

Planned or Emergent Strategy Making? Exploring the Formation of Corporate Sustainability Strategies

Friederike Neugebauer,^{1*} Frank Figge² and Tobias Hahn²
¹*Faculty of Business and Economics, University of Kassel, Kassel, Germany*
²*KEDGE Business School, Marseille, France*

ABSTRACT

In strategy research, there is a consensus that strategy making resides on a continuum from planned to emergent where most strategies are made in a mixed way. Different contingency factors have been suggested to explain the factors that influence strategy making. Sustainability research seems to overlook most of this development and assumes instead that sustainability strategies are made in a purely planned way. We contribute to a better understanding of the role of different strategy making modes for sustainability in three ways. First, we point to the bias towards planned strategy formation in sustainability research. Second, we propose a new contingency factor to help explain sustainability strategy making based on the nature of the problem addressed. Third, we discuss strategy making for different types of sustainability problems. We argue that planned strategy making is expected for salient and non-wicked problems while emergent strategy making is likely for non-salient and wicked problems. Copyright © 2015 John Wiley & Sons, Ltd and ERP Environment

Received 24 April 2014; revised 18 August 2014; accepted 27 August 2014

Keywords: sustainability strategy; corporate sustainability; strategy making; strategic planning; emergent strategy

Introduction

IN STRATEGY RESEARCH, TWO MAIN PERSPECTIVES ON THE FORMATION OF STRATEGIES EXIST: THE FIRST SCHOOL UNDERSTANDS strategy making as a planning task while the other argues that strategies are often unplannable but emerge from practice (e.g. Mintzberg and Waters, 1985). By now, there is a consensus that strategy making resides on a continuum from planned to emergent strategy making, where most strategies are made in a mixed way. Various sets of contingency factors have been suggested to explain the influences on the strategy-making mode, i.e. on whether strategies are made in a more planned or a more emergent way.

Yet, in the corporate sustainability literature it is most commonly assumed that sustainability strategies are made in a planned way. Research on corporate sustainability seems to overlook the debate on different modes of strategy making as well as the idea of a continuum between planned and emergent strategy making. This is particularly remarkable because planned strategies are most appropriate for comparatively straightforward and controllable contexts (Hart, 1992; Regnér, 2003). However, many sustainability researchers agree that sustainability is a complex, if not 'wicked' problem (Frame, 2008), implying that controllable contexts are not overly likely. In

*Correspondence to: Friederike Neugebauer, Faculty of Business and Economics, University of Kassel, Kassel, Germany. E-mail: f.neugebauer@alumni.lse.ac.uk

addition, the nature of the problem that a strategy seeks to address is usually not taken into account as an influence factor on strategy making.

In order to fill these gaps, we argue for conceptualizing sustainability strategy making in the context of the planned–emergent continuum. Furthermore, we introduce the nature of the problem addressed as a new contingency factor to help explain sustainability strategy making. To illustrate this contingency factor, we discuss strategy making for four types of sustainability problem. We argue that planned strategy making is expected for salient and non-wicked problems, while emergent strategy making more is likely for non-salient and wicked problems.

The fact that sustainability research turns a blind eye to emergent strategy making hinders a better understanding of the strategy-making processes as well as the successful implementation of more sustainable practices. While our focus on the nature of the problem as a novel contingency factor for strategy making might offer interesting insights for strategy research beyond the specific case of sustainability, our main contribution is to add to a better understanding of the role of different strategy-making modes in the context of corporate sustainability. We alleviate the bias of the sustainability strategy literature towards planned approaches and discuss strategy making for different types of sustainability problems. Beyond our contribution to research, sustainability practice might be improved if emergent strategy making is facilitated in companies, in addition to the more traditional strategic planning.

This article is organized as follows: the following section starts by briefly reviewing the debate between planned and emergent strategy making, as well as the contingency factors that have been proposed to determine both strategy-making modes. In the next section we outline the current discussion on sustainability strategy making and develop two propositions on which kind of sustainability problem induce planned or emergent strategy making. The fourth section discusses four types of exemplary sustainability problem with regards to the likelihood of planned or emergent strategy making, and presents a third proposition about problems that are both wicked and salient. We conclude by highlighting the contribution of this paper and by suggesting avenues for future research.

Two Opposed Views of Strategy Making

According to Johnson *et al.* (2011, p. 3), strategy is ‘the long-term direction of an organisation’. Mintzberg (1978) defines strategy as a ‘pattern in a stream of decisions’ that consists of both planned and emergent elements. We draw on both definitions because it is important for the purpose of this research to keep in mind that strategy usually contains both planned elements as well as unintended, emergent elements. Hence, strategy is understood as the long-term direction of an organization consisting of both planned and emergent elements.

Strategy research tends to focus on either strategy content or process (Rajagopalan *et al.*, 1993). We position ourselves in the process camp because it is our goal to better understand how sustainability strategies are made. Strategy making is the process through which a strategy develops, be it by planning or out of practice. The question how exactly strategies are made has been debated for decades in the literature by two main schools of thought: the planned and the emergent strategy-making schools. In the following, we outline both approaches as well as the consensus that has been established, and the contingency factors developed to explain when strategies are planned and when they are emergent.

We discuss the continuum of planned and emergent strategy making by emphasizing the two extremes: (purely) planned versus (purely) emergent strategy making. We do not imply that these extremes are likely manifestations of strategy making. Using the extremes illustrates the continuum in between, notwithstanding that the extremes are actually rather unlikely to occur.

Planned Strategy Making

The strategic planning literature has its roots in the work of Lewin, who describes change processes in his three-step model as consisting of unfreezing, moving, and refreezing (Lewin, 1947). This rather static understanding of organizational change is still at the core of many more recent approaches (Burnes, 2004). Ansoff coined the term strategic planning in the 1960s (Ansoff, 1965; Martinet, 2010). Based on observations of actual strategy making in leading large companies in the 1950s, Ansoff argues that strategic decisions are ‘made through an

organization-wide systematic strategic planning process' (Ansoff, 1987, p. 505). Strategic planning is understood as a well structured process consisting of two separate steps: first, goals are deduced from a vision and a strategy is planned; second, the strategy is implemented throughout the organization in order to reach these goals. The leadership of top management is crucial for strategic planning (Hart, 1992) because it is the top management's task to plan strategies and to implement them in a top-down manner.

The role of strategic planning in companies continues to be debated. Maritz *et al.* (2011) find that companies do still *plan* their futures, which implies that strategic planning is still a relevant issue in management research (see also Tsai *et al.*, 1991). On the other hand, it has been shown that strategic planning with its assumption of rational decision making is inconsistent with managerial reality and fails in practice (Herbert, 1999; By, 2005).

