

THE CONTRIBUTION TO THE INTEGRATION OF MANAGEMENT SYSTEMS ORIENTED TO THE SUSTAINABLE AND TQM

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| <p>Please cite this article as: Pelantová, V. and Šlaichová, E., 2017. The Contribution to the Integration of Management Systems Oriented to the Sustainable and TQM. <i>Amfiteatru Economic</i>, 19(Special No. 11), pp. 951-965.</p> | <p>Article History Received: 12 July 2017 Revised: 24 August 2017 Accepted: 23 September 2017</p> |
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Abstract

Most organisations have established their management systems. Often these are concerning quality management systems, work safety and the environment. Organisations are now striving to integrate them, usually because of lowering of administration and improving their performance. They address the difficulties and ignorance of the theory of management systems. The development of these systems continues. Substantial surroundings are changing dynamically. Organisations must react to survive. The article presents a pilot study on new aspects of integration of management systems. It interconnects knowledge about quality, environment, work safety and information, corporate social responsibility and performance. Based on the results of the literature research, according to the analysis of the state of management systems in the selected organisations and according to the experience of authors, it sets out the basic features for an integrated management system aimed at sustainability and social responsibility. Using these characters, the current status of this area is detected in organisations. Then the article compares the current EFQM requirements with these characters. With the help of TQM basics, recommendations and a simplified sustainable EFQM model are presented. The methods used in the article are: common mathematical statistics, observation, controlled interview, data analysis and synthesis, brainstorming, the Triangular Table, the EFQM model and other quality tools. The article is based on the assumption that the convergence of management system concepts will continue. The result is to set recommendations on management systems and lay the foundations for a sustainable management system for the organisation.

Keywords: integration of management systems; sustainable; social responsibility; environment; safety; business performance; EFQM model.

JEL Classification: L23

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Introduction

Management systems are the everyday concern of many organisations. Employees often seem to be without interest in it. In fact, also management systems are undergoing development. And the organisation should respond to this development. The problem is where this trend is going now. Many of them have not yet matched their integration. The problem is how to monitor and evaluate these changes? Organisations need to maintain their performance and competitiveness while doing so.

1. Literature research on the integration of management systems

The issue of integrating management systems and efforts to increase organisational performance is often described in a professional literature. The following literature research presents main directions of this research. Articles (Katou, et al., 2007; Střítěská, et al., 2016) deal with the management of human resources with an impact on the performance of the organisation. The first builds a generic effective model mainly for small and medium-sized organisations. The second one hits the hierarchy and multifaceted ties and its incoherence with the strategy. The study (Busco, et al., 2008) describes the role of management systems in integrating organisations. It addresses integration and internal adaptation and recommends building a shared strategy. The text (Sirkis, et al., 2011) presents a review of the environmental supply chain management according to various theories, focusing on the internal state of organisations and their substantial surroundings. The text (Darnall, et al., 2008) examines the relationship between the environmental management system and the business performance in a context of internal motivation and external pressures of institutions. The article (Melnik, et al., 2003) deals with this relationship, but with regard to waste reduction and inclusion of all stages of product life and certification of the management system. A framework for the integration of the logistic chain is proposed by the article (Bichou, et al., 2004). The study (Waddock, et al., 2002) describes the main pressures in organisational management and a comprehensive management framework. The link between integrated risk management and strategy is described in the article (Bromiley, et al., 2015). The study (Castel-Peces del, et al., 2017) describes the implementation of the industry standard for aeronautics and aerospace quality throughout the manufacturing process. The paper (Jaca, et al., 2015) describes the implementation of TQM in a service organisation and the same topic is in the library in the text (Düren, 2012). The article (Tomažević, et al., 2017) develops an integrated model of public administration performance management. The article (Virglerová, et al., 2017) describes key factors of the corporate environment in small and medium-sized organisations in the Czech Republic. Linking knowledge and innovation through TQM in the spirit of performance and sustainability is in the text (Hung, et al., 2010). Similarly, decision support for product development with respect to system performance is solved by the study (Marques, et al., 2011). The framework for understanding the safety culture of gas and oil organisations is dealt in the article (Parker, et al., 2006). It creates a descriptive tool that serves as a self-assessment. The quality of change management services is mentioned in the text (Scharitzer, et al., 2010). This research is focused on the identification and implementation of continuous improvement of the management system (Mc Lean, et al., 2017). The information security management system as a support for the sustainability of procedures is described in a model in the article (Petrini, et al., 2009). The information about planning phase is an essential. The problem is to link reality to the workshops with

