SUSTAINABILITY ACCOUNTING: BRIEF HISTORY AND PERSPECTIVES

Jaroslava Hyršlová – Helena Becková – Marie Kubáňková

Abstract

Sustainability accounting and reporting are relatively new disciplines that have their early days in the 60s and the 70s of the 20th century. In professional literature these terms have been emerging from the 90s of the last century. An array of research works dealing with various perspectives on these problems has been realised since then. Scientific terminology as well as principles, rules and methods that should be respected and used by the system have been discussed.

Sustainability accounting has its roots in financial and managerial accounting, and it is possible to apply it both at macroeconomic (state) and microeconomic (corporate) level. The system provides information for all interested parties in support of decision-making processes in accordance with sustainability principles. The paper deals with sustainability accounting at the corporate level. A brief history of sustainability accounting development is presented and then main benefits and imperfections of the system are discussed. In the paper the main focus is aimed especially at the future development (prospects) of the system. The problems of sustainability accounting are solved from the world development point of view, but the state of solved problems in terms of the Czech Republic is in focus as well.

Key words: sustainability, corporate sustainability, sustainability accounting, sustainability reporting

JEL Code: M14, M41

Introduction

The origin of environmental accounting and sustainability accounting, as its most evolved form, is to be found in traditional accounting which has to respect the needs of a corporate management (accounting supports decision making processes at all managerial levels) and to be in line with demands of external parties (accounting information is a part of external reporting). With respect to history of accounting systems three disciplines are distinguished: traditional accounting, environmental accounting and sustainability accounting. While traditional accounting focuses mainly on economic (financial) aspects of enterprise, environmental accounting puts the same emphasis on environmental matters and examines economic impacts of major corporate environment-related activities; in both systems social matters are dealt with only marginally. Sustainability accounting covers all three pillars (economic, environmental, social) of sustainable development and their mutual relation.

The concept of sustainability accounting is closely connected to sustainability management and sustainability reporting (Bebbington et al., 2014; Gray et al., 2014). Sustainability management and sustainability accounting are an inseparable part of a corporate management. The main idea of corporate sustainability management is to harmonize a business and its actions with environmental and social aspects and impacts; sustainability accounting provides information for decision making within sustainability management. In scientific literature sustainability reporting is described as an inseparable part of sustainability accounting and sustainability management on the one hand, and on the other hand as a tool for a corporate communication with external stakeholders.

Sustainability accounting and reporting are useful tools for ensuring that business is conducted according to the principles of social responsibility and for informing major stakeholders about corporate sustainable performance. Enterprise in compliance with the principles of social responsibility may contribute to sustaining of competitiveness and the gain in competitiveness. Sustainability accounting and reporting are an inseparable part of various theoretical approaches like legitimacy theory (Deegan, 2002) and stakeholder theory (Clarkson, 1995). Sustainability management and sustainability reporting are examined and dealt with also at the governmental level (of individual states or their unions) and by non-governmental organizations; a state's stage of development (developed or developing state) is an important aspect here.

The paper explores the issues of sustainability accounting and reporting. A brief history of sustainability accounting development is presented and then main benefits and imperfections of the system are discussed. The paper aims especially at the future development (prospects) of the accounting system. The paper follows from the research of scientific sources. Furthermore, the results of the research into the field carried out in the Czech Republic, where the co-author of this paper (Jaroslava Hyršlová) was a co-researcher, have been used in this paper.

1 Brief History

The concept of environmental (sustainability) accounting has appeared in scientific literature since the 90s of the 20th century. An important milestone in the history of sustainability accounting was the World Summit on Sustainable Development which took place in Johannesburg in 2002 where the Sustainability Accounting Guidelines were released.

Already at the beginning of the 90s of the last century Gray (1993) described three methods of sustainability accounting: sustainable costs, natural capital inventory accounting and input-output analysis. Elkington (1999) devised a form of sustainability accounting referred to as triple bottom line (TBL) which concentrates on reporting economic, environmental and social impacts of a business; TBL accounting follows from the three-dimensional definition of sustainable development. Lamberton (2005) emphasized five main topics that should be discussed and that form the basic framework of the system of accounting. In his opinion, it is necessary to define sustainability, to choose adequate indicators for measuring sustainability, to select the units of measurement to assess economic, environmental and social impacts, to come to realize the interdisciplinary nature of sustainability accounting which requires cooperation between accounting and disciplines in social and ecological fields, and to use the basic principles and practices of traditional accounting within the system in a suitable way. Lamberton also explored the main differences between the models of financial and sustainability accounting and on the basis of that, he formulated five components of sustainability accounting framework: objectives (to measure performance toward goals of sustainability, to discharge accountability to stakeholders, to provide decision-useful information), principles (reporting entity, definition of sustainability, accounting period, scope, materiality, capital maintenance, units of measurement, precautionary principle), data capture tools, accounting records, and measurement techniques (performance indicators, valuation, life-cycle analysis, primary data capture, primary records), reporting (reporting formats, reporting frequency) and qualitative attributes of information (transparency, completeness, accuracy, timeliness, auditability, relevance, comparability, clarity, neutrality, sustainability context, inclusiveness).

