

Evaluation of the company's environmental behavior through environmental management indicators as part of environmental reporting

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Abstract. The development of the approach of organizations to environmental protection went through several stages from the passive approach, which relied on the power of nature to dispose of waste by its own assimilation ability, through the so-called. a reactive approach, based on a control and management strategy, mainly in connection with the adopted legislative measures up to the preventive principle. It is based on the fact that preventing the occurrence of environmental pollution is cheaper and more effective than removing it or bearing its consequences. Instead of focusing on control and management, the focus has been on finding ways to prevent negative phenomena. Businesses demonstrate their environmental responsibility in a variety of ways, such as implementing environmental policy, implementing environmental management systems, environmental audit and publishing their environmental reports. Many of the companies that care about the environment have this information published on their Internet portals, where it is available to the public.

Keywords: Environmental reporting, environmental management indicators

JEL classification: F6, Q5

1 Introduction

Reporting on sustainability in the organization's practice is called environmental reporting. Through this process, the organization identifies its significant environmental impacts and discloses them in accordance with a globally acceptable standard. The information provided through sustainability reporting enables internal

and external stakeholders to form opinions and make informed decisions about an organization's involvement in achieving sustainable development. [5] One of the new trends in reporting is so-called integrated reporting. The company does not prepare two separate reports (financial and non-financial), but one, which includes all mandatory financial information and also shows the company's results in the field of environmental protection and its impact on society. Reporting on non-financial results reaches the same level and presents that the primary goal of the company is not only to focus on making a profit, but also its goal is a positive impact on the environment, innovative benefits and provide work for employees. It is a matter of course for larger companies to have these reports verified by an independent auditor. Just as the credibility of financial reports is enhanced by the verification of financial results by financial audits, the results in the area of non-financial information presented in the annual report are subject to the auditor's opinion. [1]

2 Environmental reporting

The Slovak Republic adopted an amendment to the Accounting Act, in 2015 on the basis of Directive 2014/95 / EU on the Disclosure of Non-Financial Information and Diversity Information. However, non-financial information should be disclosed only by public interest firms with an average number of employees over 500. Although only large companies are required by law to report on non-financial indicators. This covers approximately 11 700 large companies and groups across the EU, including:

-listed companies

-banks

-insurance companies

-other companies designated by national authorities as public-interest entities. [4]

CSR reporting can also bring benefits to small and medium-sized enterprises. [7]

Producing an environmental report can bring a number of benefits:

1. reputation — publishing an environmental report informs all stakeholders that an organisation is transparent about its environmental performance and confident about its future strategies.

2. legal requirements — the environment report acts as a benchmark for legal compliance, highlighting particular aspects that may require extra vigilance

3. robust data analysis — key performance data gathered to produce a report can help improve environmental management, minimise risk and identify opportunities for resource savings and operating costs

4. employee recruitment — companies with good environmental performance reporting are more likely to attract and retain high-calibre employees

5. increase market share — large organisations and businesses are requiring their suppliers to issue environmental reports as a way of tracking whole-life cycle impacts of products and services. Environmental reporting can also help organisations manage their supply chains more effectively. [2]

3 Environmental indicators

Environmental management indicators / indicators enable us to measure the company's environmental behavior and compile an environmental report. Environmental indicators are a set of indicators for evaluating the effectiveness of an environmental management system. Through them, we can also monitor their development as well as the company's efforts to improve its environmental profile. We can use the indicators within the EMS to control the fulfillment of the set environmental goals of the company. Environmental management indicators allow the company to monitor over time how its environmental behavior develops and also whether the company is in compliance with applicable legislation regarding the activities that the company performs. It can use indicators to identify areas where greater efforts are needed to prevent and protect against environmental pollution. A change in the value of the indicator is a signal that can indicate, for example, a problem in the production process. Information on environmental behavior is important for both managers and employees and other stakeholders. Indicators are important in compiling the company's environmental report, which serves to present the company's environmental behavior to stakeholders and thus positively influence the image and reputation of the company / brand.

Environmental indicators should be selected to meet the following attributes:

- cover all relevant environmental aspects,
- take into account the environmental laws to which the undertaking is directly subject,
- take into account the interests of stakeholders,
- take into account the environmental policy objectives of the undertaking,
- served for the needs of the target group. [3]

3.1 Areas of corporate environmental indicators

The structure of a company's environmental indicators depends on the system (such as ISO, EMAS) according to which the company decides or needs to develop its plan of corporate environmental indicators.

Environmental indicators according to ISO

ISO has developed an ISO 14031 standard aimed at assessing environmental performance using corporate environmental indicators (Environmental Performance Assessment - EPE). The EPE method collects and analyzes data, provides information suitable for benchmarking, annual business reports (reporting) or communication with various stakeholders. The ISO 14031 standard makes it possible for companies to monitor the set long-term and short-term goals through the possibility of creating a set of their own environmental indicators, in the following areas:

a) The operating area consists of business activities that have an environmental impact

aspect. Indicators used to measure environmental aspects from production activities are called operational environmental indicators, which include:

- total amount of energy consumed per year,
- water consumption per unit of production,
- waste generation per year,
- NOx emissions per unit of production,
- and others.

b) The area of management consists of planning, decision - making organization and control. Managerial decision making related to the environment includes:

- the amount of money spent on environmental activities,
- number of employees participating in environmental training management, or audits, etc.,
- the issue of developing and implementing an EMS,
- and others.

