Knowledge Management: A Learning Mix Perspective

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Abstract

How can an organization define policy for managing its knowledge? In this article, an integrative model is proposed: the Learning Mix. It consists of four interacting facets: Information Technology, Learning Structure, Knowledge Portfolio and Learning Identity. The difficulties confronted by companies striving to become "learning organizations" and seeking to adopt an efficient knowledge management approach can be explained by their failure to consider one or several of these Learning Mix facets. After presenting our integrative model and describing its four dimensions, we apply it to the study of knowledge management initiatives in a multinational company (Lafarge Group).

While many companies mention their most critical challenges as being the creation and sharing of knowledge, the enrichment of collective intellectual capital, or even the acquisition of learning capabilities, rare are those which adopt a concrete operational approach in response to these challenges. Frequently, fragmented initiatives coexist: implementation of knowledge-sharing tools, creation of a knowledge base or actions aimed at identifying the firm's competencies. The difficulty consists in articulating these different actions and incorporating them into an integrated approach that can capitalize on them.

Over the last fifteen years, ideas related to knowledge management and the learning organization became very popular both in the academic and managerial worlds. This trend illustrates the recognition that mastering a certain technology as the main source of competitive advantage has limits. Sustained competitive advantage lies in the capacity to innovate continuously and to learn more rapidly than one's competitors (De Geus, 1988). It is no longer the technology itself that is a strategic resource, but rather the organizational, technological and cognitive processes underlying the capacity to innovate and learn (Edmondson and Moingeon, 1996).

It should be noted that preliminary research on organizational learning was conducted about thirty years ago (Argyris and Schön, 1974, 1978). The notion of "learning organization" surfaced only later (see in particular Senge, 1990). We propose that this latter denomination be used to designate the entire sub-category of work on organizational learning with a prescriptive aim (as opposed to those with a purely descriptive objective) (Edmondson and Moingeon, 1998). Since the early 1990s, research in the knowledge management area has been extended through contiguous areas including change management, leadership development, systems theory, organization theory, organizational development, organizational learning and artificial intelligence. Of the many parent disciplines or related fields, organizational learning is arguably the closest 'cousin' to knowledge management

"with knowledge management and organizational learning being considered two sides of the one coin" (Hackett 2000). In the strategic management field, the school of the Knowledge Based View of the firm considers knowledge stocks and learning capabilities as vital sources of competitive advantage. The firm's ability to deal efficiently with its own knowledge is a primary source to create value and to develop the organization (Grant, 2000; Spender, 1996). Firms must create conditions in which individuals can integrate and share their knowledge. Nevertheless, the background of this theory is often disconnected from the reality and focuses perhaps too much on the management of knowledge as an independent variable. Very few analysts interested in the process of managing knowledge have touched upon the aspects of implementation in their studies. That is why this paper takes up a challenge of analyzing how firms can manage their knowledge through a framework that we call the "Learning Mix".

We start by looking at the different dimensions of the model (1). Then we apply it to analyze knowledge management initiatives in a multinational company (2). Finally, we discuss the methodology used and the results obtained by our research (3).

1. The Learning Mix: An Integrative Model

A learning organization is characterized by its members' collective capacity to capitalize on experience gained, to share knowledge, to acquire new knowledge, to innovate, to solve problems, particularly embarrassing ones, instead of seeking to cover them up. In operational terms, this requires that the different dimensions of the Learning Mix [1](Figure 1) be managed:

- Strategic: identify and manage the firm's knowledge portfolio, that is, both its existing knowledge and the knowledge it needs to acquire to maintain or improve its competitive advantage;

[1] The lack of integration can explain most of the failures observed in knowledge management initiatives. This is the reason why we advocate for such an integrative perspective. See Métais and Moingeon (2000), and Moingeon (2003).

- Technological: manage information systems, particularly tools dedicated to knowledge sharing;
- Organizational: implement and manage a learning structure, that is, an organization with ways of functioning that favor knowledge creation and sharing;
- Identity: develop a learning identity, which requires, in many cases, a complex approach that reassesses and remoulds values and reasoning processes.

