New Organizational Forms and Strategies for Managing in Hypercompetitive Environments

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Strong forces of change—globalization, demographic shifts (e.g., aging population and declining fertility rates), advances in information technology, demassification of society, and hypercompetition—are reshaping the competitive landscape worldwide. As a result, companies in most industries are not only undergoing rapid and radical change, but are also experiencing a fundamental shift in the rules of competition and the way the game of competition is played. The old, genteel, stable oligopolies that defined competition during the 20th century are rapidly restructuring. In their place are emerging markets fraught with uncertainty, diverse global players, rapid technological change, widespread price wars, and seemingly endless reorganization. That transition is occurring not only in the United States, but also in Europe, Latin America, and Asia.

Managers and companies are coping as best they can. A few are experimenting with radical, ill-understood new organizational forms and strategies, largely without any guidance from organizational research. Most managers, however, are restructuring their organizations with no clear idea of the forces of change and their implications. Moved to respond to the "cataclysmic changes occurring in the environments of organizations," the editors of Organization Science challenged management and scholars to answer the question, "Where are the theories for the 'new' organizational forms?" (Daft and Lewin 1993). This special issue presents the opening salvo of responses to that challenge.

Several researchers have provided "early warning signals" of the environmental conditions that characterize hypercompetition. Suggesting that "hyperturbulence" occurs when the capacity of a population is exceeded by environmental demands, McCann and Selsky (1987) described responses of vulnerable organizations as "fragile," "episodic," "prone to setbacks," or "impossible." Eisenhardt (1989) identified dramatic changes in the "high velocity" environments of Silicon Valley semiconductor firms, and Meyer, Brooks, and Goes (1990, 1993) reported on similar "jolts" and "hyperturbulence" in health care. Even earlier, Starbuck (1983) predicted radical shifts in the configurations of firm strategy and structure that would "take organizations outside their familiar domains."

In this issue, we demonstrate that (as predicted by those early researchers) a dramatic and far-reaching shift has occurred in the nature of competition in most industries. We present evidence that the shift has resulted in a new organizational paradigm that has been described as "hypercompetition" (D'Aveni 1994).

Young, Smith, and Grimm (this issue), for example, find that the software industry is characterized by two phenomena that are completely contradictory to the school of industrial organization known as the structure-conduct-performance (SCP) model. First, firms that engage in rivalrous behaviors increase their performance, despite the potential for industry retaliation. Second, firms that form more alliances (e.g., joint ventures) engage in more rivalrous behavior. Contrary to the SCP model, alliances do not serve as devices that encourage quasi-collusive behavior, nor is quasi-collusive behavior a precursor to better performance.

Thomas (this issue) reports even more startling results. In a large-scale, multi-industry study, he finds a "hypercompetitive shift" over the last four decades. In the first two decades, increased industry rivalry was associated with lower stock market performance of the firms. However, in the 1980s and 1990s, rivalry was associated with stock performance in a surprising "inverted-U" relationship. Thomas suggests the curvilinear relationship is created by such industry conditions of demand-based incentives for innovation and knowledge intensity. Those drivers of hypercompetition enable firms, such as the software firms in the Young,
Smith, and Grimm study, to improve their performance through rivalrous actions that would have destroyed their industry's profitability in previous decades. The old SCP assumption that rivalry is bad for stock market performance must be re-examined.

Collectively, the articles in this issue form a complex fabric of new theoretical frameworks, models, strategies, organizational forms, and methods that address hypercompetitive environments in a radically different, yet integrative way. The overall result of our complex process was a most startling discovery. We were able to identify a major theoretical paradigm shift away from theories based on static competition, a shift that is more than a move toward Schumpeterian competition. Whereas Schumpeter (1934) focused mainly on creative destruction due to technological revolution and innovation, the studies in this issue support a much richer, multidimensional view of competition. Additionally, the studies identify some strategic implications of rapid change in areas not envisioned by Schumpeter (Nault and Vandenbosch; Craig; Galunic, and Eisenhardt). They also help clarify problems in Schumpeter’s view of dynamic competition (Thomas).

