Stakeholder Management as an Approach to Integrated Management System (IMS$_{STK}$)

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Abstract. This paper aims to present a new approach to Integrated Management System (IMS), as a management system able to manage all stakeholders identified by an organization. A worldwide trend to integrate the requirements of different standardized management systems is observed, but organizations have faced an increasing number of standardized systems, motivating many researchers to focus on new integration methodologies. Taking as reference the management systems used by the most organizations (e.g.: quality, environmental, safety and occupational health and social responsibility), this paper intends to present the existing commonalities among the requirements of these standards and after that, to present the existing commonalities among stakeholders identified for each integrable requirements. Stakeholder management can also be interpreted as an effective way to map out requirements for processes and products, as well as a way to map out management requirements for an organization, which enables to implement requirements in addition to those already defined in standardized systems such as ISO standards. Therefore, it can be affirmed that the traditional IMS approach allows a generalization of the IMS concept towards stakeholder management by analyzing the commonalities among the most used standardized systems and its stakeholders. The Integrated Stakeholders Management proposed in this paper is unlimited, making organizations do not become dependent only on standardized systems. This new approach helps to incorporate requirements provided by an analysis of stakeholders demand. In this context, it is concluded that the new concept of IMS proposed herein is an alternative solution organizations that aim to achieve better levels of satisfaction of stakeholders, focusing on meeting their requirements and also in overcoming their expectations in an integrated manner within their management processes, not depending only on the standardized systems.

Keywords. Integrated Management Systems, Requirements Management, Stakeholder Management, Deming Cycle

Introduction

This paper aims to present a new approach to integrated management systems (IMS) as being a management system able to help the organizations to manage, in an integrated manner, their stakeholders.

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Domingues [1], Poltronieri [2] and Cerqueira [3] agree that an IMS is a system that contains at least the integrated requirements came from quality and environmental management systems. This understanding is supported by Moraes [4] who claim that the management systems used by the most organizations for the development of their IMS are: Quality, Environmental and Safety and Occupational Health management systems.

According to Cerqueira [3]; Bernardo et al. [5]; Karapetrovic and Jonker [6] in the last years it can be observed a worldwide trend to integrate requirements from different standardized management systems. The compliance with requirements of standards, such as ISO 9001 and ISO 14001, in an integrated manner, is helping the organization to structure their management systems, reducing costs when comparing the management of all these standardized management systems individually.

However, Lopez-Fresno [7]; Gianni and Gotzamani [8] emphasize that a fully integrated management system should cover all requirements describes in standards, and also emphasize that the management processes should be extended for all business stakeholders. Moreover, Asif et al. [9] point out that a key question is how to create business processes able to accommodate the needs of all stakeholders in an integrated manner. It is noteworthy that the isolated management systems already provide means for organizations to achieve the requirements of their stakeholders. Bernardo et al. [5], Karapetrovic and Jonker [6] and Jorgensen [10] agree that the implementation of IMS should converge to the satisfaction of all organizations' stakeholders.

According to Asif et al [11], the organizations have faced numerous management systems, making it necessary to integrate all of them. This is a subject that is being studied by a large numbers of researches, focusing on the practical aspects such as integration methodologies.

Karapetrovic and Jonker [6] emphasize that standardization working group around the world is spending efforts in order to elaborate their IMS national standards.

However, Asif et al. [11] claim that the integration of management systems can vary from organization to organization, because each organization has their own specific characteristics, such as being placed in a particular market niche, with different characteristics and stakeholder's requirements.

According to Sartori and Weise [12] it's important to notice that changes occur rapidly and these changes is influenced by globalization, competition increasing, and also technological, environmental and social constraints. Asif et al. [9], Rocha and Goldschmidt [13]; Trentim [14] and Bourne [15] emphasize that in this scenario it's important to take into account the identification of new stakeholders.

Using as reference the Quality, Environmental, Safety and Occupational Health and Social Responsibility Management Systems, this paper also aims to present that there are not only commonalities among requirements of those standards, but also there are commonalities among stakeholders. Finally, it can be conclude that the generalization of the concept of IMS is possible using the approach to stakeholders management.

1. Methodology

According to Richardson [16], the research methodology applicable in academic papers must be appropriate to the type of study that need to be performed, but it is the nature of the problem that determines the choice of method.

Vergara [17] says that scientific research can be classified according to the purposes and methods. Regarding the purposes, researches can be exploratory, descriptive, explanatory, methodological, applied and interventionist. Regarding the method, the research can be laboratorial, documental, bibliographical, experimental, participant and case study.

