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THE INTERACTIONS OF ORGANIZATIONAL AND COMPETITIVE INFLUENCES ON STRATEGY AND PERFORMANCE

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Despite much debate in the strategy literatures, there is little consensus as to whether organizational capabilities or market competition are more important in shaping firms' actions and performance. We suspect that simply comparing firm-level and industry-level influences will continue to prove fruitless for two reasons. In the first place, both organization and competition are clearly important in shaping strategy and performance. In the second place, we suspect that the inconclusive nature of much of the existing research reflects the fact that organizational capabilities, competition, strategy, and performance are fundamentally endogenous. That is, reciprocal interactions at multiple levels of analysis between the environment and the firm shape business strategy and performance, while interactions between strategy and performance, in turn, shape both organizational capabilities and competitive environments. This special issue of the Strategic Management Journal *includes papers that focus attention on several dimensions of these interactions.*

A common theme emerges from the work concerning the sequential nature of the interrelationships. The papers suggest that firms develop organizational capabilities as they act in competitive, institutional, and cognitive environments, where capabilities arise both by design and as the unexpected by-products of firm actions. The capabilities, managers' understanding of the capabilities, and the historical context that surrounds them then condition firms' reactions to changes in their environment. The reactions and firm performance in turn affect the structure of the industry, and all these changes generate new information which in turn creates new learning opportunities. Thus, the papers view strategy and performance as an ongoing sequence of capabilities-conditioned adaptations by firms which in turn become exogenous events in the environments of the managers of other firms. For strategy researchers, the important question is not that of which disciplinary perspective or mode of explanation is a more appropriate one, but rather that of the conditions under which a given mode of explanation is most appropriate. © 1997 by John Wiley & Sons, Ltd.

INTRODUCTION

This special issue of the *Strategic Management Journal* includes papers that focus attention on ways in which the interactions between organizational capabilities and industry competition affect business strategy and performance. There has been much debate in the strategy literatures as to whether organizational capabilities or market competition are more important in shaping firms' actions and outcomes but this debate has generated surprisingly little consensus.[1] We suspect

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[1] Traditional economic research focuses on industry structure as the primary cause of strategy and performance, while the

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that simply comparing firm-level and industry-level influences will continue to prove fruitless for two reasons. In the first place, both organization and competition are clearly important in shaping strategy and performance. In the second place, we suspect that the inconclusive nature of much of the existing research reflects the fact that organizational capabilities, competition, strategy, and performance are fundamentally endogenous. That is, reciprocal interactions at multiple levels of analysis between the market environment and firm capabilities shape business strategy and performance, while interactions between strategy and performance, in turn, shape both organizational capabilities and competitive environments.

Of course, researchers in both strategic management and in the disciplinary traditions that study business organizations have in principle long recognized this endogeneity. But for a mixture of reasons our understanding of these relationships is still at a very rudimentary stage. In general, research in the disciplinary traditions that study business organizations has been fundamentally unbalanced: researchers interested in characterizing the environment have typically been content with very simple models of the firm while researchers interested in the internal dynamics of firms have usually been content with very simple models of the environment. Researchers in the strategic management literature have faced fewer constraints, but within the strategy literature it is often difficult to generalize beyond the bounds of a single research study or a small set of studies. Throughout the literature, moreover, most researchers have relied on models in which the direction of causality is unidirectional. We have very little work that explicitly characterizes the continual, reciprocal nature of the interaction between the environment and the firms within it.

We suspect that making progress will require the adoption of a perspective that builds on the premise that businesses are neither simply collections of individual actors operating within market environments nor simply social organizations operating in cultural environments. Since this is a premise that is already quite well established within the strategic field, we believe that researchers working within the tradition of strategic management may be uniquely positioned to undertake systematic research concerning the interactions among organizations and environments. In pulling together this set of papers, we hope to alert researchers both to the progress that has been made and to the enormous distance that there is still to go in building a full understanding of this problem. Between them, the papers sketch out an area of inquiry that is full of promise and offer tantalizing insights into possible ways forward. We believe that the careful study of how capabilities and competition mutually influence each other could be one of the next great opportunities for the field of strategy research.

THE RELATIVE IMPACT OF FIRM- AND INDUSTRY-LEVEL FACTORS ON PERFORMANCE

A well-established stream of research in the strategy literature examines the relative impact of firm- and industry-level factors on firm performance. Two papers in this volume develop this tradition, while also offering insights concerning how the interaction of firm and industry factors may influence performance.

