Self-assessment of Maturity of Organization in Terms of Occupational Health and Safety with the Recommendations of ISO 9004:2010

Anna Mazur

Poznan University of Technology, Department of Management Engineering,
ul. Strzelecka 11, 60-965 Poznań, Poland
anna.mazur@put.poznan.pl

Abstract. Companies focused on achieving long-term success analyze their performance in many areas, among which issues of health and safety cannot be overlooked. In the following paper an example of implementation of self-assessment methodology recommended by ISO 9001:2004 for corporate's safety and hygiene of work area is introduced. Self-assessment of maturity of organization in this area is conducted with reference to strategy and management system, resources, processes of organization and outcomes monitoring, as well as to improvement and self-learning.

Keywords: maturity, maturity of organization, occupational health and safety, ISO 9004:2010 standard.

1 Introduction

International standard ISO 9004:2010 promotes self-assessment as an important tool for the review of the maturity level of the organization. A mature organization performs effectively and efficiently and can achieve sustained success by [5]:

— Understanding needs of parties involved,
— Understanding and still monitoring changes in the organization's environment,
— Effectively identifying possible areas for improvement,
— Defining strategies and policies and consistent realization its,
— Setting relevant goals,
— Managing its processes and resources,
— Demonstrating confidence in its employees leading to increased motivation,
— Establishing mutually beneficial terms of cooperation with suppliers and other partners.

This international standard provides guidance to support the achievement of sustained success for any organization using a quality management approach. Assumptions of quality management system include in its structure elements of work environment [2], on the other hand z safety and hygiene of work management systems

(f.ex. OHSAS 18001, PN-N 18001) can be integrated with quality management systems thanks to numerous common parts. It is possible to adapt these recommendations to self-assessment in occupational health and safety area, allowing organizations to assess the maturity in this area. It is particularly important to build self-assessment modes as in large corporations improvement actions were always launched in one domain only and then spread on the entire organization, which can be an important and valuable benchmark. Excellence of the company in health and safety of employees will improve other areas of company action [8].

2   Maturity of Organization

Mature organization is the one oriented to achieving sustained success which means striving for the ability to achieve and maintain objectives in the long term [4]. Functioning of organization depends on influence of its environment, with special reference to macro-environment including legal regulations, as well as social and demographic aspects [9]. Such approach is especially important in the aspect of safety and hygiene of work issues. Legal requirements and standards, as well as environmental issues determine safety level in organizations. The aspect as important is competitive environment and the role of internal and external stakeholders. Stakeholders is person or group having an interest in the performance or success of an organization, for example: customer, owners, people in an organization, suppliers, bankers, unions, partner or society [4]. In mature organizations the term stakeholders should be used in place of the term customers (internal and external). It is necessary to identify stakeholders interested in management system, as well as relations between them since they are supposed to enable appointing a common, general goal and motivate to active cooperation, participation and striving for the goals appointed achievement [6] also in the area of occupational health and safety. In organizational maturity assessment from safety and hygiene of work point of view the aspect of work conditions level assessment [10] and shaping ergonomic aspects of quality of work conditions [3] are also essential. All the areas of mature organizations functioning (including safety of work area) and mutual relations between them should be manager, maintained and improved. Human factor should not be neglected as all the decision and operations processes involving human factor include personal risk which results from employees competences, tasks division and ability to mutual communication [1]. An important element of formation and exploitation of a management system is its improvement on the basis of experience from improvement of the system as well as partner relationships, cooperation with beneficial suppliers, customers, and other stakeholders. Defining and deploying strategies, policies and relevant objectives will also related with shaping of safety culture. Process management and resource management is another area of organization management system, which also should be assessed with the point of view of organizational maturity in regard to health and safety aspects. In cases where the organization operates and makes progress, available resources determine the result of processes of the organization. In such circumstances, the resources possessed (type, quantity, quality) and execute the processes will have an impact on

the functioning of the organization. Corporate management system focused at continuous increase in benefits of organization and its stakeholders should include strategies of agility, efficiency and sustainability. Sustainability is becoming a significant component of operational and competitive strategies in an increasing number of companies. The idea combines economic, environmental, and social aspects of a activity of an organization. Social sustainability is implemented in concepts such as preventive occupational health and safety, human-centred design of work, empowerment, individual and collective learning, employee participation, and work -life balance [7].