Emergent Strategy Making

One of the main critics of the planned approach to strategy making is Mintzberg, who argues that strategy formulation cannot be separated from strategy implementation (Mintzberg, 1994; see also Mintzberg, 1978). He suggests that strategy making consists of both deliberate and emergent elements and that the purely planned strategy is the unlikely extreme of a wide continuum (Mintzberg and Waters, 1985). The idea of emergent strategies is that, within an organization, strategy emerges out of practice in a bottom-up or undirected way. Even though many attempts of emergent strategy making might fail, some are successful in changing the company's overall direction. Emergent strategy making is 'most likely to emerge at a level where managers are directly in contact with new technological developments and changes in market conditions, and have some budgetary discretion' (Burgelman, 1991, p. 246). In this view, strategic decision making is an ongoing and rather inductive change process (Hendry, 2000; Regnér, 2003). It can be rather incremental and path-dependent, as strategies are continuously modified (Whittington, 1996; Jarzabkowski, 2004) and thereby become accepted within the organization (Lowe and Jones, 2004; Papagiannakis *et al.*, 2013).

The emergent approach to strategy making is not without its critics either. For instance, Carter *et al.* (2008) argue that it is just as top-management oriented as the planned approach, and others criticize that it still lacks coherence (Idenburg, 1993; By, 2005). According to Idenburg (1993, p. 136), the emergent perspective on strategy 'leaves the door wide open for all kinds of irrational mechanisms'. Nonetheless, many scholars argue that the emergent approach is particularly relevant for practice (e.g. Hendry, 2000; Lowe and Jones, 2004; Maritz *et al.*, 2011).

Contingency Factors

It appears to be widely accepted that emergent and planned strategy making complement each other (Burgelman, 1983a, 1983b; Chaffee, 1985; Burgelman, 1991). This implies that 'superior emergent processes have some elements of deliberate strategy embedded in them' (Jett and George, 2005, p. 408), and vice versa. Many authors agree that strategy can be made in both a planned and an emergent way and that real-world strategies usually contain elements of both. For instance, Idenburg (1993) and Chaffee (1985) argue that the different styles of strategy making complement each other; and Lowe and Jones (2004) state that the outcomes of a strategy-making process are a product of both conscious and unconscious decisions. Hence, we proceed on the assumption of a continuum between planned and emergent strategy-making modes. Different contingency factors have been suggested to explain when planned or emergent strategy making becomes more likely (Hart, 1992; Rajagopalan *et al.*, 1993; Elbanna, 2011). The contingency factors established in the strategy literature can be grouped into four categories, namely the company's environment, the organization itself, decision-specific aspects and management-specific aspects (Table 1 provides an overview).

Environment

The first set of factors covers the company's environment, i.e. the market where the company sells its products, the industrial sector to which it belong and the institutional setting in the region where it operates. This environment is described on a continuum from stable (or simple) to turbulent (or complex), and from munificent to hostile (Hart, 1992; Rajagopalan *et al.*, 1993; Papadakis *et al.*, 1998; Barbuto, 2002; Hutzschenreuter, 2006; Elbanna, 2011). Planned strategies are expected in rather stable environments and emergent strategy types in turbulent

Contingency factors	More planned if...	More emergent if...	References
<i>Environment</i>			
Market/industry/institutional setting	stable, certain, simple, hostile	turbulent, uncertain, complex, munificent	Barbuto (2002); Hart (1992); Hutzschenreuter (2006)
National culture	influence acknowledged	direction unclear	Simons and Thompson (1998)
	influence acknowledged	direction unclear	Elbanna and Child (2007); Lok <i>et al.</i> (2010); Papadakis and Barwise (1998); Simons and Thompson (1998)
Location	center (headquarters)	periphery (divisions)	Regnér (2003)
Stakeholder power	high stakeholder power	lower stakeholder power	Elbanna (2011)
<i>Organization</i>			
Company size	big	small	Elbanna (2011); Elbanna and Child (2007); Papadakis and Barwise (1998); Stone <i>et al.</i> (1999)
	small	big	Barbuto (2002); Hart (1992); Hutzschenreuter (2006); Stone <i>et al.</i> (1999)
	influence acknowledged	direction unclear	Hickson <i>et al.</i> (1986); Li and Hu (2008); Papadakis and Barwise (1998); Rajagopalan <i>et al.</i> (1993)
Stage of development	influence acknowledged	direction unclear	Hart (1992); Hutzschenreuter (2006); Li and Hu (2008); Rajagopalan <i>et al.</i> (1993)
Type of ownership	influence acknowledged	direction unclear	Elbanna (2011); Li and Hu (2008); Papadakis <i>et al.</i> (1998); Papadakis and Barwise (1998); Simons and Thompson (1998)
Availability of organizational slack	scarce	abundant	Rajagopalan <i>et al.</i> (1993)
Past and current performance	high performance	low performance	Burgelman (1991); Elbanna (2011); Elbanna and Child (2007); Hutzschenreuter (2006); Papadakis <i>et al.</i> (1998); Papagiannakis <i>et al.</i> (2013); Rajagopalan <i>et al.</i> (1993)
Past and current business strategies	successful	unsuccessful (need for new strategies)	Papagiannakis <i>et al.</i> (2013)
	traditional	innovative	Hart (1992)
	influence acknowledged	direction unclear	Hutzschenreuter (2006); Rajagopalan <i>et al.</i> (1993)
<i>Decision-making process</i>			
decision urgency and time required	influence acknowledged	direction unclear	Rajagopalan <i>et al.</i> (1993); Simons and Thompson (1998)
decision complexity and uncertainty	influence acknowledged	direction unclear	Astley <i>et al.</i> (1982); Rajagopalan <i>et al.</i> (1993); Simons and Thompson (1998)

(Continues)

(Continues)

Contingency factors	More planned if...	More emergent if...	References
Political nature of the decision: perception as threat or opportunity	threat	opportunity	Dutton (1986); Elbanna (2011); Papadakis and Barwise (1998); Schilit and Paine (1987); Simons and Thompson (1998)
<i>Decision-maker characteristics</i>			
Personal characteristics of top management team or CEO	influence acknowledged, direction unclear		Elbanna (2011); Hambrick (2007); Papadakis <i>et al.</i> (1998); Papagiannakis <i>et al.</i> (2013); Simons and Thompson (1998)
Demographics of top management team or CEO	influence acknowledged, direction unclear		Elbanna (2011); Papadakis <i>et al.</i> (1998); Simons and Thompson (1998)
Management team characteristics	influence acknowledged, direction unclear		Schwenk (1984, 1995)

Table 1. Contingency factors to explain strategy making

environments (Hart, 1992; Barbuto, 2002). Companies in rather uncertain environments increase the decision-making speed (Hutzschenreuter, 2006), which might make planned strategy more likely. In a hostile environment, planned strategies might be more likely because they allow companies to react faster (Hart, 1992; see also Slawinski and Bansal, 2012); however, higher risks might also slow decision making down (Schilit and Paine, 1987). There has not been much research on the influence of munificence/hostility on strategy making (Rajagopalan *et al.*, 1993; Elbanna and Child, 2007) and results are contradictory (Elbanna, 2011).

