

Efficient Management in Environmental Protection

Goran B. Andjelic¹, Vladimir Dj. Djakovic², Nebojsa M. Ralevic³, Jelena S. Kiurski⁴

¹*Educons University, Faculty of Business Economy, Sremska Kamenica, Serbia*

²*University of Novi Sad, Faculty of Technical Sciences, Department of Industrial Engineering and Management, Novi Sad, Serbia*

³*University of Novi Sad, Faculty of Technical Sciences, Department of Fundamentals Sciences, Novi Sad, Serbia*

⁴*University of Novi Sad, Faculty of Technical Sciences, Department of Graphic Engineering and Design, Novi Sad, Serbia*

e-mail: goran.andjelic@educons.edu.rs, v_djakovic@uns.ac.rs, nralevic@uns.ac.rs, kiurski@uns.ac.rs

Abstract

The subject of this study is to research, analyse and assess the causal relations between efficient management as a useful and necessary "tool" in the daily operations and the modern aspects of environmental protection in contemporary business conditions. The research objective is to achieve the concrete, practically confirmed knowledge of practical, actually usable relation between efficient management and modern aspects and trends of environmental protection. The study methodology includes descriptive and exploratory techniques, as well as analysis and synthesis. The main research hypothesis is that without an efficient management, the optimum approach to the environmental protection cannot be expected nor can an adequate relation towards environment be ensured. The research results provide actual information about the place, role and significance of efficient management in the contemporary environmental protection.

Keywords: environmental protection, management, market environment

Introduction

The contemporary market milieu constantly increases demands concerning market participants, creating at the same time new, hitherto unidentified challenges which significantly affect the entrepreneurial and market activities. In this sense, one of the key issues of market reality is an attempt to optimize the relationship between the effective and efficient business activities on the one hand, and the market environment, on the other. This relationship comprises the essence of modern business, i.e. a successful attempt at answering the question: "How to operate optimally while maximizing simultaneously available resources, which inevitably imply a dynamic, proactive and responsible approach to environmental issues?" For many years, the answer to this question has been treated as a kind of automatism, i.e. it has been assumed that a responsible entrepreneurship directly implies a protective attitude towards the environment. Practice has repudiated this view, so presently a huge number of challenges are present in the field of environmental protection, which implicitly leads to significant devastation of available resources, with a direct consequence of redefining objects, as well as resources and relations of labour. After all, the global crisis that erupted a few years ago can be viewed through the prism of environmental relations, i.e. as a "habitat" in the broadest sense of the word, its devastation and accordingly, the necessary cost redefinition as a logical disruption consequence of the natural balance established in the environment.

In this sense, the subject of this paper is an attempt to research, analyse and observe causal relations between efficient management as a useful and necessary "tool" and modern aspects

of environmental protection, in the contemporary business environment. The correlation between these important factors, i.e. management as the target-object oriented business process in the present market environment and the modern aspects of environmental protection, is intense and direct, but poorly tested in practice and therefore the specific level of causality between them is not appropriately endorsed. This is exactly what the research has intended to achieve, to respond if the efficient management process as a set of activities connoting the right things accomplished in the right way (i.e. the principle of effectiveness and efficiency) involves a systematic approach towards the environment, in terms of continual dealing with ongoing activities aimed at optimization of used resources and effect maximization of business activities, with the consequential correct attitude towards the environment. This relationship may be represented schematically as follows (*Figure 1*):

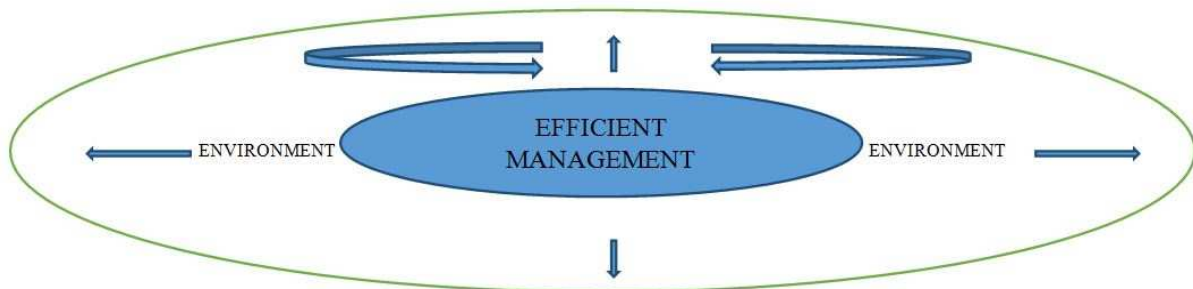


Figure 1. Efficient management and environment causality

Source: the authors

Only the efficient, cost-oriented management can contribute to the rational use of resources and the appropriate relation towards environmental factors. This fact is imposed by contemporary enterprise as an imperative for successful business.

