

# SUSTAINABILITY AS A PART OF BALANCED SCORECARD

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## Abstract

*Sustainability is a trend, which is more seriously discussed on the international and national level. But also companies in the local level are pushed to have strategies and visions, which enable better future for society, our planet and local economy. Sustainability is one of the conditions – it allows companies to implicate social, economic and environmental pillars to the company's strategy and management. The question, which remains today is, how to measure social, economic and environmental impact on society? And more – how to enable future generations to have the same conditions as we have today? The paper provides format for a possible bridge between current strategic Balanced Scorecard system and future trend of sustainability. One of the special tools, which can be used for measuring sustainability, is Balanced Scorecard (by Kaplan and Norton in 1990s) with the complement of sustainable metrics. The paper introduces three possible methods, which can be used by implementing sustainability into the Balanced Scorecard. One of these methods is described in detail. There is a focus on the sustainable indicators included as the fifth area in Balanced Scorecard model.*

**Keywords:** sustainability, management, trends, balanced scorecard, measurement.

## 1. Introduction

The Balanced Scorecard methodology demonstrated in this paper provides format for a possible bridge between current strategic Balanced Scorecard system and future trend of sustainability.

The sustainability concept is relatively new and in many organizations still do not know, how to implement or measure its outputs. Sustainability is key factor for success in the future market. Climate change is emerging as a key factor, which expects to transform the way we manage resources. Impacts of climate change on resources affect all regions of the world, but will manifest themselves in different ways. The uncertainty regarding the severity, timing, and frequency of events and their impacts, is the main challenge. Having robust and adaptive resource management plans will help prepare company for the uncertainty and risks that lie ahead. (Changing Currents, 2010)

Responding to societal concerns is very important to businesses, not only from a public relations (marketing) perspective but also as a means to address customer and shareholder expectations. Financial markets are also starting to examine the way in which companies address environmental / sustainability issues, adding to this public pressure to sustainably manage natural resources. Many people are not aware of the impact that such industrial pollution can have on the earth. By helping to make it known, companies can be one of the voices that will draw attention to the issue thus helping to inspire change.

Every business is usually made with the main goal in the form of profit. The management is traditionally focused on profitability, market share or some from the new measuring indicators such as EVA, CFROI, RONA, CVA, etc. Many view the sustainability report as only a companion to financial reporting. It is unavoidable perspective, when company trades abroad.

Forty or fifty years ago, it was a struggle to call general public interest concerning the state of the environment even in developed countries. Nowadays such concepts as becoming 'carbon neutral,' 'green consumerism' and 'eco-efficiency' appear to have been embraced in the developed world. (Elijido-Ten, 2011)

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This paper focus on the way, how to implement sustainability measuring into the Balanced Scorecard and what exactly does it mean for organizations.

The paper establishes older findings by many scientists with the new view of concrete indicators, which could be implemented in the Balanced Scorecard.

**Aim of the article and research questions:** The aim of this paper is to introduce and implement sustainable indicators into the system of Balanced Scorecard. The main research questions are: How to measure sustainability? What are the main sustainability indicators? How to implement these indicators into the Balanced Scorecard?

**Methods used in research:** Examine and analyze characteristics of the sustainability and its metrics. The expected result of the research is a new model of Balanced Scorecard with the sustainability elements.

## 2. Original Balanced Scorecard

Robert Kaplan and David Norton managed in early 1990s to combine financial and nonfinancial issues into a comprehensive performance management system called Balanced Scorecard (BSC). In 2012 it was 25 years since the publication of 'Relevance Lost', in which Professors Johnson and Kaplan alleged that management accounting information needs had become subservient to financial reporting requirements. The goal in 1992 was to incorporate multiple perspectives into organizations that primarily manage financial issues, balance sheets and income statements. These traditional financial reports only indirectly measure the effectiveness of corporate strategy and can be misleading about whether a specific strategy has been implemented successfully.

Financial measurement systems are years ahead of nonfinancial measures. This is naturally because of governmental regulatory and obligatory reporting. Accounting experts have improved these measurements through decades in cooperation with government agencies.

The BSC model was originally created to measure four quadrants: financial, customer, internal and learning perspective.

- Financial quadrant – primarily measures revenue growth, investment return, and cost reduction
- Customer quadrant – focusing mostly on market share and customer loyalty, satisfaction, profitability, and acquisition
- Internal Business Process quadrant – identifying more effective processes for the organization to most efficiently meet its objectives
- Learning & Growth quadrant – consists of employee skills and training, IT functionality, and administration of routine processes

The basic premise of the Balanced Scorecard is that financial results alone cannot capture value creating activities. The only financial measures are lagging indicators and are not effective in identifying the drivers or activities that affect financial results.

