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COMPETITIVE DYNAMICS, STRATEGIC CONSISTENCY, AND ORGANIZATIONAL SURVIVAL

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This study investigates strategic consistency in competitive behavior. We construct a logically consistent evolutionary model, providing a causal argument to link a level of strategic consistency to long-term organizational survival. According to our results, strategic consistency seems to be related to both organizational survival and the most efficient change over time concerning the key elements of a firm's strategy. One of the benefits of the model is that some of the components and processes may be manipulated through experimental or simulation interventions. This means that the model can be formally tested in future studies and managers can use it to fine-tune patterns of competitive behavior.

INTRODUCTION

One of the major questions in strategic management is to what extent firms should be consistent in their strategy and structure. Intuitively, flexibility and speed seem like necessary conditions for competitive advantage (Eisenhardt and Brown, 1998). This portrait of firms is especially dominant in the competitive dynamics literature, which focuses on competition in interfirm dyads (see Ketchen, Snow, and Hoover, 2004; Smith, Ferrier, and Ndofor, 2001). On the other hand, research in evolutionary strategy sees consistency (instead of aggression or mere speed) as a necessary condition for firm survival (e.g., Barnett and Hansen, 1996; Sheth and Sisodia, 2002). This line of thought goes back to classic work on strategy (Greiner, 1967; Miles and Snow, 1978; Porter, 1980) and organization theory (Hannan and Freeman, 1984), and is manifested in constructs such as path dependence (David, 1986), momentum (Miller and Friesen, 1982), convergence (Tushman and Romanelli, 1985), fit (Venkatraman, 1989), coherence/consistency (Nath and Sudharshan, 1994), competitive inertia (Miller and Chen, 1994) and logical incrementalism (Quinn, 1980).

Many of these theoretical constructs have been empirically verified over the years. As Table 1 indicates, there is no widespread consensus on the definition and the operationalization of the concept

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Table 1. Comparison of concepts adjacent to strategic consistency

	Does the concept operate at the level of competitive actions?	Does the concept have a temporal element?	Does the concept emphasize organizational survival?	Does the concept emphasize managerial intention/agency?
Comprehensiveness (Fredrickson, 1984)	No	No	No	Yes
Path dependence (David, 1986)	No	Yes	No	No
Momentum (Miller and Friesen, 1982)	No	Yes	Yes	No
Convergence (Tushman and Romanelli, 1985)	No	Yes	No	No
Structural inertia (Hannan and Freeman, 1984)	No	Yes	Yes	No
Coherence; consistency (Nath and Sudharshan, 1994)	No	No	No	Yes
Fit/Alignment/co-alignment (Venkatraman, 1989)	No	No (in evolutionary sense yes)	No	Yes
Incrementalism (Quinn, 1980)	No	Yes	No	No
Competitive inertia (Miller and Chen, 1994)	Yes	Yes	No	No
Conformity/Non-conformity (Miller and Chen, 1996a)	Yes	Yes	No (implicitly yes)	No
Competitive simplicity (Miller and Chen, 1996b)	Yes	Yes	No	No
Strategic consistency	*Yes*	*Yes*	*Yes*	*Yes*

regarding competitive actions. Earlier evolutionary literature on consistency has concentrated on questions regarding corporate structure or changes in the market offering of the company (e.g., Dobrev, 2007; Johnson, 1988; Tushman and Romanelli, 1985), largely ignoring competitive actions as a unit of observation. On the other hand, competitive dynamics literature focuses on the nature and dyadic effects of competitive actions (Chen, 1988; Chen, Smith, and Grimm, 1992; Smith *et al*., 1991), instead of explicitly seeing them in the context of long-term organizational evolution (cf. Derfus *et al*., 2008: 62). Complementing earlier studies, we focus on strategic consistency in the competitive actions of firms in a dynamic environment. Compared to related concepts (Table 1), our conceptualization presents a higher-order, evolutionary viewpoint to the relationship between consistency in competitive actions and firm survival. Thus, our approach focuses on empirically identifiable competitive actions over time, and emphasizes managerial intentionality and capability.

In our study, strategic consistency means that a firm's actions conjoin both with changes in the business environment (necessitating adaptation) (Siggelkow, 2002; Zajac, Kraatz, and Bresser, 2000) and with the firm's own history (necessitating continuity) (Nelson and Winter, 1982). In a stable environment (cf. Zajac *et al*., 2000) this would usually mean stable (unaltered) competitive behavior over time, whereas in a dynamic environment, an appropriate level of consistency would refer to the most efficient change in competitive actions in accordance with new, intentionally identified strategic objectives and direction. Regardless of the situation, the cognitive awareness and capabilities (Chen, Su, and Tsai, 2007) of the organizational actors (essentially those at the corporate headquarters, Foss, 1997) plays a crucial role.

We contribute to strategy literature in three distinct ways. First, our conceptual integration of the different streams of literature offers a novel way to explain long-term firm evolution. In building our theoretical framework and the related research propositions, we rely on an established set of literature from the genres of competitive dynamics, evolutionary organization theory, and Austrian economics. What is more, the framework itself is original, as it encompasses the central elements in the mechanism of how strategic consistency in competitive actions affects survival or death in firm-level evolutionary processes. Second,

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previous competitive dynamics research has primarily considered the concept of consistency as an implicit assumption or dealt with it statistically (Miller and Chen, 1994). Our research elaborates current understanding on competitive dynamics both theoretically, by presenting a higher-order approach to the construct, and through a longitudinal approach called upon in previous research (Miller and Chen, 1994; Porter, 1991; Venkatraman and Prescott, 1990). A related methodological contribution in the operationalization of the research framework is the quantitative measure of strategic consistency developed for the focal study.

Third, our study complements existing theoretical understanding on the organizational antecedents of competitive behavior. Competitive dynamics researchers have identified the awareness, motivation, and capabilities (AMC) (Chen, 1996; Chen *et al*., 2007) of a firm and its managers as important explanations of competitive behavior. Our historical perspective allowed us to find three organizational properties that complement the AMC framework. We found that a focused and resourceful central administration enhances the awareness to act, a widely accepted strategic focus motivates the firm to advance toward desired strategic objectives and direction, and, finally, sufficient slack resources enable the capability to use a balanced repertoire of competitive actions. Likewise, a weak and/or fragmented central administration, a contested strategic direction, and insufficient slack resources may result in a lack of strategic consistency, paving the way for organizational demise and death (cf. Hambrick and D'Aveni, 1988, 1992).

THEORETICAL FRAMEWORK

Figure 1 illustrates our model of the process that leads to different levels of strategic consistency and, finally, to organizational survival or death.

The key elements of the framework are competitive actions, the level of strategic consistency such actions exhibit, market process and feedback, organizational structure and strategy, and organizational resources. The framework includes an assumed relationship with the surrounding environment and competitors. In the following, we explicate our conceptualization, resulting in three research questions.

