

International trade and Implementation and Auditing of IMS: the Managerial Viewpoint

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Abstract: *The paper analyses IMS implementation and auditing in organizations and defines the managerial problems of the area. The empirical research conducted by the authors has highlighted four types of constraints that organizations face with. The essential problem is preset during the organization's strategic planning, because integrated IMS audit may only be carried out if all the standards are implemented and certified at the same period of time. The constraints of the second type are related to managerial problems with the stress on professionals' managerial skills and lack of knowledge related to the standard implementation. The constraints of the third and fourth types are influenced by the procedural peculiarities of IMS standardization and specifics of the project group.*

Keywords: *Integrated Management System, audit of IMS, management of IMS, organization management, IMS' value for organization*

JEL Classification: M21, N42

Introduction

With the reciprocal dependency between companies in the social, economic and environmental protection fields, international standards help partners to equally understand and coordinate the majority of work criteria and collaboration conditions. The International Organization for Standardization has published around 19 500 international standards including almost all technologies and aspects of production. There are 164 countries in the world following ISO standards. The data of the International Organization for Standardization prove that a high demand of work and production standardization exists. International standards have become an important and appropriate instrument for ensuring the companies' existence; while the quality management standard ISO 9000 and

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the environmental protection standard ISO 14001 have become the most popular management system standards in the world (Bernardo et al., 2010). Along with the strive to save resources and simplify management processes, the organizations are in search for the ways to implement and control all the existing standards at once, which would result in a harmonious development, better organization's reputation, and the advantage in the market.

The problem of the international standards implementation is of interest both to the practitioners and the researchers. Researches by Tari (2005), Dale et al. (2007), Sampaio et al. (2009), Salomone (2008) are worth mentioning. However, the idea of the management system integration is being developed by a fewer authors. The initiators of the IMS researches are Karapetrovic and Willborn (1998). In their publications, they have presented the similarities of quality management and environmental protection standards and considered the possibilities of their integration into one entirety. In addition, Karapetrovic (2003) and Bernardo et al. (2009) have defined the levels of the integration of management system. Bernardo et al. (2015) have proposed a comprehensive study on the IMS. In their study, the authors have compared benefits of the two management systems standards being implemented separately and in an integrated way.

In Lithuania, the issues of IMS aren't analyzed properly by researchers. In the field, Kasperaviciute (2012) has studied the motives of implementing the international standards; Kaziliunas (2012) has defined the success factors of the international standard implementation; Raišienė (2012) has explored the benefits of the integrated management system for organizations and has provided the perspectives of the implementation of integrated management system in Lithuania. However, the integrated management systems do not provide the companies with a tangible benefit in every case. Raišienė (2012) notices that IMS often serves only as a mean of ensuring a status in the competitive struggle between organizations, and the companies that have implemented three or more standards face with the audit document duplication, problem of data processing, time constraints, and lack of financial and human resources. Often, the audits of the separate standards are carried out in an organization with the integrated management system. Therefore, the goal of the article is to reveal the constraints and managerial problems organizations face when implementing and auditing the IMS.

The paper briefly presents the idea of the integrated management systems and the international standards audit, and their significance to the organization; discusses the results of the empirical research.

The data of the empirical research was gathered by carrying out a qualitative research allowing to delve into the peculiarities of the integrated management system audit process. Semi-structured interview of focus groups was used for the qualitative research.

The article is distinguished by its practical value. Depending on the research results revealing the problems in the IMS implementation and audit process, the organizations will be able to make the necessary decisions at the stage of resource and work planning and hence to avoid some IMS implementation problems thus improving the costs and efficiency of the management.

Theoretical framework of IMS

Thandapani & Gopalakrishnan (2012) state that the benefit of international standards for the organizations is defined by strengthening the competitive advantage, increase of the market share, increase of sales, decrease of costs and losses, increase of service or product quality, clients' satisfaction, reduction of complaints, improvement of organizations image, efficiency of organization's performance, employees' motivation and inclusion, internal communication, quality culture and responsibility, strengthening and movement towards the total quality management. Douglas & Simon (2013) highlight that, implementing IMS, the companies are able to manage potential risks significantly easier, because the IMS implementation is based on the risk determination, evaluation, control and management in the areas of environment, work safety, economic environment etc. Moreover, keeping in mind that the organizational sustainability is a significant concept in the modern organizational development, the IMS can be analyzed as a tool for implementing the concept of sustainable development at the organization level (Mezinska et al., 2015). The extensive researches are carried out on the benefits of implementation of the IMS in different sectors – from manufacturing to health care (Dodici et al., 2016), higher education (Holm et al., 2015), and others.