Organization

The second set of factors concerns the organization itself and includes factors such as the size of the company (see, e.g., Hart, 1992; Elbanna and Child, 2007; Elbanna, 2011), its stage of development (see, e.g., Hart, 1992; Rajagopalan *et al.*, 1993), the type of ownership (see, e.g., Papadakis and Barwise, 1998; Li and Hu, 2008; Elbanna, 2011), the availability of slack resources (Rajagopalan *et al.*, 1993), present and past performance (see, e.g., Burgelman, 1991; Papagiannakis *et al.*, 2013), and present and past strategy (see, e.g., Hart, 1992; Papagiannakis *et al.*, 2013). Size has been researched relatively well, but results are contradictory: some expect small companies to have planned strategies (Hart, 1992; Barbuto, 2002), some argue that larger organizations have a tendency to plan more (Stone *et al.*, 1999) and others suggest that size does not make a difference at all (Hickson *et al.*, 1986; Papadakis and Barwise, 1998; Li and Hu, 2008). Mature companies tend to have less planned strategies than those in an early stage of development (Hart, 1992; Li and Hu, 2008). A more innovative business strategy is likely to coincide with more emergent strategy making (Hart, 1992). If past strategies were unsuccessful, new alternatives are more likely to emerge (Papagiannakis *et al.*, 2013), which might foster emergent strategy making. When performance declines, pressure grows and strategic renewal through emergent strategies is more likely (Burgelman, 1991). Specific aspects of a national culture, e.g. the importance of hierarchy, might be conducive to planned strategy making (Lok *et al.*, 2010), but there are no conclusive results regarding tendencies toward planned or emergent strategies. Further factors have been suggested, although the exact nature of their influence remains unclear. These are for example the overall level of risk faced by the company and internal power structures (Rajagopalan *et al.*, 1993), organizational culture, impact of upward influence and employee involvement (Simons and Thompson, 1998).

Decision-Making Process

Third, decision-specific factors are suggested to be particularly important influences on the strategy-making process (Papadakis *et al.*, 1998). Commonly suggested factors are decision complexity, uncertainty, urgency and the perception as threat or opportunity (Dutton, 1986; Rajagopalan *et al.*, 1993; Papadakis and Barwise, 1998; Simons

and Thompson, 1998; Sharma, 2000; Delmas and Toffel, 2004; Elbanna, 2011). Other factors include decision frequency and time required (Rajagopalan *et al.*, 1993; Papadakis and Barwise, 1998; Simons and Thompson, 1998). It has been argued that low decision complexity enhances decision-making speed (Astley *et al.*, 1982). Issues perceived as threats and unfamiliar problems are addressed more rationally, i.e. by more planned strategy making (Elbanna, 2011; Nooraie, 2011). These arguments suggest that both threatening and unfamiliar issues tend to lead to more planned strategies. Dutton (1986) argues that the more issues are perceived as threats, the more resources are devoted to their solution and the higher the centralization of control. Thus, perception as a threat might induce more planned strategy making. However, research addressing the influence of decision-specific factors on the strategy-making process remains under-developed. While many authors argue for the relevance of particular factors, a discussion of which factors enhance the probability of planned or emergent strategy, respectively, is largely absent.

Decision-Maker Characteristics

Fourth, decision-maker characteristics (Hambrick and Mason, 1984) are suggested to play an important role for strategy making. The following three sets of factors are commonly suggested: first, demographics including managers' age, gender, educational background, tenure and past experience (Hitt and Tyler, 1991; Papadakis *et al.*, 1998; Simons and Thompson, 1998; Elbanna, 2011); second, personality characteristics such as personal values, risk propensity, need for achievement, social conditioning and aggressiveness (Papadakis *et al.*, 1998; Simons and Thompson, 1998; Elbanna, 2011; Papagiannakis *et al.*, 2013); and third, team characteristics including team heterogeneity and turnover rate of team members (Schwenk, 1984, 1995). One implication of the research is that managers' tenure makes planned strategies more likely because managers with high tenure tend to be more conservative (Elbanna, 2011). Beyond tenure, there are few suggestions concerning whether other factors enhance or decrease the likelihood of planned or emergent strategy making (Rajagopalan *et al.*, 1993; Papadakis *et al.*, 1998; Simons and Thompson, 1998), and existing studies have yielded mixed results (Papadakis and Barwise, 1998; Elbanna, 2011). Although the personal characteristics of managers are recognized and discussed a lot, it is unclear how they influence the likelihood of planned or emergent strategy making.

Strategy Making for Sustainability

We now turn to the formulation of sustainability strategies. Sustainability is understood as a societal problem that highlights intra- and intergenerational justice as well as ecological limitations (WCED, 1987) and to which companies can contribute positively and negatively (Jennings and Zandbergen, 1995). Research on sustainability strategy overlooks one of the most important developments in strategy research of the last decades, namely the discussion on whether and when strategies are made in a more planned or a more emergent way. In order to address this blind spot and to contribute to a better understanding of sustainability strategy making, we suggest widening the perspective of sustainability strategy research to the entire continuum from planned to emergent strategy making, rather than limiting itself to one extreme (Hendry, 2000; Maritz *et al.*, 2011). We propose the nature of the problem, in terms of the problem's wickedness and salience, as a new contingency factor to explain where sustainability strategy making is positioned on this continuum.

Sustainability Strategy Making: the State of the Debate

Two of the most common topics in the literature on corporate sustainability strategy are the classification of sustainability strategies on a range from proactive to reactive (see, e.g., Welford, 1998; Rhee and Lee, 2003; Jeswani *et al.*, 2008; Baumgartner and Ebner, 2010) and the identification of drivers of sustainability strategies (see, e.g., Enroth, 2007; Harris, 2007; Papagiannakis *et al.*, 2013). However, the *making* of sustainability strategies is hardly ever addressed. Instead, many authors implicitly assume that sustainability strategies are first planned and then implemented top down. For instance, Banerjee (2002) states that sustainability strategies require the integration of sustainability targets into 'strategic planning', and Roome (1994) also refers to 'strategic planning' when emphasizing the strategic role of R&D for the environment. The frequent emphasis on top management (Prakash, 2001; Lee

and Ball, 2003; Harris, 2007; Kaldschmidt, 2011; Maritz *et al.*, 2011) suggests the same. Similarly, Cherp *et al.* (2007) argue that research on SEA (strategic environmental assessment) lags behind the developments in strategy research and is still largely influenced by the ideas of the planning school. Sustainability balanced scorecards (Figge *et al.*, 2002) are another example of planned strategy making where sustainability strategies are derived and implemented in a top-down planning process (Dias-Sardinha *et al.*, 2007; Hansen *et al.*, 2010).

