

Making Sense of Strategic Decision Making

Suvi Einola

Introduction

Strategic decision making is widely studied, but is not, however, deeply understood. Existing strategy research mostly concentrates on processes and the content of strategy work, and in addition, factors that enable or hinder strategy work. There is also a growing interest in the behavioral and social influences on the decision-making process of top-management teams, but far less attention has been directed to the cognitive factors at work at both the CEO and the top management team level (Bromiley and Rau 2016). In rapidly changing business environments, where real-time strategic decision making is crucial, the role of cognitive processes and strategic cognition is both significant and interesting. Taking into account that strategic decision making is far from easy, and that strategic decisions significantly affect firms' success or failure, the cognitive

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approach can make a key contribution to the decision-making discourse. The current book chapter aims to shed light on cognitive factors, strategic cognition, cognitive models, and sensemaking processes at the level of both top management and individual CEO.

Theoretical Grounds

Strategic Decision Making

Strategic decision making is widely seen as a crucial factor in explaining firms' success. Classic strategic decision making encompasses top management teams' decisions on actions taken, resources committed, and/or precedents set. Whereas earlier studies highlight the role of rationality in strategic decision making, recent studies have emphasized the role of cognitive biases. The roles of most known cognitive biases are well illustrated in previous literature (Johnson et al. 2008; Lovallo and Sibony 2006). Over-optimism and loss aversion are seen as universal human biases affecting all types of situations, including those of everyday life. For example, when we think of our future lives, we tend to underestimate the potential for negative events in our lives (over optimism). In addition, we prefer avoiding losses to making gains (loss aversion). The following biases—the *principal-agent problem*, *champions' bias*, and *the sunflower syndrome* are more specific and tend to happen in decision-making situations. Principal-agent bias is a particular concern among decision makers especially in strategic decision-making situations, “when the incentives of certain employees are misaligned with the interests of their companies, they tend to look out for themselves in a deceptive way” (Lovallo and Sibony 2006, p. 20). In addition, champions' bias indicates the likelihood of managers having too much faith in the opinions of *trusted persons* (usually an experienced manager) in decision-making situations. Finally, the sunflower syndrome shows the tendency to lead and follow senior managers' opinions in decision-making processes.

As the potential for bias in decision-making situations is well documented (Kahneman et al. 2011; Johnson et al. 2008; Lovallo and Sibony

2006), the ways used to address bias in those situations become more interesting. If decision makers were to become more aware of how biases affect strategic decision making, there would be more opportunities to prevent those effects. We believe that the role of real-time data is essential: Usage of real-time information and making data-driven decisions should be encouraged in order to overcome decision-making biases. Of course, as pointed out earlier in this book, to be able to use real-time information, companies should pay attention to data gathering, data analysis, and also to the format of the information offered to the top management team. Continuous company-level monitoring of the decision-making processes usually provides fruitful perspectives on how to enhance decision making. In addition, the potential of open discussions and shared decision making seems to be undervalued when conceiving of decision-making improvements in top management teams. Decision makers might find it helpful to construct several simultaneous alternative scenarios in decision-making situations to reduce the likelihood of biased decisions. The views of trusted, experienced managers are worth seeking, although those should not necessarily be adopted directly. In addition, seeking consensus is considered to be important to facilitate bias-free decision making. However, consensus should not be pushed through artificially, because it would cause frustration rather than create shared understanding. As we know from earlier studies (Jarzabkowski 2008; Mantere 2005), true participation in decision-making processes will increase commitment, irrespective of how a participant reacted to the actual decision in the first place. In addition to the coping mechanisms mentioned above, the determination to actually make a decision, regardless of everyone's level of satisfaction, is decisive. The time lost through lengthy discussions undertaken to ensure satisfaction among all the participants can be crucial in fast-changing business environments.