3   Self-assessment of the Organization Maturity in Terms of Occupational Health and Safety

Methodology of self-assessment recommended by ISO 9004:2010 identifies five levels of maturity for elements assessed, starting with the first base level, and finishing with the best practice. Self-assessment is conducted both at the strategic level referring to key elements of organization, and at the tactic and operational level (f.ex. it is performed by managers, line managers and process owners) referring to elements of organization, its processes, resources and outcomes. Self-assessment of organizational maturity in the area of safety and hygiene of work (according to recommendation of ISO 9004:2010 standard) includes:
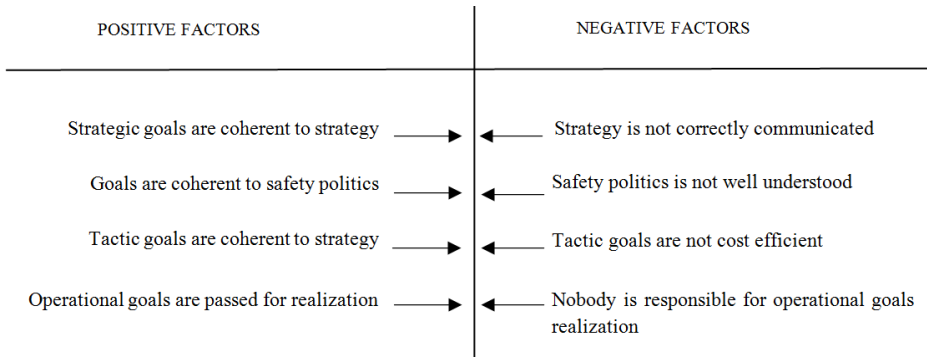
— Strategy and policy,
— Resources management,
— Proces management,
— Monitoring, measurement, analysis and review,
— Improvement, innovation and learning.

Self-assessment realization at every level of maturity requires application of numerous methodologies and tools supporting its performance. For example, to assess the area of strategy and policy, there are five levels of maturity identified, and they are presented in the table 1:

Table 1. Organizational maturity levels in the area of strategy and policy

Level 1	Level 2	Level 3	Level 4	Level 5
Short term goals of safety are deployed into everyday operational activities.	Safety strategy and politics are translated into goals at various levels of organization.	Measures for progress in achieving strategic goals in terms of safety are applied. Positive and negative discrepancies with plans are analyzed and actions are undertaken.	Measurable safety goals are defined for every process and level of organization and they are consistent with strategy.	Strategy, policy and safety goals are reviewed and updated with use of data from monitoring and analysis of organization's environment.

Organizations can be at any level of maturity. The important rule is the fact that it is impossible to upgrade maturity level without meeting all the requirements of the previous level. Hence, it is crucial to measure results of one level before the decision on upgrading is taken. The measurement at every level requires development of independent plans guaranteeing meeting the assumption of previous level to enter the next one. The tool which can be used for that purpose is Force Field Analysis methodology. The methodology can be applied for assessing ability to implement changes. It enables identification of contradictive factors of a predefined change: driving forces and factors having positive influence on implementation of planned changes and inhibitory forces and factors representing negative influence on the changes mentioned. Force Field Analysis methodology is applied to planning and assessment of actions at the second level of strategy and policy area: Safety strategy and politics are translated into goals at various levels of organization. Application of the methodology is presented in the figure 1.

POSITIVE FACTORS   NEGATIVE FACTORS

Strategic goals are coherent to strategy ⟶ ⟵ Strategy is not correctly communicated

Goals are coherent to safety politics ⟶ ⟵ Safety politics is not well understood

Tactic goals are coherent to strategy ⟶ ⟵ Tactic goals are not cost efficient

Operational goals are passed for realization ⟶ ⟵ Nobody is responsible for operational goals realization

Fig. 1. Example of use Force Field Analysis to assess the level 2 for strategy and policy aspect

Application of Force Field Analysis allows to analyze situation of organization at any level of maturity currently. Focusing at stressing positive factors and minimization of risk of occurring negative factors will contribute to efficient meeting of requirements of a given maturity level. Identification of negative factors is crucial as their consciousness provides faster reaction to a negative factor appearing. For example, analysis and elimination of negative factors connected with understanding safety politics can be performed with ACORN test. The superior goal defined in safety politics is striving for continuous improvement and providing safe and hygiene work conditions. The example of application of ACORN test to analysis of previously presented safety politics is introduced in the table 2.

Table 2. Example of use ACORN test for analysis of the understanding of security policy

Accomplishment	Organization did not finish tasks connected with guaranteeing safe work conditions as they are performed in continuous cycle
Control	Predefined areas of safety policy were communicated to employees at various organizational levels in form of goals and are controlled with respect to their correct performance
Only objectives	Primary assumption is realization of safety policy which results in identification of goals strictly connected with improvement and ensuring safe and hygienic work conditions.
Reconcilation	Goals are defined in the way enabling realization of quality policy and goals independence (so that they were not contradictive)
Numbers	Results of realization of tasks are currently available. They can be translated to methodologies for achieving goals measurability

Application of methods and tools supporting assessment of predefined levels of organizational maturity is necessary and essential for accurate diagnostics of corporate's situation.

4   Conclusions

Self-assessment provides global review of achievements of organizations at the first levels of management system maturity, as safety and hygiene of work area should be its integral part. Regular self-assessment of level of maturity of organization is also the first step in striving for predefined level of excellence.

The information gained from the self-assessment could also be used to:

- Simulate comparisons and share learning throughout the organization,
- Benchmarking with other organizations,
- Monitor progress of the organization over time, by conducting periodic self-assessment,
- Identify and prioritize areas for improvement.

Safety and hygiene of work area is very important because of its influence on long-lasting success of each organization. Self-assessment with respect only to work environment and human factor and its competences does not provide a full picture of maturity of organization in terms of safety and hygiene of work. Translating requirements of ISO 9004:2010 towards the area of organization's functioning in which elements of organization, its resources and outcomes are assessed, provides results actually reflecting level of maturity of organization in terms of safety and hygiene of work.

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