the strategy. A social part (not only social responsibility) of sustainable development in relation to the performance of an organisation in the supply chain is examined by the text (Yawar, et al., 2017). Confidence and commitment are essential. The article (Jørgensen, 2008) describes the integration of quality management systems, environmental and occupational safety systems. It emphasizes the need for internal willingness to integrate. It draws attention to the need to involve lifestyle changes in order to develop the sustainability of management systems. It defines the degree of system integration that similarly the book (Pelantová, et al., 2014) describes. The measurability of products, processes, and management systems depends on tracking the values of specified characters. The study (Marques, et al., 2011) uses traditional costs, time and quality. The article (Bichou, et al., 2004) deals only with basic costs and customer satisfaction. The study (Castel-Peces del, et al., 2017) sees a foundation in product quality and safety. The characters in the article (Virglerová, et al., 2017) are given by its focus on financial features and risks associated with them, such as costs, public perceptions, knowledge of bank and state rules. The text (Scharitzer, et al., 2010) emphasizes the satisfaction of employees and then customers. Other examples of enumeration are more extensive. The article (Katou, et al., 2007) uses features: training, fairness among employees, motivation and interests of employees, information sharing and work safety. The performance is measured by value added and financial characters. The text (Sirkis, et al., 2011) emphasizes social systems and related features: links, productivity, environmental and financial features. The article (Melnik, et al., 2003) evaluates the cost, product quality, amount of waste during its design and processing, delivery times and other unspecified environmental parameters. The text (Jaca, et al., 2015) provides multiple characters when it follows: good management practices, processes, employee quality, customer orientation, knowledge, education, financial characters, operational and production performance. The text (Yawar, et al., 2017) tracks communication, compliance, suppliers' performance and financial performance. The article (Jørgensen, 2008) selects features from areas such as learning, improvement, stakeholder behavior and synergy between areas. The publication (Darnall, et al., 2008) measures the number of inspections, the number of violations, coercive measures, the public's relation to the organisation, the involvement of employees. Publication (Düren, 2012) sees a management style, interest of employees on changes, sharing of vision, supporting a group and stimulating it. The organisation should in (McLan, et al., 2017) focus on the following characters: expectations, leadership, training, employee engagement, culture and environment, way of implementation, project management, feedback, results. Social and environmental characters are linked to the sustainability strategy and financial features while using the information security in the article (Pettrini, et al., 2009). Implementation, use and integration of management systems pose a number of problems. The most frequently mentioned are listed here. Managers for example exaggerate their environmental outcomes and do not report problems with their strategies according to the publication (Darnall, et al., 2008). Furthermore, some of the countries do not measure the same features and make comparability is therefore more difficult. There is also the effect of national cultures. The article (Melnik, et al., 2003) hampers the difficult acquisition of environmental data. Few organisations have established social responsibility and almost do not report sustainability reports, as written in the article (Jørgensen, 2008). The article (Bromiley, et al., 2015) shows little emphasis on risk management and concerns about its effectiveness for some incidents. Many of organisations according to articles (Strítěská, et al., 2016; Castel-Peces del, et al., 2017) solve the market and financial measures rather than soft motives like employee development or innovation. They are aware of their impact on

quality. Knowledge of financial risks in organisations is limited, for example in the article (Virglerová, et al., 2017). Efforts to continual improvement often result in downtime, as the text (Mc Lean, et al., 2017) says. The article (Petrini, et al., 2009) recalls limited possibilities of existing SW support.

There are many theories in the field of system management concepts and integration of these systems, which need further research, such as text (Sirkis, et al., 2011). The study (Castel-Peces del, et al., 2017) recommends conducting similar studies elsewhere in the world to compare the experience of implementing system standards, motivation, and positively impacting organisations. Similarly, there is an article on financial risk issues (Virglerová, et al., 2017). It also recommends focusing on groups of respondents rather than managers. According to the article (Bromiley, et al., 2015), the relationship between different types of strategies and risk management, as well as the interaction of the organisation's overall risk management system and the way of implementation, need to be examined. According to the context in the article (Yawar, et al., 2017), it is necessary to examine the exchange of information, mechanisms of trust, power and engagement among stakeholders in terms of performance and, in particular, social features. The interconnection of the environment and the performance of the organisation is more important over time, for example, according to the article (Darnall, et al., 2008). The study (Waddock, et al., 2002) clearly identifies the new trend of joining economic, social and environmental spheres. This moves further in the article (Petrini, et al., 2009) linking social responsibility and sustainability in the organisation's vision. An information security is provided by communication channels. The need for sufficient time and training of employees is mentioned in articles (Castel-Peces del, et al., 2017; Tomaževič, et al., 2017). The article (Jørgensen, 2008) deals with an increase the degree of compatibility of basic management systems standards.