The Challenges of Refocusing Research on Issues that Matter

Because of the relative newness of hypercompetition as a theme for organization scientists, “weaving the fabric” of the special issue was a complex process worth reviewing here. The idea for the project originated with the 1993 Academy “debate” on organizational forms and boundaries. The showcase symposium on vertical forms featured Richard Bettis, Alfred Chandler, Richard D’Aveni, Katheryn Harrigan, Charles Hill, Anne Ilinitch, James Brian Quinn, and David Ravenscraft arguing the relative merits and limitations of vertical integration versus newer more expanded organizational forms.

From this exchange, we realized that some of the most relevant and creative new work on organizational forms and strategies would be in an embryonic stage at the time of submission to the special issue and would probably involve nontraditional approaches unfamiliar to many reviewers. Hence, our first challenge was to consider creative papers sometimes still in an early stage of development. With the involvement of open-minded reviewers who were specifically encouraged to look first for the “jewel” in a paper rather than for reasons to reject it, we were fortunate to identify highly innovative but nontraditional papers, almost all requiring significant further theoretical or empirical development.

Our next challenge was to design an intellectual process that would refine those “diamonds in the rough.” Limited only by our imaginations and with the generous financial support of the Amos Tuck School of Business Administration at Dartmouth College and the Whittemore family, we created a three-day conference in Hanover where clusters of authors (who were invited on the basis of the first round of reviews) met to discuss each other’s papers and engage the common themes in their work. The authors’ workshop on the first day was followed by conversations with senior executives of firms such as AT & T, Champion International, Citibank, General Motors, IBM, Microsoft, Pillsbury, Royal Dutch Shell, Texas Instruments, Reynolds Metals, Reynolds & Reynolds, Royal Nedlloyd Group, and Zeneca Ltd. and with academic scholars in the fields of strategy, organization theory and design, accounting, and marketing who also had considerable experience as organizational consultants. The discussions established the relevance of the research to managerial practice and also informed the theoretical discourse. Time and energy spent reviewing, critiquing, and building on each other’s work, both at the conference and in the subsequent revision cycles, enabled the authors to develop stronger, more robust, and more elaborated theoretical and methodological themes. The process challenged authors to cycle between inductive and deductive approaches, theory and practice, to arrive at a final product that was enriched by multiple perspectives. Many authors were asked to undertake the time-consuming and unusual step of reading other special-issue papers and incorporating ideas from them into their own empirical studies and theoretical papers.

Our final challenge was to overcome the inherent riskiness in asking researchers to work on a new, unproven theme with no assurance that a broader intellectual market would emerge for their scholarship. Although the jury is still out, signs are promising that momentum is gathering behind the themes of this special issue. Increasingly, other conferences are featuring hypercompetition-related papers (e.g., the August 1995 Academy of Management Symposium in Vancouver and the October 1995 Strategic Management Society conference in Mexico City). Some of the work mentored through or developed during the review process for the special issue is forthcoming in other respected outlets (e.g., Chen, forthcoming in Academy of Management Review, Spring 1996); the Harvard Business Review is considering other papers.
that were initially submitted for the special issue. Therefore, we are confident that organization and strategy scholars will engage the themes of hypercompetition, not because of the special issue per se, but simply because organization and strategy researchers will be interested in addressing issues that “matter.”

The process spanned more than two years and required multiple virtual and actual editorial consultations in locations throughout the world (including Atlanta, Dallas, Vancouver, Mexico City, Hanover, Seattle, and Tokyo). We received a record of more than 100 submissions from authors representing 11 countries (France, United States, Canada, Netherlands, Sweden, Norway, Japan, Korea, Singapore, Greece, and United Kingdom). We are grateful for the involvement of more than 150 reviewers representing roughly 75 colleges and universities worldwide and for the support of chief executive officers or heads of strategic planning at global and Fortune 500 companies. The resulting collection of articles represents an amalgam of ideas, synergies, and insights.

