

Integrated Management Systems – advantages, problems and possibilities

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Summary

Effective management in the globalized world requires an effective, efficient and flexible management system. Effective could be interpreted as addressing all relevant stakeholder concerns in a context of Corporate Social Responsibility (CSR). Efficient would mean that it does the job with low resource use. Flexibility requires that changed conditions and new requirements easily can be included. Many organizations are already working with Integrated Management Systems (IMS). Interesting questions are to what extent current integration covers the above mentioned needs and if not what changes are needed. This conceptual paper looks at the advantages and problems of integration. Possibilities for development of fully integrated management systems are studied from the perspective of managing stakeholder needs, with the forthcoming ISO 26000 – “Guidance on social responsibility”, as inspiration. Results show that there are advantages in integration, but that the scope and level of integration often is limited. A conceptual model for integrating all stakeholder needs in value networks is presented.

Introduction

Globalization and increased focus on Sustainable Development (SD) bring in new stakeholders and stakeholder needs that companies need to consider. In today’s world with good communications and ever increasing transparency, mismanagement of a seemingly unimportant stakeholder could lead to serious brand damage. Corporations are in many cases obliged to be engaged in SD from purely economic reasons. Corporate Social Responsibility (CSR) can be seen as SD for organisations. Often the Triple Bottom Line (TBL), based on the dimensions of economy, environment and social responsibility, is used as a model to look at corporate performance within CSR. In the context of organizational performance from a sustainability perspective, stakeholder oriented management could be one way to describe requirements. In this work the draft ISO 26000 standard on CSR could be of help. Maximising stakeholder value in the long perspective, while maintaining a balance between the interests of all stakeholders – “stakeholdercracy”, is crucial for best process performance, (Garvare & Isaksson, 2001). Integration would among other things require that the general business management system forms part of the integrated system and could also prove to be a sustainable path for balancing between stakeholder interests. The issue of how to integrate and to what extent has been covered in previous research by e.g. Bernardo et al. (2009), Karapetrovic and Casadesús (2009), Karapetrovic (2002) and Wilkinson & Dale (1999). However, most of the research seems to deal only with a limited scope when compared with the needs of all relevant stakeholders. According to the ISO survey (2008) approximately 983 thousand organizations were certified according to the ISO 9001:2000 standard and 189 thousand organizations to the 14001:2004 standard. As many organizations today are dealing with several different management standards and corresponding management systems, integration of such systems tend to become more and more common. As stated by Zutshi & Sohal (2005), it is imperative to integrate individual management systems to one system in order to achieve full realization of the potential benefits of each individual system.

Other standards of interest for integration are OHSAS 18001:2007 Occupational Health and Safety Management, ISO/IEC 27001:2005 Information technology – Security management systems – Requirements, SA8000 Social accountability, AA1000 AccountAbility and special branch standards.

This conceptual paper looks at the advantages and problems of integration based on a literature study with focus on scope and integration of common IMS. Based on stakeholder needs analysis, using the ISO/DIS 26000 as a starting point, we study what would be required of an IMS.

Integrated Management Systems

At first sight the expression - Integrated Management System (IMS) - does not seem to need any further definition. However, since it is apparent that integration does not necessarily mean integration of all systems and that it could mean different levels of co-ordination, some elucidation seems to be needed. Additionally the extent of IMS use could vary with it covering only certain parts of the organisation or the entire organisation.

Main questions discussed within the IMS discourse are integration or stand alone, the level of integration, scope (type of management systems included), extent (parts of the organisation or supply network that are included), the context, implementation and its sequence, see e.g. Hansson & al. (2006), Karapetrovic & Casadesús (2009) and Asif & al. (2008).