Despite the expected benefits, the organizations run into obstacles when implementing IMS. According to Sampaio et al. (2009), the main obstacles are related with the high costs of IMS implementation and maintenance, inadequate involvement of the management, overly high prominence of bureaucracy, different comprehension of the standards by the auditors, and ethical problems. Gianni & Gotzamani (2015, p. 265) also state that the lack of the commitment of the top management and the imbalanced development of the IMS components lead to the failure. Implementation of the IMS is a particular challenge for SMEs; therefore, the researchers attempt to develop tools that would enable the companies to easily evaluate the state of their integrated management system by themselves (Klute-Wenig, Refflinghaus, 2015).

Kasperavičiūtė (2012) has systematized and distinguished two types of related problems. Those are the institutional problems and the problems caused by the standards themselves. The institutional problems are obstacles related to the organization's management, for example, support and motivation of the employees, too high workload, lack of resources, management changes, lack of the quality culture in the organization. According to Kasperavičiūtė, the problems

caused by the standards themselves are the difficulties with an interpretation, a long period of implementation, bureaucracy, and constraints of creative freedom.

Other authors agree that, if the process of standard implementation was less bureaucratic, the standardization would become more appealing to the organizations (Dale et al., 2007). In addition, part of the problem arises due to natural uniqueness of organizations. According to Pojasek (2006), up to 80 percent of work implementing the standards of quality management, environmental protection management, employees' safety and health management are very similar; though, the remaining 20 percent of activities are very specific and therefore it is difficult to coordinate those to be in line with others. To solve these difficulties, the leaders' competence and administrations' support are especially important. When implementing the IMS in the organization, the leaders have the key role harmonizing the connections between different elements and combining the goals of functional subdivisions into one entirety (Sokovic et al., 2004). According to Slater (1991), the main condition allowing to integrate the management systems is a unified conceptual attitude to the organizational management, having in mind that different management systems are functioning in a mutual organizational structure, using joint resources, coordinating all work processes and attempting to reach the organizational goals. In addition, it should be considered that the IMS is just a structured and formalized agreement, and to make it functioning, the management commitment has to be enhanced, the employees motivated, involvement of the interested parties driven, and a continuous attention to the work improvements should be paid. The regular audits help to realistically evaluate the situation in this case.

Implementation of IMS is only the first step towards the advancement and perfection of the organization's performance. The IMS effectiveness is supported by the internal and external audits, i.e. systematic and independent investigation with the purpose to determine i) if the work and the results correspond to the determined means, ii) if these means are used suitably, iii) if they are appropriate in order to reach the defined and measured goals. As a result, while the audit is carried out, the organization can evaluate the situation, notice discrepancies, and to act in order to correct, prevent or remove those. In other words, the objective of the IMS audit is twofold: to assess the efficiency level and to improve opportunities of the management system (Domingues et al., 2014). According to Chambers (2014), during the audit, efficiency and correspondence with the requirements are evaluated, gathered data and facts are analyzed, data calculations, grouping and comparison are carried out. In addition, the auditors identify the strong and weak areas of the organizational performance, provide the management with undistorted facts. Alič & Rusjan (2010) have proved that an internal audit enables to achieve the organizational goals and has a positive influence on the business indicators. The companies that have implemented the

IMS are recommended to use an integrated IMS audit, because it is distinguished with a high level of collaboration and interactivity, is related with the involvement of employees and leaders, communication and feedback.

Four types of the audit integration can be observed. Kraus & Grosskopf (2008) have proposed the typology of four types indicating the audit could be i) fully integrated, ii) simultaneous, iii) overlapping, or iv) sequential.

The first type includes a fully integrated audit. For a fully integrated audit, one joint plan and report should be presented. The integrated audit is carried out by a joint team of auditors, verifying the entire organization's management system at the same time. The second type of the IMS audit includes a simultaneous audit. It means that the management system is audited separately, but at the same period of time. An overlapping audit overlaps in terms of the audited areas as well as a time schedule. A sequential audit could be considered as a non-integrated audit. Therefore, the separate audits are carried out by different teams of auditors. All of these audits take place at different times, and separate audit plans and reports are prepared.

