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The Analysis of the Process of Building an Integrated Management System

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Abstract

An integrated management system is introduced when a company wants to achieve conformity of multiple norms with the aim of reducing the amount of paperwork, the time needed for assessment and the costs in construction and system maintenance. As the number of individual management systems has grown, the area where the standards overlap has expanded. This has prompted the need for the existing systems to integrate into one, unified system. An integrated management system can represent a very small, yet sufficiently large basis for building the business excellence, since it enables the organization to gradually shift the focus from buyers only onto all the participants. Many organizations opt for an integrated management system to encompass three key elements of management: quality, environmental protection and health and safety of the people. Bearing in mind that in today's turbulent business atmosphere organizations are choosing integrated systems more often, the purpose of this paper is to analyse the very process of integration of the management system. The integration of the management system provides the establishment of unique policy for managing a company. Based on the analysis of secondary data, the integration of the management system regarding the level and the degree of integration will be elaborated, along with the systematic approach to the integration of the management system. Management system integration is crucial if companies wish to achieve higher optimization and efficiency of their management.

Keywords: *horizontal integration, integrated management system, level of integration, management system, vertical integration*

Track: *Governance*

Word count: *(4.187)*

1. Introduction

An integrated management system is introduced by a company when it wants to achieve the conformity of multiple norms, which leads to the reduction of the costs in construction and system maintenance (Zambelli, Rajić and Burilović, 2015: 191). Due to the rising competition, organizations are forced to adopt a more systematically organized and professional production and services. Because of that, most organizations introduce integrated systems of management and mostly with the intention to encompass three important elements for the management: quality, environmental protection and people's health and safety (Milčić, Donevski and Banić, 2008: 63). Integrated management system is a complex composition of structural elements, requests, rules, controls and mechanisms (Drljača, 2011a). With the growth of individual management systems, the area where the standards overlap is also expanding, leading inevitably to the rise of the idea of integration of the existing systems into one, unique system, called integrated management system (Lazibat, 2009). Every organization has some kind of form and intensity of management system integration, regardless the level of awareness and whether the systems are certified or not. Integrated system modelling is a complex task because the level of competitive capability of an organization and sustainable success depends on the quality of its execution. For the purpose of solving the problem of demand for more and more complex management systems integration, generic models of integrated management system are investigated (Drljača, 2011b). The motives for application of an integrated management system are the following: higher efficiency, better placement on the market, growing reputation, health protection of the employees and numerous comparative advantages (Karapetrović and Jonker, 2003). Many researches have been conducted worldwide studying integrated management systems

(Kanji and Wong, 1998; Wilkinson and Dale, 2001; Detert, Schroeder and Cudeck, 2003; Salomone, 2008; Khanna, Laroiya and Sharma, 2010; Zeng *et al.*, 2011; Guoyou *et al.*, 2013; Janauska, Mežinska and Salenieks, 2013; Škurkova, Kučerova and Fidlerova, 2015; Ionescu *et al.*, 2018). Dumičić (2004) conducted a research on the implementation of systems of quality in Croatian companies.

The very process of introducing an integrated system is usually difficult for those who lead the implementation, as well for those who participate in the process, be they the same employees or individual organizational units. Before the integration process even begins, it is necessary to run a detailed analysis of the state the company is in, and often there is a need for changing some of the adopted mindsets (Mileković *et al.*, 2004). Due to the fact that more and more companies want to integrate their management systems, the aim of this paper is to analyse the process of building an integrated management system. Secondary data collected for the purpose of this research will be analysed with the methods of induction and deduction, analysis and synthesis. The central part of the paper elaborates on integrated management systems regarding the level and degree of integration and the systemic approach to integration.