Regarding the purpose, this study is characterized as exploratory because it was analyzed deeply the quality, environment, occupational health and safety and social responsibility management systems and the relationship among their requirements and stakeholders. Regarding the method, this paper is characterized as bibliographical because a systematic study was made based on consultation in books, journals, conference proceedings, academic databases and repositories for dissertations and theses.

First of all, it was performed study of the standards that traditionally compose a typical IMS, but supported by the stakeholders theory. To perform the analysis and verify the necessity of a generic IMS, not only dependent on rules and regulations, a study about stakeholder management theory was performed, from the definition of the terminology "stakeholder" proposed by Freeman in the 1980s, to the more contemporary stakeholder theory.

As a result of the literature review undertaken in this paper, it was possible to find arguments to propose a new concept of IMS, supported by stakeholder management, presented in Section 5.

2. Common requirements among quality, environmental, safety and occupational health and social responsibility standards

Cerqueira [3], Moraes [4] and Ribeiro Neto [18] reported that when the ISO 9001:2000 was being updated, there was a concern that this standard had to be integrable with the ISO 14001:1996, thereby some of their requirements have been aligned, renumbered as common requirements. Moraes [4] and Ramos [19] cited that the same procedure was taken when the OHSAS 18001 was developed by the British team and in Brazil, same when procedure was done when elaborating the NBR 16001:2004 for social responsibility.

The Table 1 shows a summary spreadsheet containing some common requirements among the standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and NBR 16001:2012. The fully spreadsheet is presented in Genaro [20]. As example, the Table 1 is presenting the commonalities among requirements related to human resources, infrastructure and product realization.

According to Table 1, it is possible to verify the existence of synergies among management requirements imposed by those standards.

In fact, all decision that implies in changing inside the organization is a top level decision (*internal stakeholder*), it can be supposed that implementation of any management system is always motivated by needs of organizations' stakeholders (e.g., compliance with environmental legislation; contamination of soil and groundwater; compliance with labor law; implementation a quality management system and so on). This understanding is corroborated by Asif et al. [9]; Rocha and Goldschmidt [13]; Trentim [14]; Bourne [15] and Svendsen [21] which state that the organizations need to have effective means of communication with their way to identify, analyze and engage stakeholders in order to make them partners.

Table 1. Requirement matrix among the standards ISO 9001:2008, 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and NBR 16001:2012.

ISO 9001:2008 requirements	ISO 14001:2004 requirements	OHSAS 18001:2007 requirements	NBR 16001:2012 requirements
6.1 Provision of resources	4.4.1 Resources, roles, responsibility and authority	4.4.1 Resources, roles, responsibility, accountability and authority	3.3.7 Resources, roles, responsibility, accountability and authority
6.2 Human resources	4.4.2 Competence, training and awareness	4.4.2 Competence, training and awareness	3.4.1 Competence, training and awareness
6.2.1 General	4.4.2 Competence, training and awareness	4.4.2 Competence, training and awareness	3.4.1 Competence, training and awareness
6.2.2 Competence, training and awareness	4.4.2 Competence, training and awareness	4.4.2 Competence, training and awareness	3.4.1 Competence, training and awareness
6.3 Infrastructure	4.4 Implementation and operation	4.4 Implementation and operation	*3.4* Implementation and operation
6.4 Work environment			
7 Product realization	4.4 Implementation and operation	4.4 Implementation and operation	*3.4* Implementation and operation
7.1 Planning of product realization	4.4.6 Operational control	4.4.6 Operational control	*3.4* Implementation and operation

The proposal of IMS approach to stakeholder management (IMS_{STK}) is to generalize the concept, when common requirements for different stakeholders can be translated into a unique requirement (integrated) that meets all of them simultaneously without relying on only to establishment of a particular standard.

This approach is advantageous. According to Morikawa and Morisson [22] the development of a new standard is a process that can take about 5 years until publication. In addition, changes are occurring very fast and new stakeholders can be identified; a standard can be published today and very soon requires adjustments and corrections to be adjusted to the new scenario.

3. Commonalities among stakeholders and IMS traditional standards

Genaro [20] has analyzed critically all requirements of ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and NBR 16001:2012 and has listed all possible stakeholders interested in each requirement of those standards. This study identified a list of most common stakeholders, such as top management, employees (it includes service providers and outsourced employees), customers, suppliers, press, government, shareholders, unions, regulatory agencies, non-governmental organization, family, community, UNESCO, control agencies, lawyers, carriers, distribution centers.

The Table 2 shows a summary spreadsheet containing stakeholders & requirements of ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and NBR 16001:2012 standards.