According to Pardy & Andrews (2009), it is particularly the results of an integrated audit that allow to systematically evaluate the organization's state and the risks involved. Due to these reasons, it is important that the organization's leaders amass grounded data, which would allow to understand what are the factors limiting the efficiency of the IMS audit.

Research methodology

Semi-structured focus group interview method was chosen to analyze the peculiarities of the IMS implementation and audit and to define the managerial problems. It is an independent method of information gathering, when a sample is limited or small.

Criterion case selection was used to constitute the objective sample for the qualitative research. Sample unites were chosen from the population according to the following criteria:

- 1) Organizations with less than 5 years of experience assisting other companies to implement management systems;
- 2) Organizations with not less than 5 years of experience carrying out management system audits in other companies;
- 3) Organizations with the leaders in charge who agree to exhaustively tell about the peculiarities of the IMS implementation and audit.

Two units of analysis have met all three criteria. One of them is a Lithuanian company "SDG" providing consultations on implementation and maintenance of the IMS, and a Lithuanian company "Sertika" providing certification and auditing of the IMS already implemented.

Consultation company "SDG" has 12 years of work experience; it consults and assists organizations implementing various international standards for 6 years.

“SDG” is the biggest business management company in Lithuania. Since 2007, “SDG” ranks the first among the companies in the field of business consultations. In 2009, during the quality management system audit, a new service was certified in the company – consultations on implementing the management systems. The company also provides consultations to the organizations preparing for the standard certification and the external audit, as well as organizes the training for the internal auditors. “SDG” assists its clients to implement discrete standards (Quality, Environment, Employees’ safety and health, Food Safety, Hygiene, Cosmetics products, Metal welding, Social responsibility, etc.) and integrated management systems.

The center of certification “Sertika” was established in 2008. This company provides services of the management system certification (meeting the requirements ISO 9001, ISO 14001, ISO 13485, EN 15038, EN 15593, ISO / IEC 27001, and other standards), pre-certification evaluation services, organizes group training and individual training sessions. The company as well carries out the external and internal audits of the different standards.

The data of the research was gathered using a semi-structured group interview and processed applying the content analysis method.

The research took place during August and September, 2014. Five groups of the interviewees participated in the research – three from one organization and two from another. In order to have the gathered information of higher quality, the participants of the interview were asked to familiarize with the questions of the interview before the meeting. The scope of the interview text constitutes 28.000 printed characters including spaces.

Before constructing the questionnaire, the goal of the interview was indicated. The research was coordinated with the leaders of the organizations. The participants of the research took part on voluntarily basis. They were informed that the personal identification data will not be revealed and all personal speech will be impersonalized. Before the interview, the interviewees were asked to confirm that they agree to participate in the research and allow recording the conversation using a computer medium.

Problems of the IMS implementation and auditing in practice

The implementation and maintenance of the management system is a complex process, which is why the organizations implementing the IMS address the companies providing consultations on the procedural questions and organizing the specific trainings for the responsible employees and managers. The results of the empirical research have highlighted the main difficulties in the IMS implementation and maintenance (Table 1). However, if the company has certified management systems at different time, it has no other choice. The problem may

be solved by re-implementing the standards. In turn, the termination of certificate validity and the new implementation is needed. Particularly in this case, the integrated management system certification can be realized the most efficiently. In spite the fact that it is economically the mostly beneficial option considering the further perspectives, some companies do not find it attractive, because of unforeseen expenditures.

Table 1: Problems of IMS implementation and maintenance in organizations

Category	Sub-category	Confirming statements
Problems arising due to deficiencies of management	Lack of leaders' managerial competences	"<...> increased workload, then standards must be integrated. Then the employee motivation is no more, they do not take on responsibilities, do not divide works." (S1) "The hardest is the beginning, <...> a targeted team is not formed; goals of each participant are not defined." (S2)
	Lack of knowledge of process participants	"Company's [leaders and employees] usually face with a lack of knowledge on the standard and legal requirements." (A1) "The hardest is the beginning, when there is a lack of knowledge <...>. Team members have to additionally learn and know the peculiarities of the standards being implemented" (S2)
	Lack of organizational commitment of process participants	"Clearly too low interest from the authorities" (A1) "[Employees] do not take on responsibilities <...>" (S1)
	Lack of competence of internal auditors	"[The problem is] the lack of competence of internal auditors when evaluating IMS <...>, also, different auditors' comprehension about the integrated standard" (S3)
Problems arising due to procedural peculiarities of IMS standardization	Unreasonably complicated implementation of IMS and process of documentation	"Too strict and standardized implementation procedures and unnecessarily difficult documentation process itself makes it hard" (S2)
	Additional costs	"Preparation of management system documentation is a difficult process, requiring a lot of work and specific knowledge, therefore companies often need the help of consultants" (S1)
Problems arising due to specifics of project group	Internationality of the project group when organization functions in different countries	"A company operates in several countries. Communication in several languages was required. Documents were translated, they had to be verified. Coordination took a lot of time <...>" (S1)
	Difficult structure of project group management	"Coordination took a lot of time, because [when making decisions], the top management had to be reached."

