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Processes of Strategic Renewal, Competencies, and the Management of Speed

by

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Abstract

We discuss strategic renewal from a competence perspective. We argue that the management of speed and timing in this process is viewed distinctively when perceived through a cognitive lens. Managers need more firmly grounded process-understanding. The key idea of this paper is to dynamically conceptualize key activities of strategic renewal, and possible sources of break-down as they relate to the management of speed and timing. Based on a case from the media industry, we identify managerial trade-offs and show how these can be influenced through managing subjective perception, strategic involvement and external knowledge-sourcing.

Keywords

Strategic Renewal, Process, Learning, Knowledge-Sourcing

JEL Classification

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Introduction

It is widely recognized that competencies are at the heart of competitive success (Hamel, 1990; Hamel and Prahalad, 1994; Sanchez and Heene, 1996, 1997). As competence-based advantages erode through competition, especially in situations of high uncertainty and changing technological trajectories (d' Aveni, 1994; Volberda, 1996), firms face the challenge to proactively build new competencies while maintaining and leveraging existing ones to reach sustained competitive advantage (Oliver 1997). To avert threats of survival, companies need not only to avoid competence rigidities (Leonard-Barton, 1992; Barnett, Greve and Park, 1994), and competence traps (Levitt and March, 1988; Levinthal and March, 1993), but they also have to master competence-driven strategic renewal because those who bet on the 'wrong competencies' are subject to extinction (Barnett *et.al.*, 1994). On the other hand, firms seeking growth cannot advance without managing the "dynamic process of building, accessing, and leveraging competencies" (Sanchez, Heene and Thomas, 1996: 8) in the process of strategic renewal.

While research has yielded insights into conditions under which competencies lead to competitive advantage (Barney, 1991; Peteraf, 1993), the question of how to manage the process of competence-driven strategic renewal has scarcely been addressed so far. At the same time, because business practice is more and more competence-driven, the process of strategic renewal becomes increasingly a matter of initiating, preparing, and building competencies; maintaining existing competencies; as well as establishing connection between existing and emerging ones.

Although existing theories of strategic renewal (e.g. Hambrick and Mason, 1984; Pettigrew, 1985; Quinn, 1980; Tushman and Romanelli, 1985; Strebel, 1992; Huff, Huff and Thomas, 1992; Hamel, 1996) start out from different and partly implicit assumptions about triggers of strategic renewal (reactive vs. proactive), participation (top management vs. wider

participation), and process (incremental adjustment vs. revolution, punctuated change), taken together they suggest two mutually dependent and equally important dimensions of strategic renewal: (1) strategic renewal aims at bringing the organization back into a situation of freshness and vigor in strategic thinking, and (2) that transforming strategic thinking into coordinated strategic action is an essential challenge for successful strategic renewal. In this paper we will argue that a competence perspective sheds new light on the process of managing strategic renewal. We submit that the integrative power of the competence perspective (Sanchez and Heene, 1996, 1997; Sanchez, 1997) provides a solid foundation for research on strategic renewal based on explicit stated and practically relevant assumptions. We will put a particular emphasize on the role of speed and timing in competence-driven strategic renewal.

The paper is divided into five major sections. First, we briefly outline our assumptions that are firmly rooted in the competence perspective (Sanchez and Heene, 1996, 1997; Sanchez, 1997) and draw implications for understanding the context and process of strategic renewal. Moreover, we contrast understanding speed from a traditional management perspective with the notion of speed from the competence perspective. Secondly, based on this assumptions we present a model of competence-driven strategic renewal. Thirdly, we describe managerial variables relating to the management of speed and timing in such a process and identify potential sources of breakdown in competence-driven strategic renewal. Fourthly, we discuss trade offs related to the management of speed when managers try to speed up or slow down the process. Finally, we present implications for further research within the competence perspective, and elaborate on managerial implications.

Strategic Renewal through the Competence-Lens

The competence perspective is essentially based on four cornerstones (Sanchez, 1997). It advocates a (a) cognitive and (b) holistic system-perspective, assumes (c) dynamic competence based competition, and (d) pictures the firm as an open and complex co-adaptive system. Here we outline on a general level implication of the competence perspective for understanding and managing strategic renewal as well as speed and timing within this process.

Cognitive perspective

Stressing a cognitive perspective means taking limited cognitive abilities (Simon, 1958) of managers seriously. To the extent that managerial attention is limited, it is unlikely that isolated individuals are able to identify sources of sustainable competitive advantage (Sanchez, 1997). Thus, the competence-perspective calls for a focus on collective cognitive processes that contribute to a dynamic process understanding of strategic renewal. Consequently, we suggest strategy renewal to be less a question of finding the right road map, than rather a challenging cognitive process of imagining and developing the company's own future road map. The world external to the company is more viewed as an output rather than an input (Hurst, Rush and White, 1989; Daft and Weick, 1984; Weick, 1979). From this perspective, perceived strategic realities in organizations are developed through the complex interaction between subjective cognitive processes and tangible or objective elements in the environment (Hurst, Rush and White, 1989), which together constitute what Penrose (1959) has called the firm's 'opportunity set'.

Holistic Perspective

To be capable of systemic change, organization engaged in competence-driven strategic renewal must consider diverse interests of internal and external participants (Sanchez, 1997). From this perspective, to exclusively consider providers of financial resources might turn out as too shortsighted. This is, because shareholders might to an insufficient degree be immersed in the conduct of business, and, therefore, may be too remote from the seeds of imagination that fuels strategic renewal. By implication, this may mean to invite new voices of internal and external stakeholders (Hamel, 1995) into the renewal process and engage them into new strategic conversations (von Krogh and Roos, 1996). But not all potential participants are equally qualified, and so voices may have different importance. Furthermore, participants taking part in this conversations may have different stakes both in the past and future of the company. Thus, to holistically balance interest between participants while engaging sufficiently diverse voice is a major challenge for companies engaged in competence driven strategic renewal.

Conditions of internal and external dynamics

Assuming dynamic competence based competition alludes to at least two conditions for strategic renewal. First, it implies that the foundation of competitive advantage are constantly eroding as structured expectations, competencies, and relations in the market place are subject to learning and hence change. When the structure of competition changes, so do relative advantages among firms that — if translated into performance — drive market evolution (Nelson and Winter, 1982). Secondly, not only does the external firm environment result from the dynamic and competence guided interplay between market participants, but the dynamic complexity of the internal environments of the firm (i.e. existing competencies, coordination mechanisms, pool of skilled people and their interrelation) builds a dynamic

structure which acts as ‘enabling constraint’ (Giddens, 1993) for perceiving the external environment. Thus, the competence perspective sees competition not as a given external reality, but as a contemporary structure which results and is driven by multi-actor processes of attention, interpretation and learning (Pfeffer and Salancik, 1978; Daft and Weick, 1984; Smircich and Stubbart, 1985).

Strategic renewal in open and complex co-adaptive systems

Finally, picturing the firm as open and complex co-adaptive system stresses the dependency of the firm on a constant flow of external inputs as well the internal and external co-adaptive processes that yield value added. While cognition of valuable external input (e.g. access to external competence, valuable transactions for resources, sensing opportunities and threats) is a necessary condition for the dynamic co-adaptation of the firm in the process of competence-driven strategic renewal, internal co-adaptive processes shape recognition of external input. Given managers are guided by their own mental models (Porac and Thomas, 1990; von Krogh and Roos, 1994), competence-driven strategic renewal prepares the organization for new competence through co-adaptive processes of participation, strategic conversation (Westley, 1990), shared interpretation of strategic variables (Floyd and Wooldridge, 1992), and sharing experience (Weick, 1995). Moreover, maintaining existing competencies as well as establishing connection between existing and emerging competences also calls for engaging the company’s past for the development of renewed strategy.

