APPLICATION OF SOCIAL RESPONSIBILITY CONCEPT IN THE AIM OF ACHIEVING ENVIRONMENTALLY DETERMINED SUPPLY CHAIN

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Abstract. Corporate social responsibility refers to ethical acting, realization of the environmental dimension of sustainable corporate development, socially responsible behavior towards stakeholders, as well as realization of business activities in accordance with the legislation. Above mentioned dimensions of socially responsible behavior are relevant for all the processes and activities in the supply chain, while principles of social responsibility are also relevant in supply chain management. In order to raise the level of economic effectiveness and efficiency of supply chain processes and activities, supply chain managers ought to consider key dimensions of social responsibility. This paper devotes special attention to achieving an environmentally determined supply chain.

Keywords: social responsibility, environmental performance, supply chain.

Introduction
Supply chain, viewed as a system of interconnected participants in the process of procurement, inbound logistics, production, outbound logistics, marketing and service logistics, represents complex management segment in the company. As a result of adequate management, company gets solid financial performance and performances of social responsibility (environmental, performance of occupational health and safety, ethical and social performances) in the supply chain. Bearing in mind that supply chain management, in modern conditions, is observed as managing key processes and activities, the point is primarily on increasing their economic efficiency and effectiveness. Realization of economic objectives in supply chain assumes socially responsible behavior of all the participants regarding achieving non-economic objectives, that is, good performances of social responsibility.

Social responsibility and supply chain management
Social responsibility of the management in managing supply chain is often marked as a responsible supplying. It includes a voluntary commitment of the company to manage the relations with suppliers in economically efficient and socially responsible way [7]. As a result of the activities in the supply chain companies can influence positively on the performances of social responsibility such as social performances, environmental performances and ethical performances. The most effective way to permanent and sustainable improvement of these performances over time is through development of long-term partnerships between buyers and suppliers in the supply chain [1].

The responsibility of the supply chain is an area of raising importance for business, especially in sectors where production is largely carried out by the principle of outsourcing, and in developing countries where application of environmental, labour and other legislation is often insufficiently effective. Generally, companies in those countries are not able to rely on government in order to provide working conditions, production and other processes which satisfy acceptable environmental standards [8]. A large number of actions, programs and initiatives are being realized by the companies and different associations in order to provide support to suppliers to adequately respond to legal obligations in the area of environmental protection. Those initiatives should not be observed as a substitute for government’s primary responsibility to initiate and implement national legislation, but as a useful actions for improvement of environmental practice, especially in the export oriented sectors [2].

With the rising expenses of raw materials and even more intensive price pressure from the competition, companies struggle for higher level of cost-efficiency in the activities of supply chain. However, expenses cannot be the only variable analyzed in negotiating business cooperation with suppliers. In order to develop and realize appropriate strategies of supply, which will support production and sales on a long-term basis, it is in management’s interest to consider a range of issues concerning supply chain including quality and safety of products, environmental attributes of products, continuity in supply and delivery, intellectual property protection, etc.

Companies with successful brands and demanding buyers are particularly aware of the strategic importance of effective supply chain for overall business success. For example, incident with only one supplier can cause negative publicity or damage to the company image. Management efforts to manage business activities in socially responsible way can be disregarded unless company adopts and implements high business standards of doing processes and activities in the supply chain.

Many companies have a large number of suppliers both in the country and abroad. From the legal and economic point of view, it would be inappropriate to expect them to be responsible for the actions of their suppliers and sub-suppliers in the supply chain. However, companies want to achieve a certain influence and supervise business activities of its suppliers. In managing a supply chain it is reasonable to emphasize that company creates its relationships with suppliers based on the principles of cooperation in order to improve both financial performances and performances of social responsibility.

Expectations of the public regarding responsible supply chain were highly influenced by the experiences of the branches in which relations in the supply chain are characterized by situation that big multinational companies have strong influence over small suppliers. However, it is important to point out that nature of the relations inside supply chain can vary significantly among sectors and among companies. Supply chain consists of ‘upstream’ and ‘downstream’ relations among participants, in processes and activities which deliver value in form of a product or service for a user.

Companies have different types of suppliers: suppliers who provide components, parts or services for company’s products and suppliers who provide resources or product which provide company to run
ize the environmental dimension — so called, ‘greening the supply chain.’ The essence is in doing the activities within supply chain which will take into account environmental protection demands in order to realize sustainable supply chain. In the upcoming period, speaking about the sustainable supply chain will be increased. Environmentally determined supply chain assumes that changes in processes and relations are being achieved by considering environmental influences and effects. This aspect of observing a supply chain emphasizes attention increasing to decrease or reuse materials which won’t have negative impact to the environment.

‘Greening’ the supply chain is connected to the companies which demand a certain level of environmental responsibility of its suppliers. Environmental component of the sustainable supply chain assumes application of environmentally friendly inputs and their transformation to outputs, using the possibility of improvement and processing the by-products into the new products or recycling already used basic products. Also, environmental component of the supply chain assumes production of the outputs which can be fixed or rented at the end of their life-cycle. This, actually, creates one sustainable supply chain which is in simultaneous environment protection and cost reduction. Creation of the sustainable supply chain is the essence of "proactive" acting of companies, which behave as a responsible part to the system which includes not only their employees and managers, but also their suppliers, buyers and competitors, and integrates environmental performance management into the planning and operational processes [5].

