Scientific Journals
Maritime University of Szczecin

Zeszyty Naukowe
Akademia Morska w Szczecinie

2011, 27(99) z. 1 pp. 86–91

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Embracing environment into contemporary accounting

Zagadnienia dotyczące środowiska naturalnego we współczesnej rachunkowości

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Key words: social responsibility, accounting information system, financial statements, social reporting

Abstract
Contemporary enterprises when making business decisions must take many aspects into consideration. Many of them are of economic and legal nature, but some regard to environment issues. Ecology is an important factor taken into account when judging and positioning companies, and therefore owners and other stakeholders expect information about these aspects of business' operations. Environment reporting is an important element of social accounting, which is linked to the idea of a sustainable development of enterprises.

Słowa kluczowe: społeczna odpowiedzialność, system informacyjny rachunkowości, sprawozdania finansowe, raportowanie społeczne

Abstrakt
Współczesne przedsiębiorstwa, podejmując decyzje biznesowe, muszą uwzględnić nie tylko uwarunkowania ekonomiczne i prawne, ale również zagadnienia środowiska naturalnego. Ekologia to ważny czynnik wpływający na funkcjonowanie przedsiębiorstw i dlatego właściciele oraz inni interesariusze podmiotu coraz częściej oczekują od jednostek dostarczania informacji o tych aspektach działalności. Raportowanie w zakresie wykorzystania i ochrony środowiska naturalnego jest elementem rachunkowości społecznej, która powiązana jest z ideą zrównoważonego rozwoju przedsiębiorstw.

Introduction

The use of accounting in business management is an essential pre-requisite for development of accounting as a science and as a practical form of economic reporting. Many economists stress the role of information in the management of company. It is also closely connected to the process of administration of every business unit. Literature exhibits accounting information system, although its role changes according to globalization and harmonization of law.

Accounting information system is much more than just a system of economic accounts, that were primarily invented to help in the process of running a business. Accounting is also connected with utilizing and preserving of natural resources among business activities. Such consideration significantly extends traditional understanding of accounting. In the past, accounting was seen as information system only, and it was used for recording of all economic activities. Now, it becomes a part of the management process of an entity (including natural resources, which are used by an entity) and a mean of presenting environmental consequences that result from all activities of the company. Unfortunately, contemporary accounting has not yet developed tools appropriate for presentation of all environmental problems relating to business activities and risks involved in these activities. In addition, there is no Polish literature that deals with this issue, although the issues of ecology and environment for sure are part of business decisions.

The purpose of the article is to stress the importance of exploitation of the environment, as well as environment protection alongside with modern enterprises' activities, and presentation of these issues in contemporary accounting reports. Issues mentioned above are of high importance, and that is why entities should present them in their financial statements to provide accurate information to shareholders. In the article, the author shows the complexity of issues concerning the environment, that cannot be presented appropriately by present accounting techniques.

The article has been based on contemporary English-language accounting literature that appeared over the last 25 years, and where much attention was given to the different aspects of social accounting. Analyzed articles present issues of environment care, protection of natural resources for future generations, as well as the use of available resources and the presentation of them in financial statements.

Financial reporting disclosure of social issues, including environment

Financial statement is a primary document, that is used by Executive Board to communicate with company's owners. For this reason, and because the aim of financial statements is much wider than presenting digits – outputs from accounting system – the importance of financial statements is overhelming. Stakeholders (including the potential and present owners) shall take decisions about resource allocation, that are based on information provided by financial statement. Their decisions affect the functioning of global capital markets.