2. Integrated management systems in general

It is possible to achieve business success only in conditions of systematic approach to all business processes and therefore, development of a system of management and integration of environmental protection, quality and safety into a single system has become an important factor in achieving competitiveness. Management system of an organization is a complex composition of structural elements necessary for performing business activities and satisfying demands of the interested parties. As an input parameter of the processing approach model in the system of managing quality, it requires more and more complex integration of management systems (Drljača, 2011b: 743). Management systems represent important tools for creating an efficient and competitive organization, and according to international norms, they are generally accepted form of ensuring desired production, services and business activities. They are a framework for the processes and procedures used to ensure the organization can meet all demands necessary to achieve the set goals (Gaži-Pavelić, N/A: 8). As the number of individual management systems has been growing, there have been more overlaps of specific standards in certain areas. Therefore, the idea of integrating the existing systems into one unique system has been growing as well – in the form of integrated management system (Lazibat, 2009).

Zambelli *et al.* (2015: 191) state that an integrated management system is introduced when an organization wants to achieve conformity of multiple norms with the aim of reducing the amount of paperwork, the time needed for assessment and the costs in construction and system maintenance. Organizations are forced to implement a systematic and professional organization of production and services due to the rising competition. This is exactly why most organizations introduce integrated management systems, most often with the aim of encompassing three elements important for management: quality, environmental protection and health and safety of the people (Milčić *et al.*, 2008: 63). Systems in organizations can be implemented and maintained individually, but an integrated management of the systems is becoming more frequent. This implies two or more different single systems of management incorporated into one coherent management system (Britvić (2011: 72). An integrated management system is a system that integrates all the organizational systems and processes into one complete framework, enabling the organization to function as one unitary mechanism with unique goals (British Standards Institution, N/A). The aim of the integration of all individual management systems is to establish a uniform policy including all the aspects of managing quality, environmental protection and the aspects of health and work safety management (Milčić *et al.*, 2008: 64).

“An integrated management system is a system that integrates all the organizational systems and processes into one common framework, enabling unification of business goals. A coordinated system is formed, the system that is better than the sum of all its parts, achieving better results. An integrated system provides a clear, overall picture of all the aspects of the organization, the modes in which they influence each other and the related risks.” (Baković and Dužević, 2014).

Integration of all different management systems represents an imperative of optimization and boosting of efficiency of managing the organization. Management systems organization is inevitable for all organizations that have at least two implemented systems (Adelsberger, 15.03.2009.). If the integrated management system is implemented efficiently into business strategy and the guidelines of the organization, then it will enable the top management to set an efficient leadership and commitment, with the reduction of the amount of duplication. This is positively reflected on the entire costs where the savings are realized through efficient use of resources on all levels and functions within the organization (Woodcome, 26.10.2016.). Companies that have integrated more than three systems of management realize more benefits than organizations that have integrated two or three systems. Accordingly, the benefits both organizations reap are: less bureaucracy, higher availability of common training and the rise of customer satisfaction (Kafel, 2016: 129).

3. Integration of management systems regarding the level and degree of integration

Management system integration should be the goal of every organization that has already implemented single management systems (Sanz-Calcedo, 2015: 140). Over the last years there have developed different approaches to management systems integration and every approach differs depending on the level of ambition (Jørgensen, Remmen and Mellado, 2006: 713). In today’s turbulent environment most organizations operate in, it is indisputable that an integrated management system is necessary, and the only question is which one is the most appropriate. Nevertheless, it is not possible to develop the best model of integration because every organization is different regarding their goals and the established business culture (Baković and Dužević, 2014: 146-147).

Models of management system integration are presented in Table 1.

Table 1: Models of integration of management systems

| ABBREVIATION | FULL NAME | COUNTRY OF ORIGIN |
|------------------------------|---|------------------------|
| Global SAI. AS/NZS 4581:1999 | Management system integration – guidance to business, government and community organizations. | Australia, New Zealand |
| HB 10190:2001 | IMS: The framework (Integrated Management Systems Series) | United Kingdom |
| PAS 99 | Specification of common management system requirements as a Framework for integration | United Kingdom |
| NTS (1996) | Management Principles for Enhancing Quality of Products and Services, Occupational Health and Safety, and the Environment | Norway |
| DS 8001:2005 | Management Systems –Directives on developing an Integrated Management System | Denmark |
| UNE 66177:2005 | Integración Sistemas de Gestión | Spain |

Source: compiled by the author according to Kafel P., Sikora T. (2010). Integrated management systems certification–survey results. *Journal of Economics and Organization of Future Enterprise*, 1, p. 49.