According to Bain&Company in 2004 about 57% of global companies were working with the Balanced Scorecard model. It is used extensively in business and industry, government, and non for profit organizations to align business activities to organizational strategy.

The Balanced Scorecard is a customer-based planning and process system, which main aim is focusing and driving the change process. Sustainability is also focused on customer needs. That means company needs to implement sustainability into the company's goals. Is there any space in BSC for it?

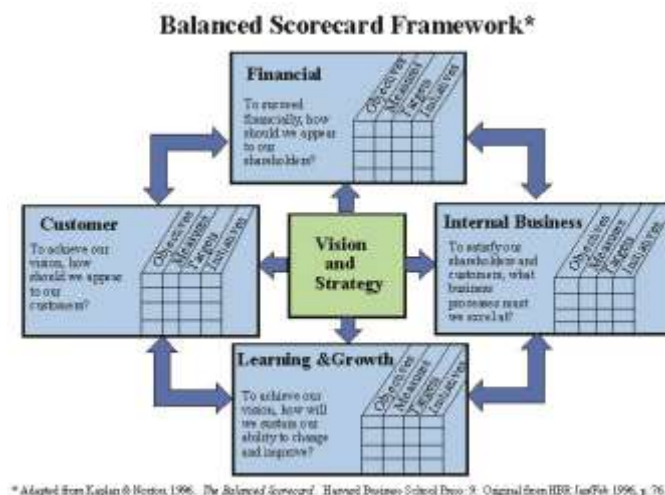


Figure 1: Balanced Scorecard Framework adapted from Kaplan & Norton (1996).

### 3. Sustainability Perspective Discussion

As the sustainability or environmental/green strategy is a nowadays theme of the organization's strategy, it can span the existing balanced scorecard perspectives. The sustainability concept originally refers to how organizations handle non-financial factors related to environmental, social and economic issues. This concept potentially impacts the organizations future.

Sustainability includes broader issues in area of ecology, sociology and environment as well as well-being of people and standard of life. In other words it is sustainability seen as "green" practices and can be found throughout the operations of all types of business.

The sustainability concept is also synonymous with citizenship reporting, social reporting, triple-bottom-line reporting, and other terms that encompass the economic, environmental, and social aspects of an organization's performance and planning. Public and private agencies can consider sustainability reporting at three levels: organization (internal), policy outcomes (external), and contextual or spatial outcomes (regional). (The Centre for Public Agency Sustainability Reporting, 2007)

Organization with the sustainable (also seen as green) strategy have three possibilities, how to implement sustainable strategy in BSC. (Elijido-Ten, 2011) **First**, environmental and social aspects can be integrated in the existing four standard perspectives. Environmental/social aspects become then an integral part of the Scorecard and are automatically integrated in its cause-effect links and hierarchically orientated towards the financial perspective. For example an added dimension within the financial category can be the integration of sustainability measures, such as energy costs, recycling revenues, disposal costs, and environmental dollars. Each organization can choose what specifically applies to its business environment and ignore any of the metrics that do not apply.

**Secondly** (and this is more likely) there can be created an additional perspective to take environmental and social aspects into account. Figge et al. (2001) propose the introduction of an additional, so called non-market perspective in order to integrate strategically relevant environmental and social aspects. Kaplan and Norton also point out that the firm-specific formulation of a BSC may involve a renaming or adding of perspective (Kaplan, Norton, 1996). Adding an additional perspective to the BSC may be the simplest approach for companies that want to emphasize sustainability as a key corporate value. The paper develops this idea later on.

**Third** possibility, a specific environmental or social scorecard can be formulated. Derived environmental or social scorecard cannot be developed parallel to the conventional scorecard. This scorecard is not an independent alternative for integration, but only an extension the two variants discussed above. (Figge et al., 2002) The reason, why companies establish a separate Balanced scorecard for sustainability, is that CSR strategy or/and sustainable development are seen as core strategy in creating competitive advantage.

Sustainable perspective implemented in BSC model should ensure that *the strategy of company is in link with environmental, social and economic needs of the next generations*. The integration procedure of the sustainability perspective metrics offers a possibility for organizations to translate sustainability visions and strategies into action plans.

