Implementation of sustainability aspects in the financial reporting system: an environmental accounting standard

Abstract

In the field of financial accounting, similarly to the company management, besides considering economic aspects, arises a need to incorporate the influence of enterprise’s activities on environment and society. Nevertheless, almost all accounting systems are still based on the financial view of the business and the level of environmental and social efficiency is only rarely assessed. A multidimensional business efficiency measurement is not feasible within these standard accounting systems. For this reason, the subject of interest and the main research goal of the authors is to supplement and extend the existing legislative framework on environmental and social accounting, approved by the IASB. The purpose of this article is to propose an individual standard focused on environmental reporting. The individual standard of financial reporting focused on environmental aspects will provide a possibility of a standardized view on business and may be used to harmonize reported data. Compared to other environmental concepts, the proposed standard is based on the same principles as the currently used reporting framework, therefore it is easily grasped and applicable.

Keywords: Statements; Environmental Factors of Business; Accounting; Reporting; Sustainable Development; Sustainable Accounting; Environmental Reporting; IASB

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1. Introduction

In the field of financial accounting, similarly to the company management, multidimensionality is becoming increasingly important. The ability to think ahead and to be able to bring various phenomena into the context becomes a necessity. Despite this trend, almost all accounting systems are still based on the financial view of the business and the level of environmental and social efficiency is only rarely assessed. Society is changing. People start to be aware of the unsustainability of the current way of life and exert more pressure on maintaining the current living conditions for future generations. This view is also incorporated into the business environment. The principles of sustainable development impact the area of accounting and financial reporting as well as the principles of harmonization and standardization in accounting. Besides taking into account economic aspects, it is also required to adequately consider the impact of business on the environment and society. For this reason, a number of reporting standard setters, such as the International Integrated Reporting Council (IIRC) and Global Reporting Initiative (GRI), have created systems to capture environmental and social aspects. However, these systems affect all the three pillars of sustainability, included in the economic area, which is already reported by businesses in compulsorily financial statements. The aim of the research is to incorporate the newly proposed standard into the existing framework, namely IAS/IFRS.

2. Brief Literature Review

Business efficiency needs to be reassessed, not only from the perspective of quality of rendered services, produced products and reported sales points of view, but also from the perspective of the impact of business activities on the environment, society and local community because, as many authors state (B. Roxas, N. Ashill, & D. Chadee 2017 [1]; R. Paksiova, 2016 [2]), these factors have a significant influence on achieving corporate success.

Various aspects are monitored at two levels: at the macroeconomic level, where the information about the state of the environment and the development of the company is related to the information about economic efficiency of the state, and at the microeconomic level or business level. While sustainable development is accounted at the national level, a number of sophisticated models are already used at the microeconomic level (Vallišová, 2014 [7]; J. Hyršlová, 2009 [9]). Yet, the microeconomic sphere still has no uniform concept. Following the activities of international communities and institutionalisation of sustainable development at the national level in many states, companies often select not only economic success but also a long-term sustainability and a positive impact on the environment and society as their strategic goal (M. Taherdangkoo, K. Ghasemi, & M. Beikpouri, 2017 [4]; M. Ameli, S. Mansour, & A. Ahmad-Javid, 2017 [5]). Enterprises need to have a sufficient amount of relevant information with regard to all management functions ensuring the achievement of set goals, which is information on sustainable development, business efficiency in relation to the sustainable development and its impact on economic efficiency. Such information is collected, recorded and gathered and for the evaluation of efficiency provided by the sustainable development accounting (J. Bebbington, S. Russell, & I. Thompson, 2017 [6]).

Sustainable development accounting is characterized by the following principles:

- incorporation of more than only economic events, extension of the reporting ability beyond reporting of financial success only;
- usage of physical measurements (value, non-financial) with the emphasis on non-financial information in relation to sustainable development because social and environmental aspects have a non-financial form;
- responsibility before a wider group of stakeholders (Vallišová, 2014 [7]).

To ensure that all social and environmental stakeholders’ requirements are fully satisfied, the existing accounting system and financial statements need to be extended with regard to reporting certain items related to sustainability. This includes:

- income and expenses related to social, environmental and economic aspects within the statement of profit and loss and other comprehensive income for the period;
- related assets and liabilities in the statement of financial position (balance sheet) at the end of the period.