By contrast, emergent strategy making is advanced by organizational members initiating and shaping sustainable practices and projects rather than top management (Sharp and Zaidman, 2010), which corresponds to a strategy-as-practice perspective (Jarzabkowski, 2004). The literature on sustainability champions also takes on such a more emergent perspective. In general, champions are individuals who are particularly committed to advocating and advancing a particular goal or project within their organization (Howell and Higgins, 1990; Noda and Bower, 1996; Markham, 1998; Anderson and Bateman, 2000). '[T]hey identify with the idea as their own, and with its promotion as a cause, to a degree that goes far beyond the requirements of their job' (Schön, 1963, p. 84). Noda and Bower (1996, p. 189) describe how '[e]ntrepreneurial managers can and actually do develop independent strategic premises based on their visions and intentions' and communicate them to top management in a bottom-up process. As champions aim at advancing strategic topics bottom up, they might thereby create or advance emergent strategies. In particular, sustainability champions are individuals who 'believe that environmental issues are a top priority and who possess environmental knowledge and skills' (Anderson and Bateman, 2000, p. 549). They are found to play important roles in fostering sustainability strategies (Prakash, 2001; Enroth, 2007; Harris, 2007; Schaltegger and Wagner, 2011; Taylor *et al.*, 2012). In his study of environmental championing in technological innovation projects in four firms, Markusson (2010) finds that private life environmental commitments and personal pro-environmental attitudes play an important role for individuals to promote and shape environmental aspects in their daily professional decision making. Firms sometimes seek to facilitate such bottom-up sustainability initiatives by creating spaces for employee-driven projects. For instance, so-called green teams are self-organized, grass-roots and cross-functional teams where employees initiate sustainability projects in their organizations, which in the cases of eBay and Intel have shaped the energy and carbon strategies of these firms (Fleischer, 2009). While these sparse examples from the literature tentatively cover the emergent perspective, they do not offer a comprehensive discussion of the making of sustainability strategies.

The Nature of Sustainability: Wickedness and Salience

Sustainability is a difficult problem for companies to address because the range of challenges arising from the goal of sustainability is very complex, has societal impacts and is of a long-term nature. If stakeholders successfully draw attention to particular sustainability problems, these problems become highly relevant for companies. We expect that these characteristics of sustainability problems will play an important role for whether sustainability strategies are formulated in a planned or an emergent manner. Therefore, we now develop the contingency factor 'nature of the problem'.

The concept of wicked problems is useful for describing sustainability (see, e.g., Frame, 2008). Following the definitions by Rittel and Webber (1973), wicked problems cannot be fully understood, potential solutions are unknown and there is no right and wrong, but rather good and bad. Trying to solve a wicked problem changes it and can have unforeseen consequences. Furthermore, wicked problems are unique, i.e. experience from other problems does not help solve a wicked problem, and they are intertwined with other problems. Finally, wicked problems have social consequences that make those trying to solve them responsible for social impacts of attempted solutions. In addition, there is no way to find out in advance if a solution will work.

Three aspects of wickedness are highlighted for the case of sustainability: its complexity, its societal impacts and its long-term nature. First, concerning complexity, most authors agree that sustainability is extremely complex. According to Anderson and Bateman (2000, p. 549), '[t]he widespread consequences of environmental issues may far exceed those of many other corporate issues'. Second, with regards to societal impacts, we draw on Rotmans' description of such problems as 'deeply rooted in our societal structures and institutions, and [...] closely interwoven with manifold societal processes, so that they cannot be solved in isolation' (Rotmans, 2006, p. 36). Furthermore, they are 'caused by fundamental flaws in our societal systems' (Rotmans, 2005, p. 4). Third, due to its reference to future generations a long-term orientation is inherent to sustainability (WCED, 1987). Well known

studies such as the IPCC reports (IPCC, 2013) or the Stern Review (Stern, 2007) address very long periods of time, with scenarios often covering the next 100 years. These time periods are uncommonly long for strategic planners in the political and private sector (Chaffee, 1985; Burgelman and Grove, 1996; Slawinski and Bansal, 2012).

In addition to wickedness, salience is a helpful concept to better understand sustainability problems. Drawing on Mitchell *et al.* (1997), a sustainability problem is salient (1) if powerful stakeholders are able to influence companies to address the problem, (2) if solving the problem is generally seen as desirable and in line with societal norms and values and (3) if the problem requires immediate attention and is of critical importance to stakeholders. To illustrate, climate change as a sub-issue of sustainability is powerful because it has powerful stakeholders such as the UNFCCC, it is legitimate in that hardly anyone denies its importance, and it is urgent as acting late becomes more and more expensive (Stern, 2007). In contrast, overpopulation is an urgent problem because it accelerates the overexploitation of natural resources but measures to reduce population growth are often illegitimate because having (many) children is seen as desirable in most cultures. Furthermore, there are no powerful stakeholders pushing for a global reduction of birth rates.

In this context, it is important to emphasize the difference between the nature of the problem and other contingency factors, including the decision-making process and the environment. Decision processes might be simple although the underlying problems are complex. For example, as soon as child labor is generally considered unacceptable, *decision making* about child labor can be very simple even though it represents a complex problem. Similarly, even if a company's *environment* is complex the sustainability issue addressed might be simple. For instance, a company in a complex environment such as highly competitive energy markets under high regulatory uncertainty (Hoffmann *et al.*, 2009) might still address a comparatively simple sustainability problem such as CO₂ reduction. Although some authors argue that problem-specific factors matter for strategy making (e.g. Dutton, 1986; Eesley and Lenox, 2005; Boal and Meckler, 2010) there has not been a systematic discussion of the influence that the nature of the problem might have on the strategy-making mode.

To sum up, the nature of the problem that is to be addressed by a sustainability strategy is described by (1) the problem's wickedness, i.e. its complexity, its social relevance and its long-term nature, and (2) its salience, i.e. its power, legitimacy and urgency. We argue that in addition to the contingency factors discussed above, the nature of the problem will influence strategy formation. More precisely, we expect that the extent of wickedness and salience will affect whether strategies are more likely to be made in a planned or an emergent way.

Sustainability Strategies on the Continuum

We argue that wicked sustainability problems tend to be addressed by emergent strategies. First, planned approaches to strategy making are prevalent in stable environments, i.e. in comparatively straightforward and controllable contexts (Hart, 1992; Regnér, 2003). A wicked problem does not provide such a context but rather comes with a complexity that is difficult to manage with a planned approach. This is due to two cognitive biases in planned strategy making (Das and Teng, 1999). Strategic planners tend to have objectives when entering the strategy-making process. These objectives are based on hypotheses of possible future developments and are likely to influence the strategy making. Thus, the manager risks not solving the problems at hand. Furthermore, strategic planning creates an illusion of manageability because the seemingly rational process makes managers believe that the risks are lower than they actually are (see also Mintzberg, 1994). If planned strategies for wicked problems are not successful in addressing these in the long run, they might become more unlikely. Second, emergent strategy making allows for organizational learning (Mintzberg and Waters, 1985), which is likely to play an important role in the case of poorly understood wicked problems. Third, in order to better understand wicked problems and to better be able to address them, it might be necessary to go into more depth and consider details. In particular, social impacts often have local impacts and are easier to address if the strategy making happens close to where the impacts are felt (Mintzberg and Waters, 1985), i.e. not at the center of the organization but at its periphery (Regnér, 2003). Finally, because emergent strategy making is driven by internal motivation, e.g. by champions, rather than by external pressure (Burgelman, 1991; Prakash, 2001), emergent strategy making is more likely in the case of wicked problems.

For instance, a highly wicked sustainability problem of low salience such as biodiversity loss is very difficult to address with a planned strategy because of the high level of uncertainty – it is impossible to define corporate targets,

not least because the unit of measurement is not clear, and they would be impossible to monitor as the factors involved in rendering species extinct are poorly understood. However, at a lower level, e.g. in the development of a product for a particular market, it might be possible to consider particular ecosystems and the potential impacts of the product.

