Organisational Narratives of Applied Knowledge in Technology-Based Organisations

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ABSTRACT

This paper presents the conclusions of four case studies in technology-based (TB) organisations. These companies have a strong international presence and also represent success-stories of Portuguese innovation, covering the 1980s through to the 2000s. Using a qualitative approach, the authors pinpoint the critical success factors that made these companies a reference in terms of innovation. These cases were chosen as they all recount the successful application of sustainable innovation in social processes to organisations. The research question was: What are the key factors that drive innovation processes in successful Portuguese technology-based organisations? Results show that the lessons learned from narratives of innovation play an instrumental role in the comprehension of social interaction complexities. Furthermore, the study identifies several management practices that highlight the significance of the players involved in innovation. The findings show that a passion for knowledge and its productive applications are key differentiating factors.

KEYWORDS

Applied Knowledge, Case Studies, Innovation-Players, Innovation Process, Technology-Based Organisations

INTRODUCTION

As far as innovation is concerned, Portugal faces a paradoxical scenario. Despite the crisis, according to the European Community, Portugal is ranked fourth highest in the European Union in terms of the number of innovative companies. The country is only surpassed by Germany, Luxembourg and Belgium (Eurostat, 2013). The Innovation Union Scoreboard (European Commission, 2013) has rated Portugal as a moderate innovator since 2011, growing at an annual average of 5%. The main contribution for attaining this position was the growth of the technology sector and the emergence of many TB companies that have become global players. These facts justify the objective of this study, which is: to analyse in depth the cases of innovation in the TB sector in Portugal that were considered to be successful.

Following the framework of the Minnesota Group (Minnesota Innovation Research Program - MIRP: c.f. Van de Ven et. al., 2000, 1999; Van de Ven & Poole, 1990), this research defends that innovation requires more than just creative capacity to invent new ideas. It also requires management skills and talent for turning good ideas into practical results (Van de Ven et al. 2000), which implies possessing knowledge about the processes of innovation management. In order to find answers to the research question (i.e. what are the key factors that drive innovation processes in successful Portuguese TB organisations), a set of theoretical assumptions are presented in the following section.
LITERATURE REVIEW

Innovation as a process has been associated with uncertainty. According to Jalonen (2012), uncertainty results from: 1) events in the future which do not follow the course of past events; and, 2) the fact that knowledge of the future is always incomplete. The eight factors which create uncertainty in innovation processes are the following: technological, market, regulatory/institutional, social/political, acceptance/legitimacy, managerial, timing, and consequence uncertainty (Jalonen, 2012). In order to face uncertainty, it is essential to understand the social standards that exist within innovation processes. In this sense, innovation can be designed to be a set of daily activities through which organisations develop meaning and identity (Brow & Duguid, 1991; Weick, 1995). Given the existing definitions of innovation, this study assumes that innovation is a process, which includes ideas, outcomes, people, transactions and contexts. More specifically, innovation is defined as the process through which new ideas are developed and implemented to achieve desired outcomes, by people who are engaged in social transactions with others, in a changing institutional and organisational context (Van de Ven et al., 1999; 2000).

The literature identifies some organisational attributes which are essential for facilitating and fostering innovation, namely: culture, strategic decisions and facilitating structures and internal processes (Burns & Stalker, 1961; Mintzberg, 1979; Kanter, 1983, 1988; Ebadi & Utterback, 1984; Von Hippel, 1988). Furthermore, innovation processes are subject to two types of agents: 1) drivers, which actively contribute to the process; and, 2) context agents, i.e. the factors that create a context which encourages innovation in a more passive and gradual way.

Another perspective of innovation discusses the role of the external environment, in which the open innovation concept is central. Open innovation strategies are critical for the survival of organisations. According to Chesbrough (2003), this perspective represents a new way of managing innovation and R&D. Organisations’ daily routines are balanced between external pressures and internal needs. Innovation sources may come from inside or outside the company. The role of R&D staff is both to create knowledge and to capture it from outside the organisation. In sum, according to Chesbrough (2003), open innovation is “a paradigm that assumes that firms can, and should use external ideas, as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology”.

Innovation is also associated with the idea of reputation, prestige and visibility (Smith-Doerr et al., 2004). Marziliano (2001) defends that image is not only defined by financial success, but is, in fact, a prerequisite of success itself. According to the author, a company’s image may be a fundamental factor if an organisation wants to survive. Gioia et al. (2000) argue that reputation is a collective judgment of external constituents, related to an organisation’s actions, which are relatively stable over time. It implies a cumulative knowledge of the organisation, which comes from repeated interactions with the same over time. Other authors, such as Chun (2006), highlight how the degree of innovation in a company can influence its reputation. A relationship can also be seen between the success of large companies, as these are more innovative (e.g. 3M, General Electric, Sony, Canon), and the position that they achieve in comparison to their competitors (Keller, 2003).

FRAMEWORK AND STUDY PROPOSITIONS

As noted by Van de Ven and Jonhson (2006, p. 802), several special editions of leading academic journals have highlighted the growing concern that academic research has become less useful for solving practical problems. Also, the field of management studies is said to suffer from an important gap between theory and practice. Van de Ven and Johnson (2006, p. 802) expose the roots of this problem: 1) findings from academic and consulting studies are not applicable in a practical sense and thus are not implemented; 2) academics do not put their research into practice adequately enough; and, 3) professional knowledge specialists are unaware of the relevant research and thus do little to convert their practice into theory.
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