

GREEN MANAGEMENT IN COMPANIES' POLICIES AND ACTIVITIES

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Abstract

In a current world, issues related with the environment and human life protection, are more important than ever. It caused, that next to the "management" term, a "green" prefix has appeared. The main targets of green management in a company, are the ways of conducting activities by the firms, which have no negative impacts on the local or global environment. In green management, people responsible for its introduction and managing, are also, engaged in forward-thinking policies for environmental concerns or affecting humans' quality of life. This article is about the essence of green management, as the concept, which gains more popularity in present times. It contains the main issues of green management, and in its further part, some examples of companies, which have already introduced the appropriate policies and steps, are presented.

Keywords: green management, company, environmental concerns, activities, green building, energy saving

Introduction

Green Management approach is perceived as a new management strategy, which aims to achieve a fully sustainable business, of which results will be visible in the financial, social and environmental areas¹. This concept plays an important role in the development of more sustainable forms of business, leading to reduce their negative impact on the environment, during conducting activities. It would seem that the concept of Green Management is nothing new, but another term for the Sustainable Development concept, which also is based on three pillars: environment, society and economy. However, while the Sustainable Development concept (often referred as a triple bottom line) in its definition: Sustainable development is development that meeting the needs of the present generation, while providing for future generations to satisfy their needs², emphasizes its wide application dimension and Green Management usually refers to a single organization only. Another distinction between these two concepts, is the fact that while the Sustainable Development concept is addressed to everyone – meaning organizations and individual units (it includes guidelines or principles, that companies and households can meet), the concept of Green Management is directed to the organizations – companies, enterprises or consortiums (all types of business units). It should also be borne in mind, that the Sustainable Development concept was first formulated in 1910, while the Green Management concept appeared in the second half of the twentieth century, as a response to growing consumer awareness in the field of environmental protection. The basic definition of Green Management emphasizes three dimensions: ecological, social and financial, as is being shown in the following definition: Green Management is a business functioning in a capacity where no negative impact is made on the local or global environment, the community, or the economy. A green business will also engage in forward-thinking policies for environmental concerns and policies affecting human rights³.

However, in large organizations, Green Management is a concept, which mainly refers to the environmental aspects. It is about creating the right policy environment, that will increase the level of care for the environment or reduce organization's negative impact on the environment, through the use of appropriate technology, sometime called "Green", which will benefit organization itself and its recipient or customers as well.

In organizations, next to the Green Management term, a Corporate Social Responsibility term is being often met: Social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.

¹ Tran B., *Gestión verde: la realidad de la sostenibilidad ecológica en la gestión gerencial*, Journal of Economics, Finance and Administrative Science, vol. 12/2009, pp. 21-45

² Skowron-Grabowska B., *Strategic Determinants of Sustainable Enterprises' Transport*, in: Gospodarka Materiałowa i Logistyka, vol. 3/2014, pp. 24-32.

³ Business Dictionary, www.businessdictionary.com, Access on: 30-03-2015

Being socially responsible mean not only fulfilling legal expectations, but also going beyond compliance and investing ‘more’ into human capital, the environment and the relations with stakeholders”⁴. Unlike the Green Management, CSR often omits financial dimension, and focuses only on the social and environmental aspects. In the form of CSR lie company’s actions, aimed to meet the additional needs of their employees, customers, or those close to the company. It is worth to add, that very often, CSR reports presented by company, contain a section devoted especially to Green Management.

Green Management from the companies’ point of view

With regard to the organization, Green Management is simply a new way of thinking, associated with the acquisition of greater awareness how the organization works, and how, through their actions affects the environment. The Green Management is not about the human factor in the organization, but the individual components of organization, that are managed in a way, that takes into account environmental aspects. Depending on the organization’s size and type of business, the concept of Green Management may involve different components and takes different forms. Mostly, however, the concept of Green Management in organizations, refers to areas in which the organization operates. Thus, depending on the organization, different approaches to Green Management are being used.

Green Management in industrial company⁵

With regard to the process approach, four phases can be distinguished, in which actions are taken in accordance with GM concept. These phases are divided into: conceptual phase, preparation phase, production phase and the final process.

Also in the conceptual phase, Green management can be divided into four parts. First, the analysis about the impact on the environment is carried out, then a selection of appropriate systems is being made, taking into account the evaluation of their impact on the environment. The next phase is to clarify the objectives and criteria of Green Management, which will be in some ways more efficient than the previous one. At the end, the organization should develop new methods for applying Green Management, which will take account the organization as a whole unit, the division of tasks and responsibilities, procedures for monitoring and developing a appropriate motivating system.