The Table 3 provides a list of stakeholders having interest in the organization's statement of policy for each management systems (ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and NBR 16001:2012) and a compilation of common stakeholders for all systems using an integrated view.

Table 2 - ISO 9001:2008, 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and NBR 16001:2012 requirements & stakeholders

ISO 9001:2008 requirement identification	ISO 9001:2008 identified stakeholders	ISO 14001:2004 requirement identification	ISO 14001:2004 identified stakeholders	OHSAS 18001:2007 requirement identification	OHSAS 18001:2007 identified stakeholders	NBR 16001:2012 requirement identification	NBR 16001:2012 identified stakeholders
6.1 Provision of resources	Top Management, employees; clients, suppliers; competitors; government, shareholders	4.4.1 Resources, roles, responsibility and authority	Top Management; employees , clients, government, shareholders, competitors, regulatory agencies, unions.	4.4.1 Resources, roles, responsibility, accountability and authority	Top Management; employees, government, family, regulatory agencies, unions	3.3.7 Resources, roles, responsibility, accountability and authority	Top Management; employees, government, community, shareholders, regulatory agencies, unions; press, competitors
6.2 Human resources	Top Management; employees, clients, suppliers, press, competitors, shareholders, community, unions	4.4.2 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press, unions	4.4.2 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press, family	3.4.1 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press
6.2.1 General	Top Management; employees, clients, suppliers, press, competitors, shareholders, community, unions	4.4.2 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press, unions	4.4.2 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press, family	3.4.1 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press
6.2.2 Competence, training and awareness	Top Management; employees, clients, suppliers, press, competitors, shareholders, community, unions	4.4.2 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press, unions	4.4.2 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press, family	3.4.1 Competence, training and awareness	Top Management; clients, government, shareholders, employees, competitors, regulatory agencies, community, press
6.3 Infrastructure	Top Management, employees, clients, government; competitors, shareholders	4.4 Implementation and operation	Top Management, employees, clients, suppliers; regulatory agencies; community; government, press, competitors, shareholders, unions.	4.4 Implementation and operation	Top Management, employee, regulatory agencies, family, government, unions	3.4 Implementation and operation	
6.4 Work environment	Top Management, employees, government, shareholders, unions						
7 Product realization	Top Management, employees, clients, supplies, competitors, government, shareholders	4.4 Implementation and operation	Top Management, employees, clients, supplies, press, competitors, government, shareholders, regulatory agencies, unions	4.4 Implementation and operation	Top Management, employees, regulatory agencies, family, government, shareholders, unions	3.4 Implementation and operation	Top Management, employees, clients, supplies, community, government, press, competitors, United Nations, shareholders, unions, regulatory agencies.
7.1 Planning of product realization	Top Management, employees, clients, supplies, competitors, government, shareholders.	4.4.6 Operational control	Top Management, employees, clients, supplies, regulatory agencies, community, government, press, competitors, shareholders, unions.	4.4.6 Operational control	Top Management, employees, regulatory agencies, family, government, shareholders, unions	3.4 Implementation and operation	Top Management, employees, clients, supplies, community, government, press, competitors, United Nations, shareholders, unions, regulatory agencies.

Table 3: Stakeholders interested in Policy Management Statement

QMS Policy	EMS Policy	S&OH Policy	SR Policy
QMS Stakeholders	**EMS Stakeholders**	**S&OH Stakeholders**	**SR Stakeholders**
Top Management, employees, clients, suppliers, press, competition, government, shareholders, regulatory agencies, unions.	Top Management, employees, clients, suppliers, press, competition, government, shareholders, regulatory agencies, unions, non-governmental organizations, community.	Top Management, employees, clients, suppliers, press, competition, government, shareholders, regulatory agencies, unions, non-governmental organizations, community, families.	Top Management, employees, clients, suppliers, press, competition, government, shareholders, regulatory agencies, unions, non-governmental organizations, community, families, ONU.
Stakeholders interested in Integrated Policy			
Top Management, employees, clients, suppliers, press, completion, government, shareholders, regulatory agencies, unions, non-governmental organizations; families, ONU.			

Analyzing the Table 3 is clear to verify that is much more easier to manage the group of stakeholders identified in this example using the integrated view, instead of manage the same group of stakeholders interested in the organizational policies singly.

4. Constructing the argument

Asif et al. [9] declare that an IMS helps the organization to manage the stakeholders requirements in a coordinated way in order to "build" the organizational processes, but it is important to check if the stakeholders requirements do not conflict among them.

