An Analysis of the Main Drivers for ISO 9001 and other Isomorphic Metastandards¹

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Abstract

Research on the adoption of metastandards (e.g. ISO 9001, ISO 14001, OHSAS 18001, SA 8000) has used a variety of theoretical perspectives to identify the main driving forces or motivations. While the majority of existing studies on this subject are of an empirical character with little development of a theoretical framework, there are nonetheless a certain number of noteworthy studies undertaken in the context of a clear and consistent conceptual and theoretical framework, on the basis of which various working hypotheses may be assessed and compared. In this article the main theoretical perspectives for the analysis of the motivations for the adoption of metastandards are reviewed. Furthermore, a short review of the empirical literature dealing with the drivers for ISO 9001, the most promiment metastandard, is carried out, in order to shed light on this issue for both the researchers and practitioners interested in this management tool.

Keywords: International standards, standardization, metastandards, ISO 9001, motivations

JEL classification: M19, M21

Introduction

By late 2008, over 980,000 ISO 9000 certificates had been authorized in a total of 176 countries all over the world (ISO, 2009). China is the country with the largest number of certificates in the world (having a total of 224,616 by the end of 2008), followed by Italy (with 118,309), Spain (68,730) and Japan (62,746). In the

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EU-27, special mention should also be made of the performance of some of the countries that have more recently joined the Union, which have attracted considerable investment in industrial production and have been experiencing growth levels way above the average for EU-27 countries in terms of the number of ISO 9001 certificates issued (Heras, Arana and Molina, 2008).

ISO 9001 is arguably the most influential single metastandard that there has been to date (Braun, 2005). Following on from the proposal put forward by Professor Uzumeri (1997), in specialist literature on the subject metastandards are defined as *"lists of design rules to guide the creation of entire classes of management systems. Since systems theorists use the term metasystem for lists of this type, it follows that this type of management standard should be referred to as a metastandard".* Corbett and Yeung (2008, pp. 1-2) use the term *metastandard "loosely to refer to standards that apply to broad processes (rather than individual products) and to entire families of such process standards".*

It must be made clear that the ISO 9000 standards are not standards that refer to compliance with an objective or with a particular result, i.e., they are not performance standards that measure the quality of companies' products or services, but rather standards that establish the need to systematize and formalize a whole series of company processes into a series of procedures, and to document this implementation. ISO 9000 standardizes procedures, duties, and roles, rather than goals or outcomes (Braun, 2005). In short, compliance with ISO 9000 - a fact which is certified by an organism accredited for this purpose - means having documentation to show the implementation of a quality management system which includes in standardized and documented procedures the basic processes used to produce the product or service which the customer acquires. These standards are a management tool based on the systematization and formalization of tasks in order to achieve product homogeneity and to conform to the specifications established by the customer (Anderson, Daly and Johnson, 1999). In other words, as one manager summarized to Cole (1999), "document what you do, do what you document, and verify that you are doing it". Such a clarification is, in our opinion, especially pertinent, since there have been major misunderstandings in this respect on numerous occasions in the past, and in a variety of different fields.

It should also be stated that the implementation of this type of standard is voluntary, although in certain sectors it seems that their application constitutes a *de facto* obligation. In this way (and as will be examined subsequently below), in those studies in which an analysis has been made of companies' motivations for obtaining certification, considerable emphasis has been accorded to the "prescriptive" role played by large companies in the construction, automotive, energy and telecommunications sectors. The latter saw in the ISO 9000 standards a way of ensuring a certain level of quality from their suppliers and subcontractors, in the sense of obtaining a certain systematization and formalization of the key processes utilized by such companies to comply with the requirements that the larger companies had established, but without increasing their operational costs.

The objective of this article is to review and analyze the main theoretical perspectives for the analysis of the motivations for the adoption of ISO 9001 and

other similar metastandards, as well as the empirical literature dealing with the drivers for ISO 9001. For that purpose, the remainder of this paper is arranged as follows. Following this introduction, the motivations for metstandards are analyzed from a theoretical perspective, involving a review of the academic literature published thus far on this issue. From this review, the main classifications of the motivating forces are resumed in the third section. In the following one a review of the empirical literature on the drivers for ISO 9001 is presented. Lastly, the conclusions of the article are synthesized.

