

External and Internal Knowledge in Organizations

Rafael Andreu

IESE Business School, University of Navarra, Spain

Sandra Sieber

IESE Business School, University of Navarra, Spain

INTRODUCTION: KNOWLEDGE MANAGEMENT AND COMPETITIVE ADVANTAGE

In this article we discuss how knowledge and learning contribute to developing sustainable competitive advantages in firms. We argue that effective knowledge management (KM) initiatives for this purpose should support appropriate learning initiatives (which we define in terms of learning trajectories [LTs] of individuals and groups within the firm) in order to ensure that knowledge needs are adequately covered over time.

Trends in today's environment such as globalization, technological evolution, and deregulation are changing the competitive structure of markets in such a way that the effectiveness of traditional sources of firms' competitive advantage is blurred. More and more, any firm can have access to physical or financial assets, and even to technology, in exactly the same open-market conditions. Consequently, firms need to develop distinctive capabilities, their own "ways of doing things" that are difficult to imitate by competitors. Such capabilities are eventually related to persons in the firm, who at the end of the day develop and apply their abilities and skills, organized in certain ways and based on what these people know. Thus, developing idiosyncratic knowledge that gives meaning to a firm's distinctive ways of doing is increasingly important (Bell, 1973; Drucker, 1993). Idiosyncratic knowledge of this kind is difficult to imitate because it cannot be bought in open markets. That is, it has to be learned, requiring resources, time, effort, and a specific context (organizational, social, etc.) that makes it so path dependent that reproducing it in a firm different from that in which it originated is very difficult (Andreu & Sieber, 2001). In addition, knowledge has three fundamental characteristics that make it especially interesting. First, it is personal in the sense that it originates and resides in persons who assimilate it as the result of their own experiences. They incorporate it into their "base" once convinced of its meaning and implications, articulating it in the context of an organized whole that gives structure

and meaning to its different "pieces" (Kolb, 1984). Second, its utilization (through which it does not dissipate) allows persons to understand perceived phenomena (each in his or her own way) and evaluate them, judging how good or convenient those phenomena are for each person at a given time. Third, it serves as a guide for action, helping to decide what to do at a given juncture because action endeavors improve the consequences of perceived phenomena (Andreu & Sieber).

These characteristics make knowledge a solid basis for competitive advantage. As far as it results from the accumulation of persons' experiences, therefore being mainly tacit (Polanyi, 1962), imitating it will be difficult unless precise representations (in the form of explicit knowledge) exist that facilitate its transmission and sharing. The personal experience-accumulation process leading to new knowledge takes place in a social or organizational context (Pentland, 1995; Tyre & von Hippel, 1997), and it unfolds following a different path for each person (dependent, among other things, on his or her previous experience and knowledge). Thus, knowledge is both path and context dependent. To the extent that duplicating contexts and paths in this sense is difficult, knowledge imitation will be costly, and consequently competitive advantages based on it will tend to be sustainable (Grant, 1996; Teece, Pisano, & Shuen, 1997). As a result, knowledge value tends to be higher in the context in which it was developed than it would be in a hypothetical open market. Nevertheless, not all knowledge is the same in terms of potential competitive advantage as we discuss in the next section.

EXTERNAL AND INTERNAL KNOWLEDGE

Competitive forces put pressure on firms not only to streamline their business processes, but also to be able to incorporate relevant knowledge from the environment. In other words, any firm needs access to knowledge that allows it to do something that, although also done by

competitors, is demanded and valued by clients. We call this kind of knowledge *external knowledge*. It is brought into a firm from the environment and is useful not only to a particular firm, but also to their competitors in the marketplace. Hence, its market value is approximately equal to its value within the firm. It can be traded in the market and, in general, it tends to be rather technical and explicit, which makes it relatively easy to acquire, be it through training or simply by hiring or buying it (Becker, 1962; Williamson, 1981).

Relying on external knowledge alone, however, does not lead to competitive advantage. Although it may be a competitive necessity, it needs to be complemented by a different kind of knowledge more idiosyncratic and capable of differentiating a firm's offer in the marketplace. It is an organization-specific knowledge that refers to the firm's particular modes of functioning and to its particular organizational context. It acts as an organizational glue when the fast incorporation of external knowledge into a firm may threaten its cohesiveness and sense of unity. It is therefore more valuable inside the organization than in the market, and is less prone to imitation. Developing this kind of knowledge is much less environment driven, and it belongs more to the realm of organizational routines and organizational idiosyncrasy. We call this kind of knowledge *internal knowledge*. Although not valued directly by the labor or factor market, it contributes to achieve competitive advantage as it adds critical value for the customer¹. Internal knowledge can be understood as the organizational context that (a) plays the role of a skeleton where new knowledge pieces are attached so as to "make global sense" to the firm tradition, culture, and "ways to understand things" (Spender, 1996); and (b) defines the way in which new knowledge will be put to work, hence giving it the idiosyncratic firm's touch that will distinguish its utilization from that of other firms.