Proposition 1. *The more wicked a sustainability problem, the more likely it is addressed by emergent strategy making.*

We argue that salient problems tend to be addressed by planned strategies since the three aspects of salience make planned strategies more likely. First, salient problems pose threats to companies because powerful stakeholders can put companies under pressure and force them to react (Aaltonen and Sivonen, 2009; Ackermann and Eden, 2011). In order to avoid damage from stakeholder activities such as boycotts, companies engage with their stakeholders and integrate them into decision-making processes (Wheeler and Sillanpää, 1998; Morsing and Schultz, 2006). For this purpose, coordinated activities such as lobbying, stakeholder forums and the publishing of reports (Roloff, 2008; Aaltonen and Sivonen, 2009) are frequently used instruments. A problem with powerful stakeholders is more likely to be addressed by such planned strategies, rather than by emergent ones.

Second, the legitimacy of the problem is high if it is in line with societal norms and values. Again, in order to avoid reputational damage, companies engage with stakeholders by using tools of corporate communication (Bradford and Garrett, 1995). Additionally, as suggested by Chattopadhyay *et al.* (2001) and Staw *et al.* (1981), companies facing a threat tend to focus on controllable activities in order to regain control. Such activities include the issuing of press releases and entering into agreements such as the Global Compact, for example. Consequently, highly legitimate problems make planned strategies more likely as well.

Third, the urgency of the problem puts the company under pressure to react immediately and to communicate its activities to address the problem (Siomkos and Shrivastava, 1993). Here, planned strategy making is more likely, too, because planned strategies are developed more quickly than emergent strategies. For example, the strategic decision about signing a code of conduct can be made very quickly at the top management level and does not need time to emerge bottom up.

In addition, Dutton (1986) argues that decision-making authority tends to be centralized to enable the company to better deal with salient issues. A centralized decision-making process relies on planned strategy-making modes, since emergent strategy is by definition 'not driven by central intention' (Mintzberg, 1990, p. 176). Furthermore, salient problems are addressed with more resources (Dutton, 1986; Lotila, 2010), which might enable a company to launch potentially costly stakeholder dialogues or communication campaigns, for instance.

To provide an example, the goal of increasing energy efficiency is often addressed by setting centralized goals and by planning and implementing a strategy top down throughout the company. Companies aiming at improving energy efficiency have the clear goal of analyzing their energy consumption and finding ways to reduce it. Well-defined means and ends are good prerequisites for planned strategy making (Maritz *et al.*, 2011), hence a company dedicated to improving its energy efficiency would be expected to set a company-wide reduction target and implement this goal throughout all levels of the organization.

Proposition 2. *The more salient a sustainability problem, the more likely it is addressed by planned strategy making.*

Discussion

We argue that the two dimensions of the nature of a problem, wickedness and salience, influence the strategy-making mode in opposite directions on the continuum between planned and emergent strategy making – wickedness enhances emergent strategy making while salience makes planned strategies more likely. Figure 1 shows four schematic types of sustainability problem. The triangles in Figure 1 symbolize that these four kinds of problem are extreme cases and that most real-world problems are likely to be situated somewhere in between. In the following, we concentrate on problems that are both wicked and salient. We first address the question of what

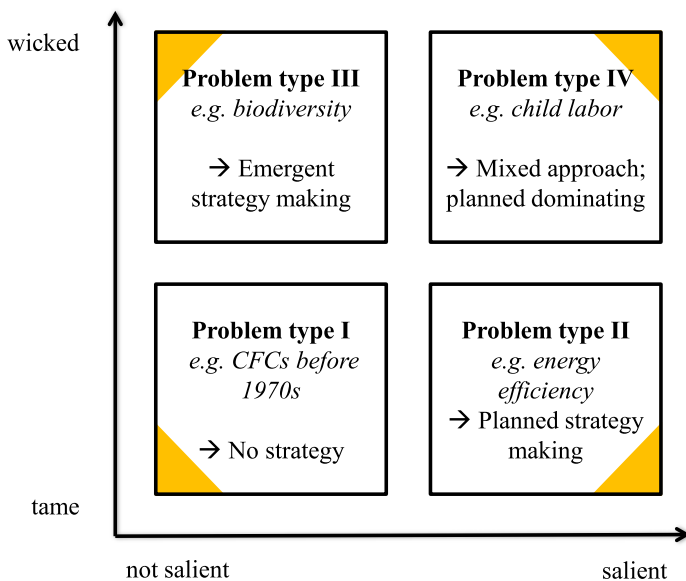


Figure 1. Problem types and different modes of strategy making

strategy-making modes are likely under which circumstances. Second, we reflect on whether the most likely strategy-making mode is also the most appropriate one. Finally, in a third proposition we suggest that wicked and salient problems are likely to be addressed by both kinds of strategy making, with the planned approach dominating.

Type II and type III problems have already been discussed above: type II problems, i.e. salient non-wicked problems, are expected to be addressed by planned strategies, while type III problems, i.e. wicked non-salient problems, are more likely to be addressed by emergent strategies. Since wickedness and salience have opposing impacts on the strategy-making mode, the question is what strategy making would look like for problems that are both wicked and salient (type IV).

For such problems we expect to observe two competing tendencies. On the one hand, mounting external pressure is likely to favor the development of planned strategies. On the other hand, emergent strategies are likely to come about as well because (highly wicked) sustainability problems motivate champions to engage in emergent strategy making (Prakash, 2001). There is a high level of agreement that both forms of strategy making are usually present in companies, complementing each other (Mintzberg and McHugh, 1985; Mintzberg and Waters, 1985; Jarzabkowski, 2004, 2008). Hence, we assume that in the case of a wicked-and-salient sustainability problem both strategy-making modes are present. Furthermore, we expect top management to plan an umbrella strategy (Mintzberg and Waters, 1985) in order to be able to communicate swiftly on the company’s response to the problem (needed in particular for legitimate and urgent problems) and that sets limitations for emergent strategy making. In particular, if the problem is very urgent, we expect planned strategy making to dominate over emergent strategy making, because emergent strategy making is unlikely to be fast enough to address the problem. In such cases, the development of a planned strategy might not leave much room for emergent strategy making at the same time. Planned strategy making might also crowd out emergent strategy making because it is pushed top down throughout the hierarchy and is therefore backed up by formal power.

The recent scandal on labor conditions, including child labor, in Bangladesh is an example for a wicked and salient problem. It is wicked because the business model of the textile industry is built on low labor costs and cannot be changed easily, but has complex social implications in the countries of production. It became salient when the companies that had been producing at the Rana Plaza building, which collapsed in April 2013, were exposed in the press (Cooper, 2013; Kernaghan, 2013). Companies were quick to react to the criticism, trying to prevent further reputational damage, e.g. Gap by denial (Jamieson, 2013) and Joe Fresh by proactivity (CBC News, 2013). These reactions represent planned sustainability strategies, launched by the top managements of the affected companies. We would expect any emergent strategy making happening at the same time to be pushed back by this rise of strategic planning.