1. Motivations for the adoption of metastandards: main theoretical perspectives

In short, it can be said that there are two main theoretical approaches to this issue. From one perspective, it is suggested that metastandards are adopted due to pressures of an external nature. Although there are many theories that define and classify the external factors that make companies behave in a similar way in reaction to external pressure, the theoretical model established by the institutional and the neoinstitutional theory (Meyer and Rowan, 1977; Powell and DiMaggio, 1991; Scott 1995) is perhaps the most prominent one. This is the theoretical perspective most frequently employed in studies in which an attempt has been made to investigate the motivational aspect of the implementation and certification of metastandards (e.g., Christmann and Taylor, 2001; Delmas, 2002; Corbett and Kirsch, 2001; Guler, Guillén and Macpherson, 2002; Heras, Arana and Molina, 2009).

This theory suggests that external pressures shape organizational action. One of the most central ideas of this theory is that human and organizational behaviour is not simply modelled as rational and utility-maximizing, but rather as bound by rules, conventions and common values as well as oriented towards legitimacy in an environment of uncertainty (Braun, 2005). In the institutionalist's world individuals and organizations take at least some things for granted without questioning them or constantly looking for alternatives in their search for efficiency. The new institutionalism in organizational analysis argues that adoption and implementation of organizational ideas and practices takes place in an institutionalized social and cultural context, which is distinct from the corresponding technical context (DiMaggio and Powell 1991; Scott, 1995). Conformity to institutional norms creates structural similarities or isomorphism across organizations. As a result, management practices, for example, can become more and more alike or even "standardized" (Braun, 2005).

In their seminal work Powell and DiMaggio (1991) maintain that there are three types of external pressure that lead organizations towards isomorphism or homogeneity: coercive, mimetic and regulatory pressure²:

² Other followers of this line of theory maintain that these processes can be divided into coercive, normative, and cognitive mechanisms leading to organizational isomorphism (Guler *et al.*, 2000; Mendel 2000; Scott 1995; Werle 1999).

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- Coercive pressure consists of external formal and informal pressure exerted by powerful external institutions that can influence companies' behaviour, such as the local public administration, customers and suppliers or, on another level, the social or cultural expectations of any given place. As far as metastandards are concerned, fundamental coercive pressure has been exercised by government authorities and multinational corporations (Guler, Guillén and Macpherson, 2002; Neumayer and Perkins, 2005; Braun, 2005).
- Mimetic pressure refers to a change in companies' patterns of behaviour undertaken so as to model themselves on other organizations which they take as points of reference. It stems from a lack of understating of management technologies such as metastandards, ambiguous goals and environmental uncertainty and results in organizations modelling themselves on and imitating other organizations (Balzarova and Castka, 2008, pp. 1949-1957). This practice, also called appropriation isomorphism and organizational mimetic behaviour, is more noticeable in institutional sectors where uncertainty regarding the effectiveness of organizational models is high. In these situations some models usually emerge as more effective than others (Vasconcelos and Vasconcelos, 2003, pp.173-194).
- Regulatory or normative pressure is related to professionalism and to \geq factors of a psycho-emotional nature, which are the fruits of the influence of networks such as industrial associations or of educational training processes. For several authors normative isomorphism also occurs when an accreditation organism has the right to evaluate and inspect other organizations, granting the use of a seal or label that certifies that the authorized organization follows the processes prescribed by the authorizer, and certificates such as ISO 9000 and ISO 14001 fall into this category (Guler, Guillén and Macpherson, 2002; Mendel, 2000; Vasconcelos and Vasconcelos, 2003). On the other hand, the regulatory pressure of ISO management standards is reflected in their perception as a "best practice" method of demonstrating careful and responsible management (Braun, 2005). Prominent carriers of these norms include regulatory agents, professional communities, and multinational companies (Mendel 2000; Braun, 2005). Government agents exert an influence not only through coercive mechanisms, but also by grants and subsidies, incentive programmes promoting "best practices", educational activities and prescription. In many developed countries such as Japan or Britain, government authorities have mounted national campaigns for ISO 9000 and ISO 14000 registrations (Braun, 2005). Professional and scientific communities have catalysed their diffusion by their acceptance and circulation of metastandards. Likewise, the growth of metastandards has fostered additional professional services occupations directly and related to

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implementation and certification activities, and as a result, as Braun (2005) underlines, the diffusion of management standards becomes increasingly self-supporting. Multinational companies also have the power to transfer management practices across national borders, since their organization cuts across national borders (Guler, Guillén and Macpherson, 2002).