In the preparation phase, the person taking the decision, should have a complete picture of how eg. the projected process would affect the environment. In this phase, a special attention should be paid to two aspects: the creation of a fully qualified project team, as well as an invitation to participate in this phase, sent to the people with relevant experience, and take their suggestions into consideration, in order to achieve the optimal green goal on the whole life cycle.

In the production phase, the amount of used materials and resources is the biggest, also the big amount of waste is also formed. Therefore, it is important that in this phase, so called green control should be carried out, which has a significant impact on the implementation of the objectives of the Green Management concept. In this phase, a mechanism of Green Management should be established, also model to prevent and control the amount of waste and pollution should be specified. The organization should develop a plan for optimal use of energy and resources, needed in the process of production. A special unit, in order to check, regulate and control the progress of this phase, especially in the time of the selection of appropriate materials and preventing the pollution raising, should be also set up.

However, in the final process, the main role plays the smart use of energy or its more efficient use. This leads to the need to develop the principles of operation and maintenance, leading to lower energy consumption, but also the rules to allow employees to acquire the proper habits, which are compatible with the adopted Environmental Guidelines⁶.

⁴ „Promoting a European framework for Corporate Social Responsibility”, Green Paper, Commission of the European Communities 2001. http://eur-ex.europa.eu/LexUriServ/site/en/com/2001/com2001_0366en01.pdf

⁵ Authors own elaboration based on company’s source materials

⁶ Yn W., Hy Y., Zhi J., *Elementary Introduction to the Green Management of the Construction in Whole Process*, Proceedings of 2012 International Conference on Applied Physics and Industrial Engineering, Beijing China, pp. 1081-1085.

This approach is mainly used in industrial organizations, which in their processes, consume large amounts of energy, often more than is really necessary. It is therefore important to develop an approach, that would include guidelines of Green Management concept.

Green Management in a worldwide consortium⁷

In another organization, Green Management is based on different pillars:

1. The greening of management – here a crucial factor in the management of the organization for sustainable development, is environment health and safety. Under this pillar, a sophisticated system of safety is being created, and a strategy, taking into account the methods used to produce greener products, work processes and the impact on the social surroundings, is also being developed. The organization's activities, undertaken under this pillar, also apply to:

- The development of Green Management program to promote the concept of sustainable development,
- Supporting the implementation of the adopted program, and carry out a systematic inspection, with the participation of a representative of the crew and managers of individual departments,
- Promotion of production in order to obtain products more environmentally friendly,
- The promotion of such products,
- Carrying out inspection of undertaken activities,
- Analysis and follow the existing trends in the field of environmental protection,
- Sharing knowledge and cooperation of the various departments within a single organization,
- Identifying issues relating to the environment,

In this pillar, a big pressure is put on the implementation of activities in order to fulfill the rules of Sustainable Development concept.

2. The greening of products – in this pillar, organization seeks to reduce its negative impact on the natural environment, caused by its conducted activities. The indirect actions are the steps taken to produce more environmentally friendly products, starting from designing the product, its production process and the point where they become waste. In this case, organizations often use the analysis of the Life Cycle Assessment and Eco-design software. Moreover, the company work to develop a environment supply chain management and regulations, concerned on proceedings with hazardous substances.

3. The greening of processes – in this aspect, the company focuses on the processes and equipment, works on the green technology development, assumes the use of alternative raw materials, waste reduce and improving energy efficiency. Reducing the amount of toxic waste, will increase the amount of waste, that can be reused, and thanks to the accumulation of waste heat, the organization will increase its energy efficiency and better management of each energy unit. The main aim is to improve the efficiency of utilization of resources, through the development of clean technologies, materials reduction and recycling, reduction of emissions to water, land and air. Currently, it is crucial to reduce the direct and indirect greenhouse gas emissions, in response to the current climate challenges.

4. The greening of workplaces – they are taken to create a workplace, that will not be exposed to pollution, caused illnesses and the risk of accidents at work will be eliminated. In this pillar a variety of activities are being undertaken:

- Changing the used fuel into LNG fuel, that causes less pollution,
- Implementation of automatic environment measurement network,
- Reducing the amount of process water and waste water, through the introduction of tools for re-utilization
- Recycling of organic waste, which are separated from other waste by tubular separation

In addition, a labor inspection is carried out, in order to check whether the workplace has spontaneous environment and conducts safety activity.