The process of creation new perspective into BSC must lead to an integration of environmental and social management into strategy. The sustainable aspects must be integrated according to their strategic relevance. (Figge et al., 2002) By integrating sustainability measures into business practices and by clearly linking an organization's competitive strategy to its green outcomes, the BSC clarifies the relationship between sustainability outcomes and profitability/shareholder interests. (Butler, Henderson, Raiborn, 2011)

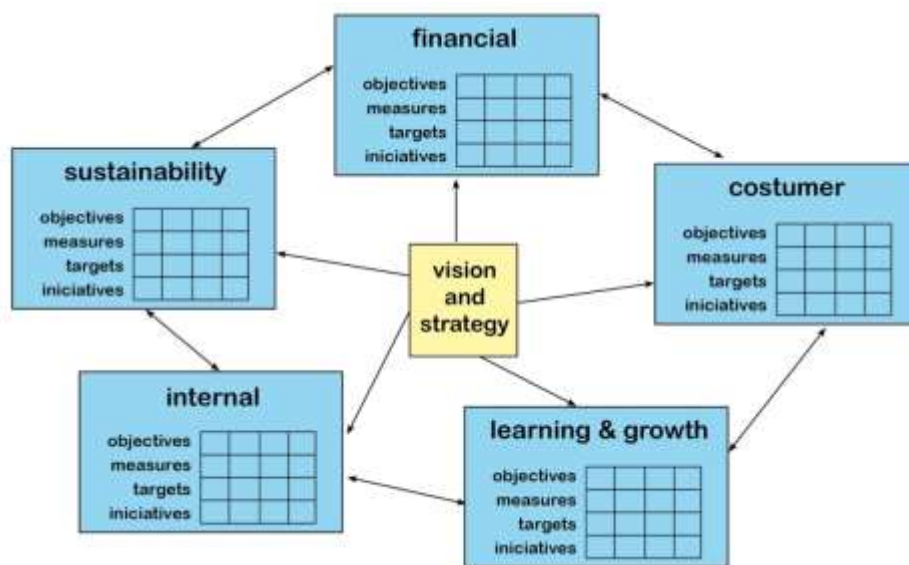


Figure 2: Balanced Scorecard with the Fifth Category - Sustainable Perspective - adapted BSC model.

“What gets measured gets managed” is an old accounting saying that remains true today. The sustainability perspective enclosed in BSC also needs its measurement.

#### 4. Indicators of Sustainability

Before we can measure anything, we have to define the term sustainability and its characteristics. The definition of sustainability depends on who is defining – government, NGO, scientists. Still, common topics run through most definitions of sustainability. They usually deal with the economy or/and nature. They are about the rate of change, and about equity between generations. Many see sustainability as a continually process of development. As the sustainability is a new trend, many come with own definitions.

The concept of sustainable development was described in a 1981 White House Council in Environmental Quality Report (EPA, 2011): “The key concept here is sustainable development. If economic development is to be successful over the long term, it must proceed in a way that protects the natural resource base of developing countries.” The business dictionary (2011) defines the sustainability as an “ability to corroborate or substantiate a statement” and “ability to maintain or support an activity or process over the long term”. According Brundtland Commission and the report “Our Common Future” sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Donella H. Meadows (2004) sees “a sustainable society as the one that is far-seeing enough, flexible enough, and wise enough not to undermine either its physical or its social systems of support.” Searching through different definitions there can be found key elements, which are common for most of the authors. These are: Consideration of future, Protection of resources, Economic prosperity and Connection between environmental, social and economic areas. These areas should be considered by creating sustainable indicators for the companies.

Management of the organization should develop certain metrics for achieving sustainability goals. BSC measures can reflect each individual company’s strategies and operations, so those measures identified will vary widely among companies. According Butler et al. (2011) measures, targets, and goals chosen for every perspective should be:

1. Controllable by all stakeholders,
2. Quantifiable,
3. Include all component elements when a multidimensional measure is used.

Multidimensional measure means for example, that the term greenhouse gasses (output to global warming) may be used for a variety of gasses (carbon dioxide, methane, chlorofluorocarbons, etc.).

At the figure 3 there is a model of incorporating sustainability into companies and other organizations. It is all based on the principles of sustainable development, which are giving the basic platform.

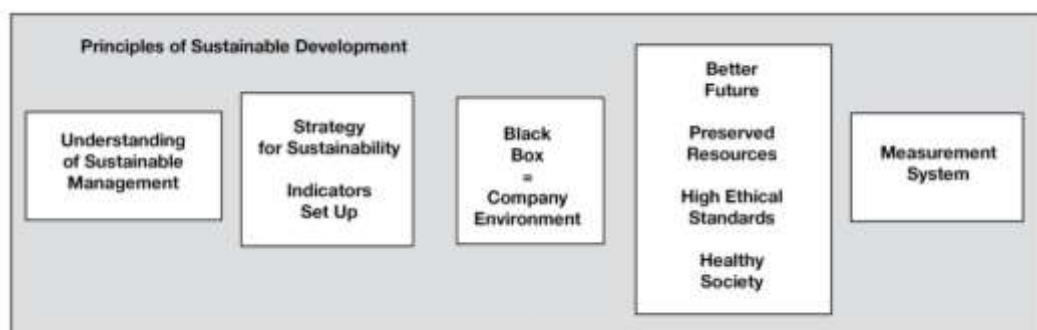


Figure 3: Model of processing sustainability in companies.

