

Sustainable Management of Production Activities

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Environmental degradation is, among others, the result of the production activities of enterprises. Industry significantly negatively impact on the environment and society. As a result of destructive influence of industry on the natural and social environment, there is a need to change the existing procedure in the sphere of production activities management of enterprises, by introducing sustainable system for managing the organisation. The beginning of the paper highlights the trend of sustainable development as a direction of production activity of modern enterprises. The aim of the development is also included. The rest of this paper presents the essence of production with regard to sustainable development. The definitions and concepts of sustainable development according to individual authors are presented. The basic idea of the concept of sustainable development is briefly mentioned. The final part of the study includes the characteristics of management functions that include planning, organising, directing, staff motivating, and controlling the company's activities in the area of sustainable production. The development is concluded with a summary.

Keywords: sustainable development, management functions, production activity

When considering management of production activities in terms of sustainability, it should be emphasised that companies meet the continuous changes that occur in their environment. One of the major changes affecting the business management policy of the company is sustainable development. Innovative sustainable management of production activities requires a reorientation of the existing management features, which include planning, organising, directing, and motivating staff members and controlling production activity. Adaptation of these areas of business management to the principles of sustainable development will contribute to the transformation of the enterprise into sustainable organisation. Effective governance of sustainable enterprise, including personnel at all levels of employment requires the implementation of these management functions and proper adaptation to individual needs and conditions of the company.

High-level personnel taking strategic decisions in the company should be aware of the importance of adapting management functions to the requirements posed by the ideas of sustainable development. The manner and degree of implementation of sustainable management of production activities will have a significant impact on the operation and success of the company in the market in a changing economic environment of the organisation.

The aim of the study is to draw attention to the need to adapt production activities of enterprises to the principles of sustainable development in the face of increasing environmental degradation and growing social problems. The testing method applied helpful in reaching the aim is the study of literature based inter alia on

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the use of secondary sources such as domestic and foreign compact scientific publications, scientific articles, journals, conference papers, internet news from the scope of the subject matter.

Production and Sustainable Development

The production activity of enterprises is dependent on the availability of various types of natural resources of the Earth. Acquiring natural resources, raw materials, components for semi-finished production is determined by the implementation of production processes. In addition, the company must be equipped with machinery and appliances by means of which tangible goods will be produced. It also involves the provision of energy sources, fuels, gases, water, so that adequate equipment can be used. Organisation of production requires efficient management including planning, organising, motivating staff, and controlling productive activity. The planning phase of production activities includes setting the targets and determining ways of their achieving. The document, which arises as a result of these activities can be called sustainable marketing plan including situation analysis, marketing objectives, marketing strategies, business plan, and financial projections (Pabian, 2011).

A company that describes itself as a sustainable company must include all environmental and social aspects in its activities. Balancing the objectives of economic enterprise with environmental and social objectives is not an easy task. Sustainable development is useful in balancing these objectives. It also became the answer to global environmental and social threats. Rogall H. wrote: "Sustainable development aims to ensure that all people living today and future generations are offered sufficiently high standards of environmental, economic and socio-cultural strength of the Earth's natural limits, applying the principle of intra-generational and intergenerational justice" (Rogall, 2010). A similar view on the issue of sustainable development was expressed Y. Dam and P. Apeldoorn. The authors defined it as a development which takes into account the needs of the present without crossing out the possibility of meeting them by future generations (Dam & Apeldoorn, 2008). In reviewing the literature in the field of sustainable development, the interpretation of the concept proposed by F. Belz and K. Peattie can be found. The authors argued that there are many different approaches of sustainable development. The authors presented the concept of "hard sustainability" (focused on maintaining environmental quality through the protection of the environment as a result of a reasonably economic activity) and "soft sustainability" (focused on ensuring that economic growth can be maintained by reducing the impact on the environment and society) (Belz & Peattie, 2010). The extended concept of sustainable development was presented by A. Pawlowski. The author pointed out that sustainable development refers to meeting the rights and needs of present and future generations, also distinguished three levels and nine planes: ethical, ecological, social, economic, technical, legal, and political (Pawlowski, 2013, p. 5).

When reviewing the literature in the field of sustainable development, it can be said that the essence of this concept focuses on respect for the environment and taking into account the social aspects in business activities while considering economic objectives of the organisation. Enterprises proceeding in accordance with the principles of sustainable development, take into account providing development opportunities for future generations, and even increase these opportunities for development.

As one of the causes of the concept of sustainable development, the increase in the world population and the associated increased demand for all kinds of products and services can be pointed out. The increase in demand caused an increase in the production in order to meet the ever increasing needs of the population. This dependence negatively affects the condition of the environment and society.

The concept of sustainability requires enterprises to go beyond the conventional perception of the role of organisations focused on achieving the economic objectives through its production and sales. The concepts of sustainability also known as sustainable development, as the main values indicate the environmental and social aspects. The achievement of financial targets by the company descends into the background, but for obvious reasons, it is not ignored and neglected in the assumptions of sustainable development.