Competitive actions and firm evolution

Competitive dynamics refers to the interplay in the series of initiative and responsive competitive actions among firms in a competitive situation (Smith *et al*., 2001). Accordingly, the key unit of observation is an individual *competitive action*, a

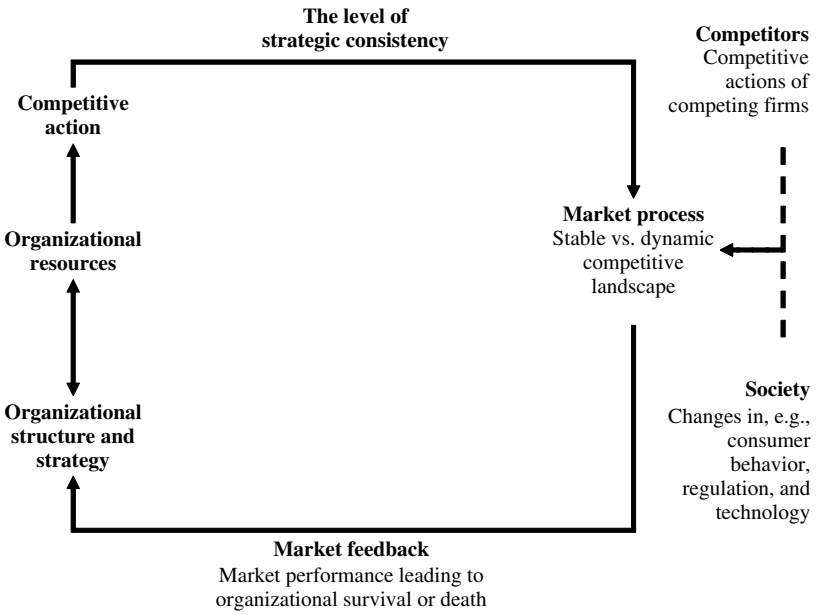

Figure 1. Research framework

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discrete, concrete, and detectable action by a company to enhance or defend its competitive advantage *vis-á-vis* its competitors (Chen and Hambrick 1995; Miller and Chen, 1996a). Consequently, initiative and responsive actions by rival companies, taken together, represent competition in a specific population of firms. The popular conceptualization of competition in competitive dynamics has been that initiative actions directly mount competitive pressure on competitors, thereby 'provoking' (Chen *et al*., 1992: 440) or 'inviting' (Chen and Miller, 1994: 86) them to respond.

We conceptualize competition as the exchange of initiative and responsive actions mediated by the market process, following the tradition of Austrian economics (see Jacobson, 1992) and the tradition from evolutionary economics (Nelson and Winter, 1982). The market is seen as a process that provides signals to market participants on what courses of action to take and from which to refrain (von Mises, 1949: 258–259). Accordingly, market prices and consequent economic calculations by market participants are seen as signals for favorable or unfavorable courses of action (Foss and Christensen, 2001; von Mises, 1949).

Building on the idea of the market process as a link between competitive actions and the outcomes of these actions, we do not focus solely on the direct dyadic exchange of competitive actions. Instead, we assume that all competing companies, at a given point in time, will base their future actions mostly on the outcomes that the market process has produced for prior competitive actions—both for their own and for those of their competitors. From this perspective, competitive actions have important long-term effects on firm evolution. Thus, it is of crucial importance to understand how individual actions are orchestrated over time.

Strategic consistency

Individual competitive actions do not enhance a firm's survival probabilities without being consistent both with the firm's own history and with the rate and the nature of change in the environment. Both of these issues have been studied previously, but not as an integrated construct. For example, Galbraith and Schendel (1983) found that firms in the consumer goods industry followed a 'continuity' strategy that was manifested in an incremental change policy and a low-risk attitude toward investments. For others (e.g., Harrison, Hall, and Nargundkar, 1993), consistency has meant a balance in resource allocation in diversified firms. Consistency has also been referred to as a balance between strategic choices across business and functional levels of strategy (Miles and Snow, 1978; Nath and Sudharshan, 1994). On the other hand, researchers studying dynamic fit (Siggelkow, 2002; Zajac *et al*., 2000) have noted that firm-level changes must concur with the rate of change in the business context (e.g., changes in markets, regulation, macro-culture, and technology) for the firm to be able to survive. Next, we integrate these perspectives and link them with strategic consistency from a competitive action perspective.

Considering a firm operating in a relatively stable ('no-change') environment, an optimal level of strategic consistency is expected to be high: that is, the organization tends to preserve its state of rest or uniform action. In this situation, strategic consistency refers to year-to-year comparability in the repertoire and amount of competitive actions that an organization undertakes when conducting its competitive stance. A high level of strategic consistency can signal the existence of a strong competitive strategy (Porter, 1980), or simply structural inertia (Hannan and Freeman, 1984). Thus, in a business environment that does not change, or changes only very incrementally (e.g., in a regulated market), firms may be successful by continuously following a constant trajectory of action.

In a dynamic environment, however, the above approach to consistency is not able to explain competitive success. As some strategy researchers have proposed, firm-level competitive behavior is relative to the nature and the pace of environmental change (Eisenhardt and Brown, 1998; Johnson, 1988). In an extreme reading of this, fully adaptive firms should change the direction and speed of their activities to follow exactly or very closely what happens in their environment. However, high flexibility raises problems that may put the existence of the firm at risk. First, frequent changes in competitive behavior may decrease the legitimacy of the firm and lead to unwanted actions by important stakeholders (Meyer and Rowan, 1977; Pfeffer and Salancik, 1978). Second, actions that are not in line with past behavior may lead to an imbalance between organizational capabilities and current competitive actions (cf. Miller and Chen, 1996a). This may cause a rapid increase in costs

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and erosion in the competitive position of the firm (Hambrick and D'Aveni, 1988). Finally, without an extensive repertoire of available actions and capabilities stemming from the historical activities of the firm, firms may have difficulty in interpreting the current competitive situation and determining what would be the subsequent set of competitive actions (Teece, Pisano, and Shuen, 1997). Thus, in a dynamic environment, an optimal level of strategic consistency is manifested by an action pattern that incrementally changes and develops the repertoire of competitive actions and the underpinning capabilities, paving the way for a new strategic direction.

In sum, the relationship between strategic consistency and performance in a dynamic environment is fundamentally curvilinear. Over time, the optimal level of strategic consistency means a balance between being fully consistent with the past on the one hand, and being fully adaptive with environmental change on the other.

Antecedents of strategic consistency

Building on the above discussion, individual competitive actions may be visualized as movement in a landscape (Gavetti and Levinthal, 2000); a topography constructed by the (interdependent) competitive actions by companies (Siggelkow and Levinthal, 2003).[1] Consequently, the optimal level of strategic consistency in competitive behavior refers to the most efficient movement in the competitive landscape from one position to the next. Efficiency in this movement, in turn, involves a balance between continuity and adaptation.

A useful concept related to the perception of the market process (i.e., the landscape) and decisions on competitive actions is awareness. Awareness, in this context, refers to an alertness with regard to the market process and the signals it produces (Chen, 1996; Levinthal and Rerup, 2006). Logically, the more aware the firms are, the better they should be prepared and motivated for changes in the competitive landscape and act accordingly.

Both awareness and capability 'to do something' can be seen as results of historical interaction processes between the focal firm and the market (Nelson and Winter, 1982). This is the mechanism of market feedback in our research framework. First, each action increases dynamism in the market, potentially leading to changes in competitive positions. Second, past competitive actions affect the future repertoire of competitive actions and the related capabilities at the level of the firm. These two processes intertwine in the managerial cognitions that constitute the focus of awareness and motivation of top management (Chen, 1996; Chen *et al*., 2007). Accordingly, actions constantly change the firm's structure and strategy and its resources and capabilities. Conversely, these organizational factors essentially dictate what is being perceived, what is decided, and what types of actions are possible.