In practice, Constructing Excellence (2004) [8] recommends expressing these items using two different accounts: indirect accounts and indirect accounts. J. Hyršlová (2009) [9] calls them information about internal and external flows. Similarly, they can be called direct and indirect accounts. As J. Hyršlová (2009) [9] states, sustainable development accounting is seen as one of the development stages of traditional accounting, and its further implementation will not be easy, but inevitable with respect to the business efficiency optimisation point of view. To be able to implement sustainable development accounting successfully, managers’
and accountants’ synergy, along with the cooperation with external interested parties (customers, the public, local and state authorities), required to enable the greatest level of information quality and reliability (R. Rajnoha, P. Lesnikova, & V. Krajcik, 2017 [10]).

This issue has also become more important because of the new European Council Regulation 1366/14 «New Rules on Transparency in Corporate Social Responsibility» issued on 29 September 2014. Large enterprises with more than 500 employees are required to publish environmental information, employment conditions, respect for human rights and anti-corruption measures. Their annual report has to contain description of policies, strategies, results and risks associated with the abovementioned areas. Member states were obliged to incorporate the measure into the national legislation within a two-year period. On the basis of descriptions provided by various authors in their scientific works (M. A. K. Masud, S. M. Bae, & J. D. Kim, 2017 [11]; A. Venturelli, F. Caputo, S. Cosma, et al., 2017 [12]), it is possible to summarize the main reasons for compiling such reports:


2. Voluntary provision of information to interested parties with the intention to reduce their environmental concerns or to explain to them in greater detail certain circumstances related to their social responsibility, satisfaction of the partners’ and public rights to obtain information.

3. For certified enterprises with implemented environmental management system (ISO 14001, EMAS), or companies meeting the corporate social responsibility (CSR) standards, reporting in any form is required and compilation of environmental and social report is appropriate for this type of communication.

4. Observation of the organisation’s own interests in terms of increasing its value or the need to internalise its own responsibility (Vallilövä, 2014 [7]).

3. Purpose and Methodology

The purpose of this article is to present partial results of the conducted research on compilation of the concept of integration of aspects of the sustainability applicable to any accounting system and prepare a uniform framework for reporting in the area of economic, social and environmental activities of the organisation, respectively to enable a complex and multidimensional view of the enterprise. The aim of the research is not to create a new concept such as Integrated Reporting or Global Reporting Initiative. The authors’ efforts are to enable businesses to extend the existing economic reporting framework to the missing area of social and environmental reporting. Therefore, the aim is to incorporate the newly proposed Environmental Reporting Standard into the existing IAS/IFRS framework.

The authors’ work consists of ten subsequent points of research and verification work:

1. Compilation of the catalogue of qualitative and quantitative social factors. Based on the study, an analysis and comparison of previously proposed systems dealing with so-called “standard or environmental activities of enterprise assessment is conducted to prepare a catalogue of basic environmental factors. Based on the findings of the social and environmental activities identified by the questionnaire survey, as well as the study of different national accounting systems and the IAS/IFRS accounting system, the authors propose to make a catalogue of basic social and environmental factors by using a complex technique.

2. Own proposals relating to classification of requirements on disclosed information set by the interested parties. A three-step process of classifying stakeholder requirements by which the accounting unit determines their significance and considers possible treatment of that requirement in the accounting statements has been developed. The scope (boundaries) of the system is determined to identify how wide the range of enterprises impacts included in sustainable development accounting will be, i.e. to identify the responsibility level of the enterprise.

3. Proposals relating to modification and completion of the conceptual basis.

4. Proposals relating to modification and completion of the standards or norms relevant to the accounting statements.

5. Proposals relating to the individual standard of environmental reporting.

6. Proposals relating to the individual standard of social reporting.

The proposed concept is created to meet the following general parameters:

- Versatility, simplicity and usability in practice. We should note that International Accounting Standards and International Financial Reporting Standards are prepared on the principles-based approach. Neither their framework, nor individual standards are focused on specific principles of accounting and reporting sub-accounting cases or setting of key performance indicators (KPIs). These areas are directly dependent on individual decisions of the enterprise that considers their significance and ensures their adequate recognition. The proposal of the concept is prepared in a similar way. It is a the concept with a wide range of use by business subjects. Enterprises will have a sufficient extent of flexibility.

- Complexity, measurability and transparency. The concept ensures complex uncovering and comparability of information in the given area. Acquired information will be used for further application inside the whole business management with a possibility of integration into the system of corporate efficiency measurement and management.

- Quality policy. The proposed concept has to meet other principles, because we deal with the accounting system. Provided information has to be significant, balanced, comparable, reliable, comprehensible and regularly reported.