As has been mentioned above, sustainability accounting cannot be separated from sustainability reporting. Attention was paid to the issue of sustainability reporting as early as the 60s of the 20th century; the first reporting tools were stand-alone non-financial reports which provided information to external parties. The first steps in social reporting were done in the Netherlands and France; for other countries like Germany, Austria and Switzerland this reporting was used as a basis for implementing environmental reporting. In the 80s a so called negative screening emerged; this method was used by investment funds in Great Britain and the United States of America as a part of investment decision-making in which, apart from economic aspects, social performance and compliance to ethical standards of an organization were considered. The 90s were characterised by the search of new indicators for evaluating the performance of businesses and for estimating the value of a business; it concerned financial (Rappaport, 1998) as well as non-financial metrics (Sveiby, 1997). An important milestone in the history of sustainability reporting was the year 1997 when the Coalition for Environmentally Responsible Economies (CERES) together with United Nations Environment Program (UNEP) established the Global Reporting Initiative (GRI). The aim of the GRI was to create rules for reporting encompassing economic, environmental and social behaviour of organizations; the concept of the reporting follows from the TBL accounting. It is necessary to mention the activities of the Principles for Responsible Investment Association which strives for the increase in transparency in the behaviour of organizations with respect to their long term sustainability. The association tries to interconnect stock exchange, investors, regulators and organizations for the purpose of supporting responsible investing.

In the last few years the importance of social and environmental aspects and impacts has been growing and as a result, the pressure on businesses to manage their environmental and social performance and to inform external parties on the impacts of their business activities on society and environment has been growing. For this reason the interest of businesses in sustainability accounting and reporting has been growing, too. As a consequence, a key question has emerged of whether sustainability reporting should stay optional, or it will become a part of mandatory reporting. Currently, sustainability reporting is mandatory in many countries.There are researches (Ioannou and Serafeim, 2014) confirming that mandatory corporate sustainability reporting contributes to higher social responsibility of business leaders; sustainable development and the training of employees have become important priorities of businesses. Corporate governance has improved, companies have implemented codes of ethics, corruption has diminished, and managerial credibility has increased. Companies pay more attention to energy and water consumption and the waste has been decreasing. Human resource development has become an important priority; companies have been increasing investments in education and training of employees.

The issue of mandatory reporting has also been discussed within the European Union. The European Parliament adopted several amendments concerning management reports in 2014. They should deal with matters concerning the environment, social aspects, human rights and anti-corruption measures. Businesses should, therefore, measure and manage the impact of their activities on society and the environment; this follows from economic globalization and global governance; it is closely related to the use of natural resources and energy, climate change and biodiversity, the threat to global security, demography and migration (Jasch, 2015). Businesses can monitor and report on the impacts of their activities on the environment and society separately (through non-financial statements in management reports) or they may go the way of sustainability accounting and integrated reporting. According to the International Integrated Reporting Council (IIRC) integrated reporting is a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation (Integrated Reporting, n.d.). An integrated report provides information on how the corporate strategy, governance, performance and prospects participate in the creation ofvalue in the short, medium and long term; this being in the context of the external environment. Sustainability accounting and integrated reporting represent an important shift in corporate accounting and reporting. Financial performance and financial statements have become only one part (albeit important) of corporate performance and reporting.

2 Environmental and Sustainability Accounting in the Czech Republic

In the Czech Republic environmental accounting was put into practice in the second half of the 90s of the 20th century and consisted of monitoring and assessment of environmental costs. The need to manage environmental costs resulted from an increase in funds organizations had to spend on coping with environmental aspects and impacts; environmental costs accounted for a significant cost item in some industrial enterprises. Many enterprises established a system of environmental cost records and environmental data processing. Organizations were concerned with costs incurred in waste management, costs resulting from non-compliance with regulations on environment and with purchased services related to environmental management systems (EMS). However, such information was not commonly interconnected with the information on material and energy flows; physical environmental information was not integrated into the management accounting system.