If time is crucial, so too is money. Kahneman et al. (2016) claim that inconsistent decision making is as injurious as biased decision making, because both constitute a huge hidden cost to companies. Kahneman and colleagues present useless variability in decision making as noise. Put simply, if the decision of the decision makers differs between them, it is noise. If the decision is somewhat similar

between the decision makers, but not accurate, the decision is biased. While companies expect consistency from their decision makers, the ability to evaluate a situation is often affected by many irrelevant factors, such as previous events. The radical suggestion to correct the situation caused by noise is to replace human judgment with algorithms, but as Kahneman et al. (2016) note, the use of algorithms is not without its challenges; algorithms are not practical, and they are not applicable if decisions involve multiple dimensions. As strategic decisions are hardly ever either one-dimensional or simple, replacing decision makers with an algorithm seems not to be an option for improving decision-making quality. Kahneman and colleagues do, however, suggest regular roundtable discussions to explore and resolve the differences in decision making, and the frequent monitoring of individuals' decision making would help make decision making more accurate.

Strategic Cognition Facilitating Decision Making

To be able to make sense of strategic decision making, one must consider strategic cognition. The role of strategic cognition studies in the field of decision making is to extend the phenomenon of strategic decision making by bringing the knowledge of cognitive theory into the management context. The concept of strategic cognition links cognitive aspects and strategic management via two constituents: structure and process (Narayanan et al. 2011). In this chapter, strategic cognition structures and processes are divided in the following manner: strategic cognition structures consist of cognitive maps, strategic flexibility, organizational identity, and organizational routines, whereas the strategic cognition processes mentioned are organizational learning, strategy work, and organizational identity (cf. e.g., Narayanan et al. 2011). In recent organizational literature, identity has also been associated with the process perspective (Gioia and Patvardhan 2012). Gioia and Patvardhan suggest that identity can be, and should be, seen both as a structure and a process, and it will accordingly be discussed as such below.

Strategic Cognition Structures

This chapter discusses the constituents of strategic cognition structures: (1) cognitive maps, (2) strategic flexibility, (3) organizational identity, and (4) organizational routines. Cognitive structures are often proposed to be stable characteristics of an organization, including top management's beliefs about strategy, the business portfolio, and the environment (Porac and Thomas 2002). In strategic cognition structures, (1) *cognitive maps* illustrate organizations' knowledge structures like a shared cognitive picture, which managers use in strategic decision-making situations. In previous literature, cognitive maps have also been called strategy frames, dominant logic, strategic schemas, or belief structures employed by top management in strategic decision making (Daft and Weick 1984; Fisk and Taylor 1991). At the organizational level, cognitive maps can be seen as a cognitive building of strategy, where the content and structure of strategy are connected in a process where cognitive maps act as lenses and filters through which managers interpret all the available information. The key characteristics of cognitive maps can be clustered or classified into two groups: complexity and focus. The former is about companies having a "diverse set of alternative strategy solutions in strategic decision making" (Nadkarni and Narayanan 2007: 246), whereas the latter "reflects the degree to which a strategic schema is centralized around a few 'core' concepts" (Nadkarni and Narayanan 2007; 246). Since cognitive maps are mental representations that actors use in decision-making situations at least partly subliminally, challenges arise when the cognitive maps of decision makers differ significantly. Building shared understanding and shared cognitive maps is a key issue for companies aiming to develop decision-making processes.

When developing strategic decision making, (2) strategic flexibility and its two main constituents, resource deployment and competitive actions (Eisenhardt and Martin 2000), are inevitably present. Strategic flexibility resonates strongly with cognitive maps, as the key characteristics of cognitive maps (complexity and focus) are extremely relevant to strategic flexibility. The degree of focus and complexity of cognitive maps directly affects a company's strategic flexibility. Focused cognitive maps drive more hierarchical strategic decision making, during

which managers concentrate mainly on a relatively narrow set of strategic actions, whereas employing complex cognitive maps increases a company's adaptability, and thus encourages more versatile strategic decisions (Nadkarni and Narayanan 2007). The more cognitive maps are shared at the company level through participation in strategy work and through discussions, the more flexibly companies react vis-à-vis fast-changing situations through both resource deployment and competitive actions.