2. Discussion on literature research

The above-mentioned literature research brings a lot of knowledge. The field of research on aspects of integration of management systems is rather broad. In this article, both authors will illuminate some inconsistencies and, on the contrary, will highlight follow-on issues to support an appropriate direction for organisations to integrate systems. In practice, the demanding boundary of systems is solved by a case study in the text (Busco, et al., 2008) by centralization, which is not appropriate in the long time run. The article (Bichou, et al., 2004) integrates processes and functions, which contradicts the process approach that is the basis for quality systems. The publication (Darnall, et al., 2008) describes, for example, the situation of the US environmental system that is more complex than European one, but it does not consider the influence of people in the leadership of the states in this issue. Contrary to the study (Waddock, et al., 2002), where there is a great pressure on environmental improvement of stakeholder practices, the situation is more moderate. In study (Marques, et al., 2011), a well-structured task is based on the decision-making support of product development, which is unknown with regard to the network of stakeholders involved. It should be at least a partially structured task. In addition, emphasis should be placed on prevention rather than on correction by corrective actions. In addition to the one-respondent, the article (Katou, et al., 2007) still has an unresolved area of information security, environment and social responsibility. However, the article (Petrini, et al., 2009) deals with these areas and also points to the learning and support of discovering

employees. This creates a new holistic management system complex, a better tool than is the BSC. However, this model will still have to be explored. It can be added that such a system should be considered as soft one. Problematic in this article is the thinking of the governing structure, which is somewhat against the process approach. The study (Waddock, et al., 2002) presents a novelty in management systems for the Czech Republic. It interconnects financial, environmental and social aspects and adds a new management framework. In the text (Melnyk, et al., 2003), the degradation of waste is correctly related to the entire life cycle of the product as it corresponds to the reliability management system. Similarly, this is underlined by the article (Jørgensen, 2008). There has been saturation in the interviews on safety culture according to the article (Parker, et al., 2006), but the above problems do not correspond. Risk management in the article (Bromiley, et al., 2015) in an integrated management system will require time to stabilize. Basically, it's new because it is normative and all management systems need it now. Compared to the article (Jørgensen, 2008), the product relationship to the environment and the supplier's assessment should be a part of the 1st level of system integration, which corresponds to the finding of the book (Pelantová, et al., 2014). However, this article does not consider the security of information. Overall, most publications still talk about human resources, even though it is an asset. An incomplete transition to the process approach and re-classification of the control process (e.g. in articles (Castel-Peces del, et al., 2017; Tomažević, et al., 2017)) can be seen. Descriptions of changes in relationships with systems will need to be better grasped. The integration will not require only the creation of new management tools. The first one, for example, models are in the article (Madzík, 2016), although they focus mainly on customers. The article (Stříteská, et al., 2016) rightly mentions that the review of the management system is little used. In the Czech Republic, the performance of the organisation is solved regardless of culture, communication and measurement of this overall performance, but the world is already dealing with the sustainability. This is a higher degree of management system development than their simple integration. For organisations, this means changes in organisational structure and lifestyle changes for people in the state. Contrary to the article (Stříteská, et al., 2016) and according to the experience of this authors and the text (Castel-Peces del, et al., 2017), large organisations may have an inefficient management system and small organisations have management systems an efficient one. To reinforce this fact, for example, the publication (Düren, 2012) recommends to take employees as experts for their work and to trust them. This is useful in building processes. As it can be seen not only from the text (Mc Lean, et al., 2017), the way of implementation and some other aspects of management systems will have to be revised to achieve right successes. Existing concepts have the same and already reduced management principles. It can be assumed that the concepts of management systems, e.g. TQM and ISO 9000 series, will continue to converge. Consequently, these concepts are explored together, although the ISO 9000 concept prevails in the Czech Republic. TQM is for the whole of its existence more concerned with soft systems. And that is the core to ensure the sustainability of management systems. Therefore, the TQM can be a model for the ISO 9000 concept. In addition, it can be assumed that there will be further interconnection of different types of management systems. This is mainly improved by the latest revision of standards with emphasis on joint risk management. The basis of integration should be the process approach, which is consistent with findings in the book (Pelantová, et al., 2014) and is also in line with TQM. For organisations, it is therefore necessary to set out basic features that are relevant to this issue. The result of this article

should therefore be to establish basic recommendations for a sustainable management system for the organisation.