Speed in competence driven strategic renewal

Several recent studies have emphasized the importance of speed as strategic weapon and as source for competitive advantage (e.g. Bourgeois and Eisenhardt, 1988; Eisenhardt 1989; Judge and Miller, 1991; Smith, Grimm, Chen and Gannon, 1989; Stalk, 1988). Relatedly,

speeding up operations and action to reach competitive advantage is a widely accepted recommendation (Brown and Karagozoglu, 1993; Page, 1993; Smith and Reinertsen, 1992). For example, Eisenhardt emphasizes that “...most managers have recognized that speed matters. A slow strategy is as ineffective as the wrong strategy. So, fast strategic decision making has emerged as a crucial competitive weapon” (Eisenhardt, 1990: 53).

Similarly, empirical studies has shown that when a firm's response time to a competitor's action decreases, they face relatively increased performance (e.g. Smith, Grimm, Chen and Gannon, 1989). Earlier, Porter (1980) has shown that first moving in the market place is a highly valuable strategy for competitive advantage in several industries. Consequently, from this view, companies have to be able to move quickly and timely, more quickly and timely than others to be on the cutting edge. Arguments invoked to rationalize the importance of speeding up operations involve, for example, the belief that being a fast mover automatically yields advantages in the market place (e.g., Lieberman and Montgomery, 1988; Porter, 1980), the accelerating pace of time-based competition (Page, 1993), and rapidly changing business environments (Stalk, 1993; Stalk and Hout, 1990). If one assumes time to be objective, measurable, linear, as constantly ticking away (McGrath and Rotchford, 1983; Kessler and Chakrabarti, 1996) — as many strategy renewal researchers do — the argument for speeding up strategic action and to make strategic decisions faster due to frequently changing environments (Eisenhardt, 1989, 1990; Vinton, 1992) seems compelling.

From a competence perspective, however, perceived strategic realities (internal and external environment) in organizations are developed through the complex interaction between subjective cognitive processes and tangible or objective elements in the environment (Hurst, Rush and White, 1989). Sanchez and Heene (1996: 49-50) early recognized that “managerial cognition and manager’s approaches to coordinating are harder to change than stocks of intangibel resources like knowledge, stocks of tangible resources like machines and buildings, or the firm’s operations and products.” Thus, if time sensitive competitive

processes are at stake in the process of competence-driven strategic renewal, managers need a deep process understanding of how to induce and manage speed and time. Here we contend that a subjective understanding of time forms the basis from which such an understanding proceeds.

Time, in the competence perspective, is subjective and translates in conjunction with other subjectively perceived features of reality into differently distributed attention (Cyert and March, 1963), attribution of issue importance and issue urgency among participants in the strategic renewal process (Dutton and Duncan, 1987). By contrast, the strong focus on speeding up all organizational processes in many organizations is based on a conception of time corresponding to clock-time or calendar-time (Das, 1991). For shorter time-spans focusing on activities in the present, such a view may be non-problematic. For long-term strategic thinking and imaginations of future opportunity horizons, however, the role of time and speed seem to highly dependent on individual subjectivity or psychological conceptions of time (Das, 1991; Hurst, Rush and White, 1989). Empirical research indicates that top managers significantly differed on future time perspectives, and that their future orientation influenced their way of conducting strategy processes (Das, 1986; Sawy, 1983). As a consequence, pre-existing differences in psychological conceptions of the future among managers can amount to critical significance in managing competence driven strategic renewal.

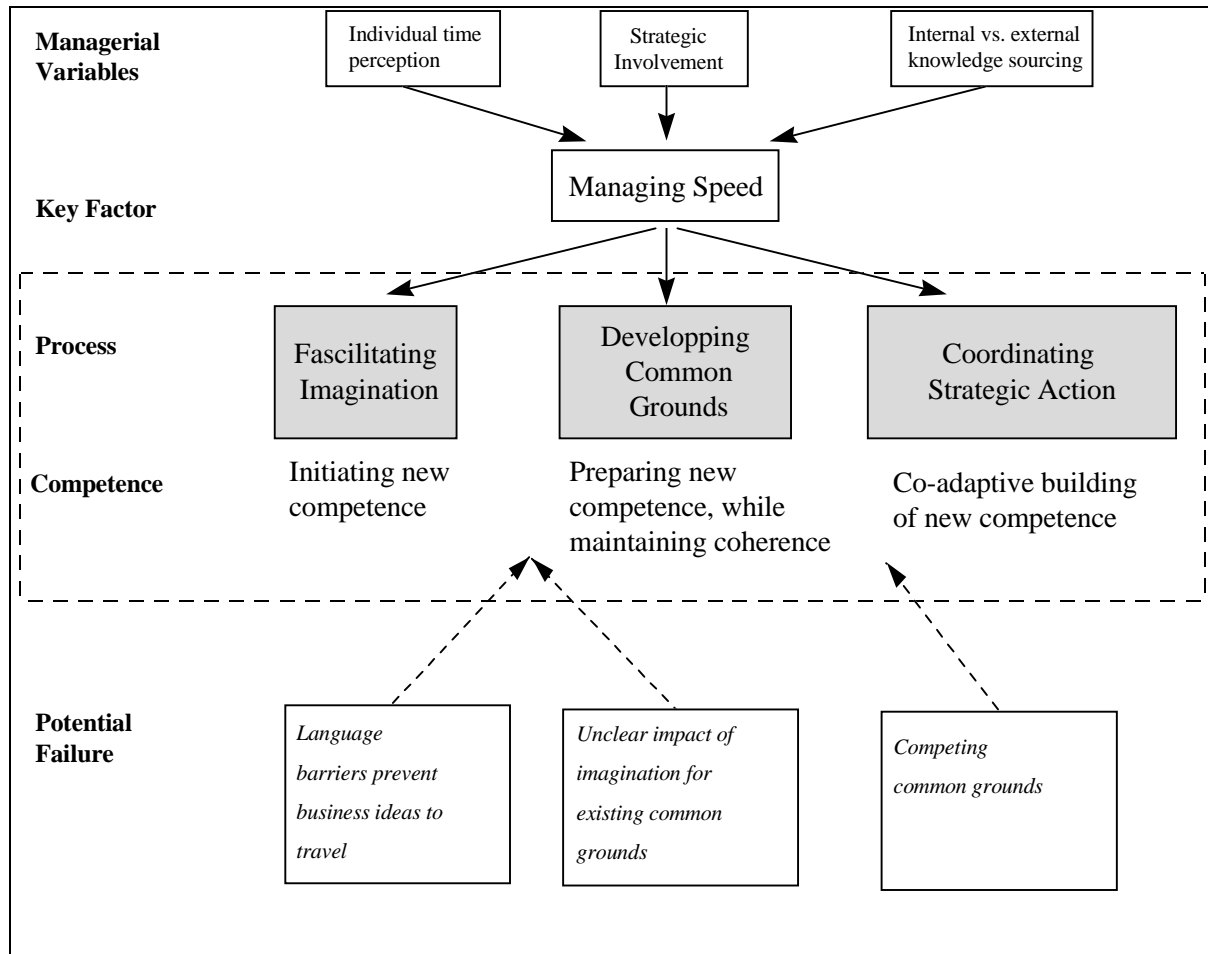
Thus, appreciating the role of speed in achieving competitive success, previous studies presuppose what has to be established through successful competence-driven strategic renewal in the first place. A slow strategy might be as ineffective as a wrong strategy, but a fast strategy is no guarantee for effectiveness. First-mover advantage can be achieved through early and decisive strategic moves, but for strategic action to be effective and decisions to be fast, companies need through competence-driven strategic renewal build the competence-base on which they are based. While speed in strategy deployment can yield

competitive advantage, purposeful management of speed and timing in the process of competence-driven strategic renewal helps establishing the conditions that could make speedy strategy execution possible.

