

# WHAT CAN BE THE MAIN GOALS OF THE 21ST CENTURY'S COMPANY, OR THE ROLE OF SUSTAINABLE DEVELOPMENT IN CORPORATE STRATEGY, AND IT'S DEMONSTRATION THROUGH GREEN PROJECTS ANALYSIS

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## ABSTRACT

Perhaps the main and nowadays becoming more important problem of the XXI centuries is the changes in the quality of natural environment, and it impacts on humanity. One of the main goals of the solution is to make a complex system which includes, sustainable economy, sustainable society and a sustainable environmental.

A company which is committed towards “green” activities take on various ways to exhibit, for example a consciously planned (CSR, etc.), to achieve the long-term goals supported, or required by the company's stakeholders, or unfortunately it is appears limited. In corporate strategy one of the best tool is, maybe the introduction of quality management.

The quality management, because hard to definite this area of management, use standards. These nationally accepted standards, - for example HACCP, ISO – generate trust in suppliers and in costumers, too. The standards of energy management, (ISO 50001) aspire to reduce and use more efficient the energy used by the company, thus reducing costs, carbon-, and water-footprints of the organisation.

Environmental projects which focus on environmental gentler management are difficult to evaluate, even if this projects are in the corporate strategy. The direct financial impacts which are required for the classical cost efficiency calculations, these projects do not appear to make it viable. Therefore, analysis methods which focused on the changes of the project compared to the baseline replace the classical cost efficiency calculations.

The goal of this study that - thought directives of ISO standards - examining the impacts of ecological projects in a company competitiveness, considering the different definitions of sustainable development perspective, based on a system- and process-based cost-benefit analysis methodology.

**KEY WORDS:** sustainability, cost-benefit analysis, quality management, companies “green” activities, strategic management

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## INTRODUCTION

Our presentation topic is, that we have wrote in our abstract is about the strategy of the corporations, in a nowadays more urgent approach, which is the sustainability. Competitiveness of an organisation depend on a lot of factors for example saturation of the market, intensity of competition, quality of the products, needs of the customers, and many other factors. But we concentrate to one small area, which is the effect of ecological projects in the long term strategy. We think it will increase the importance of this area in the corporate strategy, even will be the most important area, because the negative changes of environment and social conditions.

### Environmental awareness

The environmental awareness is the result of the baleful human activity to compensate it. Man, as an economic person and as fully rational participant, in the beginning of the 21<sup>st</sup>

century, started to think about big environmental changes, and started to understand that to do with it. We now do not understand the system, the whole interdependence of it. The human activity until the 18<sup>th</sup> century didn't affect as bad as now, since the industrial revolution, and with the impact of globalization the mass-production deteriorated the quality of our rivers, oceans, air and ground, more than ever. Although, this impact and quantity of man didn't prove, maybe we believe this, we think that right because our big ambition. We would like to believe, we can influence this complex system, called Earth. Be that as it, the real society, economy and environment don't sustainable. There's just no because the resources of the Earth are finite, but our economy and society want to grow bigger and bigger, without corners, main engines of our present system are the continuous development and raising living standards. The recognition of the barrier of resources and the insatiableness of needs shows the definition of sustainability and environmental awareness.

### **Definition of sustainability**

The emergence of sustainability and be a daily definition, and interconnection with economy and protection of environment, took 30-40 years, and nowadays this is an integral part of sustainability, even successful corporate strategy doesn't exist without the conception of sustainability. Man has to accept, that the world we live in with its process of economy, society and environment create one big system. We have to see these things together, the only profit oriented, fully capitalist way don't work nowadays. We need to calculate with new parameters, to see the whole, complex system. We have to define what does success corporate mean today!

In use, there are more definitions of sustainability, also in literature and common knowledge, too. But those definitions really different, because don't easy to write down a general definition about this diverse topic. So we describe one of them, which we think the most relevant in our research.