3. Characteristics of organisations

For this article, data from 10 randomly selected organisations were used. This is a partial survey of two authors' workplaces, which has been going on longer. Organisations are located throughout the Czech Republic. From this sample there were 5 small and medium-sized organisations (up to 250 employees) and 5 large organisations. Different sectors of the national economy are represented by food industry (10 %), mechanical engineering (30 %), automotive (20 %), automation (10 %), education (10 %) and public service (10 %). It counts with organisations performing piece production (30 %), serial production (20 %) and even mass (50 %) of their products. Production organisations account for 70 % and the rest are non-production organisations. Organisations have established core quality management systems, work safety, etc. Most (90 %) are reviewing, but only a fraction (30 %) have experience with the EFQM model. By their internal culture, organisations are distinguished from good relationships and respect for the personal needs of the employee, through reorganisation and rationalization of work to an overtime work, a leadership dominance and overlook of nonconformities. 40 % of organisations were formed before 1989 year (the revolution) and 60 % of organisations after it. All organisations are economically efficient. Nevertheless, 30 % of organisations are investing fully in the facility and 50 % partially, and 40 % invest in HR training fully and 40 % partially.

4. Management systems and sustainability characteristics

To assess management systems of each organisation, their characters were used. At first, common characters about organisations were used. However, after closer examination, the data do not seem to cover the entire system complexly. They are one-sided. Therefore, the brainstorming method was chosen to assign each management system and find new set of characters. It was based on a complex view of individual components of management systems. E.g. for the Occupational Safety and Health Management System, characters were: the number of incidents, the number of fatal incidents, the use of personal protective equipment, the cost of work safety, the safety of the employees. This list has been set for the quality management system, the environment, information security, financial management and organisation performance, but also for social responsibility and even for sustainability. Corporate Social Responsibility has emerged from the available Global Compact, ISO 26000 and SA 8000 standards. Some elements such as "health and safety", such as the SA 8000, correspond to a different management system and are therefore included in this system. Subsequently, the following features were chosen: gender, free working time, freedom of association, social commitment, report, transparency, employee satisfaction. The sustainability has emerged from its definition as the organisation's responsibility for its impact on the public and other studies, for example (Kratochvíl and Cílek, 2005) and authors' own research. From there, the sustainability is essentially an extension of the environmental management system with a holistic overlap. For sustainability, the following characters have been identified: employee modesty, heterarchy, project thinking, constraint awareness, caution, landscape perception, long-term perspective, friendliness. Followed by the character analysis of the integrated management

system to narrow down the selectable sample of characters because the original list was extensive. It turns out that in common thinking in organisational practice, characters are chosen across management systems, but most are leadership and financial management and quality. Conversely, the sustainability often disappears and social responsibility is rather limited. This is probably the consequence of applying the hierarchical organisational structure and the directive style of management. Moreover, these issues are not even wider public awareness. Even the heterarchy and the professional public do not talk much about a sustainability. Here the heterarchy affects management, information sharing, long-term strategy, motivation, education, relationship to risks and time. Modesty of a employee influences, for example, savings and the principle of win to win, which is promoted in social responsibility. Social responsibility and sustainability include predominantly soft features that are of a qualitative nature. Such characters are worse measured. E.g. employee engagement can be interpreted differently as true dedication, but in some organisations, it leads to submissiveness and enforcement, etc. Coercive actions, on the other hand, are a negative character and are inherently inexhaustible. Therefore, positive characters have been selected in the shortcut selection. The product quality corresponds to customer requirements. The satisfaction of the customer corresponds to the satisfaction of all its needs. The number of incidents OSH is the number of all injuries and deaths due to work activity. The number of incidents ISMS is the number of all loss, damage and theft of data and intrusions into computer systems. The amount of waste corresponds to all waste from production and non-production activities. Recyclability of the product is the possibility of disassembly and ecological processing of all parts. Water consumption corresponds to the measurement of water for production and other activities by a water meter. The employee satisfaction is the satisfaction of the employee due to his work and relationship enthusiasm and the safety situation in the organisation and respect for his interests. The process transparency is the degree of perception of elements and links and other parts of the process by the observer. The modesty of employee corresponds to the demand for goods and is related to the nature. The heterarchy is a kind of organisational structure that suppresses supremacy. Awareness of the limitation corresponds to the level of knowledge of employees about the exhaustiveness of all resources. Cost savings are financial savings of all activities of the organisation that do not lead to a decrease in quality or safety. The long-term perspective is the planning and control of organisation's activities over a period of time, for example, over hundred years. The prevention of non-conformities is the ability to predict and overcome events that would lead to nonconformities by actions. Their inventory is in table no.1.