Targeta et al. [23] agree that many organizations only apply the requirements described in standards focusing on meeting the stakeholder's expectations, mainly the clients. Targeta et al. [23] alert that each client has different requirements with different levels of intensities and conclude that requirements described in Quality, Environmental, Safety and Occupational Health and Social Responsibility Management Systems are not inductors to excellence.

By the other side, many organizations worldwide have already recognized the value in constructing good relationship with stakeholders. According to Rocha and Goldschmidt [13], Bourne [15], Svendsen [21] and Porter [24] this behavior is a simple way to achieve the competitive advantage.

Porter [24] and Freeman [25] agree that the stakeholder management obliges the organizations to make a collection of stakeholders and keep a close relationship with them. After that, the organization started to manage stakeholders focusing on extracting their real needs and expectations. Asif et al. [11] declare that modern organizational practices require that all stakeholders must be considered during the planning, design and implementation of business processes, and a great difficulty that organizations have facing nowadays is to recognize multiple stakeholders and that each of them has different expectations.

Borne [15] and Svendsen [21] declare that the success of the organization in satisfying all stakeholders is in ability to translate the needs and expectations identified, turning them into requirements for their processes. However, Freeman [25] reinforce the importance of having effective means to measure the satisfaction of stakeholders, because these practices are essentials for the organizations' survival. Bryson (2004) *apud* Freeman [25] emphasizes the importance of making a continuous stakeholder analysis, because their needs and expectations can change over time. It can be necessary adjustments according to changing in stakeholders expectations. However, Rocha and Goldschmidt [13] defend the importance of the organization always seeks overcome and anticipates the stakeholder needs. The proposal for a new concept of integrated management system takes into account the organizational capacity to manage, using an integrated approach.

The fact of the organizations are implementing the requirements described in standards does not ensure that these organizations are really concern about complying with stakeholders needs and expectations, because the requirements described in standards are the minimum that the organizations must meet and hardly the organizations will endeavor to do beyond what is explicitly described in the standards.

An aspect to be reinforced is that during an audit processes, the majority of organizations focus on the achievement of the minimum requirements described in standards, not trying to expand deeply their view into their stakeholders when building their management systems. The strategy used by the majority of the organizations is to

assure their accreditation, meeting the minimum requirements, and sell products and services with a quality seal.

5. Definition of an integrated management system as stakeholder integrated management requirements

Based on the ideas presented above, it proposes the following definition for Integrated Management System approach to Stakeholders Management (IMS$_{STK}$):

Integrated Management System (IMS$_{STK}$) of an organization is a system composed by processes in a structured and strategic way, focuses on the management of its stakeholders (internal and external) in order to translate their needs and expectations into requirements, transforming these requirements into entries of its processes, providing products and services aimed at the satisfaction of its stakeholders, and may even overcame it.

The organizations must be able to analyze their position in the market, the worldwide socioeconomic scenario and to interact with their stakeholders and potential stakeholders. According to Juran [26], the organizations must map their processes. In this paper, the idea is to map processes in an integrated way, so the organizational planning, monitoring, verification and taking correction actions will be integrated too.

In a globalized world scenario, where who can see farther is able to remain in the market and attract more customers, Rocha and Goldschmidt [13] explain that the strategic planning focusing on stakeholder management can be an indispensable tool within organizations. Moreover, Porter [24] had already affirmed in 1985 that a strategic mapping permit to visualize all competitors in the organizational scenario.

Based on this new definition, it can be stated that is not necessary to be accredited in standardized management systems to achieve the excellence in terms of management. The organizations can be able to translate the requirements of their stakeholders into organizational processes' entries, where the output of these processes has to be products and services that meet the stakeholder's expectations.

6. Conclusions

This paper explain that using the stakeholder management approach, the organization can build an integrated management system based on stakeholders requirements to complement those ones described in standardized management systems.

Targeta et al. [23] showed that the accreditation processes is not enough to assure the stakeholders' satisfaction, while Gianni and Gotzamani [8] affirm that there are organizations abandoning their integrated management systems because a critical analysis was not performed in order to determine if the standards chosen were aligned with organization business, or if the standards were chosen only to follow a market trend.

The new concept proposed in this paper helps the organization not to commit this kind of mistake, motivating them to make a planning and to define the IMS scope prior, taking into account the way they are insert into the market. This point forward, the organizations can identify their relevant stakeholders and consequently implement the

integrated management of those requirements identified, not limiting only to integration of requirements established in standardized systems.

In general, the new definition proposed in this paper enables a comprehensive view of the management processes inside the organizations, making the management system most adherent to any new imposition that may arise in the future. Additionally, organizations can achieve the excellence faster in relation to their competition, ensuring its competitive advantage.

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