This definition has been written in "Our Common Future" report in 1987. Definition of sustainable development is defined in the report as:

"development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This definition doesn't contain directly the thrift use of resources and the environmental awareness, but the ability of future generations to meet their needs indirectly contain those.

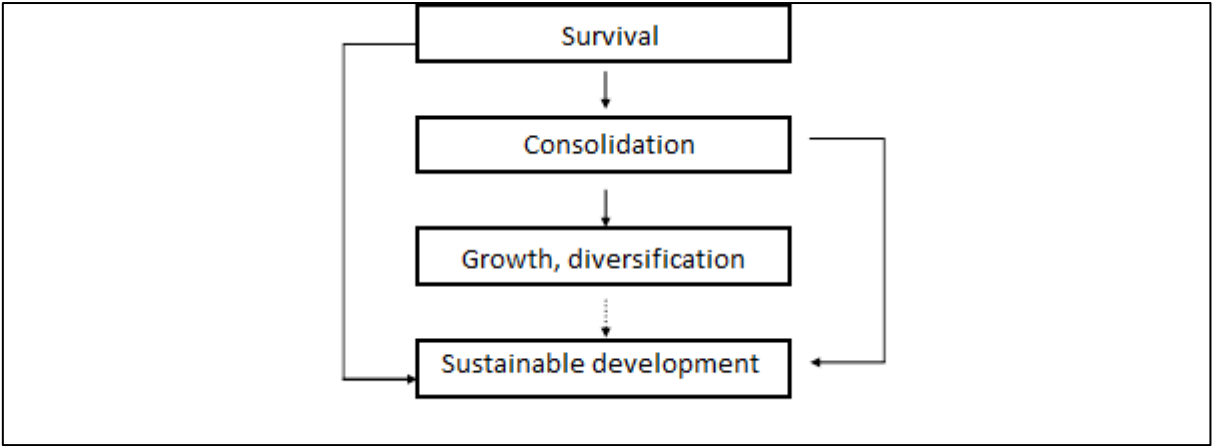
This definition has been clarified, one main think about this that, what call we development? Brundtland Committee define it, they says, because the social inequality in countries of the Third World, they has possibility to develop and to grow their production, because they just this way can meet their needs. This means that development and grow are synonyms (Kerényi, 2002). The time parameter of the definition, "future generations" mean an infinite, limitless time parameter (Kerényi, 2006b). János Szlávik says that sustainability works, if this conception comes true in every level – environmental, social and economic –and naturally it must works everywhere. This is why it's a very big project, this is one of the biggest problem in history of mankind (Náray-Szabó, 1999,2006, Pálvölgyi-Nemes-Tamás, 2002, Simai, 2001).

### **Green corporate strategy**

Naturally the actions of strategy depend on the corporate which period of life-cycle is in. If we search only in a view which just limited to classical competitive strategy, we determine, that the freedom of strategic decisions are only in growing period, in the other periods we

must restrict more less extent. And in this period the organisation make decisions, decisions about long-term strategy, under constraint.

**Figure 1: Basic action programs of strategy**



Source: Székely Csaba and colleagues, 1997.