Organizational routines (3) are one of the items in strategic cognition structures. As Feldman (2000) illustrates, “[organizational] routines are temporal structures that are often used as a way of accomplishing organizational work”. Organizational routines are often believed to play an important role in decreasing complexity, and accordingly, “lubricate the working of the organization” (Johnson et al. 2008, 198). On the other hand, routines are often seen as slowing the pace of strategic change in organizations, because routines seem to persist over time, and even top management teams are often committed to maintaining the status quo (Hambrick et al. 1993). Routines are criticized for being a source of inertia, although some studies view them as a source of change as well as of stability (Feldman and Pentland 2003). In any case, routines are meaningful in organizations, because a large part of the work an organization undertakes is realized through routines (March and Simon 1958). Organizational routines are like patterns of behavior involving many organizational members. Although organizational routines are often defined as stable, there are studies that claim routines are often more dynamic than they are perceived to be (Feldman 2000). In this chapter, organizational routines are mainly seen as part of strategic cognition structures, but also perceived as dynamic, and in an optimistic scenario, to support strategic decision-making processes. In sum, organizational routines can be seen as the backbone of strategic decision making.

As discussed earlier, previous studies have seen (4) *organizational identity* as both structure and process (Gioia and Patvardhan 2012; Narayanan et al. 2011). As a structure, organizational identity illustrates the answer to the question of “who we are as an organization” (Gioia et al. 2000: 67). The classic way of seeing identity as a structure claims

identity is something that persists over time and something more akin to a description of an organization's *being*: or as Albert and Whetten (1985) put it, identity is *central*, *enduring*, and *distinctive*. To challenge the structure view, in the next paragraph, we discuss organizational identity as a process.

Strategic Cognition Processes

Strategic cognition processes encompass (1) organizational identity, (2) organizational learning, and (3) strategy work. *Organizational identity* as a process illustrates the state of becoming rather than that of being (Gioia and Patvardhan 2012). Organizational identity as a process shows how identity is constructed and reconstructed in and around organizations (Schultz et al. 2012). Organizational identity as a process illustrates the *doing*, acting, and interacting, to serve the continuous reformulation of organizational identity (Pratt 2012). Looking at organizational identity as a process entails viewing organizations as continuously changing units, where identity is not something organizations have, but something constructed in everyday interactions between organizational members. In this view, strategy work constructs organizational identity. This dynamic approach challenges the traditional way of seeing organizational identity as some sort of entity (Gioia and Patvardhan 2012). In the process view, the phases of the identity process do not have clear boundaries, but instead, move back and forth between construction, performance, reconstruction, and legitimation (Fig. 1) as a continuous cycle of organizational identity work. To conclude, it seems that identity is neither a structure nor a process, but should be seen “both as some sort of entity, and as some sort of process” (Gioia and Patvardhan 2012, 53). In any case, organizational identity is at the core of strategy and strategic decision making, when organizational actions are firmly built on organizational identity (Gioia and Chittipeddi 1991).

One of the main processes in strategic cognition is *organizational learning*. Organizational learning consists of *the four I's*: intuiting, interpreting, integrating, and institutionalizing. The first phase