The formal structure and strategy of a firm can be seen as a filter that either signals for changes in competitive behavior or acts as an inertial force in firm evolution (Miller and Chen, 1994). For example, a firm that has a strong imprint to conduct certain types of competitive actions due to its formal structure and strategic mission may ignore the dynamism in the surrounding environment (e.g., Christensen and Bower, 1996; Tripsas and Gavetti, 2000). Typically, the imprinting conditions of any organization constrain opportunities for fundamental strategic change (e.g., Tripsas and Gavetti, 2000). Also, the more complex an organization is, the more probable it is that an impetus for radical change will activate political coalitions that dispute the issue and hinder opportunities to react to market feedback (Cohen, March, and Olsen, 1972; Hannan and Freeman, 1984; Pettigrew, 1973).

Also, without an extensive bundle of resources, capabilities, and knowledge of 'how things work,' firms are unable to conduct consistent actions (cf. Nelson and Winter, 1982). In addition to awareness and motivation, strategic consistency requires organizational slack resources (Cyert and March, 1963; Bourgeois, 1981). In general, there are opposing views on the effect of slack resources on the competitive behavior of a firm (Tan and Peng, 2003). We follow scholars (e.g., Cyert and March, 1963; Thompson, 1967; Hambrick and D'Aveni, 1988) who see organizational slack as beneficial for a company as it provides resources (money, talent, ideas, attention, etc.) to innovate and adapt to changes in the environment. Research on competitive dynamics has found that organizational slack tends to suppress initiative actions but, in turn,

[1] In its formal specification (Siggelkow and Levinthal, 2003), the competitive landscape (or 'performance landscape') also includes the performance outcomes of different positions in the landscape as an additional dimension, which our PCA illustration (Figure 4) does not include.

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promotes responsive actions (Chen and Hambrick, 1995). Furthermore, organizational slack allows firms to respond in more creative ways (Smith *et al*., 1991). We treat organizational slack as a necessary (but not sufficient) condition for strategic consistency, as both absorbed and unabsorbed slack are needed in the long-term orchestration of competitive behavior (cf. Bourgeois, 1981). Importantly, organizational resources are a result of the firm-marketplace interrelationship. Consistent and appropriate actions from the perspective of customers and other stakeholders potentially enhance the firm performance and increase organizational slack resources. On the contrary, inconsistent actions may decrease the firm's legitimacy among important stakeholders. Over time, this leads to diminishing slack resources, a narrowing repertoire of available actions, and increasing problems in maintaining an optimal level of strategic consistency (Hambrick and D'Aveni, 1988; Tripsas and Gavetti, 2000).

Finally, in the management of the fundamental business activities and organizational resource allocation, the role of the central administration or corporate headquarters (CHQ) is crucial, as it makes the key choices influencing firm evolution (Simon, 1947). As Foss (1997) proposed 'the CHQ determines corporate strategy, and steers the implementation and carrying out of corporate strategy by influencing managers in business units [. . .] the CHQ determines organizational structure, carries out financial control, and determines hurdle rates' (Foss, 1997: 314). Accordingly, the functionality of the central administration is crucial in the creation and promotion of competitive activities and in coordinating the accumulation of resources and capabilities.

In our study, central administration refers to the top management team, but also to administrative resources devoted to environmental scanning, strategic planning, and controlling the implementation of strategic decisions (cf. Eisenhardt and Zbaracki, 1992; Burgelman, 1994; Noda and Bower, 1996). Earlier research on top management team characteristics (Hambrick, Cho, and Chen, 1996; Hambrick, Geletkanycz, and Fredrickson, 1993) is unanimous that team cohesiveness and agreement on strategic priorities affect firm activities and, finally, performance. Essentially, we follow this tradition.

Research questions

The following research questions are drawn from the theoretical framework and will guide our historical analysis:

1. How and why is the organizational structure and strategy of the studied retail organizations related to different levels of strategic consistency?
2. How and why are the organizational resources of the studied retail organizations related to different levels of strategic consistency? And finally,
3. To what extent does the level of strategic consistency explain organizational survival and death?

To answer these research questions, we conducted a historical analysis of retail industry development. The findings of the historical analysis led to three research propositions, which are then scrutinized in our quantitative analysis of the levels of strategic consistency.

A HISTORY OF COMPETITION IN THE FINNISH RETAIL INDUSTRY

Our research focuses on a retail industry in Finland, more specifically on its grocery sector, during the post-war period of 1945–1995. During this period, Finnish society went through a transformation from a preindustrial, regulated economy to a postindustrial society within the European Union. The four dominant retail organizations during the period of study were Kesko, SOK, TUKO, and EKA.[2] At the end of the studied period, two of these organizations (TUKO and EKA) had met their demise. The four retail organizations totally dominated the grocery sector during the entire period of the study. Other retailers never accounted for more than five to ten percent of total sales volume.

We have divided the observation period of 1945–1995 into three distinct subperiods: (1) 1945–1965, *The era of regulation*; (2) 1966–1980, *The era of deregulation*; and (3) 1981–1995,

[2] TUKO = Tukkukauppojen Oy, Kesko = Kauppiaitten Keskuskunta r.l. osuuskunta, SOK = Suomen Osuuskauppojen Keskusosuuskunta r.l., EKA = E-osuuskunta (1918–1982 as OTK = Osuustukkukauppa).

The era of new means of competition. The first subperiod continued wartime (1941–1945) regulatory policies that constrained the availability of many grocery products, prices, and advertising. Finland in 1945 was a society with low income levels, a large rural sector, and consequent low demand for basic grocery items such as bread and meat. Toward the mid-1960s, the consumer market changed considerably due to increasing urbanization, motorization, and constantly increasing levels of income. In the 1980s, the major development changing the grocery competition was an increasing economic integration with other Western European countries as well as a dramatic change in information technology related to value chain management in retail companies (for a historical overview see Lamberg and Tikkanen, 2006).

Structure, strategy, and organizational resources

In terms of their structure, strategy, and organizational resources, the firms fall into two broad categories. Kesko and TUKO represent organizations whose original purpose was to support the business of their owners with wholesale operations. TUKO was owned by dozens of small wholesale companies whereas Kesko belonged to private local retailers. EKA and SOK, in turn, were owned by regional cooperatives. SOK was an agrarian cooperative, whereas EKA was an ideological cooperative controlled by the leftist parties and labor unions. In the 1960s all four organizations were predominantly grocery organizations. Even in EKA, which was the most diversified of the four organizations, the grocery sector in the 1960s accounted for over 80 percent of total sales. Thus, each organization was involved in competition for the same customers in a common target market.

The dramatic change in the 1960s materialized in two issues. First, the grocery market was deregulated, which meant increasing opportunities in marketing. Second, a new type of grocery shop—the self-service outlet—quickly came to dominate the market. The transformation period from a regulated to a deregulated market was perceived differently in the four retail organizations. They were differently prepared and motivated for the changing environment.

