

# Conceptual model for developing a Sustainability Balanced Scorecard - taking into account ESG aspects

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**Abstract:** Sustainability is a complex issue and framework for companies, with the common goal of meeting economics, environmental awareness and social justice. The focus should be on achieving medium- and long-term goals, and the environmental and social impacts of corporate operations should be examined. The Sustainability Balanced Scorecard, which takes into account ESG aspects, is one of the strategic controlling tools that can be adapted to this framework. The Sustainability Balanced Scorecard also includes a sustainability dimension to embed environmental, social or ethical considerations, including sustainability objectives and performance indicators. The paper attempts to identify the most usable, optimized Sustainability Balance Scorecard model for companies that will be part of sustainability reports in the near future. I have done research on Environmental Management Accounting / Green Controlling, the paper presents a conceptual model, using an interpretive and synthesizing approach by recombination of work in the field.

**Keywords:** ENVIRONMENTAL MANAGEMENT ACCOUNTING, ESG, SUSTAINABILITY BALANCED SCORECARD, CONCEPTUAL MODEL

## 1. Introduction

Global warming, climate change, sustainability of quality of life, the production of more durable products (using less packaging) or pollution are becoming more and more central to our lives, fortunately. Our world does not exist to serve only one generation. The desire for development is natural, as development is good by itself, but even better if it is also sustainable development.

According to a 1997 report by the Brundtland Commission, "Sustainable development is development that meets the needs of present generations without compromising the ability of future generations to meet similar needs" (WCED, 1987). This growth must also take into account the economic, social and environmental dimensions, and we expect it to be less material and energy-intensive. Under pressure from external stakeholders and because of new regulatory compliance requirements, the management of responsible companies now incorporates sustainability criteria into the decision-making processes and operations of the organization. These companies have recognized the importance of sustainability accounting and reporting in a number of areas. Aiming to enable investors to judge the performance of companies, or even governments, objectively, taking into account sustainability considerations (Hasna, 2007).

The work of management and thus controlling is also changing, instead of focusing on short-term, mainly financial results, sustainability aspects must also be integrated into management in the future. Organization's commitment to sustainability is well demonstrated when relevant indicators and expectations are integrated into the performance measurement and targeting system at all levels, i.e. traditional indicators are complemented by sustainability considerations. A well placed Sustainability Balanced Scorecard can incorporate these considerations into evaluations. Unlike a traditional Balance Scorecard, it has a different central idea and includes different types of KPIs and perspectives. In the following, let us review the theoretical background, the concept and the possibilities of setting up the Sustainability Balance Scorecard model.

## 2. Methodological Framework and Theoretical Background

### 2.1. Conceptual model

A conceptual data model is a collection of tools designed to describe reality. It is important that the model created be able to answer questions about reality (Watson, 2006). The aim of the study is to set up a Sustainability Balanced Scorecard conceptual model that frames the overall structure of a firm's strategy and perspectives (indicators). This structure, built on a sustainability

strategy, includes the logical relationships and steps by which a company is able to create its own - specific - Sustainability Balanced Scorecard. This is actually nothing more than a data model. A well-structured set of data is called a database, from which useful information can be extracted later.

In this model, which is also a database, we see individuals (the part of reality that can be distinguished from other things that we want to describe with properties), relationships (relationships between individuals), and characteristics (a property that characterizes an individual). To describe our environment, we need to observe, collect data about its objects, summarize their properties, and observe the relationships between them. After that we can get new knowledge and information from the available, stored data. In compiling this, we obtain the data (Hampel, 2020).

### 2.2. Sustainability accounting and sustainability reports

The definition of sustainability accounting is still an unclear, inhomogeneous, multidirectional and constantly evolving field of research (Lamberton, 2005). According to Gácsér and Szóka's research, sustainable accounting consists of two parts. It is primarily used to measure, analyse and report on the social and environmental impacts and economic sustainability of companies, and secondly to a set of principles and guidelines (standards) for the economic implementation of environmental awareness and social justice. The company must also report on how it has used social and environmental resources and what impact this has on society and the economy. Measuring this is challenging because financial goals are linked to clear, measurable, short-term metrics, but sustainability measurements are often uncertain and long-term (Szóka, Gácsér, 2021). Compared to financial reports, sustainability reports have a short history, with most reports on environmental and social activities only existing since the late 1980s. There are no binding guidelines in the sustainability reports regarding the formal, content and formal requirements of these reports, and on the other hand, disclosure is still not mandatory (see on ESMA, 2021). There are several frameworks and standards, Rogmans and El-Jisr, for example, classify seven types in their study, each focusing on different factors and taking into account the needs of other stakeholders. Standards were placed in a 2x2 matrix according to focus and audience (Rogmans, El-Jisr, 2022).