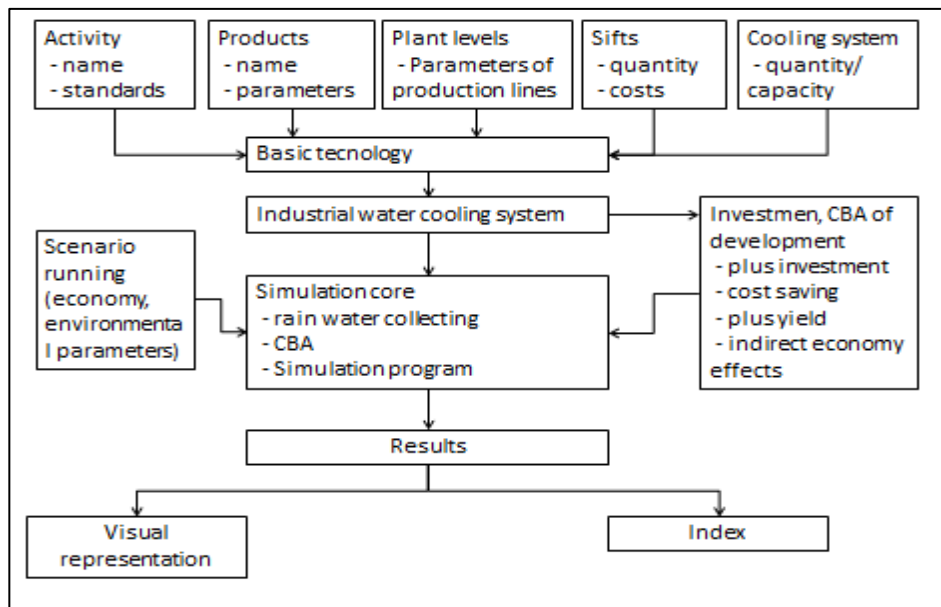
Nowadays true statement, that ecological strategic actions result cost savings. Technological development very intensive, but don't meet a level, which can show a return, independently, without supports, yet. So if an organisation decides to run such a project, need to accept the losses in profit, and need to account whit this.

The above wrote losses, won't result to ignore sustainability viewpoints. We think from individuals through organisations to governments, from children to elder people, everybody have to deal with sustainability. Different civil organisations – such as Greenpeace – are fighting for decades to save the Earth, and trying to teach the wide society, about the importance of this. But their job didn't works properly always. However their actions started to produce, for ordinary people more important the environmental awareness, than before.

Corporates started to utilise this new need, for take competitive advantage. More and more organisation transform their profiles for this need, new design, new production technics, new communications, naturally those new profiles don't work if there aren't real environmental friendly process, and management behind the scenes. That's easy to implement those innovations in the model of Porter. The environmentally conscious consumer has appeared in the market, and their importance grows every day. This type of consumer search the green products, and because this the producer search the green supplier, too. So the "green wave" is in the length of supply chain.

The international conditioning is try for reduce the emission too, for example the ISO 50001 standard family, which is standardize the management of energy of the firms. The consumption of energy is efficient and environmentally friendly and teaches the firms to renewable sources and increasing the proportions of these sources. There are several other internationally accepted valuation method, these are calculation of carbon and water footprint They have important role in the corporate strategy of the companies, because they make the products more attractive for the environmental awareness customers with this internationally recognized symbols represented.

**Figure 2: Structure of the model**



Source: own work

## OUR RESEARCH

Our experience is about an analysis of a light source factory's ecological project as mentioned above. One of my purpose is to examine the project's real effect to the environment and costs. The main reason of our curiosity is to know that the production became more „green” or not because of this development. At the energy projects' analysis more methodology are used, I will perform traditional pay-off calculation, scenario planning and cost-benefit analysis.

In the light of these results the disadvantages of the dry financial approach will out that in these projects cannot be make a decision build upon the financial numbers and facts. Countless other factors influence to the success of a project like this. These influencing facts can be the given factory's whole independence from the energy sector what is almost impracticable because of the scarcity of sources but the stable power supply cannot be express in numbers. I would like to point out hither and other interesting things like this as the result of our work.

The concrete project examines the procreation and working of a rain-water system. If a cooling system was not work, it could be 50°C in the production hall because of the light source industry's technology. Originally this system pulled on city water and with the help of dry-wet cooling towers land cool air to the production area continuously. To spell the use up of the city water a rain-water collection system was built up and the city water is supplied with this. The efficiency of the system is depends on the environmental (amount of rainfall, temperature, moisture) and economic factors (production spread, numbers of shift)

## METHODOLOGY

Of the three mentioned procedures, the scenario-analysis is the most tangible, because this analyzes the project in a continuously changing environment. To illustrate these changes accordingly, I studied 4+1 scenarios, with the +1 being the mean value of the most common cases. The others are the combined positive and negative outcomes of two different factors. The 5 scenarios are the following: 00,++,+,-,+,-.