Because putting the special issue together involved taking risks and navigating uncharted territory, the process was not always as smooth as we would have wished. However, we believe the time, energy, creativity, and open-mindedness that the various participants brought to the endeavor resulted in a thought-provoking and cutting-edge product focusing on themes that are likely to dominate the competitive landscape well into the 21st century.

Three Themes

Although the articles in this issue are highly synergistic and thus inform and validate each other in a variety of ways, three themes clearly emerged as a framework for organizing our discussion about dynamic competition and organizations. First, the research suggests that a new language and different metaphors are needed just to converse about hypercompetition (see Aupperle, Zohar and Morgan, Craig, Galunic and Eisenhardt, Kim and Kogut). The language involves images of war and paradox. Second, new and often paradoxical organizational forms designed for flexibility and knowledge creation are crucial to organizational survival in hyper-competitive markets (see Volberda; Grant; Liebeskind et al.; Hanssen-Bauer and Snow; Smith and Zeithaml; Richardson; Craig; Galunic and Eisenhardt; Kim and Kogut). Third, a paradigm shift seems to be occurring, in which some established strategy theories may no longer be relevant (see Thomas; Nault and Vandenbosch; Young et al.; Craig) and others can be applied in new ways (Gimeno and Woo; Smith and Zeithaml; Liebeskind et al., Hanssen-Bauer and Snow; Richardson). We examine those themes in detail, pointing out the interrelationships between the articles and concluding each section with fundamental research questions that address and/or are suggested by each theme.

The Language and Images of War and Paradox

The first theme suggests that the language and images of organizations are clearly changing. Windows 95 is Microsoft’s “Trojan horse.” Boeing managers consider themselves in a “death struggle with competitors” (Taylor 1995). Those are not the chivalrous images of sporting games; rather, they are metaphors of war: the ultimate “will to win” of the kamikaze pilots in World War II; the devastating guerrilla tactics used in Vietnam; and the combined speed, surprise, and strength of American response in the recent Persian Gulf War. Aupperle suggests that the ancient Persian War described in Xenophon’s Anabasis provides surprisingly relevant strategies for organizations engaged in today’s hypercompetitive struggles.

Aupperle uses Xenophon’s Anabasis, an account of how an army of Greek mercenaries trapped in Persia overcame seemingly insurmountable odds to survive, as the springboard to discuss desired cultural attributes of hypercompetitive organizations. Linking Morgan’s (1983) metaphors of biology, brain, and culture to the Greek philosophical concepts of mind, body, and spirit, he shows how the unusual combination of fierce personal independence and strong common culture enabled the Greek army to evolve and respond to both internal and external threats. The mercenaries, many from different and warring city-states, had lost their entire top command but subsequently invented an organizational form flexible enough to adapt to numerous different and unpredictable crises. Continuous improvement, commitment to complete victory even at great personal cost, and decentralized structure were their “weapons,” but the “sense of independence and entrepreneurship,” along with “their common heritage, education, and values”—their “adhocracy,” according to Morgan (1983)—ultimately enabled the Greeks to triumph over the barbarians through constant and simultaneous adjustment. Suggesting that the Anabasis “dramatizes in a highly qualitative fashion what can be accomplished under severely adverse conditions when the ‘right’ cultural properties exist,” Aupperle concludes that to spontaneously reconfigure itself, a hypercompetitive organization must combine integration, differentiation, and fragmentation. It must simultaneously know the rules and procedures, yet be willing to
break the rules when the greater good (such as group or cultural survival) requires it.

Interestingly, more recent cases also illustrate the tension between individualism and group unity. Craig describes how Asahi broke ranks with the strong cultural norms of traditional Japanese competition and reinvented itself to survive, thus launching a "war" for the Japanese beer market. Kim and Kogut explore the strange contradictions of coping with adverse conditions in a different way. They suggest that technological platforms give diversifying firms the flexibility needed to attack competitors and defend their positions, but flexibility and diversification are paradoxically based on focus. Platforms that combine the strength of focus on individual products with the flexibility of evolving technologies makes diversification possible. Kim and Kogut also demonstrate how firms sacrifice old technological advantages to obtain new competitive advantages, without destroying themselves, by moving from one technology product platform to the next.