The different considerations that may exist between this theoretical and analytical perspective and metastandards becomes even clearer (if possible) if it is borne in mind that for some followers of this theoretical line, another isomorphic process that organizations adopt is normalization (Vasconcelos and Vasconcelos, 2003, pp. 173-194). According to this interpretation of the new institutional theory, there is a general trend towards standardization because organizations seek support and legitimacy in their institutional fields by adopting structural models that are generally perceived to be the best available. In that way, entities like ISO are key players in defining the isomorphic properties of many institutional fields (Vasconcelos and Vasconcelos, 2003, pp. 173-194).

This analytical perspective of the motivation for the adoption of metastandards based on the neoinstitutional theory is criticized by academics who argue that organizations are dynamic and active and are able to respond in different ways according to their resources and capacities. These authors consider that the above approach falls down in that it considers organizations to be passive participants that respond to external pressures and expectations, and does not allow for heterogeneous organizational behaviour under isomorphic pressures (Yin and Schmeidler, 2008, pp. 469-486).

The alternative theory consequently focuses on explaining the sources of motivation that lead companies to implement metastandards from an internal perspective. These contributions take as their basis, among others, the resourcebased view of the company (Wernerfelt, 1984, pp. 171-180). This theory focuses on the internal organization of companies and suggests that business strategy and decisions such as whether or not to adopt a metastandard depend on a company's specific organizational resources. These may include factors such as the company's internal skills, which may constitute a source of sustainable competitive advantage. Some scholars, for instance, focus on highlighting the importance of the company's human resources, by considering, for example, management attitudes as factors that motivate companies to establish environmental courses of action, whereas others focus on other intangible aspects such as organizational resources. In the field of ISO 14001 environmental certification, for instance, a major point of reference has been the work of Hart (1995, pp. 986-1014), who suggests that proactive environmental management is in itself a potential internal strategic resource that may give companies a sustainable competitive advantage, especially in the case of companies that have certain noteworthy intangible ones.

Christmann and Taylor (2003, pp. 119-145) suggested that a company's existing skills may be important in determining its ability and willingness to implement metastandards. These authors concluded that companies that are

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characterized by a capacity for innovation, an ability to absorb new information thanks to an educated workforce, and a widespread involvement of employees in the implementation of an environmental management system are in a much better position to adopt strategies of environmental self-regulation such as the ISO 14001. Likewise, King and Lenox (2001) also found that a company's pool of skills affects the likelihood of its adoption of ISO 14001 in the United States. Some of the company features that they included in their study, such as commitment to research and development and ISO 9000 certification, were indicators of a company's pool of skills and both of these were found to contribute to ISO 14001 adoption.

Equally noteworthy for this line of research are those contributions which combine the two major theoretical approaches which have been presented above, i.e., those which are based on theoretical perspectives which combine, for example, the institutional theory with other approaches such as, for instance, the theory built around the resource-based view of companies (Darnall and Edwards, 2006; Christmann and Taylor, 2003; Braun, 2005; Castka and Balzarova, 2008; Yin and Schmeidler, 2008; Nair and Prajogo, 2009). In our opinion, the contribution along these lines made by Yin and Schmeidler (2008, pp. 469-486) deserves to be especially highlighted. These authors, basing themselves on the arguments of both the institutional theory and of the resource-based view, maintain that facilities may implement standardized management tools such as metastandards very differently even under isomorphic pressures, since companies interpret and implement externally induced management tools based on their own internal norms, resources and needs, which results in great heterogeneity in their implementation (Yin and Schmeidler, 2008, pp. 469-486).

