to sustainability.

Prahalad and Hart (2002) have argued that the world's poorest represent a great market opportunity, as their needs have not been properly targeted by transnational corporations. Thus, redesigning current business models, strategies and products could be a business opportunity for many corporations as well as an opportunity for the poor to satisfy their basic needs. Denis G. Arnold and Laura H. Demski Williams challenge in their paper this perspective by highlighting a certain paradox. According to them, business activities may have many direct and indirect negative environmental impacts that can harm those at the base of the pyramid. They identify the ways in which transnational corporations can affect the poor with their positive and negative social and environmental impacts. Finally, they offer business policy-based solutions to the paradox.

Since Hotelling's (1931) seminal publication, scholars have attempted to establish the most socially and economically profitable path of extraction of non-renewable resources. To date, scholars have investigated the problem from the perspective of various market structures and various equilibrium concepts. The novelty of the subsequent contribution by Alex Halsema and Cees Withagen lies in a quantitative comparison of equilibrium

concepts. They perform numerical simulations to analyse differences to a company's profits and social welfare between perfect competition and monopoly.

Moving towards sustainability requires a substantial body of knowledge about the environmental and socio-economic systems and interactions between them. However, the great complexity of those systems and interactions (further strengthened by temporal and spatial effects) reveal an urgent need for intelligent methods of measuring, explaining and understanding this complexity. These methods and the knowledge they produce are significant from two perspectives, a policy-making perspective, since they prompt the creation of new policy instruments, and a business perspective, since they allow organisations to sense and act towards sustainable development (to use Nigel Roome's terminology). In his contribution, Vasil Simeonov gives a comprehensive overview of the multivariate methods employed to classify, model and interpret large environmental data sets that provide the grounds for understanding and shaping businesses' impacts on the natural environment.

The study by Aleid van der Wiel, Bart Bossink and Enno Masurel focuses on the reverse logistics concept mirroring the radical cradle-to-cradle approach to sustainability. Using the Dutch metal industry as a case study, the authors investigate the stimulating impact of four reverse logistics concepts on firms' waste reduction practices. They synthesise those practices into an analytical framework which can be applied for further research. The empirical findings of the study reveal that waste management practices are dependent on industry characteristics, consumers' behaviour and economies of scale, and require a high level of cooperation between companies within the production chain.

Next, Maria Teresa Borzacchiello and Max Craglia focus on the impact of open public-sector data on innovation and growth in the private sector, especially the impact of spatial environmental information on SMEs. Following the recent trend, mirrored in national strategies, to make public-sector information more accessible, the authors discuss and summarise the main concerns related to the topic, such as the difficulty in defining which innovations may be related to the use of spatial information, and the difficulty of relying on the existing indicators like patents, which capture only a part of the relevant population of firms. Borzacchiello and Craglia come up with an outline of a research strategy designed to comprehensively investigate the effects of open spatial environmental information on innovation and growth in the private sector.

The understanding of the role of businesses in society has evolved significantly in the last decades. Nowadays, there are very few people who would question social, environmental and ethical responsibilities of business companies. This evolution is recognisable not only in scholarly works, but also in societal, bottom-up movements and governmental policies. However, as there are still many societal and environmental challenges unsolved (e.g., poverty) and some that are even growing (e.g., climate change, loss of biodiversity), business firms are challenged to intensify their efforts towards sustainability. This special issue raises and investigates some of the vital topics regarding businesses, the environment, and sustainability.

References

- Hotelling, H. (1931) 'The economics of exhaustible resources', *Journal of Political Economy*, Vol. 39, No. 2, pp.137–175.
- Prahalad, C.K. and Hart, S.L. (2002) 'The fortune at the bottom of the pyramid', *Strategy+Business*, January, Vol. 26, pp.54–67.