Similarly, Galunic and Eisenhardt illustrate how some firms paradoxically use existing structures that are stable and inflexible for a variety of purposes. By changing the usage, meaning, and language of their SBU charters, modern firms can create rapidly changing, flexible organizations that resolve the contradictions of stability and change and maximize their flexibility with minimal cost to the organization and minimal disruption to its stable structure.

In sum, two ideas emerge. First, organizations must develop languages and models that encourage the achievement of constantly contradictory goals when coping with adversity (flexibility through stability, diversification through focus, freedom to break rules in the context of a strong culture, etc.). Second, organizations may have to think "in the extreme" by learning from organizations in extremely adverse conditions (such as armies at war). Thus, Aupperle's comparison of today's hypercompetitive organizations with the ancient Greek army in Persia suggests that the language of war and images of the brain, living organisms, and culture might provide fertile ground for "imagination" new organizational forms. However, such images also conjure up visions of a Darwinian struggle, human suffering, and sacrifice. That dilemma raises several questions:

*How do organizations balance the need for a fierce will to prevail against loyalty to group or organizational norms?*  
*How does society balance the potential benefits of aggressive organizational forms and cultures against their "dark side," that is, their human costs (Victor and Stephens 1994) and their propensity to overreact and undertake extreme actions? Is there any loss of motivation, urgency, or fighting spirit when firms do not use the fierce images and language of war? If so, how do organizations overcome the "political incorrectness" of such language? Alternatively, is hypercompetition a metaphor "gone wild," as suggested by Zohar and Morgan (this issue)? Or does their reaction to a world based on creative destruction and market disruption represent an unfounded fear of the future?

New Flexible Organizational Forms
The second theme suggests that hypercompetitive conditions (such as the convergence of firms through networks and partnerships and the colliding and blurring of industry boundaries, as we see with computers, consumer electronics, entertainment, television, and telecommunications) have spawned experimentation with new and varied organizational forms. New theoretical frameworks are needed to organize and understand the variation, experimentation, transience, adaptation, and flexibility that increasingly characterize the organizational designs, strategies, and management practices being invented by managers. Submissions to this special issue included field observation and case studies that developed and tested new theories about such topics as organizational flexibility and knowledge-based organizations. The case studies provide examples of how a theory-based case approach can illuminate and enrich new theories or apply current theories in new ways. For example, Smith and Zeithaml describe a strategic application of "garbage can" models for discovering or inventing new strategic initiatives. Moreover, case studies were used to explain the conditions under which traditional models of vertical integration are appropriate for achieving flexibility and speed (Richardson, this issue).

Covering entirely new ground, both Volberda and Grant develop organizing frameworks that synthesize several theoretical approaches for a more thorough understanding of the organization capabilities of flexibility, adaptivity, and knowledge creation. Interestingly, both authors demonstrate how, as in the Greek culture described by Aupperle, individual and independent tasks such as knowledge acquisition and the creation of dynamic capabilities must be combined with common, synergistic tasks such as integrating knowledge and providing effective organizational controls.

Specifically, Volberda explores the "paradox" of flexibility that causes "friction between change and preservation," developing in the process a dynamic logic for
the discovery of new forms. He conceptualizes flexibility as both a managerial and an organizational design task. The managerial task is to provide dynamic capabilities for organizational flexibility and change, whereas the organizational design task is to configure technology, structure, and culture for preservation and control. The “meta-flexibility” of a firm combines three types of flexibility: operational (reactive), structural (adaptive), and strategic (radical). The four resulting organizational forms—rigid, planned, flexible, and chaotic—represent a continuum of points along the opposite trajectories of routinization (control) and revitalization (flexibility). Those flexibilities and forms provide a dynamic approach to restructuring in response to cycles of competition.