The Model of Competence-Driven Strategic Renewal

The following model presents an extension of previous work on strategic renewal (Aadne, 1996; Aadne and Mahnke, 1996, 1997).¹ Our model defines strategic renewal as the process that links (1) strategic imagination, with (2) new coordinated strategic action, through (3) developing a common ground which facilitates the transformation of strategic imagination into coordinated strategic action. In the terminology of a competence perspective, our model concerns: (1) *maintaining competence*, which targets at sustaining intentional and coordinated asset deployment through structured coherence, and (2) *building competence*, which involves qualitative changes in existing assets of capabilities to create new strategic options (Sanchez, Heene and Thomas, 1996). Both depend on the careful and purposeful management of speed to avoid potential sources of breakdown, that could impede the transition between the different sub-processes of strategic renewal. Figure 1 below illustrates the main aspects of our model:

¹ This research is partly based on a twelve months action research project on strategic renewal in a newspaper group. The newspaper group had a dominant position in its market, but facing blurring industry barriers and fierce competition the newspaper group realized that future competitiveness could be a stake. In this respect, one important aspect was the development of electronic media. The project was focused on developing a strategy for electronic media, and to enhance the general strategy conduct in the organization. The newspaper group had about 1.600 employees. All quotes from managers presented in this article are collected from interviews and meetings during and after the particular strategy process.



Three Sub-processes of Strategic Renewal

If strategic renewal is the process that links (1) strategic imagination, with (2) new coordinated strategic action, through (3) developing a common ground which enables the transformation of strategic imagination into coordinated strategic action, one needs to understand the sub-processes of strategic renewal in more depth. In short, while strategic imagination aims at initiating new competence, developing common grounds prepares the organization for new competence while maintaining coherence (Teece et. al., 1994) and establishing linkages to existing competencies. Coordinating strategic action builds on the two previous processes and involves the co-adaptive building of new competencies.

Facilitating imagination

A principal part of competence-driven strategic renewal is the pursuit for new initiatives, like beliefs about new products, new markets, new technologies or new processes (McGrath, MacMillan and Venkataraman, 1995). This is normally not a problem of prediction or discovery of one future, but the willingness to imagine and play with a broad menu of potential future competitive spaces. In fact, the potential for future competitive strength is highly dependent on a company's ability to imagine markets and opportunities still not existing, and to stake these out before the competitors (Hamel and Prahalad, 1991; Hurst, Rush and White, 1989). In many companies, this willingness to imagine and play is not necessarily a bottleneck. Individuals and groups at several levels in the organization constantly produce beliefs about the future. The generation of ideas and beliefs in the Newspaper Group was described by the Vice President of Development the following way:

“We can be very creative and innovative. We produce a lot of «wild» ideas in this company. By wild, I mean good ideas, but also crazy and creative ideas. In general, we also have a high degree of openness towards new ideas. We have a fine-grained detector network making us very knowledgeable of new trends and new issues”.

Imagination of a company's opportunity horizon is neither the responsibility of single individuals nor the top management group alone, but a question of collective imagination (Hamel and Prahalad, 1991). The focus on collective imagination, emphasizes the role of energizing several voices, at different organizational levels, with different knowledge and skills to take part in idea generation and horizon spanning. This diversity increases requisite variety, which is an important pre-requisite for creating new knowledge (Nonaka and Takeuchi, 1995). Weick elaborate on this in the following way: "The greater the variety of beliefs in a repertoire, the more fully should any situation be seen, the more solutions that should be identified, and the more likely it should be that someone knows a great deal about what is happening" (Weick, 1995: 87). Beliefs about future possible actions and opportunities can be seen as purpose based knowledge (Sanchez, 1997). Thus, imagination is about creating new knowledge, creating awareness about possible future tasks, and developing new intentions. Following Sanchez, Heene and Thomas (1996), all these three aspect are essential for initiating new competence in the organization.

Developing common ground

Imaginations represent aspirations (Cyert and March, 1963) and possible futures, but they are by nature more abstract than generating direction and commitment for concrete strategic action. In fact, imaginations can be seen as repositories of beliefs about choice opportunities, beliefs about possible tasks to solve, and beliefs about possible solutions (Cohen, March and Olsen, 1972). However, to achieve aggressive and timely action over time at a pace putting a firm into the drivers seat compared to the competitors, coherence regarding strategic priorities, goals, strategies and perceptions is normally seen as essential (e.g. Floyd and Wooldridge, 1992; Dess and Priem, 1995). This implies a shift in the strategic renewal process from seeing different possible futures to a focus on desirable or most likely futures.

When the renewal process moves from imagination to imagination deemed possible and desirable, one possible route towards narrowing the variety created in the imagination phase,

is a process for developing common ground (Weisbord, 1992; Weisbord and Janoff, 1995). Common ground is based on a process of exploring past, present and future (Weisbord, 1992). In this process, imaginations are taken as a starting point for a search for widely held ideas about future competitive spaces, their characteristics, strategies required, etc. Further, the connections between future routes and past grounds, the past track record of the organization as well as the organization's context are carefully considered. As such, actions, events, trends, and relations, within and between the wider world and the organization, in the past, present, and future are explored and examined. As a central part of the common ground process, people in the organization intensively work on sharing assumptions, sharing commitment, sharing expectations, sharing experiences, and sharing imaginations (Aadne and Mahnke, 1997). Through the process of sharing, awareness and understanding are developed, and commonly held anchor points for future action are identified. Thus, common ground is shaping as well as deriving from a process of sharing and taking responsibility for the future. Finally, it is important to emphasize that the common ground development is focused on a collective search process directed towards getting a grasp of an overall picture, setting new directions through new common ground, and to discover possibilities for synergy between new and old common grounds. As such, the process goes beyond mere formulation of a mission statement, goals, or strategies. Through the process of developing common ground both, the corporate direction and a framework for strategy-making in the organization are established (Aadne and Mahnke, 1997). The Sales & Marketing Director and Project Chairman emphasized the importance of establishing a common platform:

“We need a common platform for our electronic media investments in attention, time and money. We’ve many opportunities and beliefs about electronic media. Possible partners also regularly take contact with us regarding everything from opinions to projects. You can say that our opportunity set is probably larger than most of our competitors. However, we’ve limited resources, and the uncertainty about the electronic media market is still very high. Thus, we need to develop a common platform and a strategy to extend and maintaining our present strengths, and to develop the competencies required for also being leading in the future”.

In the common ground process, new competencies are prepared by integrating beliefs, tasks and intentions related to desirable and most likely futures. Furthermore, creation of new beliefs and intentions can also sustain and strengthen intentional and coordinated asset deployment already taking place in the organization. Thus, the process also contributes to maintaining competence. In the process of sharing, a collective understanding of new competencies and the value of existing competencies are developed. Here, a basic idea is to develop relationships between competencies and competence deployment in the past, present and future. Competencies developed and deployed in the past are a unique source of beliefs and insight about success and failure (Brown and Duguid, 1991). These experiences and the organizational storytelling (Boje, 1991) following them are an important source for building and maintaining competence for future asset deployment. Storytelling is highlighted as the preferred sensemaking currency of human relationships within and between organizations (Boje, 1991). If this is the case, storytelling about strategy and strategic renewal should be some of the most prominent, influential and costly stories told in organizations (Barry and Elmes, 1997). However, coherence in future asset deployment requires more than mere storytelling about the past. The development and deployment of competence in the past has to be carefully examined and re-interpreted developing a collective awareness and understanding about how the past has relevance for building new competence and maintaining present competencies. First when the people involved in the common ground process see the overall competence based relationships between past, present and future can the whole organizational potential be unleashed and coherence in asset deployment be achieved. This process prepares the organization for new competence based on the development of common ground.

Coordinating strategic action.

Strategic action does normally not take place automatically, and a cognitively developed common ground itself does not necessarily produce results (Johnson, 1992; Mintzberg and

Waters, 1985). It is essential to translate the different projects and activities from ideas to realities. The Sales and Marketing Director explained:

“It’s important to formulate down to earth and concrete projects. People should not approvingly to these projects (e.g. project on new electronic media) without any extensive discussion.”

Based on the common ground developed and the different anchor points identified, action planning to create specific plans, timelines, and responsibility is conducted. These plans cover most aspects from board of directors members making plans and strategies for taking the new ideas to their board members and associates, to more specific plans for activities like knowledge development, strategic projects, investments, or to plans for specific departments or products.