Efficient management - reality or imagination?

In modern business conditions, especially since the onset of the global crisis, much has been written and said about what can be considered as an efficient management process, and more importantly, how to measure or quantify the efficient management process, and then distinguish the efficient, less efficient and inefficient management process. Many authors have dealt with these issues and their approaches to solving this dilemma are different. Some of them praise purely technocratic optimization of business processes, while the others commend the cash flow optimization. As always, the truth is probably somewhere in the middle. Globally, the competitive advantage is achieved with an adequate attitude towards environmental protection [2]. The issues of environmental protection in small and medium-sized enterprises (SMEs) [1], and policy creation in this area [3], are particularly challenging. The specificity and originality of this work, as well as its logic, lie in the fact that the measure of management efficiency is evaluated through the prism of expenditure of environmental resources and their rational allocation and use, i.e. the achieved level of economic development can be deduced by measuring the degree of environmental protection and preservation. The concrete facts support this thesis. If the achieved level of care and general attitude towards the environment in the Nordic countries (e.g. Norway, Sweden and Finland) is evaluated as well as their level of economic development, it can be unambiguously concluded that the dynamic, intense and high level of economic development does not necessarily imply the accumulated environmental problems.

There exist many challenges in order to achieve efficient management, i.e. the one that can lead to optimal and sustainable growth with efficient use of resources and environmental protection. First, it is necessary to solve the dilemma if efficient management is reality or

imagination in the contemporary business environment. Is it possible to achieve it in practice and, more importantly, keep it? How to characterize the efficient management? Is the emphasis on costs, productivity, time, profitability or something else? It seems that the answer is very simple. In each concrete situation, efficient management has different characteristics. Many research projects have been carried out on this topic and they all share the common view that the only constant common to each form of management is its high flexibility. The efficient management is possible to achieve and maintain in practice, but only as a flexibly directed process that is system-oriented towards problem solving.

Efficient management - the "cornerstone" of environmental protection policy

The XXI century will undoubtedly be the century of new approaches and attitudes towards the environment, which will implement in itself the dynamism of change on the one hand and problem-oriented approach in the other. Ultimately, standardization implies the integral approach to solving certain connections and relationships in order to create processes that will enable the efficient and effective proceeding of certain activities. In this sense, the efficient management of the XXI century will necessarily include the essential aspects of the relationship towards the environment, with the control mechanisms that will contribute to its high level of flexibility and proactive attitude towards environmental issues. Experience teaches us that the lack of proactivity towards environmental issues represented the major stumbling block of all previous strategies directed towards comprehensive, systemic attitudes about environmental issues. In future, efficient management should be a starting point and an integral part of strategies intended to protect the environment. The following figure illustrates that specific concept of ordination and subordination (*Figure 2*):