**Table 1: Factors of the scenario planning**

Scenario	Marking	Economy parameters			Environmental parameters (factors)		
		Discount rate	Production volume	Inflation	Rain-water	Temperature	Humidity
<b>Reality</b>	(00)	5%	2 shift	5%	0	0	0
<b>Most favorable</b>	(++)	5%	3 shift	4%	1,4	1,4	1,4
<b>Economically favorable</b>	(+-)	5%	3 shift	4%	0,6	0,6	0,6
<b>Environmentally favorable</b>	(-+)	5%	1 shift	6%	1,4	1,4	1,4
<b>Unfavorable</b>	(--)	5%	1 shift	6%	0,6	0,6	0,6

Source: own calculations

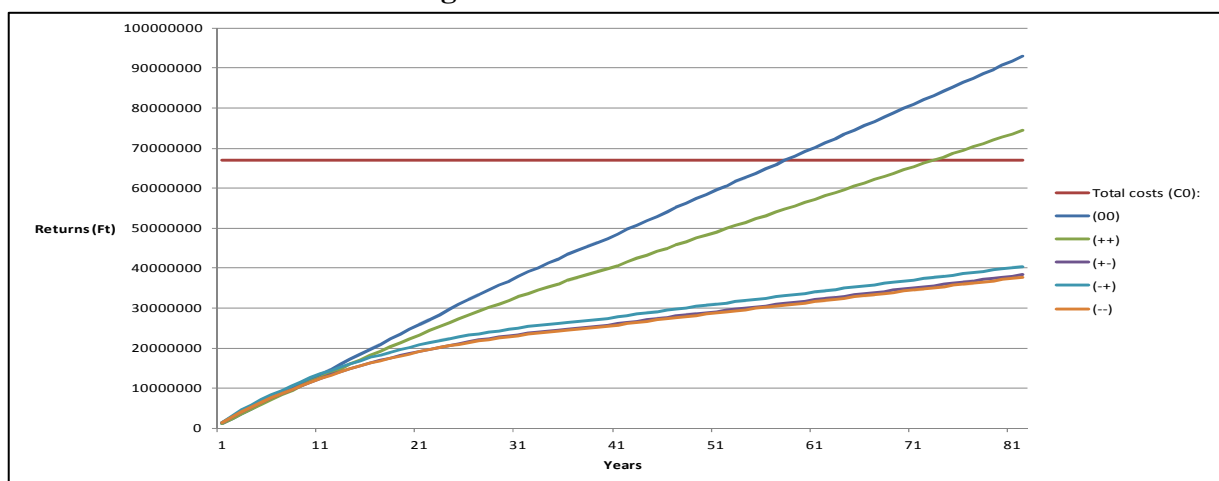
To get to the point where we can calculate the return of the project, we need a model. With a specific table-analyzing process, we will be able to create a stochastic simulation, which will help us research the impact of the different environmental factors to the project, enabling us to make a susceptibility-analysis. The following illustration will demonstrate the basics of the model.

The calculation starts with the basic-technology processes, where we can analyze the pre-research states. The main attributes of the investment follows. After this, we gather data about the differences in the costs and level of technology by the impact of this innovation. With the addition of the parameters of the long-term strategy of the scenario, we will be able to calculate the return-rate and the overall profitability of the project.

## RESULTS

I illustrated the return times and rates of the 4+1 scenarios compared to the total costs of the project on this diagram. It is measured in years.

**Figure 3: Process of returns**



Source: own calculations

As you can see from this diagram, the project will not be a viable solution for the company without research support, at least not for an acceptable time interval. But one must also realize that these researches have a positive impact on the environment outside the project as well, and these have immediate effects on the final results, therefore must be calculated to the overall return rate of the project. For example, the system does not need high-quality drinking water, so it has a benefit for the local community. But we must also face that with the project being a green system, we have to try and find the best middle course, because neither the expanding-without-limitation strategy (with 3 shifts), nor the economic crisis can explain the need for this research, and thus will be tied up by the sustainable long-term strategy of the company.

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