

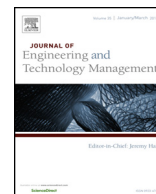


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## Strategic thinking and business innovation: Abduction as cognitive element of leaders' strategizing

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### ABSTRACT

Leaders' strategic thinking, or mental processes, are the cognitive foundation of business innovation. Business innovation is a difficult endeavor. For leaders, the path from strategic thinking to effective innovation is complex and full of obstacles. 'Strategic thinking research' investigates cognitive factors that foster innovation, focusing mainly on leaders' deductive or inductive reasoning and their rational choices. However, leaders' rationality is bounded and their strategic thinking is a mix of rationality and insight. Therefore, strategic thinking research should investigate both the rationality and intuition that can support business innovation.

Given this, the study proposes a theoretical model describing strategic thinking that draws on Peirce's theory of abduction. Leaders' strategic thinking is shown to be similar to the cognitive process of hypothesis formation, and to follow both logical rules and intuitive insights. The proposed model provides guidelines that allow rationality and intuition to go hand in hand, and thus together support the real-world processes of leaders' strategizing. The proposed model is tested by employing the semi-standardized laddering technique on a sample of strategic leaders of service companies.

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## 1. Introduction

The formulation of company strategy is a decision-making process based on human and organizational cognitive processes, for the purpose of achieving market success (Gavetti et al., 2005; Gavetti, 2012; Barney, 1986). It is the cognitions of the company leaders that form the basis of the strategies (DeWit and Meyer, 2004; Whittington, 2003; Gavetti, 2012).

'Strategizing' is part of the leaders' exercise of decision-making. Although there is no precise definition of the term, the traditional consensus is that it involves the exercise of leaders' rationality for the development of management plans (Porter, 1998; Hax and Majluf, 1996). However, certain scholars stress that the exercise of leaders' insight and intuition must be included as part of the concept (Bailey et al., 2000; Mintzberg, 1994; Hamel and Prahalad, 1989).

Strategizing research has drawn from a variety of source data and applied a mixture of methods, such as case studies, ethnographic protocols, surveys, simulations and psychosocial analysis (Floyd et al., 2011). The cross-fertilization of different approaches has been beneficial in advancing managerial knowledge about strategizing (Zahra and Newey, 2009). One of the lines of research deals with 'strategic cognition' (SC) (Porac and Thomas, 2002), which focuses on the specific

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mental processes in strategy formulation and implementation. SC refers, in particular, to the 'linkages between cognitive structures and decision processes with respect to strategy formulation and implementation' (Porac and Thomas, 2002: 165).

A successful strategy 'is about being different [...] and deliberately choosing a different set of activities to deliver a unique mix of value' (Porter, 1996: 64). In fact, it is the leaders' ability to think differently that favors the exploitation of unexplored business opportunities, and the generation of innovative and profitable business ideas. Research that investigates the principle cognitive processes that permit leaders to take an innovative role, capable of generating effective strategies, is thus particularly useful (Gavetti, 2012).

The current study explores strategizing through the application of Peirce's theory of abduction (Brogaard, 1999; Hoffmann, 1999; Paavola, 2004; Magnani, 2004). It develops a model in which leaders' strategizing is described as a process of inference, resembling multiple hypothesis formation and the selection of one or more alternatives from an infinite range of options. The study presents arguments demonstrating that, in keeping with this model, strategizing is subject to both rational principles and intuitive insights (Brogaard, 1999). The study also includes an exploratory test, involving a sample of strategic leaders of service companies, which investigates the reliability of the proposed theoretical model.

The next section of the paper reviews the literature on strategizing, while Section 3 presents the research method. Section 4 develops the strategizing model, employing Peirce's theory of abduction. Section 5 reports an experiment carried out in service companies, testing the proposed model. Finally, Sections 6 and 7 discuss some of the managerial implications arising from the findings and provide a summary of the conclusions.

## 2. Literature review

### 2.1. Definition of strategizing

Strategizing is a cognitive or decisional process that leaders undertake for the successful management of their companies (Jarzabkowski, 2005; Whittington, 2006; Greco et al., 2013; Gavetti, 2012). The concept refers to the exercise of logic and activities, practices and organizational routines (such as data analysis, meetings, discussions), by means of which a strategy is decided, either deliberately or through its simple emergence (Mintzberg, 1978; Johnson et al., 2003; Maitlis and Lawrence, 2003; Hendry et al., 2010).

Human cognition is at the origin of all strategies. Cognition allows the selection of information, the interpretation of events, and thus the identification of strategies. Hence, strategic cognition composes the very foundation of strategy formulation and implementation (March and Simon, 1958; Kaplan and Tripsas, 2008): '...the cognitive perspective in strategy, or SC, ascribes causal importance to structures and processes of cognition in the explanation of strategy and, hence, the competitive advantage of firms. SC highlights how cognitive structures and processes develop in organizations, how these structures and processes generate business definitions and corporate and business strategies, and how they lead to major strategic initiatives' (Narayanan et al., 2011: 307).

The company must ultimately develop business excellence through its managers' operational competencies; however, it is the leaders' SC that permits the innovation of new value propositions (Combs et al., 2011; Gavetti, 2012). Thus, the investigation of SC serves in understanding how and why business innovation can actually take place (Pandza, 2011).

Studying SC is particularly important for understanding how to support innovation in service companies, since in these contexts, basic research and technical-scientific development offer less possibility as a basis for strategy innovation (Ostrom et al., 2010).

In the light of the above, the following research questions arise: How does SC work? How does SC generate innovation? What are the respective roles of the leaders and environmental forces in generating innovation? And finally, how can companies encourage innovation?

The following section identifies the main building blocks of SC, to lay the foundations for answering the research questions.

### 2.2. Basics of SC

The cognitive factors affecting strategizing include: leaders' bounded rationality (Simon, 1957), their knowledge and experience (Shi and Prescott, 2011), their dominant logic (Kwee et al., 2011) and their attitude to seizing market opportunities (Poole and Van de Ven, 1989). In addition, social factors (Rouleau and Balogun, 2011; Pandza, 2011; Santos-Vijande et al., 2012) and resources limitations (Bradley et al., 2011; Combs et al., 2011) also affect strategizing.

Strategic leaders can support their own decision-making processes and overcome the cognitive, social and resource limitations affecting their strategizing (Bradley et al., 2011). Discursive acts (Rouleau and Balogun, 2011), inductive and creative sense-making (Pandza, 2011), visionary thinking (Gavetti, 2012) and intrinsic motivation make leaders proactive and more free in their strategizing (Garud et al., 2010; Vergne and Durand, 2010; Gavetti, 2012).

Leaders and their organizational or competitive environment can influence one another through mutual interactions (Smircich and Stubbart, 1985). In fact the environment and the leader's role have reciprocal impacts on SC (McKinley, 2011; Kwee et al., 2011; Shi and Prescott, 2011), and their favorable balance achieves quality in strategy making (Gavetti, 2012; Jippes et al., 2013). We thus see two opposing truths in SC: the leaders' SC influences their reference environment, and at the same time is subject to it (Porac et al., 2011). First, environmental forces, such as market and technological constraints,

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