Douglas and Glen (2000) highlight that lack of generally accepted rules as the big issue regarding implementation of an integrated system. These rules could help the organization to conduct the

process of integration. Sampaio, Saraiva and Domingues (2012: 419) state that regardless of the type of approach to integration, it should include the following elements:

- True and sustainable commitment of the management.
- Inclusion of all the participants during the process of integration.
- Clearly defined area of the organization.
- Risk assessment.
- Systematization of the policies, programs and procedures.
- Managerial activities that have to be implemented into the plans of the organization.
- Vision of the integrated management system.

Hines (2002) accentuates two levels of integration:

1. **Coordination.** Coordination is a parallel processing of the system based on similarity of standards for the system structure. The purpose of coordination is to reduce the scope of administration and the costs of revision. In this phase, separated procedures for every area are still present, but they are all presented together in the single manual.
2. **Integration.** A complete integration happens in all relevant procedures and directions. The accent is put on employees, buyers and continuous advancement of all the segments of business. The establishment of close interaction with the participants is enabled.

Jørgensen *et al.* (2006: 714) differentiate three levels of integration:

1. **Corresponding.** Characterized by an increased compatibility with the points where parallel systems overlap.
2. **Coordinated and coherent.** Generic processes are directed towards the assignments in the management cycle.
3. **Strategic and inherent.** The accent is put on organizational culture, permanent improvement and inclusion of the participants in facing the internal as well as external challenges.

It is important to note that more complex systems of integration are more difficult to model, document and implement, and they are also more difficult to manage. The reason for that lies in the fact that each of the systems implies the specific model of management (Drljača, 2011b: 748). Drljača (2011b: 749) points out that the project of integrated management system should be approached with a clear plan, and the very process consists of the following phases:

1. Receiving and analysing the request.
2. Project modelling.
3. Project elaboration.
4. Project approval.
5. Project realization.
6. Finalizing activities.

When all the common demands of individual systems of management are identified and different systems are integrated into one management system, that system can be called an integrated system. In order for an organization to be sure the system is integrated, an internal revision should be conducted, taking into account that revisions will be necessary in the future as well since there will surely arise certain specific requests (British Standards Institution Group, N/A: 5).

One of the prerequisites for management system integration is certainly a good understanding of generic processes and tasks in the management cycle and the benefits that can be realized with the integration of the systems. The correspondence between the elements of the system and generic processes represents a significant segment in building the integrated management system. If the goal of an organization is that management system integration enables competitive advantage, than it is necessary to ensure good interaction with the participants and make sure that business activities are in line with sustainable development policies (Jørgensen *et al.*, 2006: 714-718). In accordance with that, prerequisites of this type of an integrated management system are (Jørgensen *et al.*, 2006: 718-719):

Mutual understanding of internal and external challenges.

The synergy among different responsibilities in an integrated management system and continuous advancement of performances will most probably be established as a consequence of high ambitions related to the process of integration. Mutual understanding of generic processes is an important step in ensuring continuous improvements. Therefore, a management system has to be internally implemented through the organization, and externally through relations with the participants. If social and ecological responsibility is institutionalized within the organization, this will reflect on the interaction with those involved in the process, and the way of interpreting the external challenges.

A learning organization and the establishment of the culture of responsibility.

Learning processes are crucial for preventing shortcomings in designing or redesigning of the system, and for ensuring continuous adjustments to new challenges. The synergy of positive interactions between the top management and subordinate management systems increases innovative capability, the speed of problem solving and the learning capability. An integrated management system demands continuous updating and innovations inside different areas of management. Groups within the organization have to cooperate closely and understand the problems of others. Therefore, team work and knowledge management are extremely important to ensure that an integrated system of management functions adequately throughout the year.

Interaction with the participants.

If they want to contribute to sustainable development, organizations have to expand their social and ecological responsibilities within their production. It is important that they cooperate with all those involved in the chain of production and other participants to improve the conditions in the environment, the quality, and health and work safety.

