

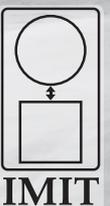
MANAGEMENT

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of Innovation and Technology

Standards and competitive potential

- the case of internal and external standardization



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Firm's internal standards and standardization processes are usually kept secret and separate from external standardization initiatives. However, opportunities to impact overall industry development and direction stem from intertwining internally based specifications with external standardization. This article presents why companies should re-consider the interdependence of (internal and external) standardization processes and sometimes even pursue industry-wide diffusion of their internal standards.

av Amalia Foukaki

Unreasonable separation: miss out on strategic interdependence

Standardization is primarily associated with the process by which external standards emerge, focusing on the consensus processes of standards developing entities (such as SDOs) or Consortia and emphasizing primarily the inter-organizational processes, while neglecting the intra-organizational ones. Furthermore, external standards and their economic effects are mostly discussed from the perspective of the impact they have on market establishment and efficiency, however, several of the economic effects associated with external standardization are also relevant from a firm perspective, or from that of inter-firm relations, e.g. between a firm and its supplier network.

Yet, companies' representatives in external

standardization committees tend to keep their intra-organizational standardization processes (i.e. internal progress and developed standards) separate from the ongoing external standardization work. As a result, companies miss out on valuable opportunities to impact overall industry development and direction, which they could successfully pursue if they had - early on - intertwined internally based specifications with ongoing industry standardization.

External and Internal Standards: Origin and Application

Industry standardization codifies and diffuses state of the art technology and best practice, essentially establishing conformity requirements on products and processes, and thus can be seen as the outcome

of consensus among agents on how to perform certain key activities according to specific rules. Industry standards reduce variety in artifacts and activities within an industry, while encompassing varying degrees of influence from the various agents that try to promote their own interests, for instance within consensus based committee work.

The firm equivalent of industry standards, i.e. the means for codification and diffusion of technology and best practices are internal standards, which embrace internally based variety reduction and have a variety reducing effect across products and production processes, and as a consequence between intra-organizational entities (such as divisions, functions or teams). In many instances the development and implementation of internal standards follow internal consensus processes, analogous to external standardization. These internal standards can be deployed internally as well as externally.

Hence, an important distinction in regard to standardization relates to organizational boundaries; as hinted already, a standard can originate internally as well as externally, which means that it can stem from within an organization (a firm) or an external standardization body. Respectively, a standard can also be applied internally (in order to reduce variety or facilitate compatibility between components) or externally (as part of an offering in a market, or in order to control supplies from subcontractors). An illustration is seen in Figure 1, where the interdependence between internal and external standards is highlighted. The key question for the firm

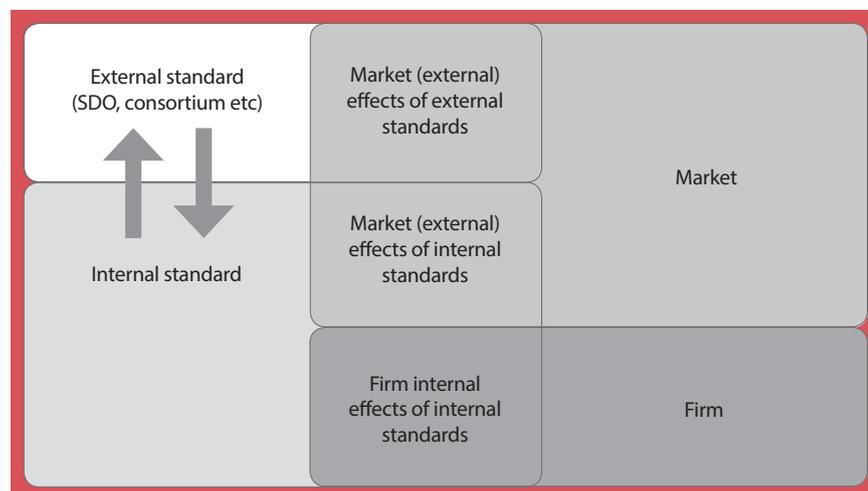


Figure 1. Origin and application of standards from the firm perspective.

is on what level this reduction of varieties should occur, i.e. internally or externally.