2. Classifications of motivating forces

Other more pragmatic contributions have tried to establish a classification of the motivating forces that lead companies to implement and certify metastandards.

Jones *et al.* (1997) divided the motivations for ISO 9000 into three categories: "developmental", "non-developmental" and "mixed". The firms that belonged to the "developmental" category, were motivated by the internal benefits obtained from the certification process like the improvement of the "company's internal processes" or "business performances"- On the other hand, companies belonging to the "non-developmental" category were pushed towards certification by the market forces such as the explicit demand of main customers. Finally, the "mixed" category regrouped companies having both types of reasons.

Neumayer and Perkins (2005, pp. 237-259) highlight the fact that, broadly speaking, there are two sources of motivation that lead companies to implement this type of standard and to become certified in accordance with them: on the one hand, internal motivations related to efficiency (efficiency motives) – i.e., a desire to improve performance, productivity and profitability – and, on the other hand,

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external or institutional motives related to the social pressure exerted by different stakeholders for such management practices to be adopted by the company concerned.

Nair and Prajogo (2009, pp. 4545-4568), from the theoretical perspective of the resource-based view and the institutional theory, show that the adoption of ISO 9000 standards is affected by a functionalist impetus (internal motives that are aimed at enhancing the functional and process-based competence of organizations) and institutionalist driving forces (deriving from macro-institutional foundations).

On the other hand, focusing on the ISO 14001, Bansal and Roth (2000, pp. 717-736) draw a distinction between three types of motive that lead companies to implement the ISO 14001 standard: ethical, competitive and relational. Ethical motives are a response to feelings related to environmental responsibility, competitive motives arise from the search for competitive advantages, and relational motives emerge from the desire on the part of companies to become legitimized and to improve the relationship between the different interest groups in the company (stakeholders).

González-Benito and González-Benito (2005), distinguished between operational motivations, derived from the belief that it is possible to reduce costs and increase productivity, and commercial motivations, associated with the belief that it is possible to increase sales and improve market position.

3. Review of the empirical literature

In the empirical literature available there is no clear consensus among specialists as to identifying the main driving forces behind metastandards (see table 1).

Nevertheless, it would seem that there are several studies that stress the fact that it is sources of motivation of an internal nature that lead companies to implement and certificate ISO 9001. Reagrding the studies that stress the influence of the external factors, attention is drawn to the influence of customer pressure and demands or that of other interest groups, as well as questions related to the external image of the company or the influence of pressure exerted by branches of the public administration.

Among the sources of external pressure, all studies highlight the influence of coercive pressure on the part of customers in those sectors in which the degree of customer bargaining power is high (e.g., the pressure of major purchasers on the car industry).

					Table 1
Study	Country	Sample	Internal motivations	External motivations	Main motivations
Taylor (1995)	U.K	682	Х	Х	Customer pressures and quality improvement

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Study	Country	Sample	Internal motivations	External motivations	Main motivations
Hardjono et al. (1997)	E.U.	500		Х	Customer pressures
ISO 9000 Survey (1996)	Singapur	363		Х	Customer pressures
Carlsson and Carlsson (1996)	Sweden	114	Х		A way to TQM
Idris et al. (1996)	Malasia	247	Х		Quality improvement
Buttle (1997)	U.K	1.220	Х		Process improvement
Jones et al. (1997)	Australia	272		Х	Customer pressures
Nottingham Trent (1999)	U.K	5.000	Х		Improve efficiency
Leung et al. (1999)	Hong Kong	500		Х	Customer pressures
Lipovatz et al. (1999)	Greece	111		Х	Customer pressures
Huarng <i>et al.</i> (1999)	Taiwan	376	Х	Х	External image - Improve efficiency
Escanciano <i>et al.</i> (2001)	Spain	749	Х		Improve efficiency
Casadesús et al. (2001)	Spain	502		Х	Customer pressures
Singels et al. (2001)	Holand	192	Х		Improve competitiveness
Boulter and Bendell (2002)	U.K	1.066	Х	Х	External image - Improve efficiency
Martínez and Martínez (2002)	Spain	442	Х		Improve efficiency
Llopis and Tarí (2003)	Spain	106	Х	Х	External image - Improve efficiency
Salaheldin (2003)	Egypt	83	Х	Х	Improve efficiency- Customer pressures
Pan (2003)	Far East	2.951	Х	Х	Customer pressures and quality improvement
Magd and Curry (2008)	Egypt	38	Х	Х	Pressure of the competitors and quality improvement