7. The proposal relating to the implementation of environmental and social reporting. The implementation of the proposed concept is divided into five phases. The planning phase sets the vision of individual stages of implementation, including the terms and related parties with their responsibilities and competences. The analytical phase examines the current degree of readiness of the accounting unit to apply the concept. Based on the concept, either a new or corrected current information system to meet the specifics of selected accounting unit is further proposed. The next phase is represented by staff training and simulation of individual processes. The last phase represents the application and use of the proposed concept in practice.

8. Verification of the concept of integration of sustainability aspects into the accounting system in business practice to obtain feedback and eventual corrections of the defined concept on the case of a specific enterprise accounting and reporting in accordance with IAS/IFRS. Confrontation of the proposal with the actual conditions accounted by expert interviews made in 20 business units. The results were used as a basis for corrections to the proposal.

9. Corrections to the proposals in accordance with the experience obtained by verification, control of the fulfilment of the formulated objectives, evaluation of the research and its benefits.

10. Formulation of conclusions and recommendations with regard to the purpose of the research.

Because of the extent of the conducted research, this article is focused on its partial results regarding environmental aspects, namely the environmental accounting standard (point 5), which was designed with regard to the normal structure of the text prepared by the IASB in particular IAS/IFRS.
4. Proposal of the Environmental Accounting Standard

The objective of proposed standard is to ensure submission of information about environmental position and efficiency of the accounting unit using the Environmental Accounting Statement. The purpose of this standard is to foster all subjects preparing accounting statements in accordance with the International Accounting Standards to submit this report.

An accounting unit uses this standard while compiling the Environmental Accounting Statement:

a) within its accounting statements prepared according to IAS/IFRS;

b) where applicable, in each interim report that it presents under IAS 34 Interim Financial Reporting.

Accounting unit at the date of its first compilation of Environmental Accounting Statement presents initial statement that represents the basis for environmental reporting. The accounting unit will further use the same accounting principles for all accounting periods. These principles need to comply with IAS/IFRS.

Environmental profile

Environmental profile characterizes the enterprise and its relation to the environment. It is a measurable output of environmental management related to the environmental management aspects ensured by the enterprise based on the environmental policy, objectives and target values.

Environmental aspect

The official definition is set in the ČSN EN ISO 14001 as an element of an organization’s activities, products or services that can affect the environment.

Environmental impact

A specific environmental change caused by the entity’s responsibilities.

Environmental costs

Costs associated with the actual or potential use of economic assets or increasing environmental liabilities. These costs can be considered from two different perspectives. Firstly, these are the costs directly incurred by a company. Part of them is already included in the normally compiled financial reports and can be transformed into an Environmental Accounting Statement. These include environmental protection costs, costs associated with corporate actions taken to reduce or compensate the negative environmental impact of the enterprise, further the costs, fines and penalties related to damaging the environment. Secondly, these aspects that do not directly impact the enterprise itself, yet they are relevant to its activities that restrict other economic entities, the population or have a negative impact on the environment, even with regard to future generations. These are called negative externalities. Their measurement is more difficult. Nevertheless, there are available models that allow their exact measurement.

Environmental revenues

Environmental revenues represent an increase in economic benefits as a result of the adoption of environmental regulations by the enterprise. These are revenues from materials recycling and selling waste (e.g. the revenues from selling substances caught by filter equipment, revenues from selling of sludge, etc.), subsidies and grants related to environmental protection, such as revenues from waste heat utilisation brought by the methods of energy recovering, which regulates sewage also for external customers, etc. (MŽP ČR, 2002 [13]).

Environmental saving

Environmental saving is a reduction of consumed materials, energy or water determined by a specific process/task/product, compared to the consumption before taking the corrective action.

Environmental Accounting Statements focus mainly on:

a) material consumption, energy, water and the percentage of recycled inputs;

b) emissions and waste generated during the production process and the cost of their disposal;

c) the impact of products and services on the environment;

d) recovery of collected products and returnable containers;

e) the impact of the enterprise on biodiversity and protected areas;

f) costs or sanctions that arise as a result of the application of regulations and standards relating to the environment. Within the Environmental Accounting Statement, the accounting unit presents environmental aspects of its business activities in four segments: management and organisational security; use and management of natural resources, water and energy; outputs: emissions, sewage, waste and provision of products and services and other aspects: logistics, supply chain, biodiversity, compliance with applicable environmental standards, laws, decrees and regulations, investment in environmental protection.