Kesko concentrated on business areas that were closely related to the grocery business. It had already started to invest in grocery-related activities in the mid-1950s, and continued this practice until the end of our research period. Thus, of the four organizations, Kesko was the most active in developing its grocery business already a decade before the industry was deregulated in the 1960s. The activities of Kesko in the grocery business before deregulation included, for example, development of new store types, education of retail personnel, attendance at international retail conferences, adoption of a punch card system for inventory control, systematized acquisition of sites for new outlets, market research, establishment of an advertising department, and the building of a unified brand image under the 'K' label. In strategic terms, Kesko concentrated almost entirely on the grocery business.

Since Kesko was a combination of independent retailers with a light but effective central administration, it was organizationally motivated and prepared to exploit the emerging opportunities. Furthermore, individual retailers acted as entrepreneurs and jointly owned the central organization. In Kesko's organization, the entrepreneurs also held many representative positions, and in practice controlled strategic decision making. In essence, throughout the organization, actors were aware of the wider development trends and had the motivation to act accordingly.

TUKO's attention was, and remained, in the wholesale business. Taking into consideration the development in business logic in the grocery sector since the 1940s, TUKO's strategic choices were almost contrary to changes in the environment. When Kesko started to strengthen its grocery-related capabilities in the early 1950s, TUKO focused further on wholesaling. During the first subperiod of our study, TUKO, for instance, invested in centralized freezing and cold storage and banana-ripening facilities, increased its imports of foreign groceries (such as vegetables), and generally made efforts to systematize and centralize its wholesale procurement. This tendency continued until the early 1980s. During the whole period after deregulation, the most severe problem of TUKO was the high mortality rate among country stores and small urban service stores. This made the position of many smaller wholesalers problematic, since their customer companies were closing. However, the small wholesale

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companies were not usually willing to exit before actual bankruptcy. Consequently, the nonprofitable wholesale companies demanded both financial and managerial resources from TUKO's central organization:

> TUKO cannot be managed in an efficient way if the owner-wholesalers do not follow existing contracts and TUKO consequently loses its profitability . . . our market position is weakening rapidly, which is a result of the low number of new grocery outlets and the overall aging of the existing outlets. (CEO, Marketing Strategy Meeting of TUKO, September 1976).

In addition to the problems in wholesaling, TUKO's grocery business until 1973 was divided into three distinct chains and into independent stores that had contractual relations with wholesalers but usually no marketing cooperation. The TUKO group, for example, spent aggressively in advertising (e.g., almost 50% of all advertising volume in 1970 in the whole industry), but the subsequent market share effects were rather modest. In the 1980s, TUKO's inability to channel resources to new hypermarkets and related large-scale advertising made it both an under-advertiser and an under-the-average store founder in comparison with the other three organizations. In the early 1990s, TUKO's competitive and economic position was so seriously weakened that it no longer had any possibility to challenge Kesko or SOK. In 1996, TUKO was acquired by Kesko, although later divested due to a decision made by the European Union competition authorities.

We may say that TUKO's owners intentionally decided to behave against the changes in the business environment. In short, TUKO's top management recognized the changes in the competitive environment but the entire organization and especially the major owners were not motivated to react:

> The problem of TUKO is that the more independently the wholesalers make decisions concerning the grocery business (especially related to outlet building) the lower the probability that we can reach the expected level of profitability. In other words, the long-term competitiveness of the TUKO group is in controversy with the independence of its wholesaler-owners' (CEO, Strategic Planning Meeting of TUKO, October 1976).

> We have had no comprehensive planning or strategy. Rather, we have acted or not acted without thinking. . .our competitors have had a long-term vision and plan, and consequently they have gained market share (TUKO manager, Board Meeting, 1974).

Unlike the other organizations, after the mid-1960s EKA started to intensify its activities in non-grocery businesses. At that time EKA had its own production in, for example, wood products, animal feed, roofing felt, book printing, furniture, building bricks, and quarrying. The basic logic in this development was that when grocery competition started to intensify, EKA's top management started to tighten the link between its own industrial production and groceries. For example, in the mid-1960s when over 80 percent of EKA's sales and over 90 percent of its profits were produced in the grocery business, over 80 percent of its investments were channeled to manufacturing and other unrelated businesses. Over time, these decisions accumulated in an increasingly complex organizational structure. The grocery sector remained the most profitable and largest business segment, but the attention of the top management was increasingly focused on the management of the other sectors of the conglomerate. The following dialogue in a meeting of the board of EKA in 1969 illustrates the difficulties that the multiunit strategy fostered:

> . . .we must concentrate all our efforts to develop the grocery business, which generates over 90 percent of our profits (CEO of the grocery division).

> This was not a planned speech but rather a personal opinion. . .these numbers are dramatized. The fact is that it is very difficult to develop the grocery business in the current organizational structure. The board and top managers of EKA cannot take the full responsibility for the problems (Director of the board).

> Our store concepts do not match our competitors' stores. . .sometimes I think that we are not focused. There is no direction in our operations (CEO of the grocery division).

> . . .as long as the current organizational structure stands. . .the management of EKA has no possibilities to make an intervention in store founding (Director of the board).

EKA's strategic problems continued in the 1970s and 1980s. Compromises in strategies, an emphasis on its own manufacturing activities, and political

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tension between top executives and local cooperatives undermined most reorganization attempts, the final result being its *de facto* bankruptcy in 1992. Due to the fact that the entire company was established on the basis of a socialist ideology that aimed at serving working-class customers, its strategic options in practice were rather limited.

Among the four organizations, SOK's development was similar to that of Kesko. For example, it was already active in the grocery business before the deregulation, constantly invested in developing its marketing capabilities and relatively attentive toward the consumer market. Indeed, from the beginning of our period of study, SOK was active in experimenting with new methods of marketing by, for example, having national 'Christmas parades,' testing television advertising when television broadcasting began in Finland in the early 1950s, and utilizing the Olympic Games held in Finland in 1952 in its advertising. In addition, SOK, like Kesko, already used nascent computer technology in inventory control during the first subperiod. The persistent problem of SOK, however, was the fact that its competitive position was strongest in the rural areas of the country. During the 1980s, SOK was able to make a significant turnaround by moving its operations to urban areas, and by simultaneously concentrating on efficient logistics and large grocery outlets. This process completely changed the structure and logic of the organization, and established it as the most successful organization in the grocery business in the late 1980s and the 1990s in terms of market share development. As an organization, SOK had a centralized bureaucratic organizational structure, with defined rules and procedures. Accordingly, major strategic changes, such as the founding of the first hypermarkets or the company restructuring in the 1980s, were the results of formal analytical processes.

Drawing on extant literature (Research questions 1 and 2) and our historical analysis, we offer the following two propositions to be investigated in the quantitative analysis:

Proposition 1: The more resourceful and focused the administrative body of an organization (Kesko and SOK), the higher the probability of achieving an optimal level of strategic consistency. Likewise, the more fragmented and weaker the administrative body of an organization (TUKO and EKA) the higher the probability of experiencing a suboptimal level of strategic consistency.