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Study	Country	Sample	Internal motivations	External motivations	Main motivations
Kostagiolas and Kitsiou (2008)	Greece	69	Х		Improvement of internal operations
Zaramdini (2007)	United Arab Emirates	900	Х		Improving processes, procedures and product/service quality
Fotopulos and Psomas (2010)	Greece	214	Х		internal business environment and then the external one

Source: Summary compiled by the authors. Full citations for the studies' authors can be found in the references.

It has to be taken into account that on a global level these standards spread in their initial phase throughout the countries of the European union (E.U.), becoming particularly prevalent in the U.K., which is perfectly logical in view of that country's previous experience with the BS 5750. E.U. institutions, and specifically the European Commission, promoted intensively the adoption of this standard by European companies, as part of the process of harmonization that was established with a view to creating the single European market in 1992 (Tsiotras and Gotzamani, 1996; Crowe, Noble and Machimada, 1998), and that it was even included in the commercial directives of what was then the European Community (Anderson, Daly and Johnson, 1999; Mendel, 2002).

The adoption of these standards was much less intensive in the U.S.A. and Japan – in fact they came in for considerable criticism, and were initially considered as clear non-tariff barriers in those countries – it is also true that there has since been a significant increase in their use there, due on the one hand to the fact that companies exporting to the E.U. have been obliged to obtain certification, but also because certain key institutional organisms in the two countries have adopted and promoted the implementation of these standards.³

On the other hand, other studies stress the influence of factors of an internal nature, such as an internal improvement in the organization. These factors, however, would, as has been stated previously, appear to be in the minority.

All the reviewed studies were based on perceptual or self-reported information. In our opinion, this type of data introduce a bias problem, since the

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³ For example, such important public organisms as the U.S. Department of Defense or the very influential FDA (*Food and Drug Administration*), together with other organisms of a private nature, such as the association of chemical manufacturers or the association of automotive industry manufacturers, all adopted the ISO 9000 standard (Crowe and Noble, 1998).

persons providing the information (the quality managers) have a personal interest in giving a specific view related to the drivers for ISO 9001 adoption.

Conclusions

As we have attempted to show in this paper, numerous contributions have been conducted in the almost ten years that have gone by since the above comment was published, but there are still today many questions waiting to be resolved regarding to the in-depht analysis of the motivations that drive the companies to adopt these metastandards.

As far as studies that attempt to analyse the motivation behind adopting metastandards are concerned, these should in our opinion take into account the fact that in the case of carrying out studies based on perceptual measurements, an attempt should be made to inquire not only into general managers but also other internal stakeholders (such as middle managers or workers themselves who do not perform management tasks) and those outside the company (customers, suppliers, consultants and auditors, etc.). In this way, a richer and more complete view of a process complex as the one we are faced with could be obtained.

As far as academic research is concerned, we can still say today, as Häversjö (2000) had already noted, that the study of metastandards based on a system of third-party certification such as ISO 9001 and ISO 14001, has been a veritable Klondike for researchers from all types of fields, since they are among the few management tools or technologies the users of which are listed in public records. The author referred to also added that, even so, systematic empirical research in this field was only just beginning (Häversjö, 2000, pp. 47-52).

The concept of management metastandard, by definition clearly complex and multi-faceted, has to be analysed from the perspective of disciplines as disparate as operations management, strategic management, international economics, economic geography or organizational sociology. The level of analysis has to range from a pragmatic approach to the more theoretical level, with a strong inter-relation between the various different lines of research being conducted.

As Braun (2005) points out, management metastandards regulate management practices in a broad range of companies around the globe. The study of the complex role of the adoption of these metastandards by researchers of very different backgrounds and different cultural and political environments could provide valuable contributions to a better understanding of their real role, both for academic and practitioner purposes.

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