Respondents of a controlled interview on the status of management systems in selected organisations are their regular staff in positions of technicians and workers who are familiar with the subject matter under consideration. They are not managers. They provided extensive background information on organisation's management systems. This information is the basis for further exploration. Results obtained were more realistic and included more details on the production and operation of the workplaces on the technical, personnel and system side. This was followed by the evaluation of individual characters, as aspects of organisations. It corresponds to markings as at school. The value 1 is the best and 5 is the worst. The true is that the worse the mark is, more nonconformities occur in the system. The assignment is as follows: 1 - The excellent result, there are clear reactions of employees and of the surrounding area. 2 - The untouched outcome to perfection, but the state of view is satisfactory for all parties. 3 - Medium result, the solution is half the

expectation. 4 - Sufficient result is an effort to solve, but it is not, or vice versa, a solution just before the error in terms of classical theory of systems. 5 - Bad, misleading or no result. The O and the number indicates a specific organisation. The organisation can score between 15 and 75 points. Ratings were made by authors. It is therefore subjective. However, it is sufficient for an initial idea of the subject under consideration.

From table no. 1 the following results are apparent. Common characters like product quality and customer satisfaction are fairly fine. Both types of security are at a good level relatively. It is clear that characters such as waste and recycling do not work so well in organisations, but the care is growing. A more attention is paid to the consumption of water (and electricity) because costs incurred and the involvement of the industry standard are known. Employee satisfaction in many organisations is declining. The transparency of processes is a long-time undervalued parameter, and the status is partly inaccurate with the process approach. The modesty of an employee is aggravated. The heterarchy appears to be a big problem, as the hierarchical structure prevails in organisations. Awareness of the constraint is on a middle-class among employees. Cost savings are slightly better than the previous one. The long-term perspective seems to be problematic. It should correspond to the organisation's strategy in the longer term than the current average of 5 years. The prevention of nonconformities is a very diverse according to organisations. The average rating of organisations in the sum of the marks is based almost 37 points. Critical characters show other characters than usual in many analyzes (see research). This is also confirmed by the Triangle Table tool. Impacts of the sustainability and the social responsibility and the environment are stronger in management systems, although they are often underestimated. Why are these results coming out and what are their causes? The goal of characters is 1. The quality of a product is the worst for O6 because there is a strong hierarchy and demands of customers and staff are not understood.

Table no. 1: Evaluation of a processable sample of characters in selected organisations

| No. | Character | O1 | O2 | O3 | O4 | O5 | O6 | O7 | O8 | O9 | O10 |
|-----|---------------------------|----|----|----|----|----|----|----|----|----|-----|
| 1 | Quality of product | 1 | 2 | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 1 |
| 2 | Satisfaction of customer | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 |
| 3 | Number of incidents OSH | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 1 | 1 | 2 |
| 4 | Number of incidents ISMS | 2 | 3 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 3 |
| 5 | Amount of waste | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 3 |
| 6 | Recyclability of product | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| 7 | Water consumption | 2 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 |
| 8 | Satisfaction of employee | 4 | 3 | 2 | 2 | 1 | 3 | 3 | 1 | 2 | 2 |
| 9 | Transparency of process | 3 | 2 | 3 | 1 | 1 | 4 | 2 | 2 | 2 | 3 |
| 10 | Modesty of employee | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 3 | 4 |
| 11 | Heterarchy | 5 | 4 | 5 | 3 | 1 | 5 | 4 | 3 | 4 | 5 |
| 12 | Awareness of restrictions | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |

| No. | Character | O1 | O2 | O3 | O4 | O5 | O6 | O7 | O8 | O9 | O10 |
|-----|-------------------------------|----|----|----|----|----|----|----|----|----|-----|
| 13 | Cost savings | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |
| 14 | Long-term perspective | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 2 | 2 | 4 |
| 15 | Prevention of nonconformities | 4 | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 1 | 2 |
| | Σ | 41 | 43 | 38 | 35 | 25 | 48 | 36 | 31 | 30 | 42 |