Standardization Processes and Competitive Potential

Since external standardization depends on the input from several participating firms, such input may originate from internal standardization (of processes, products or sub-deliveries). At the same time, internal standardization might be the result of adoption of external standards if they need to be accustomed to serve the firm's needs. *Therefore, standardization is not a far-away industry matter, but is interdependent on firm internal standardization.* For instance, a quantitative study of 2012¹ that examined a sample of 265 large industrial companies concluded that very often firms respond to externally imposed standards by developing their own internal ones, in essence shifting the attention of relevant stakeholders from non-adhering to the initial standards, towards alternative compliance. Thus, the firm has several strategic options related to standardization and these involve internal and external standardization processes and their interdependence. In other words, an internal standard may be applied to the suppliers of the firm. The use of internal standards on the market, e.g. in the relationship with suppliers, means that (internal) standardization occurs through an internal process and then its outcome has consequences for other firms as well, at the input or output markets of the firm.

A firm is not isolated from industry structures and their changes, even though they might be happening outside its

boundaries. Boundaries of the firm and its standardization activities arguably intertwine and mutually affect organizations in terms of efficiency, competence, identity and influence. The great scholar and strategist Michael Porter has pointed to the reciprocal relationship between industry structure and the chain of activities of the players in an industry, while claiming that "potential sources of competitive advantage are everywhere in a firm". Thus, standardization influences the firm and its activities via the effects it has on industry structures and vice versa.

To illustrate more in-depth how value configurations involve internal standards and how these interrelate with external standards, two examples are provided. The first one is Camfil, a developer and producer of filters and systems for air cleaning. Camfil relies on continuous development of the technology that is included in its products but which is also submitted to external standardization in order to set minimum quality levels for systems. Camfil has a long history of this way of working with standardization. However, it is also evident that the approach relies on investments in improved or new product technology. Thus, for Camfil, presence in external standardization is important to influence external standards setting to create minimum quality standards and thus raising rivals' costs, as well as to align external standards with its own internal standards which could potentially provide first mover advantages and temporary monopoly rents. This is based on the ability to refine or develop new technologies, concepts and products, and serves as a

basis for setting the industry standardization agenda.

Another example comes from the Volvo Group, where internal standardization is approached as a problem-solving mechanism, yet it is often triggered proactively and relates to early phase research and external stimulus. Here, the company is taking a product output standard from internal to external in order to direct standard setting within external standardization committees and influence the external standardization in the firm preference (proprietary innovation). That is, Volvo tries to influence external standards and hence promote internal standards as private standards towards suppliers and customers.

Conclusion

Companies tend to keep their internal standards separate from the external standardization work, in an attempt to "protect" their internally developed specifications for products and processes. But sharing those internally developed standards in the context of external standardization work, i.e. when interacting with other companies, encompasses potential for influencing external standardization progress and subsequently *influencing overall industry development* towards advantageous directions. Companies should re-consider their regimes of protectionism, and instead of consistently protecting their internal standards, they would be better off promoting them for industry-wide diffusion and adoption by other companies; once those (previously internal) standards become broadly established, the firm will enjoy certain advantages, such as first-hand and increased understanding of the standards, as well as having directed the industry towards favored evolution. ●

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Amalia Foukaki is a PhD Candidate at Lund University and conducts research on corporate strategy, standardization management, competitive strategizing and decision-making, and co-opetitive logics. The study referenced in the article is called *The Role of Internal Standardization in Business Models: An Activity Configurations Perspective*, is written with Johansson Magnus and Kärreman Matts and is published as book chapter in *Effective Standardization Management in Corporate Settings*, 2016, 54. As part of her doctoral thesis (to be defended in March 2017) Amalia has also studied standardization management and standardization approaches towards the establishment of competitive advantages. Other results are published by SRC memo series and Lund University Management Studies.

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¹Referring to Okhmatovskiy, I., & David, R. J. (2012). *Setting your own standards: Internal corporate governance codes as a response to institutional pressure*. *Organization Science*, 23(1), 155-176.

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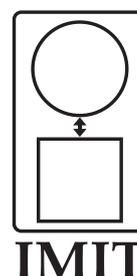
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