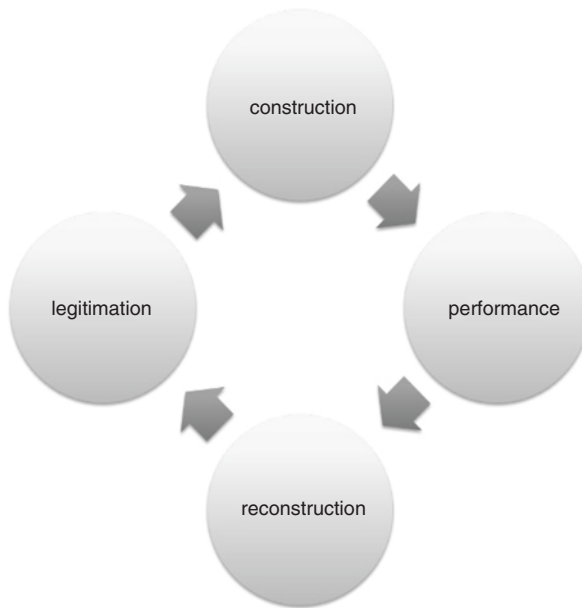


Fig. 1 Organizational identity as a process

of organizational learning is intuiting: “a largely subconscious process” (Crossan et al. 1999: 526), where past patterns are recognized in order to learn from them. The intuition phase connects the content of cognitive maps (i.e., an organizational knowledge structure and strategy frames) with a learning process. During the interpreting phase, an organization is acting and explaining the results of the intuition phase to construct a workable form to be able to integrate and institutionalize this new knowledge into organizational life (Crossan et al. 1999). While intuiting and interpreting take place at the individual level, interpreting also occurs at the group level. Integrating knowledge occurs at the group level, while integrating and institutionalizing occur at the organizational level (Crossan et al. 1999). The four organizational learning *I*s occurring within three learning levels suggest that “the emergence of organizational learning is a bottom up and interactive process” (Crossan et al. 2011).

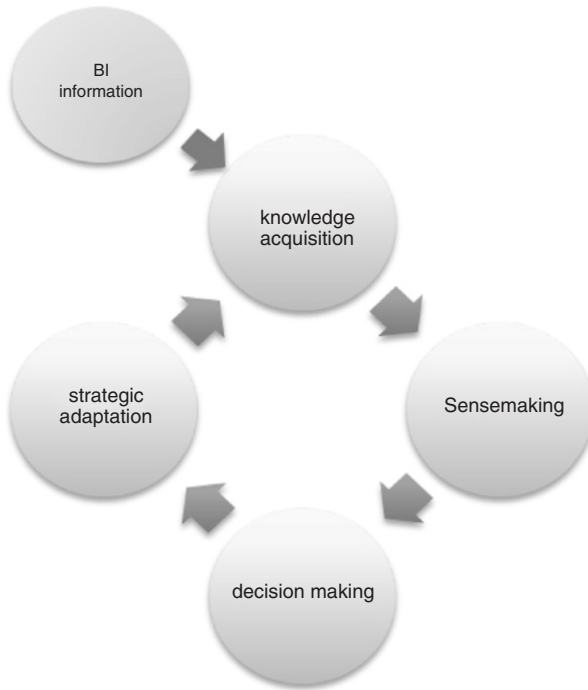


Fig. 2 Building the concept of strategy work

Strategy Work

One cannot talk about strategic decision making without talking about strategy work. In strategy-as-practice (SAP) research, strategy is viewed through its three interrelated concepts: practitioners (people who do the strategy work), practice (the tools and methods through which strategy work is done), and praxis (the way strategy work takes place) (Vaara and Whittington 2012; Jarzabkowski and Spee 2009). To be effective, strategy work should consist not only of phases, such as formulation and implementation, but its phases should be integrated to generate a unified process of strategy work (Fig. 2), where the boundaries between phases blur. The strategy-as-practice view might help managers

understand the different aspects of strategy work, and bear them in mind so as to improve strategy work.

The reason for strategy's ambiguous reputation and one of the reasons why only 10% of planned strategies have been implemented successfully (Mintzberg 1994) might lay in companies and researchers alike considering strategy formulation and strategy implementation to be separate processes. If strategy formulation is just for the upper echelons and does not involve a broad spectrum of members of the organization (practitioners), implementation can become challenging. Then again, if strategy is what organizations do, in the sense of emergent, dynamic, and adaptive strategic learning (Mintzberg and Lampel 1999), it should involve a broader range of actors. Participation (practice) is central to developing a shared understanding of strategy, trust between organizational members, and the sharing of the main strategic ideas (Ashmos et al. 2002; Liedtka 2000; Stensaker et al. 2008). In addition, the participation of organizational members in strategy work provides insights into the needs and opportunities inside the organization (praxis). If companies ensured wide participation among various actors, there would be no need for a separate implementation process. When middle managers and employees commit to strategy work, the implementation of strategic decisions becomes less demanding. Given that most strategic decisions are implemented at the operational level, the commitment of organizational members to strategy work from the start of the process appears vital.