There are several important dimensions of the supply chain which can be improved by taking into account environmental components of the company’s sustainable development. In doing so, improvements are realized in all the processes and activities of the ‘green’ supply chain. The initial activity is the environmental product design, environmental product labeling, but also environmental procurement from the suppliers who have ISO 14001 standard and are included in the lists of, so called, ‘green purchasing, environmentally acceptable production process and outboard logistics, ‘green’ marketing and reverse logistics. That way, companies use environmental determinants to increase its profitability and competitive position on the market.

The ‘green’ design emphasizes the design which satisfies environmental requests, but also a rating (analysis) of the life-cycle. During the product design, the team responsible for design can change raw-materials and components which are going to be used during the production with those which are environmentally more acceptable. For example, in the automotive industry, environmental car design is intended to apply modern, light materials in the production and decrease the quantities of the used material. In that process of design and development, producers have a need to cooperate more closely with their suppliers — component producers. Apart from that, cooperation among company functions is particularly important for ‘greening’ a supply chain. For example, within one organization, activity of the design department must be coordinated with marketing function, as well as with suppliers, in order to minimize the negative influence to environment in each segment of the supply chain.

The ‘green’ procurement assumes incorporating different initiatives for environmental protection within the purchase function of the company. In order to successfully manage those initiatives and actions, it is necessary to build long-term strategic relationships and contracts, to connect different levels of management and functions, to early involve suppliers in the product and process design, to form teams and joint problem solving. Procurement managers believe that economic reasons are the biggest barrier to implement the practice of ‘green’ procurement [6].

One of the most important functions of ‘green’ procurement is the choice of suppliers. The largest number of researches regarding choosing a supplier is focused on the factor which companies use criteria of environmental protection in their selection process and which are these criteria. One of the important issues in the supplier selection is the risk of choosing a supplier. Therefore, it is necessary to analyze risk in the process of choosing a supplier. When it comes to evaluation criteria and choice of ‘green’ suppliers, the one usually used is: public disclosure of the information by the suppliers about environmental protection, using the practice ‘environmental friends’ by the suppliers, effectiveness in managing hazardous materials and waste, effectiveness in pollution management, eco-labeling of the products, ISO 14001 certificate, applied programs of the reverse logistics, eco-packaging, effectiveness in managing the exhaust emission, etc. [3].
In the production and delivery, one of the central issues is the application of ‘just-in-time’ concept (JIT). In the broadest sense, JIT represents such system of production and procurement where products of the appropriate quality and quantity arrive to the right place, at the right time, just when they are needed. However, JIT is much more, considering the fact that it represents a comprehensive philosophy of production based on the concept of eliminating the losses. Losses can be material: such as inventory excess which is used as a security from uncertain deliveries from the suppliers or bad quality deliveries. The loss can also be insufficient usage of the equipment capacity because the equipment is not maintained appropriately, so machine breakdowns happen. Other losses include the waste of time, energy, space, or, even more, engagement of people in the activities and processes which do not contribute to value creation. This practice is directed to reduction of stocks, costs and losses. It reduces expenditure of all kinds of resources and contributes to their more effective and efficient usage. Starting from this, it could be concluded that JIT practice supports the environmental protection principles.

In the production process, companies can apply green principles by using some methods for reduction of energy and resource consumption. Here, the most stressed issue is material reuse and recycling. Particularly useful are the practices which assume reduction of energy consumption, recycling and product reusage, usage of biodegradable and non-toxic materials, minimizing the hazardous emissions, minimizing or eliminating the waste (losses). Next to the decrease in production, other functions and processes within the organization are also connected with environmental dimension of the sustainable development.

Environmental principles are primarily relevant for the process of production. Principles of doing certain activities which bring product to the customer are linked to the production process. These principles and practices are connected to this, called, product disassembly, re-processing, repair, removal and replacement of replaceable parts, etc. In the most production processes of the different industrial branches, these practices is relatively new. This, called, production according to the principles of closed-loop is important indicator of improvement of environmental performances within the company’s supply chain. Idea and practice of zero-emission (similar to zero-effect in TQM programs that companies realize) can, for example, lead to realize production according to the principle of closed-loop. Its point is in eliminating negative influence of production process on the environment. Connected with the production philosophy, zero-emission is also the substitution principle, for example, toxic materials in the phase of concept (design) of product, and then in the phase of production process realization.

While procurement and inbound logistics focus on the management of supply chain relations, distribution and outbound logistics are related to issues about relations with the buyers. Relations with the buyers are highly influenced by the policies and strategies of the ‘green’ marketing. Recently, a fact which is emphasized is that final buyers are interested for environmental issues and, accordingly to that, buying environmental goods and services is gaining interest in many industrial sectors. Hence, many companies insist on the importance of the environmental factor when choosing the suppliers. Furthermore, customers are interested in products that are environmentally friendly and that are produced using environmentally friendly processes.

In conclusion, JIT is a practical means for reducing resource consumption and environmental impact. For companies to effectively implement JIT, it is important to consider the environmental aspects of their operations. This can be achieved through the integration of environmental principles into the production process and the development of green practices and strategies. By focusing on reducing waste, reusing resources, and minimizing environmental impact, companies can not only contribute to environmental sustainability but also benefit financially by reducing costs associated with environmental compliance. In the long term, adopting these principles can lead to a more sustainable and profitable business model for companies.
environmentally acceptable does not have to be economically non-efficient. The task of environmentally responsible management, in the process of managing products and processes, is to provide realization of sustainable competitiveness with respect of the principles of environmental protection, and not just from the point of view of one company, but from the point of view of the whole supply chain.

Literature