Research on the Level of Organizational Maturity in the Context of Sustainable Resources Management

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Abstract. Sustainability is the contemporary meta-paradigm that influences both theory and practice of management. It reflect attitude of companies towards their environment, including natural resources, and enables obtaining competitive advantage if applied and implemented holistically and in a mature way. The goal of the paper is to present results of the assessment of organizational maturity in the aspect of sustainable resources management. The research was carried in Greatpoland (Wielkopolska) and Lower Silesia (Dolny Slask) regions in Poland between 2015 and 2016 to identify the level of maturity in the aspect of sustainable resources management.

Introduction

The essence of the functioning of contemporary enterprises is the desire to increase their value and competitive ability not only domestically but also in the international markets. This forces organizations to actions which in addition to making profit enable developing a number of additional benefits for both the company and its stakeholders. The functioning of the organization is due to the influence of its environment, especially considering legal, political, economic, social and demographic factors. The need to identify and explore the factors of success led to increased interest in the management paradigm of sustainable development. It is believed that nowadays the success of an organization depends on implementing the strategy of sustainable development, which has become not just an idea, a political program, or the approach to loss prevention in the environment. The strategy of sustainable development has become a civilizational alternative to the line of development implemented since the first industrial revolution [1]. Practically, for organizations of any kind, sustainability is basically taking into account ecological, economic and social factors and because of their integration and synergy providing continuous and stable development [2]. The organization focused on achieving sustained success, which is result of the ability to achieve and maintain objectives in the long term, it is called a mature organization [3]. The maturity of the organization is determined by a number of factors. The ISO 9004: 2009 standard indicates what areas of the organization may be taken into account during the analysis of the organizational maturity level and in addition to the strategies and policies of the organization; process management; monitoring, measurement, analysis and review of performance; improvement, implementation of innovation and learning; lists just resources management [3]. Hence it can be assumed that
the analysis of the impact of sustainable use of resources at the level of organizational maturity is justified and exploring this relationship is the most reasonable.

The Idea of Organizational Maturity

Analysis and evaluation of organizational maturity is essential in the process of striving for excellence. Organizational maturity is the result of the maturity of business processes resulting from the operations of the organization and the maturity of the teams carrying out the business processes [4]. Mature organizations are those that stand out among others, benefit from good reputation among their customers, efficiently manage their finances, strive for continuous improvement searching innovative technical, organizational and managerial solutions [5]. Organizational maturity also is characterized by:

- ability to plan in the long term while monitoring changes in the environment and responding to these changes,
- ability to identify stakeholders, to recognize the needs of stakeholders and to inform them about the plans of the organization and its operations,
- ability to use contemporary methods of valuation and sustainable way of meeting the needs of stakeholders,
- correctness in building lasting and profitable relationships with co-operators, suppliers and partners,
- efficiency in identifying, assessing and minimizing the risks associated with strategic decisions taken,
- ability to regularly assess compliance with the approved plans and procedures for the effective implementation of corrective and preventive actions,
- focus on continuous development of the organization through constant improvement of the competence of employees, continuous learning and improvement of the know-how implemented.

Moreover, one of the basic characteristics of organizational maturity not mentioned above, is the definition of the procedures for resources management. The mature approach to resources management does not imply any signs of exploitation or over-use of resources, it is based on benefiting from their potential to create sustainable success without wasting or excessively using the resources available.

To determine the level of maturity the CMMI model (Capability Maturity Model Integration) is commonly used. The first version of this model of process maturity assessment (referred to as CMM model) was developed in the sixties of the last century, while the integrated approach was developed at Carnegie Mellon University in 2002 [6]. CMMI model allows the assessment of the process maturity, and as the sustainable resources management is a process, it is reasonable to implement the predefined levels of maturity to the area. Maturity levels for the area of resource management are also defined in the ISO 9004: 2009 standard. Based on the assumptions of these two models the authors identified five levels of maturity of the organization in the aspect of sustainable resources management (see table 1).

Identification of the organizational maturity levels presented above includes brief description only, and refers to the specific areas that limited the research conducted by the authors and introduced in the next sections, namely: endogenous perspective of the company (considering resources use for processes performance, without identification of their specific categories) and exogenous perspective including cooperation with market environment and attitude towards
natural environment. The more detailed identification of resources management elements and their relations and impact on organizational maturity is to be the scope and subject of further research.

Table 1. Organizational maturity levels in the aspect of sustainable resources management (own work).