Strategy work, as it is viewed in this chapter, consists of knowledge acquisition, sensemaking, decision making, and strategic adaptation. The focus of *knowledge acquisition* is often discussed in previous literature by splitting it into internal and external forms. The current work attempts to present a more holistic view on scanning the environment and building a framework to help companies collect meaningful data to enhance real-time strategic decision making. In all companies, the role of financial data is obviously salient. In addition, customer, competitor, human resources, and customer relationship management data are often collected in order to enhance strategic decisions. To be able to collect meaningful data, companies need to decide on the necessary measures, design the data collection method, and use frameworks to

collect the data. In a world where almost any piece of information is available, deciding the most relevant information to be utilized in decision making is no simple process. Ultimately, discussions with several top-management team members reveal the key issue not to be the collection of insightful data, but the utilization of data in strategic decision-making situations. Still in the era of the big data revolution, quite a number of the strategic decisions in top management teams are the product of a combination of financial data and the intuition of a few key players. It seems, therefore, that the role of the sensemaking process is even more crucial than most scholars are ready to admit.

Because *sensemaking* is a crucial item for strategic cognition processes and strategy work, this chapter illustrates the sensemaking process as set out in the retrospective sensemaking view (Weick 1979, 1995). The word sensemaking is often used quite loosely. The retrospective

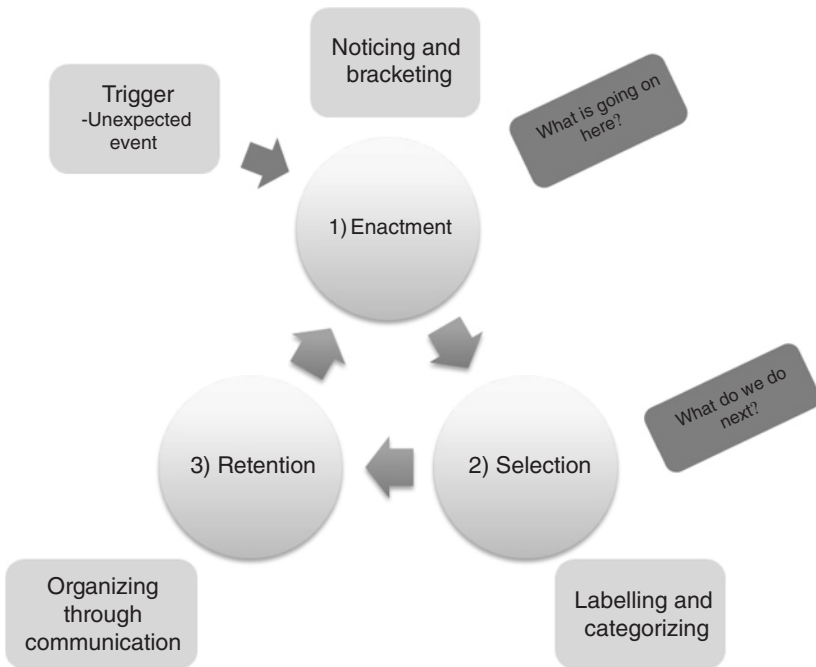


Fig. 3 The sensemaking process (based on Einola et al. 2016)

sensemaking view defines sensemaking as a process of interactions and interpretations undertaken in ongoing dialogical discourses in an attempt to make sense of the surrounding world (Gephart 1993). This means that sensemaking is seen here as a continuous and retrospective process, in which action is not driven by sense; instead, sense is guided by action and a retrospective understanding of that action (Gioia 2006; Weick 1995).

Organizational sensemaking is realized through collective communication, interpretation, and what Giddens (1984) called 'meaning-shaping'. The earlier content of this chapter serves as a reminder of the structures of strategic cognition: the cognitive maps, organizational identity, and routines required in organizational sensemaking processes (Berger and Luckman 1966). The sensemaking process (Fig. 3) is seen as a cyclical and iterative process, a retrospective explanation of what people think they should have been doing (Gioia 2006; Weick 1995). If the sense is made retrospectively, one might wonder how to make knowledge-based strategic decisions faster and still believe the decisions to be correct. To answer this question, let us delve a little deeper into the sensemaking process.