Regarding the type of norm integrated in the specific management system, there are the horizontal and the vertical system management integration (Baković and Dužević, 2014: 150).

Horizontal integration of management systems implies a formal integration of two or more management systems in an organization (Kunović, 2012). This leads to the conclusion that horizontal integration is in fact a formal integration of the ISO norms for the management systems. The integrated application of quality management system (ISO 9001), environment management system (ISO 14001) and information safety management system (ISO 27001) is an example of horizontal integration, as can be seen in Figure 1.

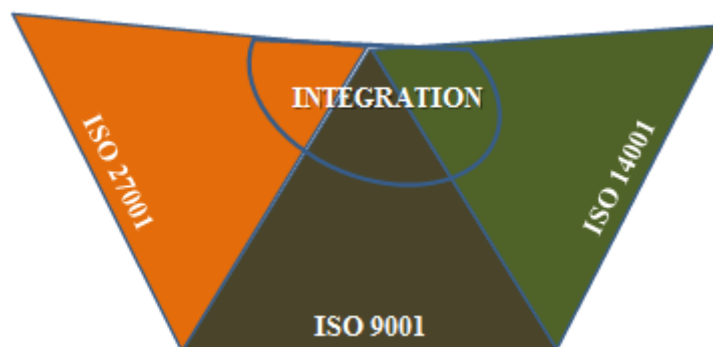


Figure 1: Example of horizontal management integration

Source: Kunović V., Baković T. 2015. Integracija poslovanja, sustava upravljanja i sustava osiguranja. Available at: <http://www.hdkvaliteta.hr/file/document/documentFile/vedran-kunovic-i-doc-dr-sc-tomislav-bakovic-integracija-poslovanja-sustava-upravljanja-i-sustava.pdf> (16 March, 2017).

Kunović and Baković (2015) highlight the benefits of the horizontal system integration:

- Less administration.
- Improved coordination of multiple systems.

- Integration of basic requests according to the guidelines of Annex SL.

Unlike horizontal integration, where two or more systems are involved, vertical integration relates to the integration of one or more systems of management in an organization with the requests of one or more systems for control or ensuring quality (Kunović, 2012). This form of integration implies the formal integration of the ISO norms for management systems with the norms of the specific industry branch or the norms distinctive of the specific industry. So, an example of vertical management system is quality management integration (ISO 9001) and requests for translation services (EN 15038) (Baković and Dužević, 2014: 150). The example of vertical system integration is displayed in Figure 2.

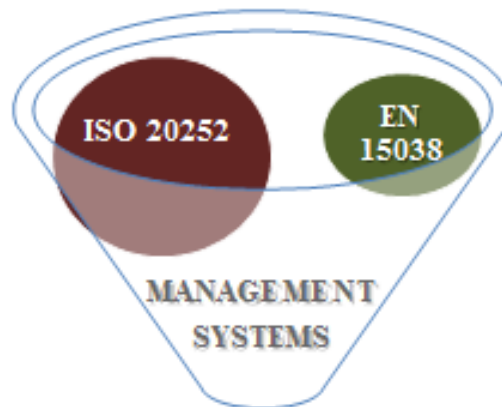


Figure 2: Example of vertical integration

Source: Kunović V., Baković T. (2015). Integracija poslovanja, sustava upravljanja i sustava osiguranja (online). Available at: <http://www.hdkvaliteta.hr/file/document/documentFile/vedran-kunovic-i-doc-dr-sc-tomislav-bakovic-integracija-poslovanja-sustava-upravljanja-i-sustava.pdf> (16 March, 2017).

Karapetrović and Wilborn (1998) point out that if a management system integration is based on the application of different norms, there are three levels of integration:

1. Organization of the quality system and the upgrade of another management system.
2. Organization of another management system and the upgrade of quality management system.
3. Organization of quality management system and other systems at the same time.

The approaches listed above come from the fact that organizations generally implement an integrated system based on conforming to the ISO 9001 norms, and then follows the upgrade of requests of other norms (Baković and Dužević, 2014: 148).