Accounting is also a science, within a group of social sciences. Accounting – as a science – is dedicated not only to disclosure interests represented by the requirements of its employees, managers or owners. In accounting, and in financial statements, the interest of a company must coexist with interests of the communities in which the company operates [1]. The combination of these two interests is not impossible. The important task of management is to present these aspects of the business in financial statements. Each individual need, which is made by a subgroup of the society, is – at the same time – the need for the public. Each activity is social in nature, if any rights, obligations, liability or other obligations arise from the formal or informal rules active within community. One of accounting tasks is reporting for socially responsible environmental concerns [2]. Other areas, that coexist within social responsible entity, are responsibility for profitability, ethical behavior and compliance with the law. Presenting environment awareness may be done by providing information on greenhouse gas emissions' reduction, investments in energy efficient technologies or by supporting local organizations dealing with the protection of nature monuments. Environment awareness can be considered both in terms of 1) obligation to fulfill legal regulations regarding protection of the environment, and 2) additional discretionary charitable activities undertaken by the entity. An American clothing company GAP is an example for a company that merged social activities with business marketing. This brand exists since 1969. It is commonly known in the United States and Canada. The company took its first steps towards corporate social responsibility in 1992 [3]. They dealt with appropriate working conditions in the factory in Central America (the Republic of El Salvador). Working conditions still are on the first place among the tasks of social responsibility of the company. Environment care is in the second position. Presently run campaign *Recycle Your Blues* is encouraging clients to bring back old jeans to the store with the possibility of cheaper purchase of another pair. A returned pair of trousers is used for modern insulating material used in the construction of houses. Thanks to this action, there were more than 270 thousand old trousers collected. They were used for the production of insulating materials for 540 houses. Large (from 46 to 93 pages) social responsibility reports [4, 5, 6] highlight transparency of information to be transmitted to the owners and other stakeholders. It also stresses that activities undertaken in the framework of corporate social responsibility are common values and sustainable in creating value for owners, employees, customers and society.

The need for entity's involvement of international and local community problems, including the environment, shows the case of gold mine in Tanzania. The Canadian firm, Barrick Gold Corporation [7], that operates in the Lake Victoria region since 1999, employs several thousand people. Despite the financial support for development of Lake Victoria region, the company is still experiencing dissatisfaction and resistance of the local community [8]. Studies devoted to Barrick Gold Corporation, and carried out in Canada [9] confirm that both: the company and local community, they both benefit from social activities undertaken by enterprises. The case of Barrick Gold Corporation is significant, because of great importance of natural resources export outside Tanzania, gain of economic benefits by Canadian owner, and protection of environment (including water pollution and destruction of the environment), as well as health care of mine workers. The lack of appropriate corporation involvement in the local ecological problems caused the violence conflict in 2008, that not only led to material losses of corporation, but also upset local community.

Contemporary enterprises know, that undertaking (or not-undertaking) environment protection activities may have an impact on the financial performance of entity. That is a major reason of an increase in the number of and details of financial statements' disclosures made in the financial statements [10]. Although disclosures about environment protection activities, and sustainable behavior are very diverse, for modern enterprises it is obvious that they have to include such information in reports presented to stakeholders. Not only financial statements, but also Board of Directors' reports can be used for stakeholders' reporting about company's involvement in environment [11, 12]. Literature lists benefits from recognition of such issues in financial statements [13], and governments implement mandatory disclosures through legal regulations [14]. Efforts are also made to unify reporting [15] just like International Accounting Standards have been unified and applied in over 150 countries worldwide. Global Reporting Initiative [16] developed third generation guidelines (G3) that is voluntary now. G3 reporting used in conjunction with International Accounting Standards will result in greater comparability and transparency of disclosure. In December 2010, OECD announced that it would help with practical implementation of the guidelines, because it is the most comprehensive instrument of social reporting nowadays [17].

Theories in the field of corporate social responsibility (CSR)

Research carried out in the United States among 191 companies demonstrated the importance of pro-environmental activities disclosure. It also indicated that the use of *Legitimacy Theory* can help to find important areas for disclosure [18]. Theory of legitimacy, that is repeatedly cited in social accounting articles, assumes that companies must obey social contract that they "signed" with the community, in which they are established. In accordance with legitimacy theory, the company is obliged to take action on behalf of the community in return for community's acceptance of company's targets. Although this is unwritten agreement, its completion is a condition for business success, thus enterprises should inform the public about the action taken on its behalf (e.g. on behalf of the city, region, group of people, etc.). Community's acceptance of a business is indispensable for a successful pursuit of a business [19], because the company itself is a part of community. In modern societies, informal unwritten rules are as important as formal legal law.