Most of the time, participants in organizational life act on autopilot. Organizational routines lead the acting and doing in organizations. The sensemaking process is triggered when discrepancies interrupt normal action and act to trigger sensemaking and its first phase, *enactment* (Weick et al. 2005). Enactment includes noticing and bracketing equivocal events or issues and inventing possible new interpretations (Magala 1997: 324).

The second phase of the sensemaking process, *selection*, involves the variety of possible interpretations being reduced through the use of cognitive maps and connected discussions to generate an internally plausible story (Tsoukas and Chia 2002; Weick et al. 2005). To reduce the possible interpretations, actors categorize the resulting notions. The resulting categories remain tentative because they are defined by actors and adapted to local circumstances (Weick et al. 2005). In short, selection decreases the number of interpretations available for the final retention phase, where learning is enabled.

The situation attains greater solidity in the third phase of the sensemaking process, *retention*, where interpretation is connected to past

experience and can thus be used to guide forthcoming action and understanding (Weick 1979). At the retention phase, newly gained knowledge is retained into systems, structures, and processes (Krush et al. 2013).

Knowledge integration into organizational memory has often been considered an important dimension of knowledge implementation that results from sensemaking and, more specifically, from retention (Huikkola et al. 2013; Selnes and Sallis 2003). In strategy work, the role of the sensemaking process is critical, because the shared view of the organizational situation and strategy is built on the sensemaking process, which includes both conversational and social practices that are manifested both verbally and nonverbally (Gephart 1993; Gioia and Chittipeddi 1991). Organizational actors continuously construct and reconstruct organizational actions and strategy through sensemaking processes (Giddens 1984).

Because decision making in strategy work is complex and inherently includes a good deal of uncertainty, it is important for decision makers to acknowledge and appreciate the complexity of those decisions. While earlier studies highlight the role of contingency theory, that is, the either/or selection in order to find the best-fitting solution, recent literature discusses the both/and form of decision (Smith and Lewis 2011). It might be that in strategic decisions, the era of single-loop decision making is coming to an end, and what we need now is an acknowledgment of continuous change and complexity. It might be that strategic decisions should in the future be made more often through a both/and lens, as many of the challenges companies face cannot be resolved with either/or decisions. Balancing seemingly paradoxical decisions might help companies progress with their strategy work (Smith et al. 2010; Smith and Lewis 2011).

Finally, the fourth and last phase of strategy work is strategic adaptation, which can be seen as a shared movement that occurs through interactions between different organizational levels that took place in earlier phases of the strategy work (Jarzabkowski 2004). In the phase of strategic adaptation, an organization absorbs the knowledge gained into its organizational memory. Shared cognitive maps and a reconstructed organizational identity foster strategic adaptation, and again, organizational learning.

Conclusion

In strategic decision making, and perhaps in life in general, it is not just about getting the right story, but instead about getting a story one can believe in. As strategic decision making is a complex amalgam, one where decision makers operate at the focal point of events, the use of analytics can significantly help decision makers to find the story to believe in. As discussed earlier, the structures and processes of strategic cognition significantly affect decisions. When aiming for successful strategic decision making, a few things should be thoroughly considered: (1) Companies should pay attention to knowledge acquisition to find objective assessments of facts and, therefore, should pay less attention to the intuition of a few key people if they are to avoid the biases and noise discussed earlier. (2) Companies should encourage middle managers and employees to participate in the organization's strategy work, in order to make sense of the current situation, to build shared cognitive maps among actors and to help decision making. (3) Organizational identity should be seen not only as a static structure, but also as a process where strategy work can act as a facilitator of the company's identity construction and reconstruction. (4) Organizational routines can serve as the backbone of strategy work, but it is important to bear in mind that as bones renew themselves, so should management review and replace organizational routines as necessary. (5) As strategic decisions are often entangled and complicated, balancing between tensional or even paradoxical decisions is often the only way to succeed in decision making and in life generally.

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