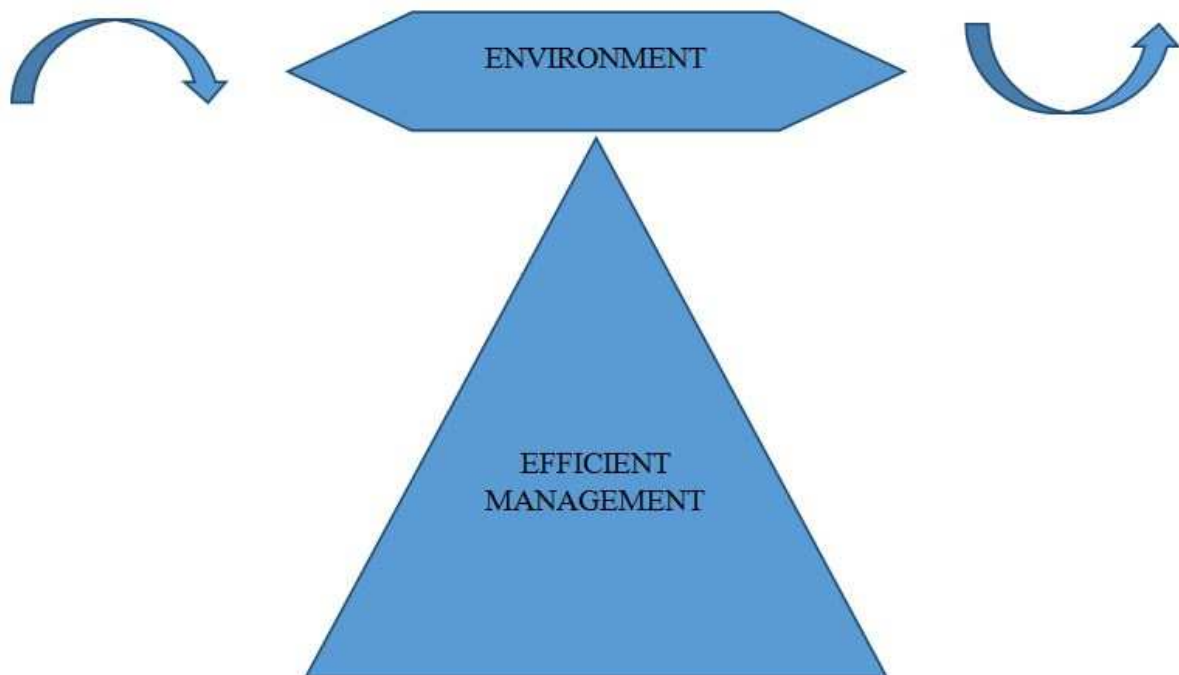


Figure 2. Efficient management and environment – future perspective

Source: the authors

The level of sensitivity existing between the efficient management and the environment can be best seen in the picture above: the balance is very difficult to achieve and maintain, yet very easy to lose.

Conclusions

Considering the causality of efficient management and the environment through a holistic approach to the research subject, it is evident that it is necessary to establish appropriate baselines and identify the key factors for sustainable development with special emphasis on economic development. Contemporary business conditions are characterized by frequent crisis situations that greatly affect the efficiency of the management process, and thus generate an unfavorable environment and negative approach towards environmental issues. It is essential to adequately formulate, implement and evaluate the strategy of companies in order not to have only maximized yield, i.e. maximized output with minimal input costs as their ultimate starting point, but to take into account all the specificities of environmental protection. Keeping all of the above in mind, the concrete level of causality between efficient management and environmental protection is endorsed, i.e. a rational approach to the optimization of resources spent directly affects the environmental protection. Modern aspects/elements of environmental management must be functionally implemented in specific business activities, thereby taking into account the full complexity of the same. Special attention to environmental protection issues should be given in business on transitional markets, taking into account their imperfections. The aggravating factors of company business in such conditions include the following: inadequate technology in production processes, high costs of introducing ISO standards in business, lack of information and shortage of trained personnel in the field of environmental protection, lack of adequate incentives/subsidies by the state in the environmental protection, implementation and functionality of the legislation issues, identifying and monitoring key parameters of business activities, etc. In given business conditions, the special challenge of efficient management processes is an inadequate understanding of manufacturing costs, i.e. environmental violation due to orientation towards short-term goals of achieving return on business activities. Unwillingness to analyse the situation and circumstances in the modern market environment, in the long term, induces adverse outcomes of business activities in the context of environmental protection. In this regard, it is necessary to achieve continuous growth of flexibility and adaptability as the basis of the efficient management process, taking into account the key determinants of environmental management system.

Further research directions include continuous monitoring of the situation and opportunities in conducting business activities, with a special focus on achieving an appropriate level of efficient management, which will have a starting point in environmental improvement and rehabilitation, i.e. an adequate system of environmental management as a basis for sustainable development.

Acknowledgements

The authors acknowledge the financial support of the Ministry of Education, Science and Technological Development of the Republic of Serbia, within the Project No. TR34014.

List of references

- [1] J.Á. del Brío, B. Junquera, A review of the literature on environmental innovation management in SMEs: implications for public policies, *Technovation*, 23(12), 2003, pp. 939-948.
- [2] M.A. Berry, D.A. Rondinelli, Proactive corporate environmental management: A new industrial revolution, *Acad Manag Exec*, 12(2), 1998, pp. 38-50.
- [3] M.R. Partidario, Strategic environmental assessment: key issues emerging from recent practice, *Environ Impact Asses*, 16(1), 1996, pp. 31-55.