Scope of integration

In this paper, focus is on discussing the benefits with integration, scope, extent and level of integration. Scope refers to the extent that different management systems are included. Most of the work done is focused on integration of quality, environment and health management systems, but to some extent also including CSR (Asif & al. 2008). There are many definitions of what CSR is, but one way of looking at it is to see it as the SD of corporations and organisations. The background to this is that not only nations but also companies need to take their responsibility to save the planet. Market pressure is such that in many cases companies feel obliged to start issuing sustainability reports. The Global Reporting Initiative (GRI) guidelines have become one of the most common ways of reporting performance within the context of SD and CSR, (GRI, 2006). Reporting based on GRI follows the Triple Bottom Line of economy, environment and social responsibility even if social indicators are split in four parts. The ISO 26000 standard “Guidance on social responsibility”, is supposed to be launched during 2010. The ISO/DIS 26000 states that social responsibility is closely linked to sustainable development and that stakeholder identification and engagement are central to addressing an organisation’s social responsibility. The ISO/DIS 26000 interpretation of stakeholders is wide and includes all that could be affected whether or not the parties are aware of it. This could indicate that organisations in the future need to manage all stakeholder needs, considering all risks and opportunities. If all stakeholder needs have to be managed, then the scope of the IMS should include all management systems as indicated by Jørgensen et al. (2006). By defining IMS as including all stakeholder needs in the supply network from first supplier to last customer it should be possible to propose a conceptual framework that presents a possibility for full management system integration. This can then be used to compare with the actual scope to identify missing areas and possible problems. This does not mean that all organisations need to worry about all different systems, not at least at a level of certification. The ideal scope could be dictated by a stakeholder aspects (risks and opportunities) analyses.

Even if integration often is mentioned as being successful there is a problem in that not all management systems are part of the integration. The most important management system, that dealing with the general management of the organisation, seems mostly to be excluded. Jørgensen et al. (2006) Propose “Economy” for what is interpreted as business management. We will in this paper use Economy to describe the often non documented practises used to chase the monthly and quarterly results. These practises often have first priority and risk overshadowing other process dimensions such as quality, environment and even safety. Different companies have different management practises for defining mission, vision, strategies including preparing budgets, controlling and motivating performance. These practises existed long before ISO 9001 and ISO 14001. That is the management system in practise often has been inherited with the culture of the organisation and to the extent it is formalised this is company internal without reference to any general standard. In most cases occupational safety was also systematically managed when ISO systems entered the arena. However, this part has been included via the OHSAS 18001. Often quality, environment and occupational safety form the core of an IMS. It seems that there has not been any real tentative to integrate Economy into the ISO system. This is the case in spite of the huge impact that the Economy management system practises have on management of all the other systems. The budget is an example of a methodology based on Management by Objectives and forms a central part in most economic management systems. There is a multitude of examples where a bad and biased guess (wishful budget) is used as the guideline often resulting in obvious sub-optimization. In spite of this, there is a common acceptance of the yearly budget as the way to go. The question is how often there is any management review asking if this really is how the system should be controlled. It could be argued that good management requires that an organisation is managed as one entity with one management system and that consequently Economy management should be included in the IMS. It could be argued that this is part of what Wilkinson & Dale (2001) call the Total Quality approach. It should be possible to use a common structure of policy, objectives, control routines, follow up and improvement also for general management.

Level of integration

The level of integration describes to what extent the different systems have become one and range from a low level with some co-ordination to full amalgamation. In Bernardo et al. (2009), a four level model (0-4) is presented, outlining eight different studies and their degrees of integration. Karapetrovic (2002) presents three possible levels of integration. The first level concerns documentation integration, i.e. a common manual with specific procedures that the different areas in the IMS require. The second level concerns the alignment of core processes, objectives and resources, i.e. to streamline the use of core processes by “integrating planning, design, implementation and other activities vertically across management systems”. The third level concerns the creation of an “all-in-one system”, i.e. a universal system that handles all previous systems in the organization. For further discussion concerning possible integration levels, see Karapetrovic (2002). Hansson & Eriksson (2005) present some factors that influence the choice of ‘integration level’: organizational characteristics, such as, size, hierarchical structure, maturity concerning IMS constituents and prevailing cultural aspects, e.g. willingness to continuously improve and management involvement, organization’s context, such as, number of stakeholders, their requirements regarding compliance to system standards, and business norms concerning different aspects, e.g. quality and environment, number and maturity of existing management systems.

The level of integration should increase when applying a process perspective where every process is managed as one entity. Asif et al. (2008) propose a process-based design for IMS the PEDIMS. This would probably require a certain level of process maturity in the

organisation. Still, as a possible extreme case of amalgamation we could try to visualise the organisation as a process based system, (Isaksson & Garvare, 2003; Isaksson, 2006). The level of integration seems to be coupled to the type and culture in the organisation. What independency and freedom does the lower management or a subsidiary have to decide on the level of management systems? In most cases this would be decided and governed by the top management in the organisation.