Functions of Management Supporting Sustainable Production

Managing production activities is mainly based on four management functions such as planning, organising, leadership, and motivation of staff and control of work. Functions of management, widely known in business activities, should comply with the rules of sustainable development. For the purposes of this sphere, these can be determined as follows (Pabian, 2011):

- (1) Planning sustainable productive activities by establishing its objectives and developing the most effective ways of achieving them;
- (2) The organisation of sustainable production activities consisting in the provision of resources necessary for its implementation;
- (3) Managing and motivating staff members, in other words, causing the staff to act in a way that contributes to achieving the goals of sustainable production;
- (4) Controlling, determining the practices, and confronting them with the work done in the field of sustainable production and eventual introduction of adjustments.

Planning is one of the basic functions of management and occurs at all levels. Planning is done at the upper levels of the organisation. The function of scheduling is closely connected with the process of making decisions by choosing one out of a particular set of available solutions. Understanding the environment in which the company operates allows to effectively determine the plan of action. In addition, taking into account the established mission of company, the managers define an entire branch of objectives, which then become the basis for the adoption of appropriate strategies at all levels (Griffin, 2002). Planning the sustainable production activities is a process which processing of information occurs in stages from the most general to the specific. In an advanced system, it consists out of forecasting, programming and planning, which as a whole form a forecast-planning system. Each of the components differs from the other in region, the extent of detail, and time horizon (Pszczolowski, 1996). Planning includes clarification of the main (primary) and secondary objectives, determining the resources necessary to achieve those objectives, prioritization and making decision on the ways of using these resources. Planning is determining the goals of the organisation and the best ways to achieve them (Griffin, 2002). Properly developed plan of the sustainable production activities will answer the following questions: What needs to be done in this area? Who should perform? How it should be done? When and where it should be performed? What is necessary for proper implementation (Pabian, 2011)?

Another important step in managing a sustainable production activity is the organisation of production activities. This function relates primarily to staff members involved in the production processes. The organisation of work determines the duties, powers, and responsibilities of individuals. Organising contributes to the structuring of employee in the company by defining the hierarchy of employment. Thanks to this assignment, it is known who fulfils managerial functions in the enterprise and who subordinates and who is the executive staff. The essence of the organisation is also providing the means necessary to start production activity. Preparing the organisation for effective implementation of plans takes place at all levels:

organisational, personnel, technological, tool, material, financial, informative, investment, and others. The factor linking these preparations is a formal organisational structure sphere of enforcement activities (Hamrol & Mantura, 2002).

Presented functions of sustainable management production activities cannot be effectively implemented without proper motivation of staff. In determining the meaning of motivation, it is useful to introduce this concept according to the experts in this area of knowledge. The authors of the literature publications related to the management of the organisation define motivation in different ways. According to H. Bieniok, "Motivating involves influencing the attitudes and human behaviour through specific incentives, which are converted into motives actuating its activity" (Bieniok, 2001). Another author, W. Bańka defined motivation as follows: "Motivation within the meaning of the system is the internal state of the body conditioning the behaviour or action" (Bańka, 2000). However, according to K. Piotrowski, motivation is "a combination of factors that cause, direct, and sustain human behaviours" (Piotrowski, 2001).

Motivation involves an internal emotional state of a man, helps making decisions that relate to performing of actions that aim at achieving specific goals. It is a factor which determines the effectiveness of work. The need becomes a source of motivation. Therefore, in order to be effective, the motivation system should serve the needs of employees. The needs can be divided into two groups: common and individualised. These first ones apply to employees who, being hired by the company, expect to comply with the contents of the contract of employment, particularly those concerning wages and working hours. In contrast, the individualised needs relate to promotion, qualification, etc. (Borkowska, 2004).

Motivation of staff to a large extent depends on the size of the company. The large, thriving company, being for example, a market leader in the sale of certain products, means that those employed in this organisation do their work with satisfaction bearing in mind that they are part of the organisation and its work, contribute to the success of the company. Working in the structures of a market leader gives, to some extent, a sense of pride and superiority over others. The strong position of the company in the market is the result of a good job of the whole team, especially high-level personnel—managers, directors, and board (Trojanowski, 2013, p. 43).

The last function of coherent management of sustainable production activities is the control. It consists in establishing the models of practices in the sphere of production and confronting actually executed work. In the case of irregularities in the outcomes of work, corrective and eliminating inconsistencies actions should be undertaken. Aim of control is to contribute to the improvement of production activities. Sustainable production control is an integral part of the management of production activities in sustainable enterprise. Properly conducted not only shows anomalies and negative trends in production, but is also incentive for management and executive staff to undertake continuous improvement of production processes aimed at sustainable development.

Sustainable Marketing as a Tool of Production Activity Management

The production activity of enterprises is carried out in order to produce specific products. The next step is to sell as many as possible products at a price that will bring financial benefits to the company, ensuring their subsistence and development. In the age of ubiquitous competition, achievement of planned economic goals of a company will be impossible without a properly conducted marketing policy based on the principles of sustainable development. Consumer and utility goods being the end result of manufacturing processes require

the correct placement and prominence in a difficult and competitive market of goods and services. For this reason, efforts to develop effective and efficient marketing programs are necessary, taking into account environmental and social objectives while ensuring the financial benefits of the organisation. Sustainable marketing becomes integral part of business enterprises. Manufacturing in terms of sustainability is only one of the stages of the enterprise in the market.