The distinction between these two kinds of knowledge is not new. The economics literature has analyzed the differences between general and firm-specific knowledge basically from three perspectives. Becker (1962)

adopted a human-capital approach to study how to price the training of employees, concluding that the firm should cover all firm-specific training while the worker should cover general training as the involved knowledge has a direct market value. Williamson (1981) takes up this argument from a transaction-cost point of view, considering the necessity to protect "skills acquired in a learning-by-doing fashion and imperfectly transferable across employers" (p. 563). From an institutionalist point of view, Doeringer and Piore (1971) consider that the formation of internal labor markets is a consequence of firm-inherited knowledge.

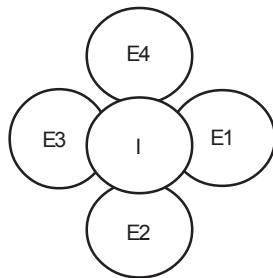
From a more managerial standpoint, there are also contributions that suggest the distinction above. Porter, interviewed by Hodgetts (1999), is very close to the same concept when he distinguishes between "operational improvement" and "positioning." In a similar manner, Edvinsson and Malone's (1997) definition of intellectual capital is close to our concept of internal knowledge. The classic management literature also proposes a similar distinction: Selznick (1957), for example, is very close to the concept of internal knowledge by saying "...we must create a structure *uniquely adapted to the mission and role of the enterprise...*" More recently, Burton-Jones (1999), starting from a conception of the firm as a "knowledge integrator," proposed the so-called Knowledge Supply Model™, where the distinction is made between three internal sources of knowledge and four external sources, the former demanding firm-specific knowledge.

Understood as we propose, a coherent knowledge management initiative has to ensure a proper balance between internal and external knowledge creation and deployment. Our contention is that, thinking in terms of the adequate learning processes leading to the creation and deployment of the appropriate mix of internal and external knowledge in a firm, it is possible to draw conclusions regarding what knowledge management approaches have more or less potential effectiveness for a given firm. Of course, the specificities of each particular firm influence the suitability of a concrete KM approach, but still, a general framework can guide action.

In the context of a generic firm, we propose to think in terms of its knowledge base, understood as a combination of external and internal knowledge components. A schematic representation is shown in Figure 1, where *I* represents a piece of internal knowledge and *E1* to *E4* represent four pieces of external knowledge.

We depict *I* in the center to give the idea of a core, and the different *Es* around it to indicate both the fact that they are closer to the environment and the relative independence there is among each other. Some overlap between *I* and the different *Es* indicates that the part of *I* geared to put the *Es* into idiosyncratic action needs to be aware of some of the corresponding *Es*' characteristics.

Figure 1. Knowledge base of a firm in terms of internal and external knowledge



5 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/external-internal-knowledge-organizations/16948

Related Content

Unrealistic Optimism Regarding Artificial Intelligence Opportunities in Human Resource Management

Patrick Weber (2023). *International Journal of Knowledge Management* (pp. 1-19).

www.irma-international.org/article/unrealistic-optimism-regarding-artificial-intelligence-opportunities-in-human-resource-management/317217

Developing and Analysing Core Competencies for Alignment with Strategy

Keith Sawyer and John Gammack (2008). *Current Issues in Knowledge Management* (pp. 149-162).

www.irma-international.org/chapter/developing-analysing-core-competencies-alignment/7371

KAFRA: A Context-Aware Framework of Knowledge Management in Global Diversity

Adekunle Okunoye and Nancy Bertaux (2006). *International Journal of Knowledge Management* (pp. 26-45).

www.irma-international.org/article/kafra-context-aware-framework-knowledge/2681

The Project Manager as the Driver of Organizational Knowledge Creation

Ted Bibbes, Minna Rollins and Wesley J. Johnston (2020). *Knowledge Management, Innovation, and Entrepreneurship in a Changing World* (pp. 313-333).

www.irma-international.org/chapter/the-project-manager-as-the-driver-of-organizational-knowledge-creation/250979

California State University, East Bay

Aline Soules (2013). *Library Reference Services and Information Literacy: Models for Academic Institutions* (pp. 134-152).

www.irma-international.org/chapter/california-state-university-east-bay/76867