A low satisfaction of the customer is due to poor performance (like O6). A bad situation of the number of incidents OSH in O1 and O3 is due to an unclear hierarchy and a complicated production, on the contrary the heterarchy leads to their reduction (O5). The number of ISMS incidents is due to a combination of many orders and nonconformities (like O2), while a large surplus of finances and staff can lead to improvements (O3 and O9). The amount of waste is the result of disruption in production and a lack of leadership (like O6). Recyclability of the product is comparable and average in almost all organisations, due to construction and manufacturing technologies, the same cost savings. Water consumption is also average, only O2 is noticeably higher due to an inappropriate technology. Satisfaction of the employee is a bad one, mainly due to poor interpersonal relationships, administrative increase, and a lack of clarity (O1). On the other hand, the heterarchy, good relationships and respect for employee interests lead to improvement (O5 and O8). A large hierarchy, complex management systems, and PPCs lead to a poor transparency of process (O6). A large, relatively prosperous organisation in the big city and an inappropriate example of managers can lead to modesty of employee (O3 and O10). The hierarchy is an opposite of the heterarchy, so the organisation can have only one of them. Awareness of the restrictions is given by material stock limits. People can not think of a long time because they are pressed for a fast work and a fast consumption. The prevention of nonconformities corresponds to the number of incidents in the organisation (the worst in O1). The hierarchical structure is embraced and de facto enforced by legislation, management tools, schools, SW. The market leads a person to a fast production, a fast consumption and use now, regardless of the surroundings. The waste is still where to go. The consequences of its effects are still not seen by many as a burden. What will be in few years is not interested. Awareness of the limitation is overtaken because resources are still available. People think it's going to come up with something in the meantime and the world will work forever. The social responsibility is also under consideration because a customer satisfaction is still being solved and the employee is a human resource, often a machine. He must be subordinate, not have personal needs. Considering the other is not modern. This, however, leads to the collapse of a personal life and then to the loss of productivity and invention. This situation is hampered by organisations because it leads to the growth of nonconformities and security incidents. The modesty of employee is not perceived as a virtue. There is often an idea of family, team, organisation being abused. Newly selected characters are therefore well-founded, but they will still have to be promoted in organisations. This article should help to solve this.

5. Model EFQM and sustainability - the research methodology

Management systems in the Czech Republic are not evaluated with the EFQM model often. Therefore, a comparative analysis of the EFQM model requirements with the theoretical

integrated management system described in the sample of characters presented above was performed. The following facts arise:

- The Leadership is a good if it is perceived in the sense of coaching and heterarchy.
- The Policy and Strategy criterion depends on the needs of stakeholders, whether they are in line with the social responsibility and the sustainability. The criterion is a repetition of obvious things, and in organisations it was often conceived formally.
- The criterion Employees is already influenced by the concept of a employee as a human resource, but one should be the asset of an organisation. In point 3a), human resources are managed when people should be guided.
- The Partnership and Resources criterion in point 4b) deals primarily with financial management of resources and technologies, but there is no a more mention of the sustainability of resources in a holistic view.
- The criterion Processes and Products in item 5d) writes "products in accordance with customer requirements", but the interest of other stakeholders is not sufficiently considered.
- The Customer Satisfaction criterion meets the requirements of this group only.
- The criterion Results for Employees is a problematic. The point 7a) corresponds to the perception of the employee as a subordinate in terms of EFQM. The point 7b) refers to factors such as motivation, engagement, absence, morbidity and accidents, but this can be influenced by the style of driving and incidents. So employees may not be responsible.
- The Society-Results criterion in the point 8a) has an interest in promoting corporate social responsibility because it mentions reports, equal opportunities, ethics, environmental pollution, etc. The point 8b), on the contrary, is a more legislative and mediatory, and does not lead to a new trend. However there is an effort.
- The criterion Key Performance Outcomes are a financial purely and in fact against the social responsibility and the sustainability.