Extent of integration

The extent of integration refers to what extent the IMS has been deployed in the organisation. It could be applied for a part of the organisation, the entire organisation or even for the entire supply chain. The extent of integration could be defined by the different stakeholder needs that must be managed. A multinational company with suppliers and customers placed globally has to count with being constantly monitored by watchdogs. There are several examples of companies suffering criticism when socially unacceptable suppliers have been used. Examples are such as IKEA buying rugs, some of which proved to be manufactured by child labour. Companies could be taken to task for the errors committed by some distant supplier. This puts pressure on companies to monitor process in the upstream part of the supply chain. Fair trade organisations bring hitherto unknown stakeholders into the limelight. Examples of requirements, on monitoring where products end, in what condition and to what price also exist. Prahalad (2006) argues that there is a huge fortune waiting in servicing the poor customers at the end of the supply chain and that this also can count as doing good. This would be to live up to required business ethics of making best use of resources. In the context of SD as based on the Brundtland definition of SD we are asked to manage resources in such a way that we do not impair the possibility of future generations to satisfy their needs (WCED 1987). This means that the future generations as customers, society and employees also are stakeholders. For the organisation aspiring to take the moral high ground this means that strategic planning as part of the IMS should include a much longer time perspective compared to standard practise. It is not too farfetched to assume that large companies will be taken to task for what happens in the entire supply chain, they are after all stakeholders. With improved information availability all companies working globally would have to monitor aspects in the supply chain or supply network. This suggests an increased extent for the IMS.

Benefits from integration

Several studies indicate that integration is becoming more common than stand-alone systems, see e.g. Bernado et al. (2009) and Karapetrovic & Casadesús (2009). Many of the organizations that are certified according to multiple types of standards have, according to these studies, established integrated management systems. The research performed within this field indicates potential benefits of using an integrated approach, see e.g. Miles & Russel (1997), Wilkinson & Dale (1999), Lundh (2002), Ofori et al. (2002), Berg et al. (2003) Karapetrovic (2003), Zutshi & Sohal (2005). Increased efficiency, possibility to link quality related and environmental related aspects with ethics and organizational profitability, and the possibility to develop management systems better matching stakeholder interests are some reasons for integrating. The general impression from studies carried out is that there are more benefits than downsides and problems when management systems are integrated, Karapetrovic (2002). From the studied literature we have noted that some important benefits from IMS are the use of process approach, the use of the PDSA approach, integrated audits and common documentations system with common structure of routines.

Synopsis of IMS advantages and problems

Integration has advantages such as standardisation, effective support of processes, using resources optimally, reducing sub-optimization and minimising problems with

communication between different areas. Even if these advantages are only mentioned for a limited scope of system integration it could be assumed that this conclusion also applies when increasing the scope.

Level of integration towards better process control also has advantages in the organisation aspiring for total quality and business excellence.

It could be argued that the word integration means integration of all management systems, but since it is not being used in this way we could instead define a fully integrated management system as one that includes management of all relevant stakeholder needs including all suppliers, customers and other interested parties in the supply network.

An effective management system (one that does the right thing) should deal with all relevant aspects, e.g. CSR, economy etc. while an efficient management (doing the thing right) system does this with little use of resources by being integrated and focused on identified aspects including both risks and opportunities. A flexible management system should easily adapt to new requirements without losing effectiveness or efficiency. A fully integrated management system should have identified all relevant stakeholders and how their requirements could be balanced. This could be based on an assessment of the most important stakeholder aspects. The system should be as simple as possible in order to stay effective, efficient and flexible.

Logically the extent of a management system should be related to risks for different dimensions such as quality, environment, safety etc. The risks on a lawyer's practice, a mine and a university would be different and require different focus. Additionally critical success factors and opportunities should have been identified in the different processes. Therefore, it could be argued that an effective integrated management system starts with a (process based) integrated analysis of aspects (risks & opportunities), which can be done in several iterations with more focus on those presenting more important aspects. By integrating the right things in a minimal system the IMS is done in the right way. The system should also be adaptable and flexible so that it can integrate new dimensions if needed.

Our conclusion is that the full IMS should have a *scope* including all relevant stakeholder needs and it should have a high *level* of system integration - amalgamation. The system should have an *extent* that monitors the entire supply chain from first supplier to last customer and should also monitor all other stakeholders in what could be called the supply network. The system should therefore have an effective and efficient process of monitoring stakeholder aspects that put requirements on activities in the IMS.