Anita McGahan and Michael Porter, in 'How Much Does Industry Matter, Really?', build on Richard Rumelt's extensively cited research to focus on the differential influences of firm, corporate, and industry factors on financial performance (Rumelt, 1991). McGahan and Porter bring a robust statistical technique and a data set that includes both manufacturing and service sector businesses. Their overall results are in line with Rumelt's results and confirm that both industry and firm effects are important in shaping profitability. Perhaps most interestingly and importantly, McGahan and Porter show that this partitioning differs dramatically across sectors of the economy. In service sectors such as the wholesale/retail, lodging/entertainment, and general service sectors, industry effects are much more important than business segment effects in

perspective that is becoming known as the resource-based view of the firm tends to emphasize the importance of firm-specific capabilities (e.g., Lippman and Rumelt, 1982; Wernerfelt, 1984; Barney, 1991; Conner, 1991; Amit and Schoemaker, 1993; Peteraf, 1993). Although researchers use many terms for both 'capabilities', including competencies, resources, and characteristics, and 'competition', including industry structure, competitive markets, and social institutions, the basic theme of comparing the levels of effects is similar.

explaining variance in profitability. In the manufacturing sector, in contrast, business segment effects are much more important than industry effects. These results highlight our need to understand more about the interaction between organizational capability and industry structure, as they suggest that this interaction may be quite different across sectors of the economy.

A possible explanation of the intersector differences that McGahan and Porter report lies in a distinction between individual and organizational capabilities. The market environments in which some types of service-related businesses operate may primarily require that business rely on the capabilities of individual employees, while manufacturing sector environments may require many businesses to develop more complex sets of tacit organizational capabilities that interweave the activities of individuals. Firms that begin to achieve particularly high profitability through the efforts of particular employees will need either to pay those employees greater wages or lose them to competitors. If so, then industry factors will have strong influences on the profitability of many service-related businesses, while manufacturing sector profitability often will involve a large component of firm-level differences. An intriguing extension of this line of thought is that firms that develop extensive organizational capabilities find it more difficult to adapt to major changes in an industry's environment than firms that rely on the capabilities of individuals. Thus, the relative influence of environmental factors on manufacturing and service sector businesses might reverse if one examined environmental change. Environmental change might force many manufacturing sector firms from the industry while leaving service sector firms relatively unscathed. Following this line of thinking further, it may be the case that environmental change has a differential influence on businesses within an industry depending on the degree to which they have developed complex organizational capabilities. In general, in this view, organizational factors interact with the nature of environmental change to influence strategy and performance.

Brian Silverman, Jack Nickerson, and John Freeman, in 'Profitability, transactional alignment, and organizational mortality in the U.S. trucking industry', focus on how firm- and industry-level factors affect mortality. The paper explores the relationship between organizational capabilities and vertical integration in the long-distance trucking industry. This work draws on ecological theory, as well as neoclassical and transaction cost economics (e.g., Williamson, 1975; Teece, 1981; Tirole, 1988; Hannan and Freeman, 1989). The authors find that both firm- and industry-level factors affect mortality. They include age, profitability, sales, and leverage as relevant firm-level factors and competitive density, regulatory change, and market growth as relevant industry-level factors.

Business capabilities have an indirect interaction with environmental change in the Silverman *et al*. study, through the medium of business age. The study finds that mortality increases with business age, both at the time of industry deregulation and throughout the study period. A possible explanation for this outcome is that firms develop capabilities that become increasingly out of step with the environment as they age, which make it particularly difficult to adapt quickly to sudden environmental changes.

These two papers demonstrate the important influence of both competition and capabilities on several dimensions of performance. The research also begins to hint at reciprocal relationships among competition and capabilities.

COMPETITION SHAPES CAPABILITIES, WHICH IN TURN SHAPE COMPETITION

The idea that the rigor of competition shapes firm strategy and capabilities is well established within the economics, ecological, and strategy traditions. The economic perspective (e.g., Mason, 1939; Bain, 1956; Tirole, 1988) often frames the issue as one in which harsh competitive regimes, that is, those in which price approaches marginal cost, force firms to either adopt best-practice techniques or exit the industry, so that at equilibrium all the firms in an industry have identical capabilities. Equilibrium may arise either through the adaptation of inefficient individual firms or through the exit of firms with inefficient capabilities; neoclassical models are typically not interested in the difference between the two mechanisms and assume that both operate. A range of firm capabilities may characterize mild competitive regimes, by contrast, but only in the relatively uninteresting sense that some firms may have less efficient production technologies than their competitors. Ecological work (e.g., Hannan and Freeman, 1977; Aldrich, 1979; Carroll and Hannan, 1992) takes a stronger view than most economic theory concerning the source of the distribution of capabilities that exists at equilibrium, arguing that individual firms face strong inertial constraints on their ability to adapt successfully to environmental change. A central premise of ecological theory is that competition shapes capabilities primarily through forcing the exit of firms that do not fit the environment. Nonetheless, ecological theory recognizes that most individual firms will attempt to adapt to environmental changes and that some of those firms will do so successfully. Traditional strategy research, in contrast, has taken primarily an adaptive view of organizational and environmental change, arguing that many firms can adapt their strategies and capabilities as competitive environments change. Thus, in this view, the distribution of capabilities in any given industry reflects purposive managerial action (e.g., Barnard, 1938; Ansoff, 1965; Andrews, 1971; Hofer and Schendel, 1978; Miles and Snow, 1978; Porter, 1980). Adaptive views in organizational theory reflect similar views (e.g., Child, 1972). Recent evolutionary economic and ecological work exploring the strategic evolution of capability in different environments is a promising first step in exploring the interactions amongst these perspectives (e.g., Barnett and Burgelman, 1996).