The current EFQM model has 9 criterions. In particular, more-valued criterions Customer Satisfaction and Key Performance Outcomes of the EFQM model do not match sustainability and security and little address social responsibility. Thus, the tool teaches organisations to be a more market-oriented, regardless of soft aspects. This contradicts above-mentioned trends in the development of management systems. Already some small organisations are struggling with this fact. They are also burdened with extensive criterions. Some parts are in fact duplicate, mainly the Employee and Results for Employees, as well as Leadership and Key Performance Outcomes. That is why it needs to propose at least the modification of this model in the sense of a sustainable management system. This is a transformation of organisational circuits, as shown in the figure no. 1 which interferes with the internal environment as well as with the substantial surroundings of organisations. In relation to a philosophical basis of TQM, following recommendations can be proposed:

- The implementation of flexible organisational structures into organisations. Extend strategic management even in turbulent times with regard to the sustainability of places in the landscape and in the organisation, otherwise brownfields are created over time. The strategic thinking is now shortened to about 5 years, but it should be related to, for example, rules of Indians or foresters in the Czech Republic for at least 100 years to make sense, which is in line with natural events and the time of decay of simpler products.

- All products must be regarded as a waste as early as the design phase, including packaging and transport. This also addresses recycling. This is pushing on logistics. Try to keep untouched resources in the countryside and raw materials to draw mainly from the waste and from renewable sources.
- Customers are all receiving parts (e.g. by air, by water). It is necessary to balance life and work and to perceive the employee as a person with his / her knowledge and skills that are of benefit to organisations. Employees create "satisfied customers".
- It is necessary to teach children to be modest and to show them modest heroes and also to adults in organisations.
- It is a matter of course to perceive implications of each job as prescribed by TQM. Adopting of the idea of sustainability in an organisation's culture prevents the introduction of a sustainable management system. Lifecycle management and self-control are aspects of the new management.

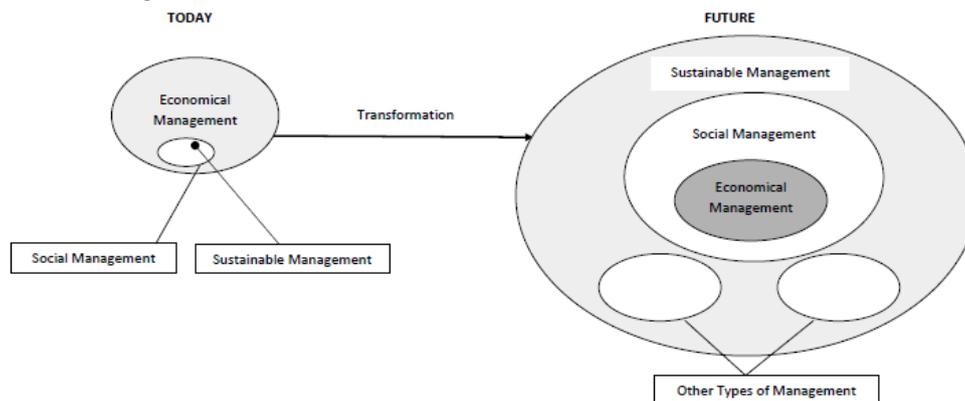


Figure no. 1: View of transformation of organisational circuits

The newly designed EFQM model should be a simpler and a more comprehensible and consistent with the standard ISO 9001. It is composed of 6 criterion. Its diagram shows the figure no. 2. The larger EFQM model does not lead to better management. Leadership is rather coaching. Employees must also be aware of their work safety. The knowledge management can be included here, which is associated with them. Sustainability and environment are the Sources and Partners criterion, therefore stakeholders. Strategy 100 and Risk is a criterion involving a long-term strategy, but also risk management in a holistic approach to internal and external context. The Processes and Products criterion should address the area of quality, industry standards and information security. The new Sustainability criterion includes, for example the above set of characters, which can be assessed and improved in detail. The basis should be the process approach. The result should not be maximum finance and minimum time, but ensured sustainability while the satisfaction of stakeholders.

The EFQM Sustainable Model Questionnaire is then followed:

- Leadership – Leaders develop a vision and a sustainable strategy with regard to stakeholders. The leader develops and fills the management system with respect to the process approach and the heterarchy (win to win principle, dialogue). The leader is a model

of culture, ethically and safely acting. The leader is the coach of the employees. Leaders provide resources and organisational information on time.