Who are the stakeholders to consider?

Stakeholders are here defined as all those affecting or being affected by the organization including future generations and nature. Examples of stakeholders are owners, employees, suppliers, customers, users, banks, neighbours, municipalities, governments, authorities, etc. Some of the stakeholder needs are dealt with using standardised management systems. Other needs are taken up by different general practises. Examples of these are:

- Customers – ISO 9000
- Customers/owners/general public – food safety management – ISO 22000
- Nature, resources and environment – ISO 14000
- Global responsibility for man and nature – Global Compact; OECD rules; GRI reporting
- Communities generally and in places of operation specially – CSR/ISO 26000/SA8000

- Customers/owners economic safety/transparency – Sarbanes-Oxley; AA1000 Standards Governance
- Customers/owners/general public – anti corruption – Transparency International
- Company economic control – Financial and economic performance management system
- Intellectual knowledge/personnel and customer integrity – ISO 27000

Isaksson & Garvare (2003) propose that processes at all levels, starting from a global level, could be managed using the three dimensions of Economy, Environment and Ethics and that the types of measurements could be divided into drivers, input, output, outcome and enablers. Outcome is defined as stakeholder satisfaction. Ideas for identifying different stakeholders and their needs and how to manage them can be done using the ISO/DIS 26000 standard. With identified outcomes it should be possible to translate these to output indicators to be monitored for the chosen process level.

ISO/DIS 26000 – focus on stakeholder needs

Future challenges will be to integrate all requirements in one system. The draft international standard ISO/DIS 26000 – Guidance on social responsibility – could be used to identify possible stakeholders.

When describing the history of social responsibility the ISO/DIS 26000 writes that: *“The view that social responsibility is applicable to all organizations emerged as different types or organizations, not just those in the business world, recognised that they too had responsibilities for contributing to sustainable development.”*

Even if it in the scope of ISO/DIS 26000 is written that it is not a management system its content is closely related to management. This can be noted in the “seven principles of social responsibility” (accountability, transparency, ethical behaviour, respect for stakeholders, respect for the rule of law, respect for international norms of behaviour, respect for human rights). The scope of ISO/DIS 26000 is considerably wider than for other conventional management systems such as quality and environment. The six core areas of: Human rights, labour practices, the environment, fair operating practices, consumer issues, community involvement and development which are dealt under organizational governance are also dealt with in a wider perspective. ISO/DIS 26000 states that it should not be seen as contradictory to existing standard or guidelines and also includes a chapter for integrating social responsibility throughout an organization. The structure of ISO/DIS 26000 seems to support our approach of building an IMS based on the identification of stakeholder aspects and that these aspects could be used to decide and prioritize level, scope and extent of integration.

There are two trends supporting that future management systems will be integrated into one common management system. Firstly, ISO is creating a common structure for all standards describing management system with a similar chapter structure, and similar texts for some of the general requirements. Secondly, ISO/DIS 26000 has a clear statement in Chapter 7.1, which says, that the implementation can be both an IMS and a stand-alone system. IMS, however, are singled out as the most common. *“In most cases, organizations can build on existing systems, policies, structures and networks of the organisation to put social responsibility into practice, although some activities are likely to be conducted in new ways, or with consideration for a broader range of factors.”* Chapter 7.4 deals with the introduction of ISO/DIS 26000 in the organization. Under 7.4.1 Building social responsibility into an organization’s systems and procedures it is stated: *“An important and effective means of integrating social responsibility throughout the organization is through the organization’s*

governance, the system by which its decisions are made and implemented in pursuit of its objectives.” This is followed by more detailed instruction such as: “Some useful procedures may include applying established management practices to addressing the organization's social responsibility;”

It seems reasonable to assume that ISO in the future will promote an IMS and that the further improvements of the management standards will support this. The time frame is long due to the fact that the minimum renewal frequency of new standard versions is 5 years with a more common frequency being that of 7-10 years.

A management system does not have to follow a standard. Hellsten & Klefsjö propose a definition for a management system as consisting of values, methodologies and tools, (Bergman & Klefsjö, 2003). We could for example fit GRI into such a system. As an example GRI defines a range of values with some of the most important being transparency and accountability. To use the guidelines as part of the organization management could be seen as a methodology supporting the values and the system of indicators itself could be seen as a tool. The Annex A of the ISO/DIS 26000 identifies some 40 examples of cross-sectoral initiatives related to social responsibility. Examples are such as AA1000, EFQM framework for CSR, GRI, Transparency International and World Business Council for Sustainable Development. Additionally the annex identifies some 30 sectoral initiatives being such as Better Sugarcane Initiative, Fairtrade Labelling Organizations International, Principles for Responsible Investments and the Marine Stewardship Council.