Addition to the entire activity of the company is conducting marketing activities supporting sustainable development. The simultaneous implementation of the principles of sustainable management of production activities and sustainable marketing contribute to a sustainable production company described as the enterprises of the future.

Considering the essence of sustainable marketing, the meaning of that term should be brought closer. In the literature of sustainable marketing term, sustainable marketing is defined as “socially responsible marketing, carried out with respect for the environment that meets the current needs of consumers and businesses, while maintaining or even improving the ability of future generations to meet their needs in the future” (Armstrong & Kotler, 2012). The group of authors dealing with sustainable marketing area include F. Belz. The author argues that sustainable marketing is designed to meet the needs and expectations of customers in compliance with social and environmental criteria and objectives of the organisation. This means building and maintaining sustainable relationships with customers, social environment, and environmental surroundings (Belz, 2006). Much space is devoted to issues of sustainable marketing by D. Martin and J. Schouten. According to the authors, it is the process of creating, communicating, and delivering value to clients with respect to environmental and social aspects (Martin & Schouten, 2012). On the marketing concept of sustainability, also was spoken by K. Leitner. The author argued that creating customer value chain occurs by taking into consideration environmental and social aspects. Maintaining a balance among economic, environmental, and social performance activities throughout the product life cycle is the essence of sustainable marketing (Leitner, 2010). B. Emery says that marketing cannot ignore the challenges posed by the ideas of sustainable development. According to the author, some still believe that marketing is at odds with sustainable development. It is common to assume that marketing and sustainable development is facing a conflict of interest due to the fact that marketing relates to the sale, and the idea of sustainable development is connected with less consumption. When reviewing the literature in the field of sustainable marketing, D. Kadirov position in terms of the nature and importance of this concept cannot be ignored. The author argued that from the point of view of original system thinking, the existing concepts of marketing systems seem to be insufficient. The author pointed out that many marketing concepts develop alternative trading systems frameworks. Examples of such systems may be selling hybrid cars. Such actions constitute an alternative basis for redefinition of the basic problems of macro marketing, which should be particularly useful for system designers and decision makers (Kadirov, 2010).

Presented concepts of sustainable marketing relate to the protection of the environment and respect for social problems. In contrast to the traditional concept of marketing, sustainable marketing does not set sales as the primary goal. For this reason, you may notice a certain contradiction between the traditional understanding of marketing and marketing that supports sustainable development. The concepts of sustainability also involve reducing consumption, changing attitudes and consumer behaviour. Making purchases of goods and services should be pre-planned and thought out by the purchasers. This action aims at limiting purchases to products that are needed and will be properly utilized or consumed. Modern society in developed and developing countries

can be called a consumer societies primarily aimed at buying and consumption. In the face of increasing environmental degradation, over-exploitation of natural resources of the Earth, and an increase in the number of malnourished and starving people, the concepts of sustainability which are calling for rational purchase products and services are justified.

Managers responsible for processes of production should take into account current trends set by sustainable development and thus, plan and organise production activities that have the principles of sustainable development, including changing attitudes of consumer societies in a sustainable society.

Conclusions

Production activities of enterprises, especially in the area of heavy industry, are alleged of environmental degradation and the formation of social problems. Emissions of harmful gases and substances to the atmosphere, sewage, generating waste, or overexploitation of resources are just a few examples of the negative impact of industry on the ecosystem of our planet and the welfare of society. In order to limit destructive operations of some manufacturing companies' steps need to be taken to restrict or prevent practices that have destructive impact on the environment and people. One of the basic steps in this regard is the implementation of the principles of production management in terms of sustainability.

Economic and social development of the modern world is inevitable. Consumers are becoming more demanding. The demand for various goods increases. For this reason, manufacturing companies must take up the challenge of transforming production into sustainable production, taking into account environmental, social, and economic aspects of organisation. Otherwise, the rapid and irreversible destruction of the Earth's ecosystems and thus human existence is threatened. It should be remembered that some natural resources are non-renewable, and their resources are estimated at several years. The attitude of consumers has a large impact on production. Excessive consumerism is observed nowadays. Society is becoming more concentrated on consumption, which is result in the volume of production necessary to meet growing demand. For this reason, the responsibility for the fate of societies and the environment not only lies on managers responsible for production management, but also on consumers, that is, on ourselves.

A major role in shaping the sustainable management of production plays marketing of enterprises that affects not only the offers and their sales, but also affects the communication with consumers. Important and extensive part of marketing which is marketing mix including product, pricing, distribution, and promotion mix obviously influences consumer behaviour.

This paper does not fully cover the issue. It requires further deepening of the knowledge in order to develop appropriate solutions for the management of production activities, giving satisfaction to both manufacturing enterprises and consumers.

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