The cases in this issue illustrate (and inform about) different stages along the Volberda continuum. The international ventures of the Baby Bells, in the case described by Smith and Zeithaml, illustrate a way by which an organizational form characterized by maximum flexibility and lack of routinization reminiscent of Cohen, March, and Olsen’s (1972) “garbage can” model can be created to become the exploratory arm of a traditional bureaucratic form. Richardson describes a vertically integrated fashion industry at the opposite end of the continuum, characterized by maximum routinization, that has the ability to adapt quickly to the volatility of fads and fashion. The network relationships in the Norwegian consortium described by Hanssen-Bauer and Snow and in the biotechnology firms described by Liebeskind et al. illustrate very contextual forms of structural flexibility that are in the middle of the continuum. Aupperle’s analysis illustrates yet another way flexibility is developed. The type and mix of flexibilities required for each industry’s competitive conditions explain both its current position on the trajectory and the direction it is likely to move when conditions change.

Grant focuses on how organizations develop the flexibility capabilities necessary for revitalization and how they integrate specific capabilities to achieve routinization. Beginning with the assumption that firm resources are the primary source of competitive advantage and that knowledge creation is the firm’s most important resource, he suggests that the Volberda paradox can be resolved by flexibility gained through knowledge acquisition and integration. Such flexibility is achieved by acquiring specific knowledge efficiently and applying many areas of specialized knowledge integratively. Competitive advantage depends on more than integration efficiency; it also requires breadth and flexibility, which Grant argues are best supplied in most cases by network configurations. The Liebeskind et al., Hanssen-Bauer and Snow, and Smith and Zeithaml articles each illustrate how virtual, social, and actual networks afford speed, efficiency, and flexibility of knowledge acquisition by using organizational form as strategy. The Kim and Kogut article supports the model proposed by Grant of increasing flexibility as opportunities for technological diversification expand or contract. Craig’s article suggests that firms may move along the flexibility trajectories of Volberda as changes in competitive conditions dictate, such as when Asahi absolutely needed to reinvent itself.

In sum, the Grant, Volberda, Kim and Kogut, and Craig studies begin to outline what is required to create dynamic capabilities and achieve flexible integration. The Galunic and Eisenhardt, Smith and Zeithaml, Richardson, and Liebeskind et al. articles illustrate how firms develop flexibility within current boundaries and structural constraints. However, considerable further research is needed on the issue of how to design and manage organizations that can respond to the uncertainties and demands of hypercompetitive environments. For example:

How can organizations develop and manage their actions to exploit flexibility in knowledge integration? How can firms re-invent themselves as they move along the flexibility trajectory? More generally, what do “disposable organizations” (March 1995) that routinize change look like?

**New Hypercompetitive Strategies**

The third theme suggests that because hypercompetition is a dynamic process, it must be studied with methods capable of capturing dynamic phenomena. Certainly, industry case studies represent context-rich approaches for gaining insights into dynamic organizational phenomena. Large-scale archival empirical studies and mathematical models also can be used to study hypercompetitive rivalry, as the Young et al., Thomas, and Gimeno and Woo articles illustrate. Together, those articles show why firms escalate the degree of hypercompetition in their industries. Firms are energized by improved performance (Thomas; Young et al.) or by the imitation processes that occur among rivals (Gimeno and Woo).

As competition becomes more isomorphic, industry competition escalates to perfect competition, only to be suddenly derailed by competitors who rewrite the rules and launch preemptive strikes (Craig; Nault and Vandenbosch). Temporary de-escalations may be achieved through mutual forbearance strategies (Gimeno and Woo). In the long run, however, as
markets become more open, mutual forbearance strategies are likely to fail. The studies by Craig and by Kim and Kogut explain how and why such failures occur, illustrating the dynamic movement of firms from one hypercompetitive arena to the next (D’Aveni 1994). The firms in those studies integrate multiple arenas and illustrate new levels of sophistication in the interactions between movement in the know-how and strongholds arenas. The authors obtain new insights by combining large-database studies with rich, analytical case studies and dynamic models.