Value creation in firms is not the result of resource and competence endowments, but actual action deploying resources and competencies result in value creation (Løwendahl and Haanes, 1997). This is a continuous task going beyond one time planning. Integrating competence into coordinated strategic action across the organization, and the process of deploying newly developed competence are both co-adaptive processes. The process of co-adaptation is concerned with cognizing valuable external input about market and competitors, and internal acknowledgment of this external input and the implications for further building and maintaining competence in a coherent and competitive value added manner. Szulanski (1996) argues that developing shared understanding and action facilitate further coordination of action by making action understandable, predictable (March and Simon, 1958; Nelson and Winter, 1982) and stable (Berger and Luckman, 1967). Thus, the co-adaptive process of coordinating strategic action contributes to institutionalization of competencies and competence deployment in the organization.

Managerial Variables

Up to this point three sub-processes of competence-driven strategic renewal have been described. Here we discuss managerial variables that are influential for the management of speed and timing of phase transition in the process of competence-driven strategic renewal. By managerial variables we mean factors that actively can be influenced. They include individual time perception, the degree of strategic involvement, and the degree on internal vs. external knowledge sourcing, all of which in many ways can facilitate or impede efforts to speed up or slow down the whole competence-driven renewal process

Individual time perception

As argued above speed in the process of competence-driven strategic renewal seems dependent on individual subjectivity or psychological conceptions of time (Das, 1991; Hurst, Rush and White, 1989). Several aspects are likely to reinforce variances in time perception: differences in departmental and teamwork-related prior experience, differences in individual education, and individual differences in strategic renewal experiences within the current organization, and the degree to which participants in the competence-driven strategic renewal process represent stakeholders both inside and outside the organization. Thus, if the development of a future platform for the organization is conducted by people having accumulated substantial experiences in a variety of functional areas, this will certainly influence their perception of the future. Additionally, while strategic renewal is about the future of the organization, not all taking part in the process have a stake in this future (Hamel, 1996).

Taking into account this difficulties we can state that if time perception among managers taking part in the process of competence-driven strategic renewal significantly differs (Das, 1986; Sawy, 1983), variety in the process of imagination is enhanced, judgment of strategic

issue importance and -urgency is unlikely to yield fast agreement in the common ground process, and co-adaptive building of new competencies through coordinated strategic action will be more difficult. Furthermore, while participation of people without future stake in the renewal process may be desirable to negotiate the relation between old and new common grounds, their participation may inhibit the process of strategic renewal to advance in a speedy manner, because their perception might be too biased by past experience. Conversely, excluding participation of people without future stakes may speed up the renewal process, but may breed distortion of coordinated strategic action, because gone realities still influence through path-dependency current competence maintenance as well as new development.

The greater the difference in individual time perception among participants, the higher the need for a high level of time consuming integration in order to consider participating parties, to facilitate continued participation, and to take full advantage of the variety of time perceptions in the competence-driven strategic renewal process. The degree of diversity of time perceptions, however, can be influenced in several dimensions, including (a) ex-ante regulation of involvement, (b) ex-ante established meaning about perceived relevant time perspective, (c) ex-post matching of time perception through explicit agreement on issue urgency and importance, and (d) selecting participants according to future stakes.

Strategic involvement

Speed in the process of competence-driven strategic renewal is influenced by the form and extent of strategic involvement. Strategic renewal has traditionally been viewed as a distinctive province of the top management (e.g. Hambrick and Mason, 1984). By contrast, if demanding and future oriented cognitive and idea driven processes are at stake, the whole organization may represent a potential for new thinking and new ideas (Hamel, 1996). Only by inviting a wide range of voices into the strategy process is it possible to unleash this potential. As Hamel comments: “To invite new voices into the strategy-making process, to

encourage new perspectives, to start new conversations that span organizational boundaries, and then to help synthesize unconventional options into a point of view about corporate direction - those are the challenges for senior executives..." (Hamel, 1996: 82). Seen from this perspective, strategic renewal is a process with wide involvement in the organization. The Vice President of Development describes involvement in the following way:

"In our department we had one 'table' where a small group of people actively discussed electronic media {...} However, the organizational effect would be limited. Thus, we had to establish several such 'tables' all over the organization having the responsibility of discussing different aspects of electronic media. Then suddenly, we have a possibility to achieve something".

Wide involvement can be regarded as beneficial in the common ground process, when participation facilitates greater agreement on the strategic direction (Floyd and Wooldridge, 1992). If agreement is based on a "wide-ranging sensing of the environment" (Huber, 1991: 97; Kiesler & Sproull, 1982) from a variety of perspective, and if it results from an explicit process of strategic conversation (Westley, 1990, von Krogh and Roos, 1995), developing strategic direction seems possible while avoiding rigidities and competence traps (Leonard-Barton, 1992; Levitt and March, 1988). Explicit agreement is different from consensus (read: sensing similar). That is, to the extent that different perceptions and underlying assumptions are not externalized and critically scrutinized in the common ground process, consensus may lead to harmful 'group think' (Janis, 1982).

Moreover, wide involvement may broaden managers' perceptions of external and internal environments (Sanchez, 1997; Bourgeois, 1985; Lawrence and Dyer, 1983), because to be personally involved in scrutinizing, challenging, and negotiating each others' interpretations of strategic variables (Floyd and Wooldridge, 1992; Westley, 1990) leads to 'cognitive dissonance' (Festinger, 1957). For example, when parties involved in a strategic renewal process seek to avoid or reduce inconsistency (Zimbardo and Leippe, 1991), but hold contradictory cognitions, they experience "an aversive state known as cognitive dissonance" (Kahle, 1984: 11). Such a state may arise for a number of reasons, including exposure to

new information, and disagreement with other parties (Kahle, 1984). States of cognitive dissonance will motivate parties to restore cognitive consistency by negotiating behavior, negotiating the importance of cognition, or adding new cognition (Festinger, 1957), all of which may provide a critically developed interpretive framework that guides managers' sensemaking (e.g. Gioia and Chittipeddi, 1991; Poras and Silvers, 1991). Note that wide involvement triggers not only cognitive, but additionally motivational mechanisms (Locke and Schweiger, 1979). While cognitive mechanisms associated with involvement can be expected to focus and refine managers' perceptions through exposure to different perspectives, motivational mechanisms work towards readiness and openness for strategic change (Armenakis et al., 1993).

Involvement in the competence-driven strategic renewal process may vary in form and extent during different sub-processes. Participation may take place on a part-time basis only. However, limiting involvement through part-time participation or changing participation during sub-processes may slow down the renewal process since managers' attention might be diluted. Furthermore, a consequence of not taking part in the process-specific learning experience may be additional time-consumption, including additional re-orientation needs for participants, delays due to catching-up learning and coordination failure (cp. Mabert et al., 1992; Zirger and Hartley, 1993). The Vice President of Development commented:

“We're very good at initiating new projects. However, the efficiency is certainly questionable. Many projects move upwards in the organization, and are discussed at several levels. The answer from the Board is normally a whole set of new questions. Some projects move for years up and down in the organization”.

Taking into account this considerations, we can state that while greater involvement, due to a multiplicity of perspectives and associated coordination requirements, may slow down the process of strategic renewal in general, it may also increase the pool of available imagination in the common ground process, enhances motivation and commitment for change, leads to wider agreement on strategic directions, facilitates greater process understanding, and avoids coordination failure. Thus, the choice whether or not to invite

wide participation of diverse groups (e.g. business units, expert groups, internal and external stakeholders) in the renewal process impacts the speed of translating imagination into the common ground process as well as the co-adaptive building of new competencies during the renewal process. While wide involvement may increase complexity and therefore leads to a slower process, too narrow participation may inhibit common ground and may waste available but not invited imagination. The extent of involvement, however, can be influenced in several dimensions, including (a) selection of internal and external participants according to functional expertise, team-work experience, strategy process roles, and political consideration, (b) change of involvement during different sub-processes, and (c) participation on a part-time basis.