As it can be clearly seen, the main challenge is set up of measuring indicators. Indicators are statistics and are used to measure current conditions as well as to forecast. They can be used extensively in analysis to predict changes. There has been specified no rule for the right number of measures to include in a Balanced scorecard. Including too many tends to distract from pursuing a focused strategy. Generally complete balanced scorecard contains three to six measures in each perspective. (Epstein, Wisner, 2001) By creating indicators companies should be specific. Words like efficiency, low cost, and productivity has no real meaning.

The measurement system should make the relationships among the objectives and measures explicit, so the company can manage and validate them. To be comprehensive, the Balanced scorecard must include measures that interact on the basis of an established cause-and-effect relationship.

Each company defines sustainability differently. The performance indicators chosen will be based on strategy and goals of the particular company or organization. The weight given to the various dimensions of the Balanced scorecard will also depend on the goals and culture of each company. (Epstein, Wisner, 2001)

Below this paragraph there is list of indicators, which could be used in companies for measuring sustainable behavior. These are created by deduction from the national/local indicators and some of them represent ideas from brainstorming in every sustainable area.

Sustainable Perspective in BSC	
Goal	Indicators
Lowering <b>energy</b> consumption	Percentage of Energy Consumption from Renewable Resources Average Consumption of Solar/Water Energy Average Consumption of Energy (year and square meter) Average Consumption of Vehicle Fuel
Lowering <b>water</b> consumption	Average Consumption of Drinkable Water Average Consumption of Hot Water Management of Waste Water
<b>Waste</b> reduction	Number of Waste Containers Percentage of Recycled Waste Percentage of Assorted Waste: paper, plastic, glass, bio-waste Average Disposal Costs
<b>Environment</b> preservation	Investments for the Savings of Nature/Environment Percentage of Costs Going Back to the Environmental Protection Percentage of Office Supplies Recycled Percentage of Inclusion in Green Funds
Equality in <b>society</b>	Percentage of Local Employees Percentage of Woman in Management Percentage of Material from Local Resources Percentage of Certified Suppliers Number of Safety Improvement Projects
Lowering <b>noise</b> and <b>emissions</b>	Air Emission Greenhouse Gas Emission Average Work Week Hours Average Overtime Work Hours

*Table no.1: Sustainable perspective and sustainability metrics suitable for BSC.*

There is also a question of how often should those indicators be measured. The usual recommended measurement is ones a year, but this depends on every company. The limits of measurements lie in special employee or somebody, who is able to measure and control these outputs.

The system of measurement can also pose a problem. If the management focuses only on the results, employees may be preoccupied by hitting the right numbers and not doing the right things.

Executives can easily judge the performance only on monthly or quarterly numbers. It can be challenge too to define nonfinancial measures. There may be only few (especially bigger) companies that have experience in using nonfinancial numbers to measure their outcomes. Adding more performance indicators to overworked workforce may make confusion and apathy. Workers spend more time by collecting data and monitoring activities then actually doing their job.

## 5. Conclusions

As the Balanced scorecard was being adopted by corporations all over the world to implement corporate strategy, it could be used by companies to implement sustainability strategy to link corporate sustainability objectives with actions and performance outcomes. The output of improved sustainability performance can include for example increased employee satisfaction, lower operational and administrative cost, improved productivity, improved image and reputation, increased market opportunities, better stakeholder relationships etc. In line with the voluntary disclosure theory, it appeals that organizations adopting BSC together with collecting sustainability data have more incentive to provide public disclosure to show their divergence.

The paper summarizes previous findings and introduces three possibilities of implementation sustainability area into BSC. It is up every company, which indicators will be used for measuring sustainability. The paper suggests several indicators, which could be incorporated in each sustainable area.

The main impact for companies is in notification about the importance of such measurement and orientation. It explains in detail, how process of sustainability works and what is needed to do in order to start such direction. This concept is needed not only for organization itself, but also for future generations and society.

The future research work can focus on case studies in practice. It would be useful to summarize real problems, which could emerge during implementation period of sustainability in BSC. There would be also important comparison between all three methods of sustainability incorporation in BSC model. In the end the research of costumers and their satisfaction with green strategy of organizations would also help to improve overall situation in the market and can push more companies in implementation sustainability indicators.

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