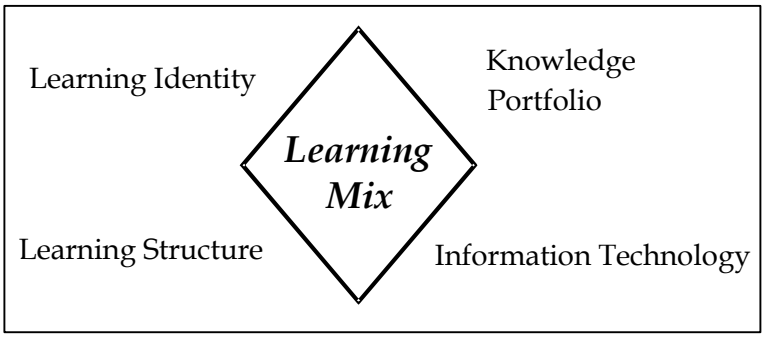

Figure 1. The Learning Mix

1.1 Strategic Dimension: The Management of a Knowledge Portfolio

The first facet of the *Learning Mix* involves the firm's knowledge portfolio. The resource-based view of the firm brought to light the key role of these intangible assets in the creation of a competitive advantage (Peteraf, 1993). Although certain knowledge can be easily formalized (explicit knowledge), other knowledge is difficult to explicate and codify (tacit knowledge). As Polanyi (1966) stresses, we know more than it is possible to express orally. This individual expertise, know-how or collective capabilities are based on tacit knowledge and can be sources of competitive advantage because they are rare, difficult to imitate or substitute (Barney, 1991). The knowledge portfolio is made up of both knowledge that the company already possesses (its "patrimony" of knowledge) and that which it can acquire, particularly by using its learning capabilities (Moingeon, 1994). The management of this

portfolio must be guided by the quest to achieve a balance between knowledge exploitation and exploration (March, 1991): exploitation facilitating the capitalization of the acquired patrimony; and exploration leading to the acquisition of new knowledge. The logic behind knowledge exploitation, has its limits. A company can become trapped by its own competencies (Levitt and March, 1988). It will tend to use those that it masters, even if they may not be the most efficient. In this case, what was once strategic competence becomes a "core rigidity" (Leonard-Barton, 1992). These phenomena are often reinforced by the "not invented here" syndrome, with employees refusing to learn from the external environment, and can ultimately cause the knowledge portfolio to become limited to its existing patrimony.

The work of Shannon et al. (1998) contends that knowledge transfer involves two actions: transmission (sending or presenting knowledge to a potential recipient) and absorption by that person or group. Therefore, if knowledge has not been absorbed it has not been transferred. The concept "absorptive capacity" has mainly been used to capture a company's ability to recognize, assimilate, and apply external knowledge to commercial ends (Cohen and Levinthal, 1990). Several studies on the knowledge flows of multinational corporations propose that the absorptive capacity of the receiving unit is the most significant determinant of internal knowledge transfer in multinational corporations (Gupta and Govindarajan, 2000). First of all, a company needs to clearly identify existing knowledge, a task which can be quite challenging. The expression "if only my company knew what it already knows" is frequently used by managers wishing to better "know the knowledge" in order to precisely and in a reliable manner identify the existing patrimony. The difficulty in identifying and transferring what the company knows results in the wasting of knowledge by nonuse. The use of knowledge, unlike that of other resources, does not lead to its diminution in quality or quantity. On the contrary, it can result in the creation of new knowledge. However, inversely, its nonuse can cause the available patrimony to shrink. This can also be

observed at the individual level, for example when one does not speak a language or practice a sport over a long period of time. New organizational knowledge can be created in several ways: by combining the company's knowledge and know-how (Nonaka and Takeuchi, 1995; Takeuchi and Nonaka, 2004) or by obtaining and integrating external knowledge. It can even come from "double loop learning" (Argyris and Schön, 1978, 1996), that is, by questioning values, fundamental hypotheses and norms that help define the knowledge to be mobilized.

1.2 Technological Dimension: IT Systems

This technological dimension of the Learning Mix -the most tangible- is the one that has attracted the most attention from companies over the past few years. Certainly, many companies have allocated significant resources to the implementation of IT systems.

First, we must note that information and knowledge are hierarchical. Information is data to which an individual attributes significance. As for knowledge, it requires that the individual first articulates available information and then appropriates and incorporates it. In this perspective, knowledge concerns the actor (individual or collective), and not the management tool itself. Recent technological evolutions have led to spectacular growth, both in IT's capacities to handle and stock information and in the different possibilities for communications. To illustrate this point, customer relationship management is based on the computerized collection and exploitation of an extremely large consumer database (who are they?, what are their buying habits?, etc.). It helps marketing specialists acquire new knowledge, and therefore, increase efficiency (Brown, 2000). Generally speaking, databases, search engines, expert systems and other decision-making tools all provide actors with information that they cannot otherwise obtain due to the limits of their memory and cognition. In this manner, technology is a source of knowledge.