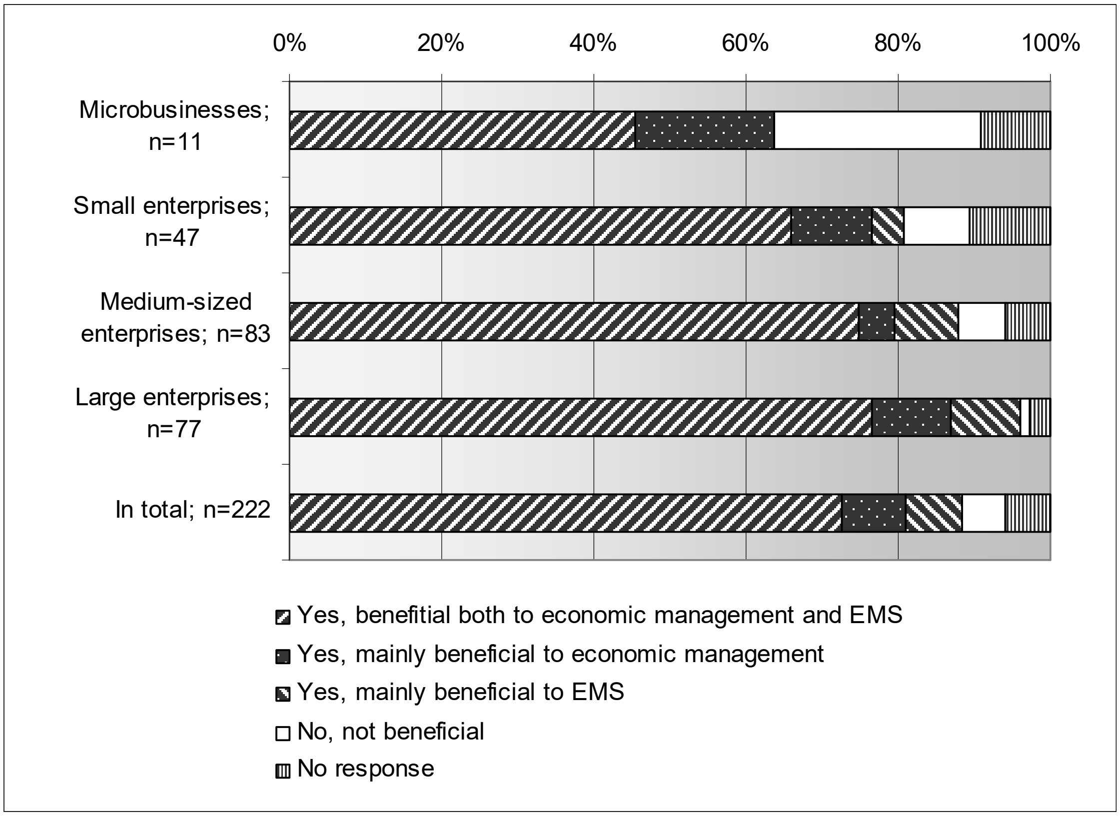
The research carried out by the University of Pardubice and Brno University of Technology (Fedorová et al., 2002) demonstrates the developments in the use of environmental accounting after the year 2000; data for the research was gathered from 89 organizations that, at the time of the research, had established the EMS according to

ISO 14 001. Four fifths of respondents considered environmental accounting as beneficial to an organization' management and stated that their organizations use a system for monitoring and assessment of environmental costs supporting internal decision-making processes at strategic and operational level. The research showed that the costs of waste disposal are taken into account in particular when making decisions, but no attention is paid to the costs associated with wasted materials. In 2003, the Ministry of the Environment, which issued methodical instructions on the environmental management accounting, supported the practical application of environmental accounting.

In 2005, the Czech Environmental Managerial Centre and the Czech Environmental Information Agency carried out further research on the situation in the field of environmental accounting implementation; the research involved 222 organizations and all of them used an EMS according to ISO 14001 (Hyršlová et al., 2006). Only 56% of respondents said that they had met the concept of environmental accounting (primarily representatives of large businesses). The respondents perceived environmental accounting as management tool at all organizational levels; in the respondents' opinion the focus of environmental accounting should be on environmental aspects and impacts and their economic consequences (i.e. environmental costs especially). The respondents considered the system of monitoring and assessment of environmental costs to be beneficial for the management of economic (financial) and environmental performance an organization; especially the representatives of large manufacturing businesses perceived the benefits of system (see Fig. 1). Information on environmental costs was also used in the external reporting; this was especially true of small businesses. Respondents agreed that the system was especially beneficial for strategic decision-making processes like investment decisions. The research showed that the organizations were still not able to integrate the monitoring of environmental costs into the system of monitoring and assessment of material, energy, and cash flows.