Thomas adds to our understanding of why hypercompetition occurs. He argues that hypercompetition occurs not just because firms work to disrupt the market’s progress toward perfect competition. Rather, he identifies several driving forces that give certain industries higher potential for becoming hypercompetitive. Interestingly, Thomas finds that the variance in individual firm performance within an industry becomes greater under conditions of hypercompetitive rivalry. Thus, hypercompetition polarizes firms; some become big winners and others big losers. Even more importantly, Thomas finds that the average firm value also increases up to a point. That finding directly contradicts Porter’s (1980) five-forces model, which suggests that greater rivalry will destroy value. Porter recommends erecting barriers to entry and using oligopolistic bargains to prevent competitive escalation within an industry. However, the Young et al. and Thomas results support the notion that the Porter approach to strategy may be obsolete in hypercompetitive environments. Moreover, the “driving forces” causing the “hypercompetitive shift” found by Thomas may make it impossible to use Porter’s recommendations because it is impossible to reverse the market incentives for innovation and the increasing knowledge intensity of modern industries through signals and barriers to entry.

Young, Smith, and Grimm attempt to resolve some of the contradictions between the structure-conduct-performance and the hypercompetition models. They find that increased industry competition decreases average industry profitability, but increased firm-level competition actually increases individual firms’ profits. Perhaps even more importantly, the strong, positive effect of firm-level competition on profits greatly exceeds any negative industry effects, and firm-level cooperative strategies such as licensing, participating in professional organizations, and mergers may enable individual firms to be more competitive and thus more profitable. Much future research is needed to reconcile the findings reported by Young et al. and by Thomas about industries’ average performance. The two articles offer different reconciliations between the SCP model and hypercompetition models of strategy. However, they agree that firms that escalate competition raise their own performance, perhaps at the expense of others in the industry.

The studies by Gimeno and Woo and by Nault and Vandenbosch offer two very different strategic options for firms caught up in hypercompetitive escalation. Gimeno and Woo provide what may be a shorter-term strategy of attacking competitor strongholds in multiple markets in an attempt to force firms to engage in mutual forbearance to avoid costly, far-reaching price wars. In contrast to the Caves/Porter hypothesis that similarity leads to lower rivalry, they find, as some strategic group theorists, organizational ecologists, and hypercompetition models predict, that strategic similarity increases competitive intensity. However, as the number of markets in which the same firms compete increases, the ferocity of competition in common markets decreases because of the high cost of engaging in such battles. Gimeno and Woo provide evidence that mutual forbearance has resulted from market tie-ups in the airline industry during a time of protected domestic markets at few domestic mavericks competed across markets because of limited gateways. In the coming years, however, as domestic markets are opened and gates become more readily available, large, deep-pocketed international airlines (or other mavericks) seem likely to enter domestic markets and begin price wars to gain market share. In such cases, mutual forbearance by domestic airlines would only produce greater opportunities for international rivals.

Nault and Vandenbosch directly contradict the proposed benefits of sustaining advantages and leveraging current competencies. They demonstrate that, rather than using sustained, irreversible commitments as Ghemawat (1991) suggests, incumbent leaders should create a series of unsustainable advantages under conditions of intense competitive rivalry. Under certain conditions, industry leaders should launch preemptive strikes that can cannibalize their current products. Nault and Vandenbosch find that “eating one’s own lunch” may be the best course of action, even when it results in marginal financial losses to the firm and society.

The strategy of seeking unsustainable or temporary advantages can be applied in any of D’Aveni’s (1994) four arenas of hypercompetition cost and quality, know-how and timing, stronghold protection and invasion, and deep pockets where advantages are created and eroded frequently. The Nault and Vandenbosch
model also suggests a paradox in deep-pocket competition. Firms without deep pockets may not survive in the long run because they will not be able to launch the continual series of new advantages necessary to stay ahead. However, as each successive new advantage consumes resources, even deep pockets may be depleted. Hence, deep pockets may be necessary to maintain a leadership position, but by themselves they are never enough to sustain that position in the long run.