Proposition 2: The less disputed a new strategic direction (Kesko) is, the easier it is to achieve an optimal level of strategic consistency. Likewise, the more disputed a new strategic direction is among political coalitions (TUKO and EKA), the higher the probability to choose an imbalanced set of competitive actions (e.g., advertising versus store founding), resulting in a suboptimal level of strategic consistency.

Market feedback

The mutual market share changes between the studied organizations during the period of study were considerable. The market share of Kesko increased from 12 to 43 percent, whereas that of TUKO declined from 56 to 21 percent. Figure 2 illustrates the development of the relative market shares of the studied organizations in the Finnish grocery sector.

Taking into consideration these significant differences in market performance (Research question 3) we offer the following proposition:

Proposition 3: The less optimal the level of strategic consistency, the weaker the market position and consequent organizational slack. Likewise, the weaker the market position and consequent organizational slack, the more difficult it is to achieve an optimal level of strategic consistency.

QUANTITATIVE RESEARCH SETTING

In measuring strategic consistency, we concentrated on two types of competitive actions: actions concerning (1) store configuration, and (2) advertising. In other words, we focused on the Promotion and Place variables in the marketing mix of the companies (McCarthy, 1960). These were also identified as the most important market-specific competitive activities by our industry informants (cf. Porter, 1974). Simultaneously, we omitted the Product and Price variables because throughout our period of analysis, all of the four organizations offered a practically identical product mix (bread, fruits, coffee, etc.) for comparable prices (over

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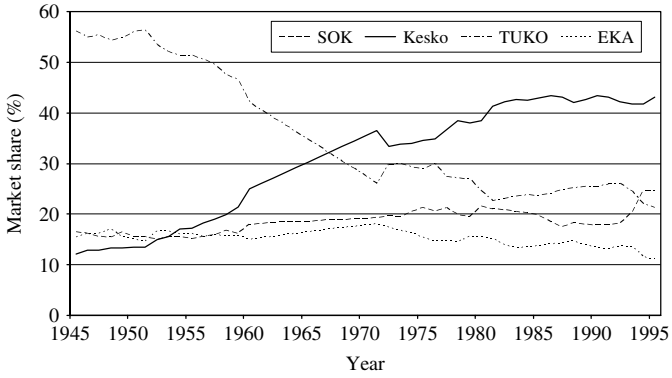

Figure 2. Market share development of the studied organizations

95% average correlation) in the grocery goods segment.

Store configuration refers to the number of retail outlets of three different size categories in a given year. Corresponding competitive actions alter this configuration. Advertising, in turn, refers to the number of newspaper advertisements of three different size categories in a given year. Corresponding competitive actions collectively constitute the annual advertising profile of a company. Thus, as both main action types contain three different subcategories, the competitive behavior of each company is captured by a six-dimensional variable space.

The level of strategic consistency for each company in each year was measured by using the distance d between two subsequent points in the above-described six-dimensional variable space and the angle α between two vectors pointing to and from the point under examination. Figures 3a and 3b illustrate this measure both in two-dimensional (3a, for illustrative clarity) and multidimensional (3b, employed in the study) situations.

The measure of strategic consistency itself, C, was defined as the inverse of 1 plus the product of distance d and the angle α using a sampling interval of one year:

$$C = \frac{1}{1 + \alpha\ d} \qquad (0 < C \leq 1) \tag{1}$$

where

$$\alpha = \arccos\left(\frac{\langle \Delta\overline{x}_t, \Delta\overline{x}_{t+1}\rangle}{||\overline{x}_t||||\overline{x}_{t+1}||}\right) \quad \text{(in radians, } 0 \leq \alpha \leq \pi) \tag{2}$$

$$d = ||\Delta\overline{x}_{t+1}|| \qquad (0 \leq d) \tag{3}$$

and

$$\langle a, b\rangle = \sum_{i=1}^{n} a_i b_i \qquad \text{(where } i \text{ denotes the vector elements)} \tag{4}$$

and

$$||a|| = \sqrt{\langle a, a\rangle}. \tag{5}$$

The measure of strategic consistency captures consistent behavior in two different ways. First, if the competitive behavior of a company in a given year is identical with its behavior in the previous year, it remains in the same position in the six-dimensional variable space (d and α are both zero). Second, if a company qualitatively alters its behavior exactly the way it altered its behavior in a previous year, it remains on the same trajectory of movement in the variable space (α is zero). In sum, a very high level of consistency yields values close to one, whereas a very low level of consistency is exhibited by values close to zero.

In addition to measuring the level of strategic consistency, the temporal development of the competitive behavior of the studied firms was illustrated by projecting the firm-specific development trajectories in the six-dimensional variable space onto a two-dimensional plane using principal component analysis (PCA). PCA is a method that can be used to project multidimensional data onto a lower-dimensional subspace so that a minimal amount of information is lost (Jolliffe, 1973a; 1973b). In our study, PCA illustration is an important addition to the quantitative analysis, as it allows a visual comparison of firm-specific development trajectories.

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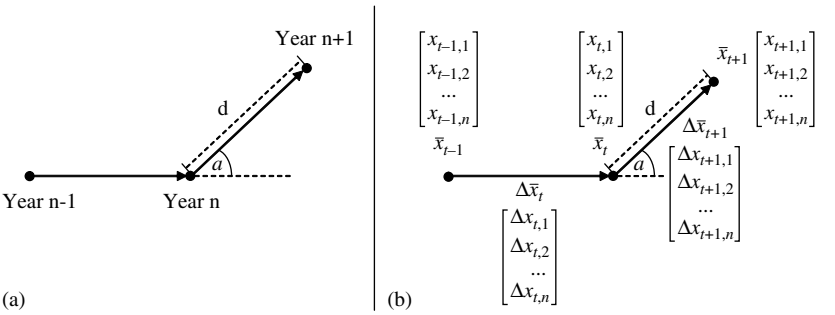

Figure 3. (a) Components of the measure of strategic consistency in a two-dimensional situation. (b) Components of the measure of strategic consistency in a multidimensional situation

Data

The dataset concerning advertising behavior is based on archival research consisting of 19,428 grocery advertisements published in three major newspapers (*Helsingin Sanomat, Keskisuomalainen, and Turun Sanomat*) during 1945–1995. The sample includes the total number of advertisements for six weeks (one week every other month starting in January 1945) of each year. When compared to the total volume of advertisements for the years 1945, 1965, 1980, and 1995, our sample corresponds with a rate of over 98 percent to the total population. For each advertisement, three properties were recorded: (1) date of publication, (2) advertiser (i.e., Kesko, TUKO, EKA, or SOK), and (3) categorical size (smaller than half page, half page to full page, or bigger than full page). The number of advertisements across the studied organizations was of the same order of magnitude ranging from 3,407 (EKA) to 6,027 (Kesko). The number of advertisements of different sizes, in turn, ranged from 2,257 (bigger than full page) to 13,291 (smaller than half page).

We operationalized the competitive actions concerning grocery outlets, in turn, by compiling a dataset encompassing the yearly configuration of different store types for each organization in terms of shopping floor surface area from two types of sources. First, we collected archival data for 1978–1995 from AC Nielsen's directory of grocery outlets. Second, since AC Nielsen's archives contain no data prior to 1978, we compiled store configurations for the remaining years from company histories and earlier studies. In order to make the different store surface area classifications used in different sources mutually commensurable, we constructed three aggregate-level surface area categories: (1) hypermarkets (over $2,500\ m^2$ [over 26,910 sq. ft.]), (2) supermarkets ($400–2,500\ m^2$ [306–26,910 sq.ft.]), and (3) small shops (less than $400\ m^2$ [less than 4,306 sq. ft.]).