In addition, the Internet has led to an unprecedented growth in the possibilities for communication and its use has enabled us to overstep some of the constraints imposed by time and space. Information systems play a key role in the sharing of knowledge. However, the significance of the information technology depends on the knowledge management strategy the company adopts. Hansen, Nohria and Tierney (1999) highlight the existence of two strategies: codification and personalization. In the first case, the IT system, as well as the employees responsible for them, is at the core of the knowledge management approach. The main stakes consist of identifying knowledge, codifying it and making it available through the IT tool. This strategy is adapted to situations in which knowledge can easily be made explicit. In a personalization strategy, the IT system plays a much less central role. The stakes consist of making readily available structures and functioning modes propitious to sharing dominantly tacit knowledge: frequent meetings, transversal project teams, etc.

Even when the company opts for a codification strategy, though, the knowledge management tool must remain a tool and not become finality. In other words, knowledge management must not in any case be reduced merely to its technological dimension.

1.3 Organizational Dimension: A Learning Structure

"Who does what" when it comes to knowledge management? What are the organizational modalities that favor knowledge sharing and creation? The third facet of the Learning Mix dwells on these questions.

Publications dedicated to the organization of the knowledge management function are relatively scarce and have mainly a managerial motive (see, for instance, Phillips and Bonner, 2000). This attests to the relatively recent nature of this concern among companies (Earl and Scott, 1999). These works are frequently inspired by knowledge intensive organizations (e.g.

consulting firms). In these types of organizations, the very existence of which depends on knowledge management, one finds a more intense formalization and specialization of the role of knowledge management. Since the early 1990s, functions such as Chief Learning Officer, Chief Knowledge Officer or Intellectual Capital Director have emerged. According to companies, these titles address different realities. In minimal terms, the Chief Learning Officer is responsible for training programs, the Chief Knowledge Officer, for knowledge sharing tools, and the Intellectual Capital Directors, for patent management. On a larger scale, these directors must incite and coordinate actions related to the creation and sharing of knowledge such as implementing a specific tool, improving the identification and exploitation of the existing patrimony, enriching this patrimony by identifying and formalizing the best practices and avoiding "knowledge loss" - which may occur when employees leave the company (retirement, lay-off, voluntary departure). At the divisional level, we see specific roles, such as Knowledge Manager (in charge of the deployment of knowledge management initiatives), or Knowledge Editors responsible for identifying and codifying new knowledge and ensuring that it is updated (for example, choosing knowledge that must be acquired at the end of a consulting mission, validating it and making it accessible via the IT system).

As Nonaka and Takeuchi (1995) demonstrate, knowledge management requires knowledge conversion processes: the passage from tacit to explicit, from the individual to the collective, and inversely. The management of these processes is one of the main missions entrusted to knowledge management specialists. In complement to formalizing roles dedicated to knowledge management, the company's entire structure and operations must be reconsidered so as to facilitate knowledge sharing and creation (Garvin, 1993; Goh and Richards, 1997; Pedler, Burgoyne and Boydell, 1991).

A learning structure has several characteristics, including project-based and transversal teams, few hierarchical levels (flat structure) and a limited number of formalized procedures

and employees collaborating in networks. "Communities of practice" (Wenger 1999) have gained significant attention those recent years. These communities bring together, on a voluntary basis, individuals sharing the same interests (for a vocation, product, technology, etc.). They represent an opportune place for knowledge management (Brown and Duguid, 2001; Wenger and al, 2002).

1.4 The Cultural Dimension: A Learning Identity

This facet is unquestionably the most difficult to grasp as it relates to the least tangible aspects of a company. Indeed, to study an organization's identity is to consider everything that contributes to making it specific, different from others (Larçon and Reitter, 1984; Albert and Whetten, 1985). Beyond identifying managerial procedures, employee behavior and "symbolic products" (rituals, organization of time and space, etc.), the individual's disposition and value system (systems of which actors are not necessarily aware of) behind these practices and procedures must first be uncovered; that is, one must go to the roots of the firm's identity (Moingeon and Ramanantsoa, 1997).