Internal and external knowledge sourcing

Speed in the process of competence driven strategic renewal can be additionally influenced by the degree of external vs. internal knowledge sourcing. The competence perspective clearly conveys the message that firms who focus their competence endowment to broadly, easily become the masters of none. Yet, focusing on core-competencies (Hamel and Prahalad, 1990) and mastering a narrow range of activities better than competitors, implies that the variety in staffing, orientation, knowledge-base, and business-engagement is necessarily limited. Thus, given the stickiness of competence endowments (Teece, Pisano and Shuen, 1990) companies intending to initiate, prepare and build new competencies during the process of strategic renewal may rely on external knowledge sourcing (both with regard to factual and process knowledge) through various forms of either interfirm cooperation (Badaracco, 1991; Hamel, 1991), hiring external academics and consultants, or through bringing clients and other external stakeholders (cp. Meyer, 1993; Peters, 1987; Von Hippel, 1986) into the different phases of the renewal process.

Through external knowledge sourcing, the variety of the knowledge-base might be broadened, and external perspectives in strategic imagination may lead to cross-fertilization

of ideas. It can help companies to access external competence and complementary insight that allow to focus energy on projects that fit the companies human capacity. Finally, process knowledge brought to the process by external advisers may additionally contribute to accelerate the speed of the renewal process. Conversely, however, one can argue that extensive reliance on external knowledge-sourcing may reinforce a overly narrow perspective on what the company already does well. External knowledge sourcing finds its limits when it is used as a quick fix for overcoming process bottlenecks, resolving cognitive dissonance by substituting external wisdom for internal ignorance. In such cases, absorptive capacity (Cohen and Levinthal, 1991) for subsequent knowledge absorption which could fuel new competence-development is hardly achieved, the common ground process might lack sensitivity regarding the company's own past, and external wisdom is borrowed on time rather than internalized and used for new competence development.

Taking into account this considerations, we can state that while a high degree of external knowledge sourcing may speed up the renewal process through accessing external competence, focusing attention on the most important renewal activities, and providing factual or process knowledge when this is needed during the process. There is a caveat to external knowledge sourcing, however. Unless external knowledge is internalized and used for initiating, preparing, and finally building competencies during the strategic renewal process, high process speed might mistakenly be confused with the illusion of progress in the process of competence driven strategic renewal. Thus the degree of external knowledge-sourcing might be carefully considered in managing process speed. Possibilities include (a) the usage of external sourcing for adding perspectives in the imagination process, (b) selected partnering with external stakeholders, customers, and consultants (c) various and carefully selected experimental cooperation with other companies, academic institutions and interest groups.

Potential Breakdowns in Strategic Renewal

Competence-driven strategic renewal is far from being straight forward and often difficult to achieve (Ford and Ford, 1995). Potential breakdown can occur during transition between and within each sub-process of strategic renewal and may lead to serious interruption. At least three causes of potential breakdown can be distinguished. They include the following: (1) language barriers prevent ideas to enter the common ground process; (2) the relation between imagination and common grounds is unclear; and (3) existing and emerging common grounds co-exist but compete rather than cooperate with each other.

Language barriers

Organizations are composed of different language communities which due to specialization speak different languages when describing and coordinating their action (Brown and Duguid, 1991; Orr, 1996; Wittgenstein, 1952). These language communities may result from functional separation or shared interest, both of which may lead to frequent interaction and the development of a common language spoken within the community. While a common language within a community enables efficient coordination, it may make communication between language communities difficult. The Project Manager for Electronic Media described the problem of achieving a constructive communicative interaction the following way:

“It’s just like the Editor-in-Chief and the Sales & Marketing Director are living in two totally different worlds. They’re not only having different perspectives and priorities, they’re not talking the same language either.”

Especially when wider circles in the organization are included in strategic imagination as Hamel (1996) suggests, misunderstanding, and communication barriers pose a tax on achieving successful competence renewal because they prevent ideas and imagination to enter the process of common ground development. Furthermore, if language barriers are

combined with high levels of uncertainty and a rush for action, misunderstanding is likely to increase.

Unclear relation between imagination and common ground

When groups in the organization bring environmental trends and new imaginations into the process of competence renewal, managers often experience different degrees of uncertainty, anxiety, and issue-urgency. Judging the impact of imagination on existing common grounds may differ between managers when perceived issue urgency, anxiety, and uncertainty is unequally distributed among managers (Dutton and Duncan, 1987). Managers may initially disagree whether or not new common grounds need to be established. Managers may ask whether new issues may be judged as refinement of existing common grounds or fundamental change (March, 1991, Dutton and Duncan, 1987). In a discussion of possible levels of ambition, the Production and Service Manager made the following statement:

“We mainly focus our discussion on existing products and existing customers. If we want to develop an intellectual leadership in this area, we also have to imagine ourselves delivering totally new products to new customer groups. We avoid challenges by defining new things as close as possible to the existing ones.”

New observations and action are often marginalized because the observers have a tendency to categorize them into already existing concepts (Piaget, 1972). This contributes to a conceptual saturation where new and promising distinctions (von Krogh, Roos and Slocum, 1994) not are noticed, and potential value for competence development and strategic renewal is not acknowledged.

Competing common grounds

Even if managers agree that a new common grounds needs to be established, there is another potential breakdown to be prevented to successfully achieve competence renewal. As an overall picture of potential new strategic realities takes shape through increased understanding and sensemaking (Weick, 1995), competing common grounds may co-exist in

the process of competence renewal. The Vice President of Development described the situation in the newspaper group:

“Each time we make a new comprehensive corporate level strategy process, we develop strategies and priorities for several particular matters, and we try to see these from a corporate level perspective. However, the problem is that each strategy process is seen as an isolated process. We’re not very good at seeing new strategies in relationship with previous strategies. Thus, we have several strategies and strategy documents around which still to some extent are valid. They’re at least not explicitly ruled out. As a consequence, we follow several more or less parallel strategies which can be both inconsistent and even contradictory.”

Established common grounds are a prerequisite for coordinated strategic action, they may facilitate strategic action to be conducted to turn new strategy into competitive reality. However, unless the relation between old and new common grounds has been established in the organizations, reference to competing common grounds may breed confusion, threatens organizational coherence (Teece et. al., 1994), and leads to disagreement in allocating resources.

Managing Speed

After clarifying three managerial variables (subjective time perception, strategic involvement and external vs. internal knowledge sourcing) which influence speed in the process of competence driven strategic renewal and distinguishing potential sources of breakdown, we are now in the position to ask what are the implication of either low- or high speed regimes in the process of competence driven strategic renewal strategic renewal? What are the trade offs between different kinds of breakdown under low- or high speed regimes in this process?

High speed regimes are signified by limited involvement, limited expression of differences in time perception, high external knowledge sourcing, and an atmosphere of impatience. Speeding up a competence driven strategic renewal process can be compared to accelerating a car into higher speeds. When the speed increases, the field of vision gradually narrows down. As a consequence, the ability to recognize the diversity of possible phenomena and characteristics along the roadway decreases. Thus, when the momentum in the process is kept high, it is difficult to bring in new perspectives, issues, or ideas. In high speed regimes language barriers between different groups are less of a problem. The speed of the strategic renewal process simply excludes members of the organization from participation if they are not able to keep up with the speed. On the other hand, high speed regimes come at the cost of decreased variety in imagination that is brought to the common ground process. Additionally, under high speed regimes a tendency to rely on established thinking, established agendas, established interpretations, and established arguments, can in many situations be relatively high. Competing common grounds are not likely to occur, if new common grounds do not come into existence in the first place. If they do, but are limited to the few who have participated in their formation, however, strong internal competition between the few activists and the excluded rest will most likely impede coordinated strategic action.