Although both planned strategy-making and emergent processes contribute to the development of a sustainability strategy (Pestre *et al.*, 2008) both kinds of strategy making may be problematic for wicked-and-salient problems. If a strategy for such a problem is planned, it has a high likelihood of failure because the issue's complexity might not be adequately addressed. Yet, if a strategy for such a problem is left to emerge, it might well take too long to address the problem in time and the strategy might be inadequate for communicating on the problem, since emergent strategies are often only recognized as strategies in hindsight. Overall, as soon as strategic planning crowds out emergent strategies, the company runs the risk of the planned strategy failing to solve the problem which is not only a salient but also a wicked one. More problem-specific strategies are needed, which are more likely to develop in an emergent way and locally. Therefore, we argue that emergent strategy making has an important role to play in the case of type IV problems. Planned strategies enable companies to react appropriately to a rise in salience, but solely relying on planned strategies risks not addressing the problem.

Proposition 1. A sustainability problem that is both wicked and salient is likely to be addressed by planned and emergent strategy making, with planned strategy making dominating.

For type I problems, i.e. problems that are neither wicked nor salient, it is debatable if specific strategies will be observed. A simple problem that is not salient is more likely to be perceived as a non-problem, for which strategy making is not necessary. The widespread use of CFCs before the 1970s serves as an example for a type I problem: it was neither a salient problem yet nor was it wicked, since the solution was relatively simple (Prins and Rayner, 2007; Sunstein, 2007). At that time, CFCs were a non-problem from a corporate perspective, for which probably no strategy making happened.

To conclude the discussion, we point to the limitations of our article. While we introduce the nature of the problem as a new influence factor on the mode of strategy making, we expect that this factor will interact with the other factors discussed in the literature. Discussing these interactions is beyond the scope of this paper but represents promising areas for future research. For example, 'an uncertain environment, which is also munificent (e.g. high growth industries in initial stages of industry evolution) is very different from an uncertain environment, which is far less munificent' (Elbanna, 2011, p. 21). This is an important point, implying that the nature of the problem *alone* cannot explain the strategy-making mode used to address sustainability problems. Rather, we propose that the nature of the problem complements other factors and should be considered in addition to the factors discussed above. As another limitation, we do not consider the time dimension. Sustainability strategy making is a dynamic process, hence it is possible that planned strategy making becomes more emergent over time (Papagiannakis *et al.*, 2013), or vice versa. It is also possible that some aspects of the strategy are more planned while others are more emergent at the same time (Slawinski and Bansal, 2012).

Conclusion

This paper makes two contributions. First, it draws attention to an important gap in the sustainability strategy literature, namely the lack of consideration for the debate between the strategic planning school and the emergent strategy school. We suggest that sustainability strategy research would benefit greatly if it recognized that sustainability strategies are not necessarily made in a planned way and that a more realistic understanding of sustainability strategy making can be obtained if the entire continuum from planned to emergent strategy making is taken into account. Second, we develop a new contingency factor to explain how the nature of the problem influences the strategy-making mode in the context of sustainability strategies. We argue that, in addition to the four sets of factors proposed by former studies, sustainability strategy making is affected by problem-specific factors, namely the wickedness and the salience of the sustainability problem to be addressed. While high levels of wickedness tend to elicit emergent strategies, high levels of salience increase the likelihood of planned strategy making. We believe that such a better understanding of the making of sustainability strategies has important implications for firms, policy makers and NGOs. By carefully analyzing the problem at hand, firms can critically review the suitability of

their decision-making processes in the context of sustainability. For policy makers and NGOs our argument offers additional insights into the way in which firms will respond to regulatory or stakeholder pressures.

There is a range of questions that future research on strategy making could address. First, the four contingency factors that we identify are largely under-specified and their influence on whether planned or emergent strategy making is more likely is still unclear. Second, the new contingency factor 'nature of the problem' might be relevant beyond the sustainability realm as well. Future research could investigate whether the nature of the problem is relevant for the making of other kinds of strategy. Third, it is safe to assume that the different contingency factors interact with each other. Notwithstanding that considering all these interactions and mediating effects would be a very ambitious project, studies considering at least some of them would greatly improve our understanding of what influences strategy making. Finally, testing the three propositions empirically would be a logical next step and would potentially make a great contribution to our understanding of sustainability strategy making.

References

- Aaltonen K, Sivonen R. 2009. Response strategies to stakeholder pressures in global projects. *International Journal of Project Management* 27(2): 131–141.
- Ackermann F, Eden C. 2011. Strategic management of stakeholders: theory and practice. *Long Range Planning* 44(3): 179–196.
- Anderson LM, Bateman TS. 2000. Individual environmental initiative: championing natural environmental issues in US business organizations. *Academy of Management Journal* 43(4): 548–570.
- Ansoff HI. 1965. *Corporate Strategy: an Analytic Approach to Business Policy for Growth and Expansion*. McGraw-Hill: New York.
- Ansoff HI. 1987. The emerging paradigm of strategic behavior. *Strategic Management Journal* 8(6): 501–515.
- Astley WG, Axelsson R, Butler RJ, Hickson DJ, Wilson DC. 1982. Complexity and cleavage: dual explanations of strategic decision-making. *Journal of Management Studies* 19(4): 357–375.
- Banerjee SB. 2002. Corporate environmentalism: the construct and its measurement. *Journal of Business Research* 55(3): 177–191.
- Barbuto JE. 2002. How is strategy formed in organizations? A multi-disciplinary taxonomy of strategy-making approaches. *Journal of Behavioral and Applied Management* 3(1): 64–73.
- Baumgartner RJ, Ebner D. 2010. Corporate sustainability strategies: sustainability profiles and maturity levels. *Sustainable Development* 18(2): 76–89.
- Boal K, Meckler M. 2010. Decision errors of the 4th, 5th, and 6th kind. In *Handbook of Decision Making*, Nutt PC, Wilson DC (eds). Wiley-Blackwell: Chichester; 327–348.
- Bradford JL, Garrett DE. 1995. The effectiveness of corporate communicative responses to accusations of unethical behavior. *Journal of Business Ethics* 14(11): 875–892.
- Burgelman RA. 1983a. A model of the interaction of strategic behavior, corporate context, and the concept of strategy. *Academy of Management Review* 8(1): 61–70.
- Burgelman RA. 1983b. Corporate entrepreneurship and strategic management: insights from a process study. *Management Science* 29(12): 1349–1364.
- Burgelman RA. 1991. Intraorganizational ecology of strategy making and organizational adaptation: Theory and field research. *Organization Science* 2(3): 239–262.
- Burgelman RA, Grove AS. 1996. Strategic dissonance. *California Management Review* 38(2): 8–28.
- Burnes B. 2004. Kurt Lewin and the planned approach to change: a re-appraisal. *Journal of Management Studies* 41(6): 977–1002.
- By RT. 2005. Organisational change management: a critical review. *Journal of Change Management* 5(4): 369–380.
- Carter C, Clegg SR, Kornberger M. 2008. Strategy as practice? *Strategic Organization* 6(1): 83–99.
- CBC News. 2013. Joe Fresh Vows to be 'Force for Good' in Bangladesh. <http://www.cbc.ca/news/business/joe-fresh-vows-to-be-force-for-good-in-bangladesh-1.1329098> [8 January 2014].
- Chaffee EE. 1985. Three models of strategy. *Academy of Management Review* 10(1): 89–98.
- Chattopadhyay P, Glick WH, Huber GP. 2001. Organizational actions in response to threats and opportunities. *Academy of Management Journal* 44(5): 937–955.
- Cherp A, Watt A, Vinichenko V. 2007. SEA and strategy formation theories: from three Ps to five Ps. *Environmental Impact Assessment Review* 27(7): 624–644.
- Cooper H. 2013. Bangladesh Factory Disasters Ask Questions of Australian Companies. <http://www.abc.net.au/7.30/content/2013/s3748694.htm> [7 January 2014].
- Das TK, Teng B. 1999. Cognitive biases and strategic decision processes: an integrative perspective. *Journal of Management Studies* 36(6): 757–778.
- Delmas MA, Toffel MW. 2004. Stakeholders and environmental management practices: an institutional framework. *Business Strategy and the Environment* 13(4): 209–222.
- Dias-Sardinha I, Reijnders L, Antunes P. 2007. Developing sustainability balanced scorecards for environmental services: a study of three large Portuguese companies. *Environmental Quality Management* 16(4): 13–34.
- Dutton JE. 1986. The processing of crisis and non-crisis strategic issues. *Journal of Management Studies* 23(5): 501–517.