5. The greening of communities – these are activities directed outward and focusing on the closest social environment. There are efforts in the field of periodic environmental monitoring, conducting ecological campaigns or networking with the local community, trying to arouse their interest in environmental issues. In addition, the company can take actions such as:

⁷ Authors own elaboration based on company's source materials

- Periodic monitoring of changes in the environment,
- Monitoring of groundwater quality, in order to verify the extent to which the waste generated by the company, affect its state,
- Taken concrete actions aimed at improving the environment in the immediate environment, for example planting trees or cleaning water tanks,
- Involvement of other subjects to implement environmental policy, they may be other companies, but also schools and for example Fire brigades,

In addition to these pillars, organizations often adopt a set of rules on Green Management, which contribute to the excitation of respect for nature, but also affect the well-being of people and the environment. Through its own rules, the company can play an important role in creating a sustainable society by identifying and implementing appropriate measures, relating to environmental protection and safety at work, and identifying them as key factors, that are taken into account in all its actions. These rules may also include activities such as:

- Regular publication of reports and statements on the effects of measures, taken in the field of Green Management,
- The company is trying to faithfully comply with the relevant laws and signed international agreements,
- Fulfilling the obligations, associated with the use of environmentally friendly materials and recycling products, that have been decommissioned,
- The desire to reduce the use of natural resources and energy, through the use of clean technologies. Conducting ongoing work on the development of new, advanced technologies, that will enable to reduce the amount of used materials and raw materials, as well as reduce the level of emissions,
- Taking action to reduce the number of accidents at work, supporting atmosphere among employees, in order to improve the health of employees and improve their quality of life,
- Networking with suppliers in the implementation of the adopted policy.

Green Management in a construction company⁸

In another organization, Green Management concept can be based on three components: Green building, green energy and green waste.

Green Building is the practice of increasing the effectiveness of the protection of the environment, through more reasonable use of resources, which are needed for the buildings construction. Green building refers to issues such as better setting, design, construction, operation, maintenance, and waste removal. With green building, an organization can achieve:

- Reduce operating costs by increasing productivity, and reducing the consumption of energy, water and materials,
- By improving the quality of indoor air, followed by improving the health of people working in the building,
- By reducing the amount of storm water discharged, and reduce the effect of "urban heat island", the organization reduce its impact on the environment.

Green building is not just about reducing the impact on the environment, but also to achieve harmony, between the building and its close surroundings, so the Green building takes into account the appearance of the structure, which does not mean, however, that such a building needs to differ from those, which are less "green" – for example traditional buildings, built 30 years ago. Green building consists two components: Green energy and Green waste.

Green energy is primarily associated with the desire to lower energy consumption, through the use of energy-efficient appliances and introduction of appropriate procedures. This desire to reduce energy consumption is not only associated with the introduction of the new rules, but these are the actions, undertaken during the design process, when an effective ventilation system is being planned, the use of appropriate materials for the construction of walls or ceilings, or the use of solar panels. In contrast, Green waste is striving to reduce waste in the form of water or materials. Widely adopted solution is, for example. use of water for irrigation areas or implementation of processes, aimed at the transformation of waste into fertilizer or transfer to biogas units.

⁸ Authors own elaboration based on company's source materials

Green Management in electronic company⁹

Another company, its Green Management policy based on two pillars only, but its adopted targets, under this policy, are related to all areas of its business. The first pillar of the company is the issue of environmental protection, organization's activities are focused on activities, aimed at the fact that the value of "environmental footprint" will be equal to 0. In pursuit of these objectives, the organization cooperates with NGO organizations. The second pillar is the product lifecycle management. Bearing in mind, that the company's products to some extent, have a negative impact on the environment, the company is takes steps to reduce these impacts at each of their life cycle stage.

For this purpose, the product life cycle is divided into six phases:

1. Research and development - at this stage, company commits to achieve the following objectives:
 - The development of technologies to improve the rate of self-sufficiency in energy supply, either by designing products and increasing the amount of used the renewable energy,
 - The development of information and communication technologies, in order to promote lifestyle leading to the creation of a low carbon society
 - The development and improvement of 3R¹⁰ technology used to reduce non-renewable resources and reduce waste generation,
 - The development of technologies to reduce the consumption of hazardous substances,
2. Planning and design – currently, the company has developed a technology enabling the production of products that are small, lightweight and environmentally friendly. The next step is, however, the development of innovative technologies, which also contribute to a more eco-conscious living. Moreover, at this stage, company commits to achieve the objectives, such as:
 - The further development of environmentally friendly products,
 - A reduction in annual energy consumption by approx. 30%
 - To reduce plastic consumption by approx. 5%,
 - to reduce products' weight by approx. 10%
 - Elimination of substances affecting the environment, here it is mainly about substances appearing in different product's parts or components,
3. Procurement – at this stage it is necessary to adopt a broad perspective, that takes into account the process of purchasing materials, components and semi-finished products, which is why the company strives to work closely with suppliers to protect the environment. Moreover, at this stage, company commits to achieve the objectives, such as:
 - Establish a mechanism for determining the level of greenhouse gas emissions, generated by the suppliers,
 - Support the policy of reporting on environmental issues by the suppliers,
 - Strengthening cooperation in the suppliers, in order to identify current trends in the use of plastics.
 - Carry out periodic audits of suppliers, to see if they maintain appropriate standards of environmental protection,
 - Assess the impact of biodiversity in mining areas or site collections,
4. Operations – the company adheres to the philosophy, that the arbitrary aim is to reduce the pollution of all kinds. To reach that goal, steps to minimize the impact of the action factories, offices or other places on the environment are being taken, along with supporting the pro-environmental initiatives undertaken by the local environment,. Moreover, at this stage, company undertakes to achieve the objectives, such as:
 - Conducting environmental assessments,
 - Reducing greenhouse gas emissions by approx. 30%
 - Reducing the amount of waste generated by approx. 50%
 - Increasing recycling rates by up to 99%
 - Reducing the amount of water consumed by approx. 30%