Stakeholder Theory [20] also takes into account a wide range of subjects, from which the enterprise has concluded agreements and – where necessary – seeks to fulfill. However, because interests of various groups of stakeholders are in contradiction with each other, this is impossible to please each and every distinct social group. The task of the company, as an organization, is to seek consensus, in which one can balance different, and sometimes even contrary, interests. This theory draws attention to the need of taking care of stakeholders' demands. Theory lists stakeholders as owners, lenders, employees and the community, in which the enterprise operates.

Also the *Resource Dependence Theory*, which is often cited by social sciences, raises the issue of interactions between the organization (i.e. company) and its environment. The theory pays special attention to the fact that enterprises are not self-contained units. Their activity requires dealing with others and exchanging resources, which is also a reason for a risks of economic activities. Restrictions arising from an environment, in which the company operates, force them to negotiate position in the course of exchange transactions and gaining the access to scarce resources. On the other hand, because available resources are limited, companies try to make other entities dependent of them. Listing resources needed to do business, the theory mentions not only natural resources, but also financial, human and information resources [21].

There are many theories that one can find in literature [22], but none of them is complex when talking about corporate social responsibility and natural environment. In addition, information disclosure is a combination of different factors and, above all, is dependent on a predominant in a given period of time and in a particular entity. It also is up to a management board strategy. Social reporting and environment literature indicates that in business practice, the interpretation of various theories and their application can also be different. Research has shown [22], that information about environment, that is disclosed in financial statement, is presented for owners and lenders. This is incompatible with stakeholders theory, but clarifies why certain areas of environment activities are repeatedly ignored by entities. In turn, applying legitimacy theory allows to specify how enterprises fulfill unwritten agreement with community in which they operate. Financial statements' disclosure should prove discharging of entity's obligations. Legitimacy theory can be used to analyze overall trends in environment disclosures, but is not helpful to analyze conflicting interests and needs of different stakeholders. To summarize, it can be stated that disclosure of environmental information in financial statements is complex and depends on many factors [23, 24, 25, 26, 27].

A mean of presentation used to disclosure information is also important. Research has shown [13], that regardless whether information is monetary or is a description, financial statements' disclosure about environment protection and preserving activities, serves to reduce information asymmetry. However, when disclosures are built of economic measures like expenses, risk, compliance with legal regulations, air and soil pollutants' reduction, and regeneration of damaged areas, better results occurred. Results of disclosure were mainly measured by reduction of fluctuations in market prices. Although descriptive disclosures (about sustainable development, management of environment utilization protection) also serve to diminish information asymmetry, as they are of a discretionary nature, less objective, they do not produce comparable results. The above example shows that environmental information, that is presented in financial statements, do not have to be limited to monetary unit. One can use quantitative information (expressed in monetary terms or natural), as well as qualitative data (e.g. descriptive) to provide information about ecological activities.

Measurement in accounting

Al Gore, who won in 2007 the Nobel Prize for fighting off global warming, repeatedly stressed the need to reexamining of accounting system and its valuation principles in order to the environment will be taken into account in the standard calculations [28]. It is important to make this change, because entities are obliged to implement fair presentation of economic activities and its results in financial statements. Fair presentation is based on the substance of transactions, and environment utilization and obligation to protect the environment is one of the factors that are taken into account in every business decision-making process. Therefore, it should be reflected in financial statements which are supposed to inform owners of economic operations carried out and of financial results of decisions made. The lack of relevant information about these aspects of business activities mean that not all costs of business operations were taken into account, i.e. company omitted social costs. Disclosing information, that "the production costs include environmental costs" or "entity estimated value of natural resources" may open a debate on expenses incurred by an entity to protect natural resources and environment. It also provides important information about the fulfillment of social obligations' imposed on the enterprise.

When costs and benefits associated with utilizing and protection of environment are measured, one can treat environment as a resource that may be the subject to trade agreements and that can be valued by market. Opponents emphasize that treating environment as the next item on free market is not the best way to protect it [29], and that environment protection should result from the threat posed by its destruction. Critics of above approach stress that environment is a resource that cannot be measured in monetary unit which is the primary measure used by contemporary accounting. At the same time, accounting literature stresses the necessity to introduce a range of non-monetary measurement techniques [30]. Moreover, although contemporary financial statements include sections that are exclusively reserved for monetary presentations, they also include a descriptive parts, that are arranged up to persons preparing financial reporting. Introduction to the financial statement is an example, because it contains an overview of applicable accounting principles and notes that describe for example nominal capital structure and shares with special preferences. To present environment information one shall use not only quantitative, but also qualitative methods to present various aspects of entity's activities.