The observation of practices and behaviors in a learning firm indicates:

(i) the existence of: a willingness to make informed choices based on valid information and knowledge (Argyris and Schön, 1974; Argyris, 2004);

(ii) a high level of inter-individual trust. This trust is two-fold, residing in both colleagues' intentions (e.g. "When I share knowledge with colleagues, I am not worried because I know that they will not use it against me and my interests") and their competencies (e. g. "I can ask him to meet my important clients for me; I know that everything will go well. He is an excellent people person") (Moingeon and Edmondson, 1998);

(iii) a collective capacity to confront, in a productive manner, the "real problems", that is, not adopting a defensive reasoning when the problem discussed is potentially embarrassing (Argyris, 1993, 2004); and

(iv) the right to make mistakes and a "psychologically safe" environment when problematic situations arise (Edmondson, 1999).

On the road to building a learning identity, the obstacles to overcome can be numerous. For instance, employees can develop the "not invented here" syndrome without even being aware of doing so. This leads them to refuse external knowledge (external to their company or even to their division or team). This syndrome can be related to too much emphasis being given to technical excellence, which makes it difficult to accept and give recognition to external technical expertise. Some companies have decided to fight against this syndrome by rewarding the use of knowledge coming from other firms or entities (e.g. British Petroleum's "Thief of the Year" award). Another significant hurdle is the system of wages and salaries and power. While all initiatives taken separately have their limits, managing a company's identity involves implementing measures and practices that could help overcome such obstacles: integrate knowledge management in the objectives and remuneration policy (especially by rewarding those who acquire new knowledge *and* share it with others), recognize the right to make mistakes, given that one learns from them, invite key managers to be role models (the executive committee should be recognized by all as an opportunity to share and create knowledge), etc. The identity of a company has five different facets: professed, projected, experienced, manifested and attributed (Soenen and Moingeon, 2002). On the one side, the top management may profess that "innovation is a critical factor for the company" (professed identity) and communicate it in the Annual Report (projected identity). On the other side, employees (experienced identity) as well as external stakeholders

(attributed identity) may not consider the company as being truly innovative. Moreover, the observation of existing routines and procedures (manifested identity) may support their views.

2. The Learning Mix in Action

In this section we will apply the Learning Mix approach to study a knowledge management initiative within the Lafarge Group, the world's leading company in construction materials. This case shares several similarities with the Siemens' ShareNet example described by Voelpel, Dous and Davenport (2005). However, it differs from this paper as it is not intended to illustrate best practices in knowledge management.

Although Lafarge clearly adopted a "technology driven" perspective (e.g. the Corporate Knowledge Manager reports to the Chief Information Officer and IT plays a critical role in most of the projects carried out), it should be noted that knowledge management within this company is not only restricted to this dimension.

Lafarge has four lines of business: Cement, Aggregates & Concrete, Gypsum and Roofing Solutions. Lafarge is one of France's largest corporations in terms of sales: for the fiscal year 2004, the company generated revenues of €13.6 billion. Knowledge management is not new for industrial companies such as Lafarge (the company has been building knowledge repositories for over 25 years). Although knowledge management initiatives existed before, it was not until 2002 that Lafarge explicitly recognized knowledge management as a vital element of its strategy. The construction materials industry has been witnessing major shake-ups, takeovers, joint ventures, mergers, integration, and the formation of global conglomerates. To gain market share, cement organizations in general are facing buyer bargaining power and have to deal with secret rebates, price cutting, price

discrimination, and competition in service quality. In the late 1990's, Lafarge's top management took a strategic decision to become a key global player. The objective was to achieve a certain size in order to remain visible and attractive to investors, to expand cash flow and geographic presence. That is why in 2001 Lafarge acquired the sixth-largest cement competitor, Blue Circle. In 2002, Lafarge's top management wanted to facilitate more effective sharing of existing knowledge not only between Lafarge and Blue Circle but also between the four divisions (Cement, Aggregates and Concrete, Roofing and Gypsum).

At the beginning of the year 2002, a cross divisional and cross functional knowledge management team was created. A Corporate Knowledge Manager was appointed to coordinate the activities and to launch an inter-divisional strategy. Her team was under the responsibility of the CIO (Chief Information Officer) of the Group and sponsored by the CFO (Chief Financial Officer). The initial strategy was mainly based on ensuring that the technological infrastructure for sharing knowledge was in place. According to her, technological barriers should not be an excuse for not sharing knowledge. That explains why she decided to start by fixing the technology in order to remove this obstacle to a change in the corporate culture.