⁹ Authors own elaboration based on company's source materials

¹⁰ Reduce, Reuse and Recycle

5. Logistics – the company, having in mind, that the process of transporting products and parts, consumes considerable energy resources, promotes the use of compact packages, which increases the effectiveness of loading and streamlines the process of changing the mean of transport. Moreover, at this stage, company undertakes to achieve the objectives, such as:

- Reducing carbon dioxide emissions by approx. 15%
- Reducing the amount of packaging waste from approx. 15%

6. Recycling – organization, based on Extended Producer Responsibility (EPR), aims to create a greener recycling and efficient collection system products being at the end of life phase. In addition, the organization works to expand recycling, by designing products that are easily recyclable. These activities are based on the principle of Individual Producer Responsibility (IPR), in order to promote the development of appropriate legislation, and the creation of infrastructure for the recycling system.

To sum up, it can be said that the above organization also has a well-developed Green Management policies and objectives, and in accordance with these objectives, seeks to achieve all adopted targets in all areas of its business.

Green Management in SME's¹¹

However, with regards to companies operating in SME sector (employing up to 250 employees), very often Green Management politics, takes the form of individual actions, leading to reduce the negative impact on the environment by the company. However, with the development of the company, and moving it to the LE sector (Large Enterprises), very often they develop a set of principles, which are the backbone of Green Management politics. In one organization, involved in the SME sector, Green Management boils down to the following:

- Monitoring the level of energy consumption and take appropriate actions in order to reduce it. These activities primarily consist of replacing light bulbs with energy-efficient, which allows to reduce the amount of energy even up to 75%.

- Encouraging employees to turn off lights and electronic devices after their work,
- Replacement of desktops to laptops, which consume up to 80% less energy,
- Smart purchasing - buying products that are really necessary, the search for a more "green" or equivalent, eg. from the secondary market,
- Use of reusable products, eg. Replace plastics liens with the glass ones, installing electronic hand dryers,
- Another solution, unfortunately not always possible to apply, is plant a trees around the building office, it can improve the performance of air conditioning by up to 35% (with a much lower cost of its consumption). In addition, trees are a good protection against the wind, preventing too fast cooling of buildings,
- To popularize among employees the form of shared commuting. The use one vehicle for the transport of workers instead of several, contributes to the reduction of emissions, lower travel costs and contributes to greater integration of the employees,
- Reducing the number of passenger service, it is not about eliminating them completely, because face to face meetings are sometimes necessary, but in the case of eg. conferences, seminars and workshops, videoconferencing can be used,
- The creation of the Green Team - team of employees, who will be worked on further pro-ecological initiatives or monitor the effectiveness of already implemented ones. The establishment of such a team, promotes greater involvement of people in the affairs of the company, it can also raise their morale.

Very often these activities relate to the phenomenon known as "greening the office", but they might be also the part of the Green Management essence.

Conclusion

As is apparent from the above organizations, the essence of the Green Management concept are mainly concrete actions, undertaken in terms of environmental protection, but depending on the type, size or business profile, various actions may vary. The production company will be a process-oriented activities, construction company - the concept of Green Management is carried out in line with the concept of Green Building. In an international corporation and electronics company, measures under the Green Management, apply to all areas of business, and the company from the SME sector - Green Management manifests itself in the different activities carried out on a much smaller scale.

¹¹ Authors own elaboration based on company's source materials

It should be noted that in the case of larger companies, defined goals, however, are much more general than for smaller companies, for example objective to reduce the energy consumption in the same company might be worded as follows: replacement of all energy-efficient bulbs.

What can be said for sure, it is that the Green Management concept, has its roots in the concept of sustainable development, mainly in the environmental pillar, as CSR can be attributed to the social pillar. However, very often, in companies developing their reports, which list the activities on the environment or society, these sections are referred to as a report on the implementation of the concept of sustainable development, but if they distinguish these two concepts, the Green Management is regarded as an area forming the overall picture of the Sustainable Development concept.

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