The Kyoto Protocol, which is in force since 2005, and deals with global warming, applies theory that each Member State shall be treated as an entity that can exchange emission rights on the market. It enables to monitor emission of gases that generate global warming. Every participating country is obliged to comply with imposed limits. Such policy encourages participants to take action appropriate to reduce greenhouse gases' emission. When a country "saves" rights by implementing the policy, rights can be subject to exchange. Discount accounting methods are applied (IRR, NPV) to calculate savings and benefits connected to emission rights. Unfortunately, these methods largely rely on assumptions, and therefore do not give conclusive results. They rather give a certain range of possible solutions, depending on assumptions made. In addition, discount methods permit the immense value of emitted gases, which will result in enormous reduction in emissions due to proposed project. The Kyoto Protocol will expire in 2012, and it certainly shall be a reason to re-examine this issue, because there is still much in doubt. In 2008, a document has been prepared by the Harvard Kennedy School of Government [31] that is an alternative to Kyoto Protocol.

The adoption of Kyoto Protocol gave birth to recognition of emission rights in financial statements. In December 2004, International Accounting Standard Board (*IASB*) published interpretation for emission rights. In July 2005, the Board has withdrawn the interpretation called IFRIC 3 [32]. The reasons for withdrawal were both problems with the categorization of emission rights to balance sheet group, and difficulties with valuation. Emission rights were supposed to be disclosed in intangible assets or within liabilities. IFRIC 3 assumed that entity should not disclose loss arising from the use of emission rights presented among assets, as long as it does not exceed permitted levels of emissions. Any excess of emissions should be reported as liabilities and their value shall be determined on the basis of current prices on the market for emission rights (or fair value). However, changes of prices and the multiplicity of authorized solutions do not provide convergence and fully reliable information. Because of that, IASB and FASB (*Financial Accounting Standard Board*) [33, 34] are still working on one unified solution. Polish regulations adopted IFRIC 3 [35], and discloses emission rights among intangible assets that are subject to amortization. Interpretation regulates emission rights' sale, impairment of value, and sets out details for financial statements' reporting. However, the issue of emission rights' disclosure in financial statements do not regard technical aspects relating to recognition of rights and its valuation only. From ethics and social ecology standpoint, greenhouse gas emissions is much more complicated. Disclosure of emission rights should also take into account the utility of environment, and recognition of the value of environment, that society uses to develop its prosperity. That is why, environment must be taken into account, when defining society, in which the company operates [36]. Such reasoning leads to conclusion, that today's companies are responsible for the environment and should prevent its destruction and preserve it for future generations. Accounting, that is aimed to present the economic substance of all business transaction, should take into account – by disclosures in financial statements – that entities grow and at the same time they impact and change community and environment outside the company. These are consequences of entities' business activities. That also means that every environmental problem is a society problem and becomes a problem of each and every entity. Companies that take care of corporate social responsibility within their economic activities, should therefore ensure active participation in resolving community and environment problems and clearly inform stakeholders about the action taken. Management awareness of such implications should lead to economically justified business activities that will be beneficial to the environment in a long term. Because of above reasons, contemporary accounting regulations for emission rights are not proper, because they cover technical aspects of balance sheet presentation and valuation only. The above means that gas emission contemporary accounting is limited to profit calculations only. Social responsibility is disregarded right now, although it is intrinsically linked to the accounting treated as a social science.

Conclusions

As already indicated, financial statement is the primary tool to inform about business unit's activities. It provides data not only to the owners, but also to lenders. Users of financial statements take decisions on how to use their scare resources and base these decisions on information provided by these reports. At the same time, the disclosure about environmental activities is a part of sustainable development of the company that is achieved by integrated economic, social and ecological activities. The complexity of sustainable development disclosure makes it unification difficult. Presentation of these issues in financial statement is also a big challenge when using contemporary accounting techniques only. That is why it is a huge area for future research for interdisciplinary teams. In Poland, this issue had not been raised yet which means, that there is also a need to verify all models and theories among Polish companies and stakeholders.

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