Source: author's compilation.

However, if the company has certified management systems at different time, it has no other choice. The problem may be solved by re-implementing the

standards. In turn, the termination of certificate validity and the new implementation is needed. Particularly in this case, the integrated management system certification can be realized the most efficiently. In spite the fact that it is economically the mostly beneficial option considering the further perspectives, some companies do not find it attractive, because of unforeseen expenditures. When analyzing the obstacles of IMS implementation, an attempt to define the work stages that are critical was made – in order to determine what the stages of the IMS implementation might be, and where the most of the problems occur that could influence the further processes. The participants of the interview have distinguished 8 stages of the IMS implementation and the maintenance process, which require special attention from the organizational specialists. Those are:

- Acquisition of standards;
- Familiarization of managers with the requirements of standardization;
- Creation of work group and distribution of responsibilities;
- Preparation of documentation;
- Implementation of standards' requirements;
- Internal audit;
- Certification of management system.

Familiarization with the requirements of standard implementation was mentioned as one of the most important stages, because planning of the resources and activities required for standardization and certification depends on this stage.

The second critical moment is *the creation of work group and distribution of responsibilities*. The professional competences of the work group members, skills of personal leadership and attitude towards the assignments directly influence not only the quality of standardization process, but also its costs. Lack of the employees' professional competences is the main reason influencing the necessity of external consultants. The choice of consultants, identification of communication scope and other work related to the external partners increase the costs of implementation. Lack of personal leadership skills influences a lower efficiency of decision making and implementation. Insufficient team members' responsibility on implementation of standards influences more frequent mistakes and slower process of standard implementation. However, it should be highlighted that the organization leaders are responsible for the deficiencies of work groups. Those are:

- 1) Leaders deciding on the composition of the standards' implementation work group, distributing members' responsibilities, delegating decisions, planning and coordinating the realization of assignments;
- 2) Functional leaders and leaders of the highest hierarchical level. They create (or do not create) conditions for the employees to

improve and create organization's managerial culture, which is the factor that mostly influences employees' organizational commitment.

The interviewees have described the stage *Preparation of documentation* as an assignment that requires a lot of time and attentiveness, but have acknowledged that this stage is difficult only in the aspect of the process and does not influence the further stages.

Implementation of the standard requirements in the organization requires high managerial and professional competences not only of the work group, but all employees of the organization. However, the participants of the research have emphasized that an efficient work by the responsible leaders and qualitative group work remain the most important factors influencing the efficiency of implementation at this stage as well.

Internal audit of IMS displays the correspondence of the implemented standards with the requirements. Internal audit, actions of correction and prevention must be performed by the companies before the external audit. The representatives of the organization providing audit services do not envisage any procedural differences between separate and integrated management system audits, because the audit is carried out in accordance with the international standards and requirements of the audit guidelines. Differences between separate audits and integrated audit appear only due to the advantage of integration, which allows creating a single plan, single team of auditors and prepare a single report. The main problem in the stage of the audit named by the respondents is the lack of company leaders' motivation and the competence when implementing IMS, and an attitude that consultation companies are responsible for all issues related to IMS. According to the interviewees, the companies tend to renounce the responsibility of the implementation of IMS. They expect the consultation companies to fully implement standards and undertake full responsibility both for the implementation and positive results of audit later on. "Our biggest problem is that the companies think that we will implement IMS for them. They are strongly mistaken on this question, as we only consult, and they must do all the work themselves.<...> The organizations address the consultation company expecting that it will implement the standards. This means that they are not ready themselves, do not have the required knowledge, comprehension and only wish to redeploy the function of IMS implementation to someone else. Allegedly, they want IMS due to the pressure from the external environment and not due to striving to improve the work of the organization." (S2) That is what mostly impedes the audit.