STRATEGIC CONSISTENCY

Table 2 exhibits the average values for strategic consistency as calculated with Equation (1) for the four studied retail organizations for each subperiod, including upper and lower limits at the 95 percent confidence level.

The quantitative analysis supports our proposition of the positive effect of strategic consistency on company evolution. During the first and second subperiods, a low level of strategic consistency was related to weakening performance in terms of relative market share. For these subperiods, TUKO was identified as the main loser of market share and exhibited the lowest level of strategic consistency. In general, our analysis shows a fairly robust relationship between a low level of strategic consistency and deprived organizational performance.

To further examine the effect of strategic consistency on firm survival, we employed PCA to illustrate the movement of the four organizations in the competitive landscape. Figure 4 illustrates the results of PCA.

In Figure 4, movement toward the upper right-hand corner of the PCA plane is characterized by growth in the number of small retail outlets and small advertisements. The horizontal travel to the right is characterized by growth in the number of medium-sized advertisements and to some extent also by growth in medium-sized retail outlets (i.e., supermarkets) and large advertisements. Finally, movement toward the lower right-hand corner contains growth in large advertisements and

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Table 2. Subperiod-level values of strategic consistency for organizations

Period	Kesko	TUKO	EKA	SOK
	Value (Upper limit) (Lower limit)	Value (Upper limit) (Lower limit)	Value (Upper limit) (Lower limit)	Value (Upper limit) (Lower limit)
Regulation (1945–1965)	0.425(*) (0.468) (0.382)	0.380† (†) (0.426) (0.333)	0.414 (0.433) (0.395)	0.509* (0.556) (0.462)
Deregulation (1966–1980)	0.483(*) (0.501) (0.465)	0.363† (†) (0.397) (0.329)	0.631* (0.663) (0.599)	0.560 (0.591) (0.530)
New means of competition (1981–1995)	0.303† (0.326) (0.280)	0.484 (0.527) (0.442)	0.510* (†) (0.550) (0.470)	0.454(*) (0.484) (0.423)

* Highest value for the subperiod
† Lowest value for the subperiod
(*) Experienced best market share development during the subperiod
(†) Experienced worst market share development during the subperiod

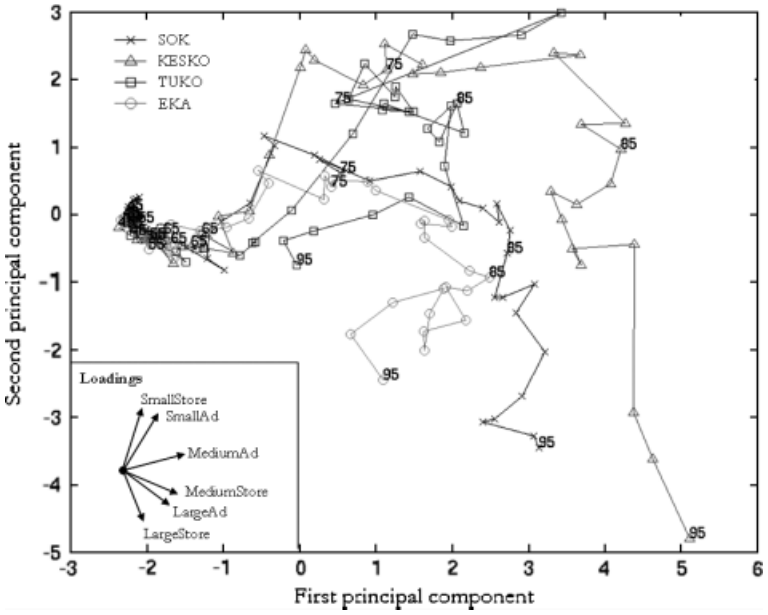

Figure 4. PCA illustration of competitive action variables

medium-sized and large (hypermarket) retail outlets.

As Figure 4 demonstrates, the four organizations apparently followed different development paths in the competitive landscape during the period of the study. The differences are modest during the first subperiod (*The era of regulation,* 1945–1965) due to the highly regulated and stable industry setting. During the second subperiod (*The era of deregulation*, 1966–1980), the most successful organization (Kesko) moved consistently first upwards and then right on the axis of the first principal component. The paths of those organizations that experienced no major market share changes during this subperiod (SOK and EKA) are equally consistent, but incline downwards toward the end of the subperiod. In the competitive behavior of the least successful organization (TUKO), there is no consistent pattern. During the last subperiod (*The era of new means of competition*, 1981–1995), in turn,

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the two successful organizations (Kesko and SOK) are clearly distinguishable from the two organizations that perished (TUKO and EKA). Whereas the paths of Kesko and SOK generally incline downwards along the second principal component, EKA and especially TUKO drifted around with no particular direction. Thus, the more resourceful and grocery-focused Kesko and SOK were more consistent in terms of their historical development and also exhibited the largest movement in the competitive landscape.

DISCUSSION

The results of this study support and help to develop further our theoretical framework. The successful retail firms in the Finnish grocery market exhibited higher strategic consistency in their competitive behavior in comparison to the less successful firms. The differences in the competitive behavior of the studied firms were considerable. The more successful firms incrementally conducted grocery-related actions, learned from these actions and their outcomes, and, were consequently aware when the environment moved toward deregulation in the 1960s. The less consistent firms, TUKO and EKA, were less focused on the grocery business, leading to a negative recursive effect on capability development and, later, on their repertoire of available competitive actions. Thus, the interrelations between organizational structure and strategy, outcomes (success vs. failure) and strategic consistency constitute either a learning or a vicious circle leading to consistent or inconsistent competitive behavior (cf. Rumelt, 1984). Building on our initial theorizing and the results of our historical and quantitative work, we offer the following notions that further develop our research propositions.

First, concerning Proposition 1, the studied organizations differed considerably in terms of their administration. In TUKO, the central administration was kept light. The majority of the owners wanted to restrict the size and influence of TUKO's central administration. Thus, although the quality of the top management team and supporting staff was probably on a par with its competitors, the size of the central bureau was smaller. EKA's problem was that, until the late 1970s, the scanning and analysis function was divided into two independent organizations. Moreover, the strong independence of some local cooperatives and the large importance of its own manufacturing resulted in a fragmented administrative body. In Kesko and SOK, the central administrations were unified and large. SOK especially was known for its bureaucratic and centralized organizational culture, which was manifested in rigidly controlled strategic planning and implementation. SOK and Kesko simply had more reserves for managerial action than the two organizations that perished. In essence, the larger business intelligence and market analysis functions at CHQ facilitated the awareness of future trends, instead of a short-run mentality (cf. Hambrick and D'Aveni, 1992).