In 2009, the Ministry of Environment published the methodology of sustainability accounting for organizations to promote the concept of sustainable development in practice. Within the methodology, sustainability accounting was defined, objectives of the accounting system were formulated, and the benefits of the system for businesses were specified. Attention was especially focused on the costs and benefits of sustainable development and their monitoring and reporting. Problems placing limitations on potential practical application of the system were formulated as part of the methodology. The main problems identified were: vagueness (unclarity) of the terms sustainable development and corporate sustainability; the lack of a conceptual framework for sustainability accounting, unresolved relationships between accounting and reporting, and insufficient integration (interconnection) of the three pillars of sustainable development.

Fig. 1: Is information on environmental costs beneficial to corporate management?



Source: Hyršlová et al. (2006)

Sustainability accounting is a broad concept; it includes the methods of environmental accounting applied in practice by industrial enterprises as well as social aspects of business. It is a tool for economic, environmental and social management; its importance for the future should primarily consist in interconnecting (integrating) all three pillars of sustainable development. The aim of sustainability accounting and reporting is to contribute to changing the behaviour of organizations.

Conclusions

The concept of sustainability has not been sufficiently clarified, which is the basic problem of sustainability accounting and reporting. It is difficult to say what is sustainable in the long term; therefore, it is complicated to measure and assess sustainability. Some experts consider sustainability accounting and reporting as a tool for monitoring and evaluating changes in ecosystems and their capacity that focuses on critical values and cumulative effects; thus, the behaviour of individual organizations is not the centre of interest. Other experts believe that sustainability accounting and reporting will help organizations to incorporate environmentally friendly approach and social aspects into their business strategies. Most experts agree that boundaries of sustainability should be defined in general and they should be defined for organizations as well.

With regard to the above-mentioned shortcomings, many authors point out that the system is unreliable and that it may be abused; they say that sustainability accounting and reporting have become buzzwords and are worthless as a management tool. Sustainability reports of some organizations follow from simplistic perception of the concept of sustainability and corporate sustainability. To improve this situation, it is desirable to define the concept of sustainable organization more precisely.

Despite the above-mentioned problems, organizations and managers feel the need to employ sustainability accounting and reporting. This need follows from the pressure of internal users (managers at various levels of management and of various operational specializations), the pressure of external stakeholders (the public, the media, political pressures, customer preferences and financial markets pressures) as well as from opportunity recognition (improving an organization's reputation, competitive abilities, political and market situation). Therefore, it is necessary to create procedures that will provide information about corporate sustainability to those users who require this information for their decision-making. Sustainability accounting and reporting systems may be further developed using three approaches: outside-in, inside-out and twin-track approach (Burritt and Schaltegger, 2010). The outside-in approach is based on the needs of external stakeholders, focuses on issues discussed publicly and on an organization's contribution to these issues. On this basis, adequate measures and managerial activities are devised to fit sustainability accounting and reporting. This approach is embodied in the GRI guidelines to corporate sustainability reports. The inside-out approach follows from an organization's business strategy and focuses on issues that are relevant for the effective implementation of the strategy. The sustainability accounting and reporting system is devised in such a way that the collection and processing of information and its reporting will support internal decision-making processes (of managers at all organizational levels) with the aim of achieving sustainability. The results of these activities are presented to external parties as well. The twin-track approach combines both above-mentioned approaches. The purpose of sustainability accounting and reporting data is to monitor an organization's compliance with the environmental policy and legal regulations, to contribute to continuous improvement, to provide support for internal decision-making processes and external reporting. Giving recognition to the relation between internal and external values enables to interconnect managerial, business oriented view with stakeholder perspectives on the economic, environmental and social performance of organization.

Despite the above-mentioned problems and ambiguities in the definition and understanding of the terms "sustainability" and "corporate sustainability", socially responsible activities and their reporting may be considered as a tool to strengthen relationships with key stakeholders and contributes to improving the economic performance of an organization. Looked at from the perspective of organizations and society as a whole, it is worth paying attention to sustainability accounting and reporting continually, both within scientific research and within strategic and operational decision-making processes of organization.

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Contacts

Jaroslava Hyršlová
Jan Perner Transport Faculty, University of Pardubice
Studentská 95, 532 10 Pardubice
jaroslava.hyrslova@upce.cz

Helena Becková
Jan Perner Transport Faculty, University of Pardubice
Studentská 95, 532 10 Pardubice
helena.beckova@upce.cz

Marie Kubáňková
Research Institute for Fodder Crops, Ltd. Troubsko
Zahradní 400/1, 664 41 Troubsko
mariekubankova@gmail.com