For an organisation it should be possible to use the information from the Annex A above to identify stakeholders and stakeholder needs as a first step to identify aspects that need to be managed.

A proposal for a fully Integrated Management System

With a base in a stakeholder view, we could argue that there is need to manage all issues related to stakeholders. This could as a start be presented as a matrix where stakeholders and their needs are schematically presented, see Figure 1. The results in Figure 1 are only indicative of a methodology with some generic stakeholders. For any process, organisation or supply network the stakeholder and stakeholder needs analysis would be different. Customer and user could be different where the customer is the direct customer for the company and the user is the end user or final customer in the supply chain. In this interpretation accountability and ethical behaviour are identified as having the largest number of stakeholders. In many cases it is argued that nature is not a stakeholder since it cannot speak for itself. Based on this reasoning nature would only be a stakeholder when represented by somebody like for example Greenpeace. However, based on the ISO/DIS 26000 that makes the point that as soon as there is effect there is a stakeholder relationship, whether known or not known, we propose nature as a stakeholder. It is obvious that when looking at aspects we should include risks and opportunities for nature.

To show the connection to existing standards, guidelines and legal demands we need a second matrix, see Figure 2. The relationship in the matrix is not on or off so the matrix could be interpreted differently by different organizations. The matrix indicates that managing all stakeholder needs in one single system is a challenge. Our proposal is that organizations need to identify their stakeholders and the stakeholders' needs. These needs have to be fulfilled in an effective way by prioritizing and using existing standard and guidelines to build the IMS.

Stakeholders	Stakeholders needs	Accountability	Transparency	Ethical behaviour	Economy	Safety and health	Quality	Environment	Job security
Owner					x				
Employees						x			x
Supplier		x	x	x					
Customer		x		x			x	x	
User		x					x		
Neighbours				x				x	
Municipalities		x	x	x	x			x	x
Government		x	x	x	x	x		x	x
Authority		x	x	x		x		x	
Nature		x	x	x				x	

Figure 1. Stakeholders and stakeholder's needs matrix. Relations proposed by the authors.

In our interpretation in Figure 2 the needs of Economy are not covered by any of the existing management systems.

Needs	Accountability	Transparency	Ethical behaviour	Economy	Safety and health	Quality	Environment	Job security
Accountability	x		x			x		
Transparency	x				x		x	
Ethical behaviour	x					x		x
Economy								
Health and Safety	x	x		x				
Quality		x						
Environment	x		x					
Job security	x							

Figure 2. Stakeholder needs and standards matrix. Relations proposed by the authors.

Starting from the most commonly used management systems ISO 9001 and ISO 14001 we could identify main elements in a generic management system, see proposal in Table I.

This proposal is for an existing system and does not include the introduction of the system but only tries to identify the main system components.

Table 1. Proposed elements for a generic management system.

Element	Description	Comments
Policy	Based on stakeholder needs	Stakeholder and stakeholder needs should be continuously monitored to revise policy if needed. Included in ISO 9001 and 14001.
Planning	Mission, vision, process, product identified, which permits an aspect analysis that identifies main KPIs	Main element based on ISO 14001. Mission and vision guided by policy. Processes defined with main indicators and targets that correlate with stakeholder satisfaction in a balanced way.
Management and control	Responsibility, authority and control routines	Control on all levels including management review
Improvement	Continuous and breakthrough improvement	Routines for how follow up at different levels is acted upon

The proposal in Table 1 could be related to business excellence models in the following way using the approach-deployment-results-improvement logic. The elements in Table 1 describe the approach. Deployment would be studied in the different processes, the entire organization and the supply network. The benchmark looking at level, scope and extent would be set based on a critical aspects analysis. That is the benchmark would be different for different organizations. The level of integration should follow the general level of process orientation. It would be hard to argue for a fully amalgamated process solution in a fully functional organization. The scope would ideally cover all process dimensions at least in the form of a check. If some process dimensions are found to have weak or no aspects then the part of that dimension in the IMS would be small, even as a benchmark. This could for example indicate that no certification is needed but only the management of main aspects. Similarly the extent would be guided by the strength of the aspects. In Figure 3 a schematic presentation of level, scope and extent for two organisations.