The objective of our research is to test the empirical relevance of the Learning Mix approach. The research was conducted with qualitative research methods (Miles and Hubermann, 1988; Yin, 2003). It seemed to be more appropriate to observe knowledge transformation with direct observation and participation, rather than with external questionnaires. Ten interviews were conducted during a three-month period with people involved in knowledge management. This interview method gathered information and feedback on the barriers and levers for managing knowledge between business units, countries and divisions. In addition, field observations were made between 2002 and 2005.

2.1 Strategic Dimension: Focus on the Exploitation of Internal Best Practices

In Lafarge, knowledge management initiatives are focused on "people using technology to enable more efficient processes in order to capture, store, retrieve, use, re-use and share knowledge for the improvement of business performance" (Internal Report). In other words, the challenge is to develop the capacity to re-use best practices and disseminate innovation. The approach assumes that knowledge is captured where it is created, shared by people and finally applied to improve organizational processes in a business unit. The process can be managed, enabled and encouraged by management so that at a given moment it becomes an integral part of the daily work of each employee. This means setting up structures to ensure that strategic knowledge is shared, encouraging people to both publish and use this global knowledge to create productivity improvements and implementing adequate tools to enable the sharing of industrial best practices on a global basis.

One of the main reasons for being a big company rather than a small one is to capture on a grand scale the gains that come with applying smart processes or routines (Szulanski and Winter, 2002). However, this advantage can only be realized if the valuable knowledge can be spread to other sites within the organization: any company would like to replicate an initial success and "getting it right the second time" (Szulanski and Winter, 2002). Research on "stickiness" by Szulanski (1996) and on transnational contexts by Kostova (1999) has shown that the transfer of best practices within organizations does not happen easily. That is why companies are more and more often engaged in knowledge management strategies in which the transfer of business practices is viewed as a source of competitive advantage. As stated by the Corporate Knowledge Manager, "*as a large group, Lafarge needs to pool its experience, which means identifying the best practices developed in whatever part of the world, and then sharing it.*" For example, one plant may identify the gap between its own

established practices and available better practices. Then, with the support of knowledge transfers teams, it plans the necessary steps and resources for alignment, and reaches an agreement with its own hierarchy. It is the responsibility of the Industrial Manager and the Knowledge Manager to push for the most rapid and efficient alignment of plants with practices that have been defined as mandatory. In Lafarge, best practices are defined as "*rules which indicate the best way of accomplishing a task, based on our know-how at the time (equipment, procedures, settings, methods, etc…) in all fields (production, maintenance, general services, functions, etc…)*" (Internal Documentation in the Cement branch). Lafarge's logic is mainly based on exploitation of current practices instead of exploration of new practices. This can be explained by the proliferation of numerous practices in the Group. Lafarge is also capturing innovation by organizing an internal concourse of better practices called "Lafarge Innovation Awards".

However, a systematic confusion between good and best practices has been stressed by many actors during the interview process: "*there is a tendency to assimilate "good practices" to basically anything successful within a business unit – but without any concern for its formalization, validation and transfer*" (a Knowledge Manager). Despite each division having their own best practices program, they have not found a truly efficient way to assist business unit managers to educate their employees to share and to implement best practices.

2.2 Technological Dimension: Remove the Technological Barriers for Sharing Best Practices

During a kick-off meeting organized in mid-2002 by the Corporate Knowledge Manager with internal stakeholders (e.g.. Users, Functional Managers, Knowledge Managers, etc.), participants were asked to rank issues related to knowledge management according to their

impact and their urgency. Major interest was in solving technical problems encountered in the Group (e.g.. Replication of databases; no search engine). One of the most important tools was a Group Directory of employees available on the intranet. As it often experienced technical problems, this tool was not really used by the employees. However when the problems were resolved, the fill in rate increased from 30% (before the kick-off meeting) to 85% six months later thanks to the effort of a group of committed knowledge practitioners all over the world.

Best Practices are primarily conveyed by the intranet and the LEO (Lafarge Employees On Line) portal. As one Technical Director in the Cement division said, "*there are numerous ways of using the technical portal on the intranet. The interest lies in accessing the knowledge of people in the same industry but whose experience is different but complementary to your own. The knowledge is condensed and presented in thematic databases, and is available to every member of the Division throughout the world. The portal offers unique central access to all the information that the Cement Division possesses. People can not only access information, they can also take part in enriching the databases.*"

The work done by the Corporate Knowledge Manager between 2002 and 2005 mainly focused on this dimension (60% of her time was dedicated to this dimension). She had to maintain the technical functioning of applications and to encourage the effective use of information gathered on databases. In fact, the number of databases replicated worldwide has been growing at a rate of 25% per year for the past 3 years and the volume of data is growing at a rate of 100% per year. Objectives were to ensure accessibility and coordinate knowledge content based on user profile, deploy a Search Engine on all Notes Databases and applications and reduce total cost of ownership in hosting and development through standardization.