The European Union has contributed to the regulatory framework for sustainability reporting, with the adoption in 2014 of a directive requiring a large number of companies to disclose non-financial and diversity information. The European Union has developed a classification system that lists the economic activities classified as sustainable, the so-called EU taxonomy (DIRECTIVE

2014/95 / EU). Four years later, the European Commission adopted a proposal for a Corporate Sustainability Reporting Directive, which amended the current reporting requirements of the Non-Financial Reporting Directive. The proposal applies to all large companies and all companies listed on a regulated market, provides for the audit of the information provided and introduces a detailed reporting obligation. The European Financial Reporting Advisory Group will develop a mandatory Community Sustainability Reporting Standard. The first draft standard will be developed at the end of 2022, in line with EU policies (EUROPEAN COMMISSION, 2020).

This is the starting point for measuring sustainability, and they can be used to define, measure and report on sustainability indicators. The sustainability report is partly a tool (document) for accountability, often referred to as an environmental disclosure statement. This reporting represents the first level of ESG, i.e. Environmental, Social and Governance maturity. Capital markets and investors will use these ESG ratings as a starting point and incorporate them into their own valuation models.

### 2.3. Sustainability Balanced Scorecard

The role and focus of controlling is constantly changing, and due to its close relationship with the strategy and its future orientation, it is especially important that controlling now meet the requirements of sustainability. This means that it is not enough to optimize a company for a single parameter, all the interests of the stakeholders must be taken into account. In addition to the purely financial approach, the concept of a sustainable company has emerged. The aim of this ecological approach is to collect, analyze and manage the environmental impacts of economic activities (Szóka, 2022). The organization's commitment to sustainability is well demonstrated if the relevant indicators and expectations are integrated into the system of performance evaluation and targeting at all levels, i.e. the traditional KPIs are supplemented with sustainability aspects and indicators.

Company performance must therefore be measured in terms of sustainability, one of the tools of which is the Sustainability Balanced Scorecard (hereinafter SBSC). The SBSC differs from the traditional Balanced Scorecard in that it includes other types of KPIs and perspectives, so we integrate the idea of sustainability into performance evaluation (Szóka, 2022).

### 3. The conceptual model

The Balanced Scorecard can be modified and supplemented in several ways. One common concept is to supplement the classic perspectives (financial, customer, internal processes, learning and growth) with a sustainability perspective and indicators, i.e., a fifth perspective is displayed. In this case, it is important that the indicators of the new perspective created form a consistent whole with the other indicators, i.e. they are also integrated into the strategic map according to the causal logic. Suggested indicators are energy and resource consumption (and rate of reduction), emissions of harmful substances (e.g., CO<sub>2</sub>), production and disposal of waste (its cost), and environmental measures (and their cost) (Fathi, 2019).

It is also conceivable to add new indicators to all existing perspectives, which are related to sustainability, or even to think through existing indicators from a sustainability point of view, are they in line with sustainability? If not, or not really, we will change it a bit, but in that case, there is no new perspective. In this case, the recommended indicators are e.g. value creation for "green" consumers, the detrimental effect of R&D on the environment, its reduction, dissemination and understanding of the culture of sustainable operation.

Perhaps the most exciting and labour-intensive concept is to completely redesign the original hierarchy. In this model, the financial perspective is replaced by a sustainability perspective, so we do not subordinate the other goals to achieving the financial goals. We completely subject all activities to sustainability and develop (causal) relationships that describe our relationship with reality from a sustainability perspective. The relationship and characteristics (properties) of individual factors to sustainability need to be sought and measured. In order to create a database, environmentally relevant data must be collected and characterized, and linked to financial (cost) data. E.g. amount of waste, extent of damage, cost of disposal. If e.g. we want to start an investment, we think about the burden on the environment (how to be climate-neutral), or if we want to produce a new product, we can solve it with climate-friendly technology.

### 4. Conclusion

The conceptual model of the Sustainability Balanced Scorecard is, of course, a model that every company must adapt to. By creating and operating the model, we can gain a competitive advantage and prepare for the application of the soon-to-be-implemented sustainability standards and the preparation of sustainability reports. In addition, we can reduce the risk of our business and become more attractive to investors and other stakeholders. Thus, sustainability will be part of the corporate strategy. It is a challenge for companies to take a systems-based approach, to build the proper structure of the strategic map, and not just to select the indicators we like, because it is working well for the company right now. Creating an SBSC is a strategic decision, let us be patient, it takes time to design, refine, and measure long-term performance. Finally, let us not forget that we also have to pay attention to the financial and economic viability, the main goals of the for-profit company are still the positive – and growing – payment of profits and dividends (in addition to sustainable operations).

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