When spotlighting objective problems of the IMS audit, the organizations and companies providing services of the external IMS audit face a specific situation. It is influenced by the requirements of the international standard certification. An integrated IMS audit may only be carried out after all the standards are implemented at the same time: "When three systems are implemented on the same

day, after a year, an audit for all three systems will be carried out, because following the requirements of the certification, the maintenance audit must be accomplished exactly 12 months after the implementation of the system.” (A1) If several standards are implemented at different time, there are no options for an integrated audit: “If one standard is implemented in October and two others in December, they will be audited exactly 12 months later, i.e. in October and December.” (A2) Organizations’ leaders should consider that when planning the certification of management systems in the company. The consequences of the standards implemented at different times are the separate audits. Deficiencies in the strategic organizational management and systematic planning cause increased management costs. Separate management system certification audits cost more and take more time compared to the integrated audit. In addition, certification of the separate systems and their audit make management of documentation more difficult.

Figure 1: Activities at different organizational levels to implement the IMS

Executive Management
<ul style="list-style-type: none"> • Decision to implement and to certify the intended international standards within the same period of time
Middle Management and Supervisors
<ul style="list-style-type: none"> • Establishment of permanent team for implementation and maintenance of IMS • Encouragement of personal leadership and organizational commitment within the IMS implementation and maintenance team • Support training and learning of the IMS team and the internal auditors
Staff level
<ul style="list-style-type: none"> • Acquisition of the knowledge for IMS implementation

Source: authors' compilation.

However, if the company has certified management systems at different time, it has no other choice. The problem may be solved by re-implementing the standards. In turn, the termination of certificate validity and the new implementation is needed. Particularly in this case, the integrated management system certification can be realized the most efficiently. In spite the fact that it is economically the mostly beneficial option considering the further perspectives, some companies do not find it attractive, because of unforeseen expenditures. For these, more conservative, companies, it is recommended to not rush the renewal of the certificates after the validity ends. The renewal should be carried out in a complex way certifying all the systems at the same time, when such an

opportunity occurs. The interviewees (A2) have stated that it is the most beneficial way to re-implement the standards or to implement them at the same time. Even though the companies consider it being expensive, the increased costs are not so significant. In the end, both the IMS functioning in the company and its integrated audit ensure better indexes of work economy. The suggestions for improvement of the IMS implementation and auditing were identified during the research (Figure 1).

Conclusions

The results of the empirical research have highlighted four types of the IMS implementation and audit constraints that the organizations have to face with:

1. The constraints of the first type arise due to the deficiencies of organization's strategic management. The essential problem is predetermined at the stage of the organization's strategic planning. Integrated IMS audit may only be carried out if all the standards are implemented and certified at the same period of time. Since every standardized and certified management system has to be audited every 12 months, different time of the initial system certification makes it impossible to carry out an integrated audit. This aspect must be considered by the organization management during the strategic planning.

2. The constraints of the second type are related to management problems. Those are lack of leaders' and specialists' management skills and lack of knowledge related to the implementation of the standards, insufficient organizational commitment of the IMS implementation group leader or its members, lack of the internal auditors' professional competences. The consequences of these deficiencies are drawbacks in planning, low employee motivation, avoidance of responsibility and personal leadership, reluctance to collaborate, inefficiency.

3. The constraints of the third type are preset by the procedural peculiarities of the IMS standardization. Complex and bureaucratic procedures of the IMS implementation and documentation require a lot of additional knowledge from the employees, which, after implementing the IMS, becomes insignificant in their further work. Additional learning requires employees' determination, extra time and effort. It is not beneficial for the organizations to draw employees from their direct duties. Due to this reason, a practice to hire the external consultants to implement and audit the IMS flourishes in organizations. Hire of external consultants requires additional resources as well. These factors restrain the opportunities to implement IMS in part of smaller organizations.

4. The constraints of the fourth type arise due to the specifics of the project group. International organizations functioning in different countries must ensure the preparation of the IMS documentation in the country's official language. Translation, coordination and ratification of the documents on a scale

of the international project group are particular challenge to the organizations that makes some of them to refrain from the decision to implement IMS.