- Easley C, Lenox MJ. 2005. Firm responses to secondary stakeholder action. *Academy of Management Annual Meeting Proceedings* 8(1): E1.
- Elbanna S. 2011. Multi-theoretic perspectives of strategy processes. UAEU-FBE-Working Paper Series, No. 2011-09, Faculty of Business & Economics, United Arab Emirates University: Al Ain.
- Elbanna S, Child J. 2007. The influence of decision, environmental and firm characteristics on the rationality of strategic decision-making. *Journal of Management Studies* 44(4): 561–591.
- Enroth M. 2007. How to formulate and realise a corporate sustainability strategy. *Progress in Industrial Ecology, an International Journal* 4(1): 103–121.
- Figge F, Hahn T, Schaltegger S, Wagner M. 2002. The Sustainability Balanced Scorecard – linking sustainability management to business strategy. *Business Strategy and the Environment* 11(5): 269–284.
- Fleischer D. 2009. Green teams. Engaging employees in sustainability. *Green Biz Reports*. <http://www.greenbiz.com/sites/default/files/GreenBizReports-GreenTeams-final.pdf> [11 August 2014]
- Frame B. 2008. 'Wicked', 'messy', and 'clumsy': long-term frameworks for sustainability. *Environment and Planning C* 26: 1113–1128.
- Hambrick DC, Mason PA. 1984. Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review* 9(2): 193–206.
- Hambrick DC. 2007. Upper Echelons Theory: An Update. *Academy of Management Review* 32(2): 334–343.
- Hansen EG, Sextl M, Reichwald R. 2010. Managing strategic alliances through a community-enabled balanced scorecard: the case of Merck Ltd, Thailand. *Business Strategy and the Environment* 19(6): 387–399.
- Harris N. 2007. Corporate engagement in processes for planetary sustainability: understanding corporate capacity in the non-renewable resource extractive sector, Australia. *Business Strategy and the Environment* 16(8): 538–553.
- Hart SL. 1992. An integrative framework for strategy-making processes. *Academy of Management Review* 17(2): 327–351.
- Hendry J. 2000. Strategic decision making, discourse, and strategy as social practice. *Journal of Management Studies* 37: 955–978.
- Herbert TT. 1999. Multinational strategic planning: matching central expectations to local realities. *Long Range Planning* 32(1): 81–87.
- Hickson DJ, Butler R, Cray D, Mallory G, Wilson D. 1986. Top Decisions: Strategic Decision-Making in Organizations. Jossey-Bass: San Francisco, CA.
- Hitt MA, Tyler BB. 1991. Strategic decision models: integrating different perspectives. *Strategic Management Journal* 12(5): 327–351.
- Hoffmann VH, Trautmann T, Hamprecht J. 2009. Regulatory uncertainty: a reason to postpone investments? Not necessarily. *Journal of Management Studies* 46(7): 1227–1253.
- Howell JM, Higgins CA. 1990. Champions of technological innovation. *Administrative Science Quarterly* 35(2): 317–341.
- Hutzschenreuter T. 2006. Strategy-process research: what have we learned and what is still to be explored. *Journal of Management* 32(5): 673–720.
- Idenburg PJ. 1993. Four styles of strategy development. *Long Range Planning* 26(6): 132–137.
- IPCC. 2013. Climate Change 2013: the Physical Science Basis. Fifth assessment report. <http://climatechange2013.org/> [7 January 2014]
- Jamieson D. 2013. Gap Denies Connection to Bangladesh Factory that Employed Children in Al Jazeera Report. http://www.huffingtonpost.com/2013/08/27/gap-inc-old-navy-jeans-bangladesh_n_3822923.html [7 January 2014].
- Jarzabkowski P. 2004. Strategy as practice: recursiveness, adaptation, and practices-in-use. *Organization Studies* 25: 529–560.
- Jarzabkowski P. 2008. Shaping strategy as a structuration process. *Academy of Management Journal* 51: 621–650.
- Jennings PD, Zandbergen PA. 1995. Ecologically sustainable organizations: an institutional approach. *The Academy of Management Review* 20(4): 1015.
- Jeswani HK, Wehrmeyer W, Mulugetta Y. 2008. How warm is the corporate response to climate change? Evidence from Pakistan and the UK. *Business Strategy and the Environment* 17(1): 46–60.
- Jett QR, George JM. 2005. Emergent strategies and their consequences: a process study of competition and complex decision making. *Advances in Strategic Management* 22: 387–411.
- Johnson G, Whittington R, Scholes K. 2011. Exploring Strategy, 9th edn. Prentice Hall: Essex.
- Kaldschmidt S. 2011. The Values of Sustainability: the Influence of Leaders' Personal Values on Sustainability Strategies. Ph.D. thesis. St. Gallen.
- Kernaghan C. 2013. Gap and Old Navy in Bangladesh: cheating the poorest workers in the world. <http://www.globallabourrights.org/reports/gap-and-old-navy-in-bangladesh-cheating-the-poorest-workers-in-the-world> [7 January 2014].
- Lee K, Ball R. 2003. Achieving sustainable corporate competitiveness: strategic link between top management's (Green) commitment and corporate environmental strategy. *Greener Management International* 2003(44): 89–104.
- Lewin K. 1947. Frontiers in group dynamics. *Human Relations* 1(2): 143–153.
- Li Y, Hu J. 2008. An empirical research on the patterns and influencing factors of strategy formation processes. *Frontiers of Business Research in China* 2(2): 204–218.
- Lok P, Rhodes J, Cheng V. 2010. A framework for strategic decision making and performance among Chinese managers. *The International Journal of Human Resource Management* 21(9): 1373–1395.
- Lotila P. 2010. Corporate responsiveness to social pressure: an interaction-based model. *Journal of Business Ethics* 94(3): 395–409.
- Lowe A, Jones A. 2004. Emergent strategy and the measurement of performance: the formulation of performance indicators at the microlevel. *Organization Studies* 25: 1313–1337.
- Maritz R, Pretorius M, Plant K. 2011. Exploring the interface between strategy-making and responsible leadership. *Journal of Business Ethics* 98(51): 101–113.
- Markham SK. 1998. A longitudinal examination of how champions influence others to support their projects. *Journal of Product Innovation Management* 15(6): 490–504.
- Markusson N. 2010. The championing of environmental improvements in technology investment projects. *Journal of Cleaner Production* 18(8): 777–783.
- Martinet AC. 2010. Strategic planning, strategic management, strategic foresight: the seminal work of H. Igor Ansoff. *Technological Forecasting and Social Change* 77(9): 1485–1487.
- Mintzberg H. 1978. Patterns in strategy formation. *Management Science* 24: 934–948.