Management and organisational security

In this part of the Environmental Accounting Statement, the accounting unit indicates its number of environmental management personnel (along with its structure) or environmental staff, including the labour costs attributable to them.

Use and management of natural resources, water and energy

This part of the Environmental Accounting Statement describes how the accounting unit uses and manages natural resources, which are, in most cases, renewable in a long-time period: water, energy, livestock and agricultural production:

a) Material, agricultural and livestock production falls under strict requirements related to the production of these goods, the share of recycled materials and the efforts of the accounting unit to reduce material costs and increase the production ecology.

b) Accounting units dealing with mining and mining activities are obliged to further indicate the amount of extracted materials.

c) The water segment is assessed through indicators such as water consumption, water savings or investments made to improve water management and describes the organisation’s activities associated with the use of salt, ground, surface and recycled (re-used) waters.

d) The energy segment indicates the consumption of individual types of energy, including renewable sources of energy. The accounting unit further describes the methods and procedures, such as taking active steps to reduce the energy intensity of business activities, relating to products and services, including the energy savings.

Outputs (emissions, sewage, waste and providing products and services)

In this part, the Environmental Accounting Statement describes the accounting unit’s discharges of dangerous substances, compounds and other particles into the air, water and soil and determines the nature of the impact of provided products and rendered services on the environment.

a) In terms of air emissions, it is crucial to consider the amount of discharged pollutants. Relevant fees and taxes for air pollution from the part of the enterprise are supposed to result in reduction of such emissions.

b) In terms of water pollutants, the accounting unit, along with the total amount of wastewater divided by the level of pollution and the discharge point, also specifies the amount of discharged organic pollutants and heavy metals, fees and taxes for waste water discharges, investments, intensions to reduce emissions of pollutants and the total volume of discharged waste water, including the savings generated by these initiatives.

c) In addition to the actual discharges into the soil in the form of fertilizers, pesticides and heavy metals, waste and waste management products also should be taken into accounting of the unit’s emissions into the soil. The entity reports the amount of produced normal and dangerous waste, the way of its disposal, the amount of radioactive waste and the amount of recycled waste, including the recycling revenue, waste management charges and taxes and waste management initiatives, resulting in reduction of the emission of particles into the soil and improvement of waste management.

d) Environmentally friendly products and services are assessed by indicators such as energy consumption, noise, recyclability, the amount of recycled packaging, etc.
Other aspects are logistics, supply chains, biodiversity, compliance with applicable environmental standards, laws, decrees and regulations, investment in environmental protection.

Other important aspects of corporate activities that cause environmental impacts are transport of persons, the impact of the enterprise on biodiversity, compliance with legal standards and regulations in the field of environmental protection or investment in staff training in the area of environment.

Disclosure of information by individual segments and perspectives enables users to better understand the relationships between them. The accounting unit discloses other circumstances not included in the report, including their appropriate explanation, in a comment. Additional information can be from the perspective of understanding the significance of the accounting unit’s position and efficiency in terms of its users.

5. Conclusions

Regardless of whether an enterprise compiles environmental statements on a mandatory or voluntary basis, the enterprise faces the question of how to do it: whether an entity compiles a unified centralised report in the sense of «integrated reporting» or the report is divided to individual sub-reports: financial and environmental, eventually social report. There is currently no unified approach to this issue in business practice. There exist various individual systems focused on environmental and social accounting and reporting. However, it is a necessity to compile new additional reports or integrated reports (IR) in accordance with the new system. The authors believe that it would be appropriate to take the described sustainability principles into account to enable companies to report environmental and social issues within the system that most businesses use and know to implement sustainability aspects especially into the IAS/IFRS system. For this purpose, the authors’ concept of integration of sustainability aspects into the accounting systems is applicable to any accounting system, including the IAS/IFRS with the aim to provide a unified framework for reporting on economic, social and environmental activities of an entity, respectively to enable complex and multidimensional view of the enterprise, including the methodology and its subsequent implementation into corporate practice. Because of the large extent of authors’ research in this area and a large number of structural parts, this work presents only its subsection, namely the Environmental Accounting Standard. Accounting units can use it as a guideline to comprehend many existing frameworks or standards proposed by the authors.

The transfer to compilation of environmental and social reports is a challenging process, which involves the synergy of the whole accounting unit and may finally lead to changes in strategic management. Application of this methodical procedure in practice and consistent compliance with the five consecutive phases and their individual stages should make the whole process of implementation faster. The occurrence of errors and deficiencies should be minimised, which will help economic entities to optimise environmental and social reports and increase of their quality.

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