In contrast, the technology/product platforms described by Kogut and Kim provide a strategy for applying current technology to new and different products and markets without constantly “breaking the mold,” perhaps ultimately developing a more sustainable way of “eating your own lunch.” Additionally, Craig provides a striking example of how even deep pockets cannot necessarily protect oligopolistic strongholds from hypercompetition. The Asahi case demonstrates how sometimes even weakened firms can create temporary advantages by rewriting the rules of competition. The case also shows that even deep-pocketed firms in traditional, noncompetitive industries need time (two years) to acquire new capabilities for competing within the new competitive industry dynamics.

While the articles discussed in this section chronicle dramatic changes in the competitive landscape and question the relevance of the dominant theories of competition, many unexplored avenues remain for significantly advancing understanding of hypercompetitive strategy. For example, we intentionally chose to be open to a broad definition of hypercompetition to encourage clear differentiation of that emerging phenomenon from the current views of strategic reorientation, punctuated equilibria, creative destruction, revolutionary change, perfect competition, and chaos. Do those constructs simply represent a historical progression in competitive escalation over the past decade, superseded by new constructs? Ultimately, a more precise specification of hypercompetitive conditions will be useful in advancing theory and developing strategic responses.

Additionally, the effect of governmental policies on firms’ ability to compete in hypercompetitive markets warrants attention. Hansen-Bauer and Snow, Craig, and Gimeno and Woo all suggest that country-specific institutional structures may either enhance or inhibit the ability of firms to respond to hypercompetitive conditions created by the entry of global competitors. Yet none of the studies in this issue explicitly investigate that important question. Are socio-political systems with a dominant sense of collective orientation (Hofstede 1980) more likely to invent and exploit the new flexible forms of organization? Can governments continue to intervene in national economies without regard to global competitive dynamics? Are cultures with a strong sense of individualistic orientation (Hofstede 1980) more likely to accept maximum strategic flexibility and aggressiveness? Or, as Aupperle suggests, is some paradoxical combination of the two necessary to succeed in hypercompetitive environments? Hence:

What are the necessary and sufficient conditions for hypercompetition and how does it differ from current constructs of competition? What factors drive the cycles of competitive escalation and de-escalation? Does de-escalation raise profits in the short run, only to weaken firms in the long run? How do government policies, national heritage, history, and culture inhibit or enhance the abilities of firms to compete in hypercompetitive environments? Can strategies be devised that simultaneously reduce and create uncertainty? What strategies help organizations succeed in attacking competitor strengths? How can small or weak organizations win against much larger or stronger competitors? How do some firms succeed in rewriting industry rules? Which models of strategy become obsolete in hypercompetitive environments?

What’s Next in the Pursuit of a New Paradigm?
The dominant paradigms in organization theory are based on stability seeking and uncertainty avoidance through organizational structure and processes, whereas the dominant paradigms in strategic management are based on rivalry reduction through competitive actions that restrict entry and signal oligopolistic bargains. We believe that those paradigms are inadequate for global hypercompetitive environments, although their replacements are not yet clear. Many articles in this issue question the classic strategic solutions on which firms have relied for the past two decades. In particular, they provide counter examples to the traditional oligopolies and stable equilibrium that have produced positive economic performance heretofore. The articles also challenge the efficacy of creating and defending so called sustainable advantages and capabilities.

Certainly, the Thomas and Young et al. articles show that the structure-conduct-performance models are not as relevant as they once were. It is not enough simply to choose a high margin industry and keep competitors out. It is probably not possible in today’s global hypercompetitive environment to define attractive markets in accordance with the Porter five-forces model. Simi-
larly, Craig describes winning without leveraging a strong core capability. He modifies theories that suggest a firm's success is due to its resource base. Rather than operating from a position of strength, Asahi came from a position of weakness, exploiting a new capability of competing on the basis of new product introduction. Its new “dry beer” served as a sort of Trojan horse from which to launch a comeback. Competitors were surprised not only by the introduction of a new product, but also by the fact that one industry player would change the rules of competition. It took several years for rivals to develop similar organization capabilities. In the meantime, Asahi had a clear competitive advantage for about two years.