- Mintzberg H. 1990. The design school: reconsidering the basic premises of strategic management. *Strategic Management Journal* 11(3): 171–195.
- Mintzberg H. 1994. Rethinking strategic planning part I: pitfalls and fallacies. *Long Range Planning* 27(3): 12–21.
- Mintzberg H, McHugh A. 1985. Strategy formation in an adhocracy. *Administrative Science Quarterly* 30: 160–197.
- Mintzberg H, Waters JA. 1985. Of strategies, deliberate and emergent. *Strategic Management Journal* 6: 257–272.
- Mitchell RK, Agle BR, Wood DJ. 1997. Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. *Academy of Management Review* 22(4): 853–886.
- Morsing M, Schultz M. 2006. Corporate social responsibility communication: stakeholder information, response and involvement strategies. *Business Ethics: a European Review* 15(4): 323–338.
- Noda T, Bower JL. 1996. Strategy making as iterated processes of resource allocation. *Strategic Management Journal* 17(S1): 159–192.
- Nooraie M. 2011. Decision's familiarity and strategic decision-making process output: the mediating impact of rationality of the decision-making process. *International Journal of Applied Decision Sciences* 4(4): 385.
- Papadakis VM, Barwise P. 1998. Research on strategic decisions: where do we go from here? In *Strategic Decisions*, Papadakis VM, Barwise P (eds). Kluwer: Hingham, MA; 289–302.
- Papadakis VM, Lioukas S, Chambers D. 1998. Strategic decision-making processes: the role of management and context. *Strategic Management Journal* 19(2): 115–147.
- Papagiannakis G, Voudouris I, Lioukas S. 2013. The road to sustainability: exploring the process of corporate environmental strategy over time. *Business Strategy and the Environment* 23(4): 254–271.
- Pestre F, Mercier S, Huault I. 2008. Une Approche Processuelle de Construction des Stratégies de Responsabilité Sociale des Entreprises Multinationales Françaises. Ph.D. thesis. Paris.
- Prakash A. 2001. Why do firms adopt 'beyond-compliance' environmental policies? *Business Strategy and the Environment* 10(5): 286–299.
- Prins G, Rayner S. 2007. The Wrong Trousers: radically rethinking climate policy, Institute for Science, Innovation and Society: Oxford.
- Rajagopalan N, Rasheed AMA, Datta DK. 1993. Strategic decision processes: critical review and future directions. *A Special Issue of the Journal of Management* 19(2): 349–384.
- Regné P. 2003. Strategy creation in the periphery: inductive versus deductive strategy making. *Journal of Management Studies* 40(1): 57–82.
- Rhee S, Lee S. 2003. Dynamic change of corporate environmental strategy: rhetoric and reality. *Business Strategy and the Environment* 12(3): 175–190.
- Rittel HWJ, Webber MM. 1973. Dilemmas in a general theory of planning. *Policy Sciences* 4(2): 155–169.
- Roloff J. 2008. Learning from multi-stakeholder networks: issue-focussed stakeholder management. *Journal of Business Ethics* 82(1): 233–250.
- Roome N. 1994. Business strategy, R&D management and environmental imperatives. *R&D Management* 24(1): 065–082.
- Rotmans J. 2005. Societal Innovation: Between Dream and Reality lies Complexity. Erasmus Research Institute of Management (ERIM): Rotterdam.
- Rotmans J. 2006. Tools for integrated sustainability assessment: a two-track approach. *Integrated Assessment* 6(4): 35–57.
- Schaltegger S, Wagner M. 2011. Sustainable entrepreneurship and sustainability innovation: categories and interactions. *Business Strategy and the Environment* 20(4): 222–237.
- Schilit WK, Paine FT. 1987. An examination of the underlying dynamics of strategic decisions subject to upward influence activity. *Journal of Management Studies* 24(2): 161–187.
- Schön DA. 1963. Champions for radical new inventions. *Harvard Business Review* 41(2): 77–86.
- Schwenk CR. 1984. Cognitive simplification processes in strategic decision-making. *Strategic Management Journal* 5(2): 111–128.
- Schwenk CR. 1995. Strategic decision making. *Journal of Management* 21(3): 471–493.
- Sharma S. 2000. Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal* 43(4): 681–697.
- Sharp Z, Zaidman N. 2010. Strategization of CSR. *Journal of Business Ethics* 93(1): 51–71.
- Simons RH, Thompson BM. 1998. Strategic determinants: the context of managerial decision making. *Journal of Managerial Psychology* 13(1/2): 7–21.
- Siomkos G, Shrivastava P. 1993. Responding to product liability crises. *Long Range Planning* 26(5): 72–79.
- Slawinski N, Bansal P. 2012. A matter of time: the temporal perspectives of organizational responses to climate change. *Organization Studies* 33(11): 1537–1563.
- Staw BM, Sandelands LE, Dutton JE. 1981. Threat-rigidity effects in organizational behavior: a multilevel analysis. *Administrative Science Quarterly* 26(4): 501–524.
- Stern N. 2007. *The Economics of Climate Change: the Stern Review*. Cambridge University Press: Cambridge.
- Stone MM, Bigelow B, Crittenden W. 1999. Research on strategic management in nonprofit organizations synthesis, analysis, and future directions. *Administration and Society* 31(3): 378–423.
- Sunstein CR. 2007. Of Montreal and Kyoto: a tale of two protocols. *Harvard Environmental Law Review* 31: 1.
- Taylor A, Cocklin C, Brown R. 2012. Fostering environmental champions: a process to build their capacity to drive change. *Journal of Environmental Management* 98: 84–97.
- Tsai WM, MacMillan IC, Low MB. 1991. Effects of strategy and environment on corporate venture success in industrial markets. *Journal of Business Venturing* 6(1): 9–28.
- Welford R (ed.). 1998. *Corporate Environmental Management 1: Systems and Strategies*, 2nd edn. Earthscan: London.
- Wheeler D, Sillanpää M. 1998. Including the stakeholders: the business case. *Long Range Planning* 31(2): 201–210.
- Whittington R. 1996. Strategy as practice. *Long Range Planning* 29: 731–735.
- World Commission on Environment and Development (WCED). 1987. *Our Common Future. The Report of the World Commission on Environment and Development: Chapter 2: Towards Sustainable Development*. <http://www.un-documents.net/ocf-02.htm> [18 August 2014].