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References

- Alič, M., Rusjan B. (2010). Contribution of the ISO 9001 Internal Audit to Business Performance. *International Journal of Quality and Reliability Management* 27(8), 916-920.
- Bernardo, M., Casadesus, M., Karapetrovic, S., Heras, I. (2009). How integrated are environmental, quality and other standardized management systems? An empirical study, *Journal of Cleaner Production*, 17, 742–750.
- Bernardo, M., Casadesus, M., Karapetrovic, S., Heras I. (2010). An empirical study on the integration of management system audits, *Journal of Cleaner Production* 18(5), 486-495.
- Bernardo, M., Simon, A., Tari, J. J., Molina-Azorin, J. F. (2015). Benefits of Management Systems Integration: A Literature Review. *Journal of Cleaner Production*, 94, 260-267
- Chambers, A. D. (2014). New guidance on internal audit – analysis and appraisal of recent developments. *Managerial Auditing Journal* 29(2), 196–198
- Dale, B. G., van der Wiele, T., van Iwaarden, J. (2007). Managing quality. 5th ed. UK: Wiley-Blackwell/
- Dodic, B., MilijkoVIC, T., Bjelobrk, M. et al. (2016). Importance of integrated management system applied in health establishments in order to raise treatment quality. *Medicinski pregleđ*, 69, pp. 31-36.
- Domingues, J. P. T., Sampaio, P., Arezes, P. M. (2015). Analysis of integrated management systems from various perspectives, *Total Quality Management & Business Excellence* 26(11-12), 1311-1334.
- Douglas, A., Simon, A. (2013). Integrating management systems: does the location matter? *International Journal of Quality & Reliability Management* 30(6), 675–689.
- Gianni, M., Gotzamani, K. (2015). Management systems integration: lessons from an abandonment case, *Journal of Cleaner Production*, 86(1), 265-276
- Holm, T., Vuorisalo, T., Sammalisto, K. (2015). Integrated management systems for enhancing education for sustainable development in universities: a memetic approach, *Journal of Cleaner Production* 106, 155–163
- Karapetrovic, S. (2003). Musings on integrated management systems. *Measuring Business Excellence* 7(1), 4-13
- Karapetrovic, S., Willborn, W. (1998). Integration of quality and environmental management systems. *The TQM Magazine* 10(3), 204-213
- Kasperavičiūtė, R. (2012). Aukštojo mokslo ir studijų institucijų požiūris į ISO 9001 standartą: taikymo motyvai, problemos, naudos. *Viešojo politika ir administravimas* 11(4), 672-689.

- Kaziliūnas, A. (2012). Problems while implementing quality management systems for a sustainable development of organizations, *Ekonomika ir vadyba* 4(28), 90-98.
- Klute-Wenig, S., Refflinghaus, R. (2015). Integrating sustainability aspects into an integrated management system. *The TQM Journal* 27(3), 303-315
- Kraus, J. L., Grosskopf, J. (2008). Auditing integrated management systems: Considerations and practice tips, *Environmental Quality Management* 18(2), 7-16
- Mezinska, I., Lapina, I., Mazais, J. (2015). Integrated management systems towards sustainable and socially responsible organisation. *Total Quality Management & Business Excellence* 26(5-6), 469-481
- Pardy, W., Andrews T. (2009). *Integrated Management Systems: Leading Strategies and Solutions*, Maryland: Government Institutes.
- Pojasek, R. B. (2006). Is Your Integrated Management System Really Integrated? *Environmental Quality Management* 16(2), 89-97
- Raišienė, A. G. (2012). Perspectives of integrated management systems in Lithuania's enterprises. In: EICC 2012: Proceedings in Electronic International Interdisciplinary Conference. EDIS: University of Zilina, pp. 28-31.
- Salomone, R. (2008). Integrated management systems: experiences in Italian Organizations, *Journal of Cleaner Production* 16, 1786-1806.
- Sampaio, P., Saraiva, P., Rodrigues, A. G. (2009). ISO 9001 certification research: questions, answers and approaches, *International Journal of Quality & Reliability Management* 26(1), 38-58.
- Slater, R. (1991). *Integrated Process management*, New York: McGraw Hill, 278 pp.
- Sokovic, M., Bobrek, M., Kreca, I. (2004). Integrated management systems (IMS) on the way to business excellence. In: Business systems management: proceedings of the 3rd international conference, pp. 215-218.
- Tari, J. J. (2005). Components of successful total quality management, *The TQM Magazine* 17(2), 182-194.
- Thandapani, D., Gopalakrishnan, K. (2012). Quality models in industrial and engineering educational scenarios: a view from literature, *The TQM Journal* 24(2), 155-166