Some managers expressed concerns considering the knowledge management perspective as being too technology driven: "*Employees may have a tendency to forget that*

portals/data bases are nothing more than smart libraries, that in themselves they are far from sufficient to actually make things happen." "*It could be argued that our dissemination strategy is starting with the wrong focus: We spend enormous efforts on the formalisation of the "best practices" but far less efforts on how to disseminate them (…). It might be interesting for almost each individual best practice to define a strategy to disseminate it and then only see how the portal can facilitate or accelerate this strategy*". The Corporate Knowledge Manager herself considers that technology, although if it can be an enabler, cannot replace face to face interactions: "*Although members of the Group can swap information over the intranet, this in no way replaces meetings between people. It is essential for people to meet. But there is a difference now. Before, people went travelling when they were looking for things, but now they only travel when they know exactly where to find them."*

2.3 Organizational Dimension: Multi-Level Learning Structures

Lafarge Knowledge Managers' mission is to help determine the opportunities and associated benefits of knowledge management case-by–case. When an interesting knowledge project is identified, the Knowledge Manager is responsible for leveraging resources to support it (including training resources). Knowledge Managers are present at both corporate level (Corporate Knowledge Manager) and division level (e.g. Cement Knowledge Manager). The Corporate Knowledge Manager is responsible for ensuring a consistent vision of knowledge management within the group and for defining Group wide standards for tools, support and processes. The Steering Committee (Figure 2) is made up of operational representatives from the Divisions and Functions as well as the Knowledge Sponsor (who is the Chief Financial Officer) and the Corporate Knowledge Manager. There is a technical infrastructure that

needed to be put behind each project. The IT infrastructure support makes sure servers are secure and reliable, and that the network is performing correctly. The IT application support helps contributors structure new databases in a consistent way and helps collaborators use their various applications. The user hotline responds to users' questions and problems regarding IT infrastructure issues. The collaborative Project Manager is a temporary structure set up to support the implementation of collaborative tools.