- **Employees** – The employee develops his / her knowledge and skills. The employee carries out and develops processes with regard to stakeholders. The employee is rewarded, acknowledged, communicated, and cared for. The employee feels a secure.
- **Resources and Partners** – Partnerships with stakeholders are managed and their satisfaction and opinion are being investigated. It is dedicated to the care of premises, environments, equipment, materials and raw materials, with emphasis on safety, small costs and cleanliness. Useful technologies are used. Information and knowledge are controlled and protected. Financial resources are managed.
- **Strategy and Risks** – A full organisation risk analysis is performed regularly and actions are measured and implemented. The strategy builds on established characters of the management and product system, learning, and surveys. The decisions taken should be considered with a long-term perspective. Prevention of nonconformities is taken into account and, where appropriate, disposed of.
- **Processes and products** – Processes are designed to be transparent and gentle, and are systematically monitored by features and maintained with regard to internal needs as well as to the state of the surrounding environment. Products are designed, built and upgraded to meet needs and expectations of stakeholders as good and secure. Products are serviced. The products are well recyclable.
- **Sustainability results** – It is considered the lifecycle of all elements of the organisation and thus the awareness of the constraints. Elements are regularly maintained. Employee modesty and the principle of win to win are supported. Precautions and a holistic decision making are in place for both processes and products. Resource savings are monitored and ensured.

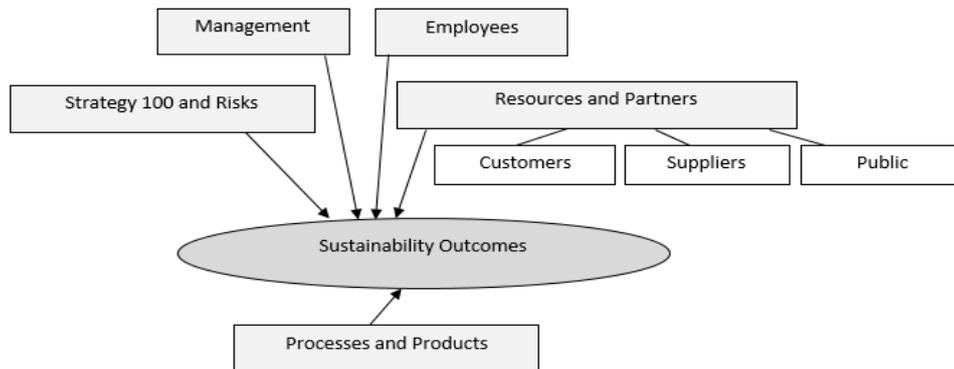


Figure no. 2: Scheme of sustainable model EFQM

Conclusions

The sustainability is a concept that engenders a great debate in the public. From the point of view of the reliability management, it is a simple effort to keep the system (here management) for a long time in a functioning state and to balance possible discrepancies in a way acceptable to the internal system and the environment. This article, in this spirit, proposes foundations for the sustainable management system in relation to the substantial neighbourhood. This is, of course, the nature and stakeholders. The analysis of sample of management systems was carried out by organisations to determine their sustainability status and sustainability characters. Small organisations with a flexible organisational structure are doing better even in the sustainability. In addition, an existing EFQM model for assessing of management systems against sustainability requirements was analysed. Based on the basics of the TQM concept, appropriate recommendations have been proposed for this area. Finally, the sustainable EFQM model was designed.

The analysis of organisation management systems points to nonconformities and, in particular, unpreparedness in some areas of management systems that have not yet received sufficient attention. Authors, of course, have coped with the issue of organisational performance. They take the view that it is not an essential whether the organisation is profitable now. The question is whether it will be in 10 or 100 years and whether people around will be satisfied. A number of organisations are now profiting, but values of characters point to significant nonconformities in the interpersonal field and hence production nonconformities. The performance is so jeopardized. This, in fact, shows results of the sample survey of organisations. The set of suggested characters is a small but an actionable. Proposals are made in accordance with the process approach. The proposed sustainable EFQM model is a smaller but a more comprehensive than the existing solution. In particular, organisations save the time in processing due to fewer criterions and thus savings in finances. It is also designed for employees in a comprehensible form. The access (documentation), the redistribution (appraisal) and the assessment (measurement and settlement), as well as the calculation, are maintained as employees are accustomed too. The proposal is debugged in one of these organisations.

Despite all efforts, authors managed to process only a part of the large area of the sustainability of management systems. In addition, the range is limited by the scope of this contribution. Further organisational analysis will be needed with regard to the sustainability. It will be necessary to revise these characters in relation to the substantial neighbourhood. Characters must be set specifically for the organisation, whereas the set here is general. In addition, a detailed risk analysis will be required. Therefore, the proposed concept of sustainability will certainly change. A legislative support and a public awareness will be needed to make the new trend in management systems easier for organisations. This is why this article is significant.

Acknowledgements

This article was partially supported by the EU program for cross-border cooperation between the Free State of Saxony and the Czech Republic 2014 - 2020. This support was implemented through the Transnational Educational project - Sustainable and Efficient Use of Sources (PN 100246598).

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