Indicators related to the management of environmental activities are called **managerial environmental indicators**.

These are, for example:

- achieved environmental goals and values,
- number of informed suppliers / customers about the environmental management and behavior of the company,
- frequency of inspections and audits on the production process,
- number of employees who participated in environmental training

c) The financial area includes financial indicators that assess the effects of environmental activities on the financial situation of the company. They can be used to control the costs associated with environmental activities and / or the publication of environmental reports. This is information related to:

- costs of environmental activities,
- ROI from environmental projects,
- achieved savings from waste recycling and reduction of used materials,

Financial managerial environmental indicators contribute to a better understanding of the links between the company's financial situation and environmental behavior. Some indicators may point to problem areas and therefore require increased attention. Operational environmental indicators, together with managerial environmental indicators, are called corporate indicators of environmental behavior. Their monetary as well as in-kind expression makes it possible to read almost accurately from environmental management accounting.

d) the area of environmental conditions and its indicators are measured in the monitored

environmental conditions. Belongs here:

- concentration of contamination in air, water, soil, plants and animals,
- odor at a specific distance from the company, etc.

Categories of EMAS environmental performance indicators:

Table 1 Operational behavior indicators [3]

Input indicators	Indicators of physical facilities and equipment	Output indicators
Materials	Design	Products provided by Organization
Energy	Equipment	Services provided by Organization
Support services for operation of the organization	Operation	Waste
Support products for operation of the organization	Maintenance	Emissions
	Land Use	
	Transportation	

Table 2 Managerial Behavior Indicators [3]

System indicators	Functional area indicators
Implementation of policies and programs	Administration and planning
Compliance	Purchases and investments
Financial behavior	Health and safety
Employee involvement	Community relations

Table 3 Environmental conditions indicators [3]

Environmental components	Biosphere and atmosphere indicators
Air	Vegetation
Water	Animals
Country	People
	Aesthetics, heritage and culture

3.2 Types of corporate environmental indicators

We know four types of indicators:

Absolute - CO₂ emissions t/year, waste produced t/year, water consumption m³/year. It is important to know the values per unit of production so that the company knows if it is a real improvement. The fact that e.g. emissions decreased in year 2 compared to year 1, it may be due to a decrease in production and not better environmental behavior.

Relative - the amount of emissions to the total output, water consumption per unit of production, the amount of waste produced to the total material consumption, etc.

Aggregated - produced waste per year, total consumption of energy, water, gas, number of km/year traveled, etc.

Weighted and indexed are used to distinguish the severity of individual environmental aspects. The company chooses the evaluation scale itself. For index indicators, the value for the current year (numerator) is compared with the selected, base year (denominator). A value less than 1 indicates an improvement in the indicator compared to the baseline period.

4 Conclusion

Environmental reporting is an excellent means of communication for every organization. It is a comprehensive environmental "annual" report by which the organization informs the public and all stakeholders about its relationship with the environment, including the quantification of environmental impacts and the measures it takes to reduce its negative impact on the environment. The team comprehensively informs all interested parties about environmental issues related to its activities. In addition, it should be noted that the objectivity and accuracy of the report is confirmed by the verifier. If this communication tool is used to the fullest extent and is available to really all stakeholders, it can often positively change the view of professionals and the general public on an organization that has so far been perceived from an environmental point of view, based only on various partial and mediated information often produced by different interest groups. By selecting the most important indicators, the company can inform all stakeholders in an appropriate way how it strives to continuously improve the company's environmental behavior and thus ensure the improvement of the brand's image and reputation.

References

1. BUSINESS LEADERS FORUM. 2019. *Odporúčania lídrov v zodpovednom podnikaní pre oblasť: TRH*. [Online]. Available at: <<https://www.nadaciapontis.sk/wp-content/uploads/2019/01/10.1.1.-Spr%C3%A1va-o-ZP-SK-web-verzia.pdf>>. [accessed 12.8.2021].
2. CRONER-I. 2021. *Environmental Reporting: In-depth*. [Online]. Available at: <<https://app.croneri.co.uk/topics/environmental-reporting/indepth/>>. [accessed 14.8.2021].

3. EKOLOGIKA. 2021. *Environmentálne manažérske indikátory*. [Online]. Available at: <<http://www.ekologika.sk/environmentalne-manazerske-indikatory.html/>>. [accessed 14.8.2021].
4. EUROPEAN COMMISSION. *Corporate sustainability reporting*. [Online]. Available at: <https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en/>. [accessed 10.8.2021].
5. GLOBAL REPORTING INITIATIVE. 2020. *Consolidated set of GRI sustainability reporting standards*. [Online]. Available at: <<https://www.globalreporting.org/how-to-use-the-gristandards/gri-standards-english-language/>>. [accessed 14.8.2021].
6. KOVÁČOVÁ, B. 2020. *Tvorba CSR reportu s využitím GRI Štandardov*. [Online]. Available at: <https://is.muni.cz/th/af316/Bakalarska_praca-Barbora_Kovacova.pdf/>. [accessed 13.8.2021].
7. RUSKO, M. – LAMAČKA, P. – KRIVOSUDSKÁ, J. 2017. *Environmentálny a bezpečnostný reporting*. [Online]. Available at: <https://www.sszp.eu/wp-content/uploads/2017_conference_SES__p248__RuskoM_LamackaP_KrivosudskaJ__f4.pdf>. [accessed 14.8.2021].