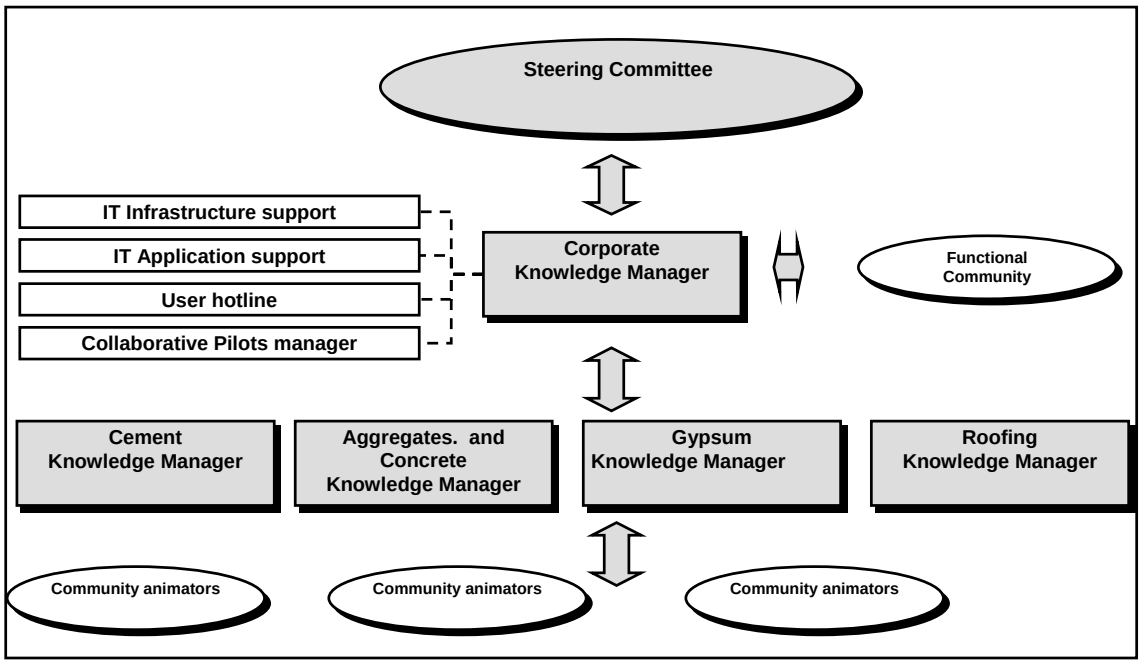

Figure 2. The knowledge management organization in Lafarge

Acting as a co-ordinator, the Corporate Knowledge Manager assists the Knowledge Project Managers with their projects and ensures that clear business value and cost benefit are considered for each project. The Division and Functional Knowledge Managers ensure compliance with the standards; they also measure and promote the usage of knowledge and collaborative tools within their divisions.

- The Corporate Knowledge Manager ensures a consistent vision for the Group and defines Group-wide standards for tools, support, and processes. The Corporate Knowledge

Manager co-ordinates the various knowledge experts and fosters exchanges within and between communities based on a common project or common knowledge. The Corporate Knowledge Manager helps with the definitions of business value for each information and knowledge-sharing project and analyses the costs and benefits of knowledge management initiatives in conjunction with the Steering Committee.

- The Division Knowledge Managers monitor the effects of the projects on the business, ensure quality and compliance with standards, and measure and promote usage for the collaborative tools in their divisions. The Division Knowledge Managers play an important role in demonstrating the benefits of using knowledge management tools and applications. Some of them lead a Divisional Steering Committee and work to create a culture of knowledge sharing in the local business units.

One of the main tasks of the Knowledge Manager is to serve the business community in terms of knowledge sharing support. Each business community has its own organization that needs to be taken into account when developing the navigation and search process of the knowledge management tools. The "knowledge community" is a community of practice (Wenger and al., 2002): an informal group sharing a common interest in a given type of information necessary for the completion of a task in the company (see figure 3).

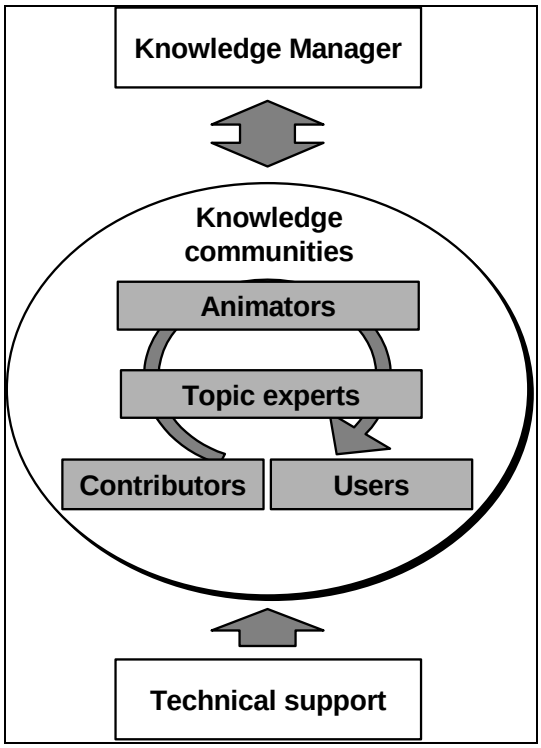

Figure 3. Structure of the Knowledge Sharing Network

A good example is given by the purchasing community. The purchasers are geographically dispersed among 60 business units in 75 countries around the world. The purchasing director decided in 2003 to create learning communities called "the purchasing clubs". Those clubs are not only a place where purchasing experts can share knowledge but also contribute to the diffusion of best practices. For instance, they organize tutorial sessions and exercises to facilitate the adoption of those practices by the business units. A virtual collaborative space was launched to support the community (i.e. TeamWorkspace).

2.4 The Cultural Dimension: The Challenge to Align Professed and Experienced Identities

Lafarge is a truly multinational company with 77,000 employees working in 75 different countries (2004). Engaged in a globalization process and a growth strategy, Lafarge has

expanded its international presence over a short time span. Operating on the five continents, Lafarge has developed a "multi-local" identity, trying to leverage the local strengths of the acquired companies. At the same time, the company wants to develop synergies at the global level by sharing best practices and expertise. According to its top managers, Lafarge is committed to facilitating knowledge exchange and to reducing the linguistic, cultural and technical communication barriers between the different international operations. An award for the best knowledge sharing initiatives is about to be created and integrated into the Lafarge Innovation Award - a global competition intended to promote continuous innovation attitudes within the different business units.