Low speed regimes by contrast are signified by wide involvement, clear expression of differences in time perception, low external knowledge sourcing, and an atmosphere of patience. Slowing down a strategic renewal process can be compared to decreasing the speed of a car before changing direction. When the speed decreases, the field of vision gradually widens up. As a consequence, the ability to recognize the diversity of possible phenomena and characteristics along the roadway increases. Thus, when the process is slow, new perspectives, issues, or ideas have time to enter. Wide participation in low speed regimes may increase the language barrier problem between different groups, however. Many imaginative contributions from diverse organizational groups have to be evaluated in the

common ground process. Because there are just too many voices to be heard, judging the impact of imagination on existing common grounds is extremely time consuming. So, low speed regimes may increase variety in imagination that is brought to the common ground process. Additionally, under low speed regimes a tendency to rely on established thinking, established agendas, established interpretations, and established arguments, is relatively low. Competing common grounds are not likely to occur, if new common grounds have been created under wide participation. Furthermore, competing common grounds are less likely to distort coordinated strategic action.

To be sure, high speed and low speed regimes as described here are ideal types. They are used to illustrate the impact of speed on potential breakdown. Further, they illustrate that managers attempting to successfully manage strategic renewal face difficult trade offs while initiating, preparing and building new competencies:

- Speeding up the renewal process seems to decrease variety in imagination brought to the common ground process, increases the tendency to subsume imagination to existing common grounds, and if despite this new common grounds are developed, competition between common grounds is likely to increase which may stifle the coordination of strategic action required for new competence to be developed. In sum: speeding up the strategic renewal process increases the likelihood that the process fails altogether, either because initiating new competence does not provide enough variety, or preparing competence while maintaining coherence fails to establish linkages between the company's past in the present for future strategic moves .
- On the other hand, slowing down the process of strategic renewal seems to increase the variety of imagination brought to the common ground process, may allow for more common ground development, and increases the likelihood of coordinated strategic action. This, however, is true only to the extent that the language barrier problem has

been overcome and the process did not fail before it really started. In sum: slowing down the competence driven strategic renewal process decreases the likelihood that the process fails altogether.

While slowing down the competence driven strategic renewal process seems to be the favorite option which makes based on new competence fast and coherent decision making, as well as speedy competitive action possible after the renewal has been completed, slowing down the process can also retard strategic renewal so much, that the company has been weeded out by competition at a point in time it would have completed its building of new competence in the renewal process.

In sum, potential breakdowns described, and trade offs related to managing the process of competence driven strategic renewal suggest that to avoid time pressure in the process competence-driven renewal, it should not only be considered as one of the most challenging managerial tasks in today's competence based competition. Furthermore, to increase the likelihood of success and to take full advantage of carefully influencing managerial variables as outlined in our model, companies should see competence driven strategic renewal as a process that has to be started right in time and therefore deserves high priority on the companies strategic agenda. As the chairman of the newspaper group commented:

“We are now really scratching the bedrock of our organization and business activities. We can't push this process. We've to take the time necessary to figure out our disagreements, and develop a common platform for future activities.”

Implications for Research

The model for competence based strategic renewal outlined in this article has several implications for both research and practice within the competence perspective. Competence

scholars have started to address problems related to strategic renewal (Volberda & Baden-Fuller, 1996; Volberda, 1996). Our purpose is complementary to their efforts, but is distinct in its orientation. While we share the interest in strategic renewal, we explicitly stress the role of managerial cognition in relation to time-sensitive processes as envisaged by Sanchez and Heene, (1996). Note that suggestions made in this paper are consistent but complementary to the literature on speed as a strategic factor (Bourgeois & Eisenhardt, 1988; Eisenhardt 1989; Judge & Miller, 1991; Smith, Grimm, Chen & Gannon, 1989; Stalk, 1988). Starting from the insights and assumptions of the competence perspective, we argue that the careful management of speed and timing in the process of strategic renewal helps establishing the conditions that makes speedy strategy possible in the first place.

Furthermore, when time sensitive cognitive processes are at stake in the process of competence-driven strategic renewal, managers need a deep process understanding of how to induce and manage speed and timing. We develop such an understanding in several dimension. We distinguish three crucial sub-processes (imagination, common ground development and coordinating strategic action) and their interrelation. We identify sources of breakdown (language barriers, unclear contribution to common grounds, competing common grounds) which may impede initiating, preparing, and finally building new competence. We relate the management of speed in the strategic renewal process to both sub-processes, and sources of break down. Finally, we elaborate on how managerial variables can be used to influence speed and timing in the strategic renewal process and to avoid sources of break-down. Thus this paper contributes based on the competence perspective to the accumulation of knowledge for a more holistic, systemic, and cognitive understanding of strategic renewal.

Our model seeks to integrate the existing renewal literature, which has mainly addressed the first dimension of competence renewal (e.g. Burgelman, 1983; Hamel, 1996). This literature has focused to lesser extent on the coordination of strategic action, and in particular the process through which imagination and coordinated strategic action are linked has scarcely

been investigated. From a competence perspective, the linkage of all three sub-processes is at the heart of successfully managing strategic renewal. Moreover, this model can be enriched and refined by integrating separate types of analysis, such as managing articulated knowledge (Sanchez, 1997), and competence building and leveraging through resource mobilization (Løwendahl & Haanes, 1997). Additionally, our model suggests several avenues and possibilities to link other disciplines and research perspectives to the competence perspective, the incorporation of which further strengthen its explanatory power:

First, power and political processes have been highlighted as influential in organizational change processes (e.g. Pettigrew, 1973; Cyert and March, 1963). This perspective focuses on the process of bargaining, negotiation, and trade-off between different political interests. However, the role of political processes related both to competence building and competence-based strategic renewal has attracted limited attention so far. One important area of research would be to develop a better understanding of power, and in particular how to deal with power in competence management in general, and more specifically in the strategic renewal activities outlined in this paper. In particular, the direct influence of power on speed and the possibility for breakdowns is of importance.

Secondly, research on conversations (Barry & Elmes, 1997; Ford & Ford, 1995) as well as insights from research on the communication between marketing departments and R&D departments in innovation processes (Dougherty, 1992) and strategy formation processes (Franwick, Ward, Hutt and Reingen, 1994), touch upon some of the important aspects of competence management. However, a thorough understanding of issues like the role of language communities, the formation of new language, how to identify and manage language barriers, and the mutual influence between speed and language in competence-management is still to a large extent lacking.

Thirdly, the contextual determinants of competence building processes and how they are conducted have to be further examined. How are competence building processes influenced by issues like competitive climate, organizational characteristics, the history of renewal processes in the organization, and the dominant leadership style as perceived by managers at different levels in the organization? These determinants can influence the design of the process activities, as well as possible sources for breakdown, and finally the role of speed management for competence building.

Finally, competence management researchers may incorporate these promising routes for a better understanding of language, power and speed, how they facilitate and impede maintaining, leveraging and building competence for competitive success. In particular, one promising area of research would be to gain a deeper understanding of language, power and speed within and between the three competence renewal activities. In a later phase these insights could be subject to both isolated and more comprehensive quantitative research.

Managerial implications

Based on the fact that managers over the last decades have been told that first-moving and time-based competition are essential for competitive success in an ever faster changing and globalizing world, impatience is a common phenomenon in many top-management teams and executive suites. In this paper, however, we strongly argue that impatience in strategic renewal and competence management could be a dangerous route supporting neither immediate competitive success nor a sound base for long-term strategic advancement through competence building. Competence-driven strategic renewal is a cognitive matter. This requires that managers take the time necessary to develop and gather beliefs about the future, to identify and agree on possible desirable future routes, to identify and develop new competencies, to reinterpret and integrate past competence deployment, to align the past

with the present and the desired future, and to define concrete steps for coordinated strategic action and competence deployment.