Organizational models based on uncertainty avoidance (e.g., Cyert and March 1964; Thompson 1967) may also be obsolete. New theories are needed for designing organizations that thrive on uncertainty within and outside organizational boundaries. The articles in this issue show that hypercompetitors can disrupt their markets and their internal status quo (Nault and Vandenbosch; Craig). Moreover, they do not do it with periodic strategic reorientations; rather, they do it continually and fluidly (Kim and Kogut; Galunic and Eisenhardt).

To the extent that the articles in this issue demonstrate permanent shifts in the rules of competition, they show how far off course current theoretical and empirical maps may be. By relying on old assumptions, such as “the best predictor of future performance is past action,” we may be steering managers farther and farther off course. Research may provide examples of forms and strategies that have succeeded in the past, but Nault and Vandenbosch, Smith and Zeithaml, Grant, and Craig question the likelihood of their long-term future success, suggesting that neither organizational form nor strategy will provide sustainable competitive advantage, that the only reliable assumption is constant change, and that flexible knowledge-creating organizations that institutionalize change are required for survival in the long run.

Those disturbing conclusions suggest that additional incremental routine research, relying on traditional models based on the results of past empirical studies within narrowly defined disciplinary boundaries, is not likely to produce new theories relevant to advancing understanding of the forces of change shaping new competitive environments. As a community of management, organization, and strategy scholars, we need to engage in active explorations to discover new answers to the contradictions and paradoxes of hypercompetition.

Given the need to accomplish dramatic shifts in our research process, we suggest the following directions:

- We must encourage and pursue promising approaches for studying complexity—the strategic and organizational phenomena involving unpredictable changes and ever shifting competitive rules. Today's scholars and managers face a paradox: strategies and organizational forms that were effective at a past competitive juncture but that are entirely inadequate for the future.

- The organization of the research enterprise of business schools needs to change to encourage greater exploration and departures from incremental exploitation of “tried and true” constructs, theories, and methods. The trend toward discipline-based research and single-discipline departments at many schools may be off 180 degrees from what is needed. The findings reported in this special issue suggest that today's problems require frame-breaking approaches to research.

- We must broaden the body of knowledge in strategy and organization courses. As academics we tend to base our thinking and teaching on economic, sociological, and psychological theories and empirical studies. Yet the oldest literature about strategy and organizations is the military literature. The Aupperle article in this issue illustrates the potential insights to be gained from alternative sources such as historical analysis and from military models.

- Journals in the fields of strategy and organization theory and design must encourage exploration and path-breaking research. This special issue demonstrates that exploration of new theory involves an intensive process and thematic knowledge creation. Journals must not merely publish what bubbles up from the bottom, but must actively identify and focus on challenging themes. It is important that special issues such as this one be open to disciplinary and methodological diversity and that the editors be open to research ideas that try to pioneer new directions.

From our experience editing this special issue, we have come to believe that discovering new directions for research—raising new theoretical questions and encouraging new empirical modes of inquiry—should become a mission of all journals. With today's limited resources for research, it is important to search intentionally for and polish the “diamonds in the rough.” More effort should be directed towards exploration and invention of new theories that reflect tomorrow's world.

**Conclusion**

We expect this special issue of *Organization Science* and the process that created it to be controversial. The
collection of articles in this issue make a strong case for a paradigm shift. They describe new models of organization, present new statistical methods, and introduce new language and symbols. They encompass a great range of intellectual disciplines and employ a constellation of methods, including industry case studies, field observation, managerial interviews, large-scale archival databases, historical analysis, inductive theory development, and mathematical modeling techniques.

In our view, the problems faced by managers and organizations must be addressed by revolutionary, boundary-spanning research using traditional methods in new ways and new analytical tools that are up to the task of examining events taking place in hypercompetitive arenas. The articles in this issue not only demonstrate that such research is possible, but also provide insightful illustrations of how it can be done. Encouraging an aggressive approach to knowledge development has been a central mission of Organization Science from its inception. Whether you agree or disagree with the points made in this special issue, we hope you will participate in the debate. Just as firms live in increasingly hypercompetitive economic markets, so “ideas” live in a hypercompetitive intellectual market. Some will survive, and some will not.

References