Top managers of the company see knowledge creation and knowledge sharing as being critical sources of competitive advantage for the company (professed identity). The main challenge is the capacity of the company to align this professed identity with the one experienced by Lafarge's employees. *"The goal of a knowledge manager? To succeed in putting in place a knowledge sharing culture that works without the need of a formal post of Knowledge Manager in the organization. Knowledge sharing is a behavior that needs to be a natural part of the working style and culture of an organization. Once this is achieved, knowledge sharing touches all parts of the organization and every function. Its pervasiveness will result in something that can not be managed but rather is part of the culture and management style of the company"* (The Corporate Knowledge Manager) .In this study, we do not have data to draw conclusions regarding the identity experienced by Lafarge's employees. However, several examples illustrate the difficulty in translating the strategies defined at the corporate level into concrete actions undertaken by employees in the field. For instance, if most of the senior level managers we met at the business and division levels were able to name several best practices, those who report to them (and who are in charge of implementing them) did not seem to know that they even exist.

This challenge is quite common and can be identified in many companies having initiated knowledge management projects. From an identity perspective, it is not enough to set up a strategy and to define objectives around knowledge management (for example: "use the knowledge base to respond to a bid" or "contribute to building this knowledge base"). Employees must believe in such an approach. Otherwise, they can perfectly give the illusion of supporting the knowledge management initiative, for instance by contributing to the knowledge base while in fact keeping for themselves the most important information so as to avoid relinquishing power. Motivating practices that companies set up can yield effects that may create obstacles to knowledge sharing. For instance, numerous companies have decided to reward employees with rare competencies (experts), and those who contribute to the creation of new knowledge (e.g. people who create ideas to be patented). However, these practices show that since power is linked to knowledge, to communicate one's knowledge is to lose some power. The fewer the experts, the more the current ones are recognized, etc. These practices thus incite knowledge withholding and generate an aversion to helping others attain the expert status.

2.5 Final Comments

As we have seen, internal stakeholders were keen to solve technical problems first. Once these problems were solved, the Corporate Knowledge Manager was allowed to manage knowledge communities among the Group and create learning structures in business units. According to the Corporate Knowledge Manager, the strategy for managing projects was to "*start small and gain results to attract internal customers*". Initially, social networks were created around seven groups of interests in the deployment of the knowledge sharing

platform. These groups of interests dealt with several topics such as the "new search engine", the "metrics used on projects" or "business intelligence". These groups were structured formally by the Corporate Knowledge Manager. Members were identified on a voluntary basis.

Once a dedicated structure is put in place, the real challenge is to develop a learning identity. Many obstacles need to be overcome. For example, finding the time and motivation is hard for employees ("*knowledge sharing requires time and effort…it is painful*" said the Communication Director). Many employees in Lafarge considered knowledge management as a "black hole": there is no understanding of the underlying processes in terms of identification, validation, dissemination (Who is involved, when and how?).

Concluding Remarks

While all companies today agree that knowledge is of paramount importance, few have truly implemented an integrative approach for knowledge management. We support Davenport and Prusak's view that "when people talk about knowledge management, the conversation often devolves into highly abstract and philosophical statements…but there is a real world of knowledge management - a world of budgets, deadlines, office politics, and organizational leadership" (Davenport and Prusak, 1999). Thus, one frequently notes a gap between the knowledge management policy that firms profess and their "theory-in-use" (Argyris and Schön, 1978; Argyris, 2004). Very often, the speeches delivered by the CEOs and the policies stated at the corporate level do not correspond with the practices and behavior observed. Moreover, when a management-by-objectives approach (definition of annual

objectives, both individually and collectively) is implemented, all too often, none of the objectives pertain to the sharing and creation of knowledge

Efficient management of knowledge and the transformation of a company into a learning organization are ambitious projects. The difficulties encountered by practitioners tempted by the knowledge management adventure on one hand, and by researchers seeking to study this phenomenon, or even by consultants hoping to propose improvements, can be explained by the absence of an integrative vision and instead the parceling out of the different approaches.

In this context, the Learning Mix can be a useful analytical tool to diagnose knowledge management in all its complexity: technological, strategic, organizational and cultural dimensions. By carefully developing each of these facets, and by seeking coherence among them, a company will be far more effective in its knowledge management strategy.

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