Second, concerning Proposition 2, our study illustrates that when an organization faced an internal political struggle, this led to a decrease in strategic consistency. Top managers reacted to political struggles by making changes that were under their immediate control, in other words, relying on easily available and appropriate competitive actions (cf. March, 1991); they were not motivated to conduct competitive actions that would have been contested by power coalitions. For instance, from the 1960s onwards, TUKO's management was unable to invest in hypermarkets, but rather answered the intensified competition through (over)advertising. The same phenomenon occurred in the late 1980s, when Kesko's influential owner-retailers opposed investments in computer-based inventory systems, yet left a free hand for advertising. Organizational politics also affected the level of consistency through the allocation of slack resources. For example, in TUKO, profits were routinely channeled to the wholesaler-owners instead of to investments in hypermarkets or other kinds of capital-intensive maneuvers. Similarly, EKA's internal politics blocked the focusing of investments, especially during the 1960s and the 1970s, leading to a fragmented structure and strategy.

Third, concerning Proposition 3, the role of organizational slack resources was of crucial importance. TUKO and EKA already were in desperate need of capital from the 1960s onwards. The lack of unabsorbed slack resources primarily explains why, for instance, TUKO was unable to found any hypermarkets. The causal relationships between the slack resources and competitive actions were, however, exceptionally complex. The industry logic was that the grocery goods manufacturers subsidized the retail chain's marketing

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efforts on the basis of the historical development of sales. Consequently, the more TUKO and EKA lost market share, the more they lost in subsidies (cf. Porter, 1974). They also had to pay a higher price for their products. This process of decline weakened the positions of TUKO and EKA to such an extent that they had practically no possibility for such a level of strategic consistency in store founding and advertising as did the more successful firms (cf. Hambrick and D'Aveni, 1988).

CONCLUSIONS

The key concept of our study, strategic consistency, originates in the ideas already put forth in the classic models of strategic management (Miles and Snow, 1978; Porter, 1980). The idea of consistency was a central theme in Miles and Snow's (1978) theorizing, and was followed by a host of similar constructs (listed in Table 1). Complementing these constructs, our treatment of strategic consistency has three central characteristics. First, our conceptualization and its measurement is based on competitive actions, which are by definition detectable and, in series, constitute the strategy of the firm. Second, our research approach to strategic consistency is processual and systemic. It offers a causal explanation of competitive behavior in conjunction with the evolution of the firm and its business environment. Third, our conceptualization of strategic consistency is not deterministic as in path-dependence, incrementalism, or inertia (cf. David, 1986; Hannan and Freeman, 1984; Quinn, 1980). On the contrary, we propose that an appropriate level of strategic consistency is a necessary condition for firm survival. In accordance with the AMC framework, we argue that strategic consistency is to a large extent manageable (cf. Mintzberg, Raisinghani, and Théorêt, 1976).

In sum, we present theory and data regarding what we believe to be a logically consistent evolutionary model of strategic consistency. Our framework provides a causal argument to link a level of strategic consistency to organizational survival or, alternatively, death. The framework centrally proposes that a level of strategic consistency reflects the causal pathway that relates competitive actions to long-term organizational survival. One of the benefits of our model may be that some of its components and processes may be manipulated through experimental or simulation interventions. This means the model can be formally tested in future studies and managers can use it to fine-tune patterns of competitive behavior.

With regard to the empirical part of our study, we relied on a simple and robust measurement without a need to resort to more advanced mathematical frameworks (e.g., Gresov, Haveman, and Oliva, 1993). The measure itself is industry-invariant (c.f. Miller and Chen, 1994; Dobrev, 2007) and thereby of value beyond this particular study. In sum, we believe that the power of our measurement derives from its intuitive appeal and straightforwardness.

Our study also carries limitations. First, the strategic consistency thesis would not necessarily stand in other industry contexts as it may be easier to estimate trends and to tune the repertoire of competitive actions in the retail industry than in some other industries. Second, our data is industry- and context-specific. The fact that the repertoire of competitive actions of retail companies in our study remained rather straightforward and focused can be seen as an advantage, allowing a crisp presentation of our case. Taking the two previous points together, more studies on the evolution of the repertoire of competitive actions in different industry and country contexts are needed.

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REFERENCES

Barnett WP, Hansen MT. 1996. The red queen in organizational evolution. *Strategic Management Journal*, Summer Special Issue **17**: 139–157.

Bourgeois LJI. 1981. On the measurement of organizational slack. *Academy of Management Review* **6**(1): 29–39.

Burgelman RA. 1994. Fading memories: a process theory of strategic business exit in dynamic environments. *Administrative Science Quarterly* **39**(1): 24–56.

Chen M-J. 1988. Competitive strategic interaction: a study of competitive actions and responses. Ph.D. diss., University of Maryland at College Park, MD.

Chen M-J. 1996. Competitor analysis and interfirm rivalry: toward a theoretical integration. *Academy of Management Review* **21**(1): 100–134.

Chen M-J, Hambrick DC. 1995. Speed, stealth, and selective attack: how small firms differ from large firms in competitive behavior. *Academy of Management Journal* **38**(2): 453–482.

Chen M-J, Miller D. 1994. Competitive attack, retaliation and performance: an expectancy-valence framework. *Strategic Management Journal* **15**(2): 85–102.

Chen M-J, Smith KG, Grimm CM. 1992. Action characteristics as predictors of competitive responses. *Management Science* **38**(3): 439–455.

Chen M-J, Su KH, Tsai WP. 2007. Competitive tension: the awareness-motivation-capability perspective. *Academy of Management Journal* **50**(1): 101–118.

Christensen CM, Bower JL. 1996. Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal* **17**(3): 197–218.

Cohen MD, March JG, Olsen JP. 1972. A garbage can model of organizational choice. *Administrative Science Quarterly* **17**(1): 1–25.

Cyert R, March J. 1963. *A Behavioral Theory of the Firm*. Prentice-Hall: Englewood Cliffs, NJ.

David P. 1986. Understanding the economics of QWERTY: the necessity of history. In *Economic History and the Modern Economist*, Parker WN (ed). Basil Blackwell: Oxford, UK; 30–49.

Derfus PJ, Maggitti PG, Grimm CM, Smith KG. 2008. The red queen effect: competitive actions and firm performance. *Academy of Management Journal* **51**(1): 61–80.

Dobrev SD. 2007. Competing in the looking-glass market: imitation, resources, and crowding. *Strategic Management Journal* **28**(13): 1267–1289.

Eisenhardt KM, Brown SL. 1998. Time pacing: competing in markets that won't stand still. *Harvard Business Review* **76**(2): 59–67.

Eisenhardt KM, Zbaracki MJ. 1992. Strategic decision making. *Strategic Management Journal*, Winter Special Issue **13**: 17–37.

Foss NJ, Christensen JF. 2001. A market-process approach to corporate coherence. *Managerial and Decision Economics* **22**(4/5): 213–226.

Foss NJ. 1997. On the rationales of corporate headquarters. *Industrial and Corporate Change* **6**(2): 313–338.

Fredrickson JW. 1984. The comprehensiveness of strategic decision processes: extension, observations, future directions. *Academy of Management Journal* **27**(3): 445–466.

Galbraith C, Schendel D. 1983. An empirical analysis of strategy types. *Strategic Management Journal* **4**(2): 153–173.

Gavetti G, Levinthal D. 2000. Looking forward and looking backward: cognitive and experiential search. *Administrative Science Quarterly* **45**(1): 113–137.