This paper also addresses the importance of recognizing and re-interpreting past competence deployment. It has been strongly argued that the history of a company and its top management is nothing more than a major impediment for bold and successful strategic renewal (e.g. Hamel and Prahalad, 1994; Hamel, 1996). From our competence-driven strategic renewal perspective, past competence deployment is both a unique source of experiences and a possible facilitator for future coordinated strategic action. By this we are not saying that manager should dwell into the past being nostalgic, but we would rather like to stress the importance of imagining the future and seeing the relationships between the future and competence deployment and action in the present and past. This is a pre-requisite for coordinated future strategic action. Consequently, this insight certainly also cast doubt about the value of unlearning past behavior (Hedberg, 1981).

Conclusion

We have in this paper extended the competence perspective to the process of competence-driven strategic renewal. It is widely recognized that competencies and competence management are essential in developing and sustaining competitive advantage. However, managing competence-driven strategic renewal processes is still an area subject to scarce theoretical scrutiny and managerial guidance. Taking three major sub-processes within the overall strategic renewal process as a starting point, we have examined the processes of building and maintaining competence. Our model extends ‘building competence’ by including the notion of structuring goals through the process of competence driven strategic renewal. In our view, intentionality and goals, cannot be assumed *ex ante*, but result from successfully managing the competence-driven renewal process.

References

- Aadne, J.H. and Mahnke, V. (1996). *Managing strategy renewal: The role of language and speed*. Paper presented at the 16th Annual Strategic Management Society Conference, Phoenix, Arizona, November 10-13.
- Aadne, J.H. and Mahnke, V. (1997). *Managing strategy renewal: Sources of breakdown and trade offs related to speed*. Winning Paper at CEMS-conference 1998, Rotterdam, Netherlands.
- Armenakis, A.A., Harris, S.G., & Mossholder, K.W. (1993). Creating readiness for large scale change. *Human Relations*, 46, 681-703.
- Baden-Fuller, C., & Volberda, H. (1996). *Strategic renewal in large complex organisations: A competence based view*. Management Report no. 267, Rotterdam School of Management.
- Barry, D., & Elmes, M. (1997). Strategy retold: Toward a narrative view of strategic discourse. *Academy of Management Review*, 22 (2): 429-452.
- Barney, J.B. (1991) Firm Resources and Sustained Competitive Advantage“. *Journal of Management*, 17 (1), 99-120.
- Badaracco, J.L. (1991a). *The knowledge link*. Harvard Business School Press, Cambridge, MA.
- Berger, P. & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. London: Penguin Books.
- Boje, D. (1991). The storytelling organization: A study of story performance in an office-supply firm. *Administrative Science Quarterly*, 36 (1): 106-126.
- Bourgeois, L.J. (1985). Strategic goals, perceived uncertainty, and economic performance in volatile environments. *Academy of Management Journal*, 28, 548-573.
- Bourgeois, L.J. (1994). Commentary: Competitive agility — A source of competitive advantage based on speed and variety. In P. Shrivastava, A.S. Huff, & J.E. Dutton (Eds.), *Advances in strategic management*. Greenwich, Connecticut: JAI Press.
- Bourgeois, L.J., & Eisenhardt, K.M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management Science*, 34 (7): 816-835.
- Brown, W.B., & Karagozoglu, N. (1993). Leading the way to faster new product development. *Academy of Management Executive*, 7(1): 36-47.
- Cohen, M.D., March, J., & Olsen, J.P. (1972). A garbage-can model of organizational choice. *Administrative Science Quarterly*, 17: 1-25.
- Czarniawska-Joerges, B. (1992). *Exploring complex organizations: A cultural perspective*. Newbury Park CA: Sage Publications.
- D'Aveni, R. (1994). *Hypercompetition*. New York: Free Press
- Das, T.K. (1986). *The subjective side of strategy making: Future orientation and perceptions of executives*. New York: Praeger.
- Das, T.K. (1991). Time: The hidden dimension in strategic planning. *Long Range Planning*, 24: 49-57.
- Dess, G.G. & Priem, R.L. (1995). Consensus-performance research: Theoretical and empirical extensions. *Journal of Management Studies*, 42 (4): 401-417.
- Dougherty, D. (1992). Interpretive barriers to successful product innovation inlarge firms. *Organization Science*, 3 (May): 179-202.

- Eisenhardt, K. M. (1989). Making fast strategic decisions in high velocity environments. *Academy of Management Journal*, 32: 543-576.
- Eisenhardt, K.M. (1990). Speed and strategic choice: How managers accelerate decision making. *California Management Review*, Spring: 39-54.
- El Sawy, O.A. (1983). *Temporal perspective and managerial attention: A study of chief executive strategic behavior*. Unpublished doctoral dissertation, Stanford University.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press
- Floyd, S.W., & Wooldridge, B. (1992). Managing strategic consensus: The foundation of effective implementation. *Academy of Management Executive*, 6: 27-39.
- Ford, J.D., & Ford, L.W. (1995). The role of conversations in producing intentional change in organizations. *Academy of Management Review*, 20 (3): 541-570.
- Franwick, G.L., Ward, J.C., Hutt, M.D., & Reingen, P.H. (1994). Evolving patterns of organizational beliefs in the formation of strategy. *Journal of Marketing*, April: 96-110.
- Gioia, D.A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12, 433-448.
- Hamel, G. (1996). Strategy as revolution. *Harvard Business Review*, July-August: 69-82.
- Hamel, G., & Prahalad, C.K. (1994). *Competing for the future*. Boston, MA: Harvard Business School Press.
- Hamel, G., & Prahalad, C.K. (1996). Competing in the new economy: Managing out of bounds. *Strategic Management Journal*, 17: 237-242.
- Hedberg, B. (1981). How organizations learn and unlearn. In P.C. Nystrom & W.H. Starbuck (eds.), *Handbook of organizational design*. New York: Oxford University Press.
- Huber, G.P. (1991). Organizational learning: The contributing process and literatures. *Organization Science*, 2, 88-115.
- Huff, J.O., Huff, A.S., & Thomas, H. (1992). Strategic renewal and the interaction of cumulative stress and inertia. *Strategic Management Journal*, 13: 55-75.
- Hurst, D.K., Rush, J.C., & White, R.E. (1989). Top management teams and organizational renewal. *Strategic Management Journal*, 10: 87-105.
- Janis, I.R. (1982). *Victims of Group think*. Boston: Houghton Mifflin.
- Johnson, G. (1992). Managing strategic change: Strategy, culture and action. *Long Range Planning*, 25 (1): 28-36.
- Jones, J.W. (1993). *High-speed management*. San Francisco: Jossey-Bass.
- Judge, W.Q., & Miller, A. (1991). Antecedents and outcomes of decision speed in different environmental contexts. *Academy of Management Journal*, 43 (2): 449-463.
- von Krogh, G., & Roos, J. (1995). Conversation management. *European Management Journal*, 4: 390-394.
- von Krogh, G., Roos, J., & Slocum, K. (1994). An essay on corporate epistemology. *Strategic Management Journal*, 15 (Special Issue): 53-71.
- Lawrence, P., & Dyer, D. (1983). *Renewing American industry*. New York: Free Press.
- Locke, E.A., & Schweiger, D.M. (1979). Participation in decision-making: One more look. In B. M. Staw (Ed.), *Research in organizational behavior* (Vol. 1, pp. 265-339). Greenwich, CT: JAI.
- Løwendahl, B., & Haanes, K. (1997). The unit of activity: A new way to understand competence building and leveraging. In Sanchez, R. and Heene, A. (eds.), *Strategic learning and knowledge management*. Chichester: John Wiley & Sons.

