

Chapter 9

Knowledge Management under Institutional Pressures: The Case of the Smartcard in France

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ABSTRACT

This chapter explores how knowledge management, an enabler of change due to its knowledge creation capability, is subject to several forces that shape its processes and outcomes. A qualitative analysis based on data from a case study of the first major rollout of smartcard technology in France shows how institutional isomorphic pressures affect not only knowledge management processes but also resulting innovations. Government impetus, legal authorities, and cultural expectations in French society produced coercive isomorphic pressures on the credit card industry, while existing credit card solutions, systems, and standards played the role of mimetic pressures, and professional networks and network externalities acted as normative pressures. The study suggests that a systems perspective which acknowledges these institutional isomorphic pressures can lead to greater strategic alignment and can provide a basis for meaningful differentiation and competitive advantage.

INTRODUCTION

As Burgelman and Grove (2007) have clearly explained, ‘nonlinear strategic dynamics come about as industry participants – sometimes incumbents, but probably more frequently new entrants – change the rules of the game’ (p. 966). These rules span normative rules based on laws, customs, and administrative principles; technological rules

based on available technical solutions; economic rules reflecting existing bargaining power relationships among the industry players (often captured in contracts); and cognitive rules that are widely shared judgments about key success factors. The authors contend that whether implicit or explicit, the rules of the game usually remain unchallenged for extended periods of time (Grove, 2003), thereby engendering a strong tendency toward strategic inertia among the industry incumbents (Burgelman & Grove, 2007).

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Institutions are the sources of such rules that are imposed to the organization and its competitive field. They have the power, as it will be illustrated with a case study, to induce innovations and make use of their strong institutional impetus. In the attempt by governments to stimulate the economy, solving this issue of disconnect between institutional systems legitimized in routine on the one hand and innovation striving on change on the other hand, promises to lead to a newfound virtuous cycle of growth.

The importance of knowledge management (KM) lies in the fact that it has been recognized as a source of competitive advantage and has become a necessary practice for innovation, in which ‘the central competitive dimension of what firms know how to do is to create and transfer knowledge efficiently within an organizational context’ (Kogut & Zander, 1992, p. 384). Moreover, when institutions are viewed as ‘the humanly devised constraints that structure human interaction’ (North, 1994, p. 6), institutions can be seen as shaping much of the knowledge of our societies, both as inputs and outputs. And because technology for instance, has long been established as embodying a type of knowledge – ‘technology is the knowledge of the manipulation of nature for human purposes’ (Betz, 1993, p. 374) – or as being the output of a unique knowledge utilization – ‘technology is the application of scientific and engineering knowledge to achieve practical results’ (Roussel et al., 1991, p. 22) – innovation turns out to be an outcome of institutions. Therefore, institutions, which ‘can be powerful sources of both stability and change’ (Jepperson, 1991, p. 159) shape the environment where innovations have the potential to flourish (or perish), and these successful (or failed) innovations provide in return a justification for the aforementioned institutions. This dialectic between institutions and technology brings KM to the foreground in exploring the institutional factors influencing innovation.

BACKGROUND AND HYPOTHESES

A prevailing definition of knowledge management is the knowledge value-chain approach common to many KM descriptions (Shin et al., 2001). Magnier-Watanabe and Senoo (2008) for instance describe it as ‘the process for acquiring, storing, diffusing and implementing both tacit and explicit knowledge inside and outside the organization’s boundaries with the purpose of achieving corporate objectives in the most efficient manner’ (p. 22). The four stages of knowledge acquisition, storage, diffusion, and application, although not necessarily sequential, are required to achieve the efficiency function of KM within the organization (Alavi & Leidner, 1999). As such, the two goals of KM are productivity gains through efficient decision-making and problem-solving, and innovation by way of bringing new ideas to market (Holsapple & Joshi, 2000).

First, knowledge acquisition, which can be either focused or opportunistic, is the process of gaining new knowledge, from either inside or outside the organization and in either tacit or explicit form. Even though acquisition supposes that knowledge already exists and is brought in from another location, the fact that this already-existing knowledge becomes part of the organization gives it the status of new knowledge inside the firm. To some extent, knowledge creation is the acquisition of knowledge from within the organization, while knowledge addition is the acquisition of knowledge from outside the organization. Second, knowledge storage deals with the sharing patterns of knowledge within the organization and whether it is stored for individual or collective benefit. In this regard, public storage of knowledge enables knowledge sharing, while private storage hinders it. Besides the firm’s specific policies and practices on knowledge sharing and because knowledge can be both tacit and explicit (Polanyi, 1966), knowledge storage is subject to the firm’s organizational culture which can foster a sense of individual or collective membership (Magnier-Watanabe &

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