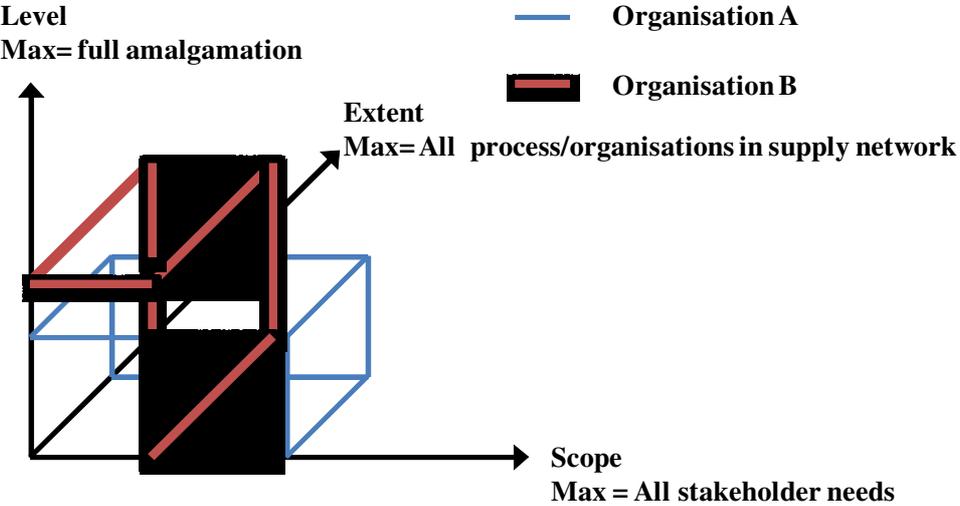


Figure 3. Proposed visualisation of an IMS with level, extent and scope.

Results would be monitored by studying the outcome compared with output for KPIs. The first thing is to see that KPIs are on target and the second thing is to assure that output KPIs correlate with outcome KPIs representing stakeholder satisfaction. Improvement could be monitored using the KPIs and their development over time and relating that to the chosen improvement strategies and their costs.

Conclusions

Integrating management systems seems to have more benefits than disadvantages. Even though there are advantages in management system integration organizations still might chose to go for single dimension systems. Reasons for this could be a reactive way of management where systems are introduced due to external drivers. At the moment of introduction the level of knowledge could be insufficient to be able to assess the benefits of integration.

The scope of integration is often limited, which indicates that it is important to define what is meant by an IMS. We propose the following definition for a fully integrated management system: as one that includes management of all relevant stakeholder needs including all suppliers, customers and other interested parties in the supply network

To be regarded as a fully integrated IMS, mission, vision, policy, objectives, organisation and roles should be well understood and accepted by the organisation. Process and routines are set and managed in an effective and flexible manner including the routines for following up and improvements of the system.

The future requirement for managing all stakeholder concerns as exemplified in the ISO 26000 standard have still not been covered in literature on IMS. Generally the future scope of IMS most likely needs to be considerably expanded as a consequence of increased focus on social responsibility.

The extent of IMS integration could possibly be expressed using level, scope and extent as described in Figure 3.

Discussion

The ideas presented need to be tested within organisations to see whether the proposed concepts are practical. Issues of implementation and sequencing that have not been part of this research need to be studied. Another question for future research is if level, scope and extent are sufficient to describe an IMS. It could be argued that systems could also be seen to have different levels of formalisation. The lowest level of formalisation would be needed for an aspect that apparently does not need management. The highest could be seen as an aspect which needs to be an integral part of a certified management system. Another question is if certification corresponds to maximum formalisation, or if more is required for achieving process excellence. Using quality management as an example the ISO 9001 certification can only be seen as a first step towards Quality and Business Excellence as for example defined by MBNQA and EFQM. The level of formalisation has an important effect on the resource requirements for managing the IMS. If all aspects irrespectively of importance are included in a certified management system, this could become more complex and resource demanding than what would be necessary. Identifying aspects in the form of risks and opportunities is yet another area of future interest. In its simplest form this could be done based on a process view applying the methodology of a process walk either as an office or real life activity to spot important stakeholders and stakeholder aspects.

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