<table>
<thead>
<tr>
<th>Level</th>
<th>Maturity level characteristics</th>
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<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td>Exploitation of resources</td>
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<tr>
<td>Resources are defined, but allocated to performance of individual processes organizations randomly (without any specific plan), they are exploited to achieve the objectives of the organization. The use of natural resources is not planned, and cooperation with the environment is temporary and case-based.</td>
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<tr>
<td><strong>Level 2</strong></td>
<td>Endogenous, efficiency-oriented approach</td>
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<tr>
<td>Resources use, including natural resources, is planned for the most economic outcome. No sign of assessing the impact of external stakeholders, cooperation with suppliers is based on the occasional communication without seeking to integrate supply chains.</td>
<td></td>
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<tr>
<td><strong>Level 3</strong></td>
<td>Stabilization and compliance with obligatory requirements</td>
</tr>
<tr>
<td>Resources planning is correlated with the objectives of the organization, but refers only to the mandatory legal requirements. The participants in the supply chain are identified according to the results of the risk analysis and to the strategic needs. There are processes for measuring efficiency in the use of natural resources and assessing the risk of shortages implemented.</td>
<td></td>
</tr>
<tr>
<td><strong>Level 4</strong></td>
<td>Improvement – pro-active resources management</td>
</tr>
<tr>
<td>Exogenous organization's approach to resource management is effective and efficient, moreover, risk analysis of the potential scarcity of resources, including natural ones. The organization seeks to integrate with the environment, communicates its needs and of cooperation strategies openly.</td>
<td></td>
</tr>
<tr>
<td><strong>Level 5</strong></td>
<td>Maturity – long-term approach to resources management</td>
</tr>
<tr>
<td>Looking for the possibility of continuous resources management process improvement in the organization (e.g. benchmarking). Partners and suppliers are involved in the organization's success and influence it. The organization can prove that the approach to the use of natural resources meets current needs without compromising the needs of future generations.</td>
<td></td>
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Organizational Maturity—research in the Aspects of Sustainable Resources Management

The research on organizational maturity in the aspect of sustainable resources use was carried out in 43 Polish small and medium-sized manufacturing companies located in Greatpoland (Wielkopolska) and Lower Silesia (Dolny Slask) regions. The study was conducted in the years 2015-2016.

The main goal of the research was to find out what is the level of maturity of Polish companies in the aspect of sustainable resources use. The results of the research are an attempt to answer the following questions:

What is the level of awareness of Polish entrepreneurs in the field of sustainable development?
Do companies identify, plan, assign, monitor the resources necessary to implement their processes?
What is the relationship and cooperation with suppliers and partners?
The scope of the research covered such aspects of sustainable use of resources as means of production necessary for implementation of the core processes of companies, relationships with
suppliers of the necessary resources and the use of natural resources. The research did not include the sustainable approach to areas such as financial resources, the people in the organization, widely understood infrastructure, environment nor information, knowledge or technology. The methods applied for the research included observation, analysis of business processes, documentation and analysis of original questionnaire developed for the research.

The results of the research are presented in the graph below (figure 1).

![Figure 1](image)

**Figure 1.** The number of companies at predefined maturity level. Source: own work.

The highest level of maturity is obtained only by a small number of companies, which may be due to their size and ability to develop and apply long term resources strategies. The lowest of maturity, based on exploitative resources management is represented by the small number of respondents.

Using the questionnaire, the authors focused their attention on the level of awareness and consistency in use and management of natural resource use, taking into account the principles of sustainable development. The results of the analysis in this area is presented in figure 2.

![Figure 2](image)

**Figure 2.** The number of companies representing various approaches to resources management. Source: own work.

Another area of the survey was to determine the level of identification, planning, assigning and monitoring resources used in business processes. As the result of these studies, the following observations were made: identification of the resources is made virtually by 100% of companies. Resource planning for each organization processes and consistent assignment of
those resources in accordance with the plan were noted in 38 companies representing 88.3% of the surveyed population. In terms of principles and relations of cooperation with external stakeholders, exogenous properties were showed by 22 companies representing 51.1% of the analyzed group.

The study determined the level of maturity of the organization in the field of sustainable use of resources.

Summary

Presentation of the results of research on assessing organizational maturity in the aspect of sustainable resources use in Polish enterprises located in Wielkopolska and Dolny Slask regions proves that there is a correlation between operational and strategic approach to resources use and management, endogenous and exogenous orientation on the functioning of the organization, and its level of organizational maturity in the aspect of sustainable resources use in. The research provides only a limited analysis of the situation hence, further analysis of the issue and extension of research on areas such as financial resources, the people in the organization, widely understood infrastructure, environment and science and information technology is recommended and planned by the authors. The direction of further studies identified by the authors is striving to develop a model of reaching the individual levels of organizational maturity, and indicating good practices and procedures for sustainable use of resources.

References