Greiner LE. 1967. Patterns of organization change. *Harvard Business Review* **45**(3): 119–130.

Gresov C, Haveman HA, Oliva TA. 1993. Organizational design, inertia and the dynamics of competitive response. *Organization Science* **4**(2): 181–208.

Hambrick DC, Cho TS, Chen M-J. 1996. The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly* **41**: 659–684.

Hambrick DC, D'Aveni RA. 1988. Large corporate failures as downward spirals. *Administrative Science Quarterly* **33**(1): 1–23.

Hambrick DC, D'Aveni RA. 1992. Top team deterioration as part of the downward spiral of large corporate bankruptcies. *Management Science* **38**(10): 1445–1466.

Hambrick DC, Geletkanycz MA, Fredrickson JW. 1993. Top executive commitment to the *status quo*: some tests of its determinants. *Strategic Management Journal* **14**(6): 401–418.

Hannan MT, Freeman J. 1984. Structural inertia and organizational change. *American Sociological Review* **49**(2): 149–164.

Harrison JS, Hall EH Jr., Nargundkar R. 1993. Resource allocation as an outcropping of strategic consistency: performance implications. *Academy of Management Journal* **36**(5): 1026–1051.

Jacobson R. 1992. The 'Austrian' school of strategy. *Academy of Management Review* **17**(4): 782–807.

Johnson G. 1988. Rethinking incrementalism. *Strategic Management Journal* **9**(1): 75–91.

Jolliffe IT. 1973a. Discarding variables in a principal component analysis I: artificial data. *Applied Statistics* **21**(2): 160–173.

Jolliffe IT. 1973b. Discarding variables in a principal component analysis II: real data. *Applied Statistics* **22**(1): 21–31.

Ketchen DJJ, Snow CC, Hoover VL. 2004. Research on competitive dynamics: recent accomplishments and future challenges. *Journal of Management* **30**(6): 779–804.

Lamberg J-A, Tikkanen H. 2006. Changing sources of competitive advantage: cognition and path dependence in the Finnish retail industry 1945–1995. *Industrial and Corporate Change* **15**(5): 811–846.

Levinthal D, Rerup C. 2006. Crossing an apparent chasm: bridging mindful and less-mindful perspectives on organizational learning. *Organization Science* **17**(4): 502–513.

March JG. 1991. Exploration and exploitation in organizational learning. *Organization Science* **2**(1): 71–87.

McCarthy EJ. 1960. *Basic Marketing: A Managerial Approach*. Richard Irwin: Homewood, IL.

Meyer JW, Rowan B. 1977. Institutionalized organizations: formal structure as myth and ceremony. *The American Journal of Sociology* **83**(2): 340–363.

Miles R, Snow CC. 1978. *Organizational Strategy, Structure and Process*. McGraw-Hill: New York.

Miller D, Chen M-J. 1994. Sources and consequences of competitive inertia: a study of the U.S. airline industry. *Administrative Science Quarterly* **39**: 1–23.

Miller D, Chen M-J. 1996a. Nonconformity in competitive repertoires: a sociological view of markets. *Social Forces* **74**(4): 1209–1234.

Miller D, Chen M-J. 1996b. The simplicity of competitive repertoires: an empirical analysis. *Strategic Management Journal* **17**(6): 419–439.

Miller D, Friesen PH. 1982. Structural change and performance: quantum versus piecemeal-incremental approaches. *Academy of Management Journal* **25**(4): 867–892.

Mintzberg H, Raisinghani D, Théorêt A. 1976. The structure of 'unstructured' decision processes. *Administrative Science Quarterly* **21**(2): 246–275.

Nath D, Sudharshan D. 1994. Measuring strategy coherence through patterns of strategic choices. *Strategic Management Journal* **15**(1): 43–61.

Nelson RR, Winter SG. 1982. *An Evolutionary Theory of Economic Change*. Harvard University Press: Cambridge, MA.

Noda T, Bower JL. 1996. Strategy making as iterated processes of resource allocation. *Strategic Management Journal*, Summer Special Issue **17**: 159–192.

Pettigrew AM. 1973. *The Politics of Organizational Decision Making*. Tavistock: London, UK.

Pfeffer J, Salancik GR. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. Harper & Row: New York.

Porter ME. 1974. Consumer behavior, retailer power and market performance in consumer goods industries. *Review of Economics and Statistics* **56**(4): 419–436.

Porter ME. 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors.* Free Press: New York.

Porter ME. 1991. Towards a dynamic theory of strategy. *Strategic Management Journal*, Winter Special Issue **12**: 95–117.

Quinn JB. 1980. *Strategies for Change: Logical Incrementalism*. R.D. Irwin: Homewood, IL.

Rumelt RP. 1984. Toward a strategic theory of the firm. In *Competitive Strategic Management*, Lamb RB (ed). Prentice-Hall: Englewood Cliffs, NJ; 557–570.

Sheth J, Sisodia R. 2002. *The Rule of Three: Surviving and Thriving in Competitive Markets*. Free Press: New York.

Siggelkow N. 2002. Evolution toward fit. *Administrative Science Quarterly* **47**(1): 125–159.

Siggelkow N, Levinthal DA. 2003. Temporarily divide to conquer: centralized, decentralized, and reintegrated organizational approaches to exploration and adaptation. *Organization Science* **14**(6): 650–669.

Simon HA. 1947. *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization*. Macmillan: New York.

Smith K, Ferrier W, Ndofor H. 2001. Competitive dynamics research: critique and future directions. In *The Blackwell Handbook of Strategic Management (Blackwell Handbooks in Management)*, Hitt M, Freeman RE, Harrison J (eds). Blackwell Publishers: Oxford, UK; 315–361.

Smith KG, Grimm CM, Gannon MJ, Chen M-J. 1991. Organizational information processing, competitive responses and performance in the U.S. domestic airline industry. *Academy of Management Journal* **34**(1): 60–85.

Tan J, Peng MW. 2003. Organizational slack and firm performance during economic transitions: two studies from an emerging economy. *Strategic Management Journal* **24**(13): 1249–1263.

Teece DJ, Pisano G, Shuen A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal* **18**(7): 509–533.

Thompson JD. 1967. *Organizations in Action: Social Science Bases of Administrative Theory*. McGraw-Hill: New York.

Tripsas M, Gavetti G. 2000. Capabilities, cognition, and inertia: evidence from digital imaging. *Strategic Management Journal*, October–November Special Issue **21**: 1147–1161.

Tushman ML, Romanelli E. 1985. Organizational evolution: a metamorphosis model of convergence and reorientation. In *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews* (Vol. 7), Cummings LL, Staw BM (eds). JAI Press: Greenwich, CT; 171–222.

Venkatraman N. 1989. The concept of fit in strategy research: toward verbal and statistical correspondence. *Academy of Management Review* **14**(3): 423–444.

Venkatraman N, Prescott JE. 1990. Environment-strategy coalignment: an empirical test of its performance implications. *Strategic Management Journal* **11**(1): 1–23.

von Mises L. 1949. *Human Action*. Yale University Press: New Haven, CT.

Zajac EJ, Kraatz MS, Bresser RKF. 2000. Modeling the dynamics of strategic fit: a normative approach to strategic change. *Strategic Management Journal* **21**(4): 429–453.

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