- Mabert, V.A., Muth, J.F., & Schmenner, R.W. (1992). Collapsing new product development times: Six case studies. *Journal of Product Innovation Management*, 9: 200-212.
- March, J., & Simon, H. (1958). *Organizations*. New York: John Wiley & Sons.
- McGrath, G., MacMillan, I.C., & Venkataraman, S. (1995). Defining and developing competence: A strategic process paradigm. *Strategic Management Journal*, 16: 251-275.
- McGrath, J. E., & Rotchford, N. L. (1983). Time and behavior in organizations. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 5: 57-101. Greenwich, CT: JAI Press.
- Meyer, C. (1993). *Fast cycle time: How to align purpose, strategy, and structure for speed*. New York: Free Press.
- Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*, January-February: 107-114.
- Mintzberg, H., & Waters, J.A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, 6: 257-272.
- Nelson, R., & Winter, S. (1982). *An evolutionary theory of the economic change*. Cambridge, MA: Belknap Press.
- Orr, J.E. (1996). *Talking about machines: An ethnography of a modern job*. Ithaca: Cornell University Press.
- Page, A. (1993). Assessing new product development practices and performance: Establishing crucial norms. *Journal of Product Innovation Management*, 10: 273-290.
- Peters, T. (1987). *Thriving on chaos*. New York: Knopf.
- Peteraf (1993) The Cornerstones of Competitive Advantage: A Resource-Based View“. *Strategic Management Journal*, 14, 179 - 192.
- Pettigrew, A.M. (1973). *The politics of organizational decision-making*. London: Tavistock.
- Piaget, J. (1972). *To understand is to invent*. New York: The Viking Press.
- Poras, J.I., & Silvers, R.C. (1991). Organization development and transformation. *Annual Review Psychology*, 42, 51-57.
- Porter, M.E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: The Free Press.
- Prahalad, C.K., & Hamel, G. (1994). Strategy as a field of study: Why search for a new paradigm? *Strategic Management Journal*, 15: 5-16.
- Sanchez R., A. Heene and Thomas H. (1996) *Dynamics of competence based competition*. Elsevier, Oxford.
- Sanchez, R. and Heene, A. (eds.) (1997), *Strategic learning and knowledge management*. Chichester: John Wiley & Sons.
- Sanchez R. (1997). Strategic Management at the point of inflection: Systems, complexity and competence theory. *Long Range Planning*, Vol. 10, 6: 939-946.
- Sanchez, R. (1997). Managing articulated knowledge in competence-based competition. In Sanchez, R. and Heene, A. (eds.), *Strategic learning and knowledge management*. Chichester: John Wiley & Sons.
- Smith, K.G., Grimm, C.M., Chen, M.J., & Gannon, M.J. (1989). Predictors of response time to competitive strategic actions: Preliminary theory and evidence. *Journal of Business Research*, 18: 245-258.
- Smith, P.G., & Reinertsen, D.G. (1991). *Developing products in half the time*. New York: Van Nostrand Reinhold.
- Smith, P.G., & Reinertsen, D.G. (1992). Shortening the product development cycle. *Research Technology Management*, 35(3): 44-49.

- Stalk, G. (1988). Time — The next source of competitive advantage. *Harvard Business Review*, July-August: 41-51.
- Stalk, G. (1993). Time and innovation. *Canadian Business Review*, 17(3): 15-18.
- Stalk, G., & Hout, T.M. (1990). *Competing against time: How time-based competition is reshaping global markets*. New York: Free Press.
- Strebel, P. (1987). Organizing for innovation over an industry cycle. *Strategic Management Journal*, 8: 117-124.
- Strebel, P. (1992). *Breakpoints: How managers exploit radical business change*. Boston, MA: Harvard Business School Press.
- Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, Winter Special Issue: 27-43.
- Vinton, D.E. (1992). A new look at time, speed, and the manager. *Academy of Management Executive*. 6(4): 7-16.
- Von Hippel, E. (1986). Lead users: A source of novel product concepts. *Management Science*, 32: 791-805.
- Weick, K.E. (1979). *The social psychology of organizing*. New York: Random House.
- Weick, K.E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage Publications.
- Weisbord, M.R. (ed.) (1992). *Discovering common ground*. San Francisco: Berrett-Koehler Publishers.
- Weisbord, M.R., & Janoff, S. (1995). *Future search: An action guide to finding common ground in organizations & communities*. San Francisco: Berrett-Koehler Publishers.
- Westley, F. R. (1990). Middle managers and strategy: Microdynamics of inclusion. *Strategic Management Journal*, 11, 337-351.
- Wittgenstein, L. (1953). *Philosophical investigations*. Oxford: Blackwell.
- Wooldridge, B., & Floyd, S.W. (1990). The strategy process, middle management involvement, and organizational performance. *Strategic Management Journal*, 11: 231-241.
- Zirger, B.J., & Hartley, J.L. (1993). Accelerating product development: A conceptual model. Paper presented at the annual meeting of the *Academy of Management*, Atlanta, GA.
- Zimbardo, P. G., and M. R. Leippe (1991). *The Psychology of Attitude Change and Social Influence*. Philadelphia: Temple University Press.
- Kahle, L. R. (1984). *Attitudes and Social Adaptation: A Person-Situation Interaction Approach*. Oxford: Pergamon.
- Giddens, A. (1993). *New Rules of Sociological Method*, 2nd ed. Stanford, CA: Stanford University Press.
- Hamel, G., & Prahalad, C.K. (1991). Corporate imagination and expeditionary marketing. *Harvard Business Review*, July-August: 81-92.

Danish **R**esearch **U**nit for **I**ndustrial **D**ynamics

The Research Programme

The DRUID-research programme is organised in 3 different research themes:

- *The firm as a learning organisation*
- *Competence building and inter-firm dynamics*
- *The learning economy and the competitiveness of systems of innovation*

In each of the three areas there is one strategic theoretical and one central empirical and policy oriented orientation.

Theme A: The firm as a learning organisation

The theoretical perspective confronts and combines the resource-based view (Penrose, 1959) with recent approaches where the focus is on learning and the dynamic capabilities of the firm (Dosi, Teece and Winter, 1992). The aim of this theoretical work is to develop an analytical understanding of the firm as a learning organisation.

The empirical and policy issues relate to the nexus technology, productivity, organisational change and human resources. More insight in the dynamic interplay between these factors at the level of the firm is crucial to understand international differences in performance at the macro level in terms of economic growth and employment.

Theme B: Competence building and inter-firm dynamics

The theoretical perspective relates to the dynamics of the inter-firm division of labour and the formation of network relationships between firms. An attempt will be made to develop evolutionary models with Schumpeterian innovations as the motor driving a Marshallian evolution of the division of labour.

The empirical and policy issues relate the formation of knowledge-intensive regional and sectoral networks of firms to competitiveness and structural change. Data on the structure of production will be combined with indicators of knowledge and learning. IO-matrixes which include flows of knowledge and new technologies will be developed and supplemented by data from case-studies and questionnaires.

Theme C: The learning economy and the competitiveness of systems of innovation.

The third theme aims at a stronger conceptual and theoretical base for new concepts such as 'systems of innovation' and 'the learning economy' and to link these concepts to the ecological dimension. The focus is on the interaction between institutional and technical change in a specified geographical space. An attempt will be made to synthesise theories of economic development emphasising the role of science based-sectors with those emphasising learning-by-producing and the growing knowledge-intensity of all economic activities.

The main empirical and policy issues are related to changes in the local dimensions of innovation and learning. What remains of the relative autonomy of national systems of innovation? Is there a tendency towards convergence or divergence in the specialisation in trade, production, innovation and in the knowledge base itself when we compare regions and nations?

The Ph.D.-programme

There are at present more than 10 Ph.D.-students working in close connection to the DRUID research programme. DRUID organises regularly specific Ph.D-activities such as workshops, seminars and courses, often in a co-operation with other Danish or international institutes. Also important is the role of DRUID as an environment which stimulates the Ph.D.-students to become creative and effective. This involves several elements:

- access to the international network in the form of visiting fellows and visits at the sister institutions
- participation in research projects
- access to supervision of theses
- access to databases

Each year DRUID welcomes a limited number of foreign Ph.D.-students who want to work on subjects and projects close to the core of the DRUID-research programme.

External projects

DRUID-members are involved in projects with external support. One major project which covers several of the elements of the research programme is DISKO; a comparative analysis of the Danish Innovation System; and there are several projects involving international co-operation within EU's 4th Framework Programme. DRUID is open to host other projects as far as they fall within its research profile. Special attention is given to the communication of research results from such projects to a wide set of social actors and policy makers.

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