4. Systematic approach to the integration of the management systems

In literature, it is the systematic approach to building integrated systems of management that is most often analysed. This approach observes the entire organization and the concept of organization is changed from the structure towards the process (Baković and Dužević, 2014: 153). The systematic approach analyses two issues regarding the integration: difference in models used in certain norms and differences in requests those norms put forth (Lazibat, Baković and Gajdić, 2007).

Figure 3 shows a systematic model of building an integrated management system, and it also shows how different management systems can be analysed as parts of one system directed towards satisfying the needs of individual groups of participants (Baković and Dužević, 2014: 153).

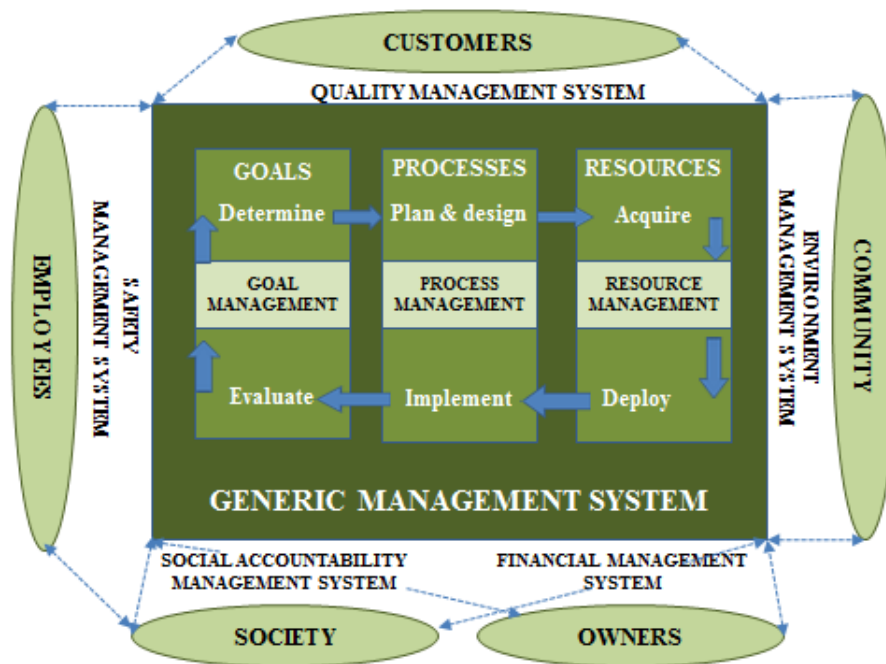


Figure 3: Systematic models for building an integrated management system

Source: compiled by the author based on Jonker J., Karapetrovic S. 2004. Systems thinking for the integration of management systems, *Business Process Management Journal*, 10(6): 612.

If an organization decides to implement a systematic approach to integration, then it enables it to achieve the following (Karapetrović, 2002: 65):

- *Integration of administration.* It is achieved by compiling a uniform manual that incorporates all the procedures related to quality, environment and safety.
- *Coordination of the basic processes, goals and resources* achieved through the integration of planning, designing, implementation and other activities vertically through the system of management. Furthermore, it is necessary to connect the goals specific to certain functions and human, material and financial resources of the given organization.
- *Creating the 'all in one' system* which is the final step in the process of integration. It is necessary to integrate all the other aspects (like financial and human resources) important for the business operations of the organization.

6. Conclusion

The integration of management systems is lately more and more marked as an imperative for optimization and increase of the efficiency of managing an organization. The integration of management systems is becoming inevitable for organizations that have already implemented two systems of management. In today's dynamic environment, it is not the question of whether the management system should be integrated, but rather which one is the best for the specific organization. Since all organizations are different regarding their goals and the established business culture, it is difficult to develop a single model of integration that would meet the requirements of all organizations.

For the success of the management integration, it is crucial that a company before the very start of the process analyses the state within the company and ensures that all the involved individuals understand the process. It is the only way in which the implementation of an integrated management system will become an important factor in achieving sustainability. A successfully integrated management system

can be the basis for building the foundation or business excellence because it enables the company to focus on all those involved, and not only on the customers.

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