In this volume, two papers build from an interest in how competitive environments shape organizational capabilities and performance, one by economists and one by ecologists. Both papers argue that competitive environments will influence how capabilities develop and that, in turn, these capabilities will affect business performance.

Ashish Arora and Alfonso Gambardella, in ‘Domestic markets and international competitiveness’, explore the impact of the structure of market demand on the distribution of capabilities among firms and, in turn, how differences in capability affect firm performance in markets with different structures. Their research builds on basic ideas concerning tensions between economies of scale and specialization economies (e.g., Rosenberg, 1963). The authors argue that the theory of order statistics suggests that larger markets will be characterized by more efficient firms, with the value of larger markets being especially pronounced for activities that rely on product-specific capabilities. They show that this deceptively simple theory is surprisingly accurate at predicting relative efficiency in the international market for construction and licensing engineering services in the oil and petrochemical industries.

The basic interactive premise of Arora and Gambardella’s work is both straightforward and insightful. Market environments that favor firms with general capabilities (e.g., construction services) will give rise to diversified firms, while market environments that favor firms with specialist capabilities (e.g., licensing services) will give rise to specialized firms. The degree to which the leading firms in an industry approach a fit with the environment will increase with market size, so that specialist firms will be more specialized in larger specialist environments and generalist firms will be more diversified in larger generalist environments. Firms based in larger markets will then tend to outperform firms based in smaller markets when they compete in common locations. Specialist firms in larger markets will gain particularly great advantages owing to the increased sales opportunities for their goods and services in their base markets. In this view, therefore, strategy arises as a result of the nature of market demand. In turn, strategy interacts with the market size and segmentation to influence business performance. Thus, the market environment both influences firm strategy and interacts with the outcome of firm strategy to affect business performance.

Paul Ingram and Joel Baum, in ‘Opportunity and constraint: Organizations’ learning from the operating and competitive experience of industries’, suggest that changes in the environment shape organizational capabilities through the information that they provide to firms operating in the environment. The paper builds on ecological and organizational learning arguments concerning how organizational characteristics both assist and inhibit firms’ ability to learn (e.g., Levinthal and March, 1993; Miner and Haunschild, 1995). Ingram and Baum suggest that firms learn both from their own operating experience and from the operating and competitive experience of their industry. Operating experience, which the authors define as the cumulative experience of other firms in the industry, provides information about successful ways of doing business. Competitive experience, which they define in terms of business exits, provides information about unsuccessful ways of doing business. Therefore, at the environmental level, the entry and exit of other firms provide information to a focal firm. At the firm level, a firm's cumulative experience provides it with knowledge that will influence its operations. The authors test their predictions in the context of U.S. hotel chains.

Ingram and Baum also identify two interactive influences on business performance, the first as an interaction of firm-level factors and the second as an interaction of organizational capabilities and environmental change. First, the interaction of firm-level factors arises for firms with greater or lesser ranges of capabilities. They argue that firms with a narrow range of capabilities will gain greater value and face more severe constraints from own operating experience than firms with more general sets of capabilities. The differences arise both because generalists' greater scope may provide competitive buffers that weaken their incentives to pursue learning opportunities and because the greater complexity of generalists may inhibit their ability to learn. Second, Ingram and Baum also propose that own experience will eventually inhibit firms, as past experience creates organizational rigidities that increasingly become out of step with a changing competitive environment. Thus, organizational capabilities condition the impact of the industry environment in two ways in this study, by buffering generalist firms from learning opportunities and by constraining firms in any attempts that they make to adapt to a changing environment.

Thus, as these two papers remind us, competition shapes capabilities. These authors model the process as one in which firms undertake strategic actions in response to their environments and, as a result of those actions, develop particular capabilities. In turn, though, the capabilities that the firms develop also shape competition.

The idea that capabilities shape competition arises frequently in strategy research, although the idea is not always framed in such terms. Work in strategic management and organizational theory suggests that differences in organizational capability shape organizational response and, hence, in principle, the nature of the environment (e.g., Chandler, 1962; Thompson, 1967; Scott, 1981). For example Clark (1987) speculated that the U.S. automotive industry's decision in the 1960s and 1970s to focus competition around issues of styling shaped in a competitive regime that was extremely profitable in the short term but ultimately quite destructive. By contrast, the Japanese firms' actions while competing on the basis of cost and reliability resulted in the creation of capabilities that ultimately gave them a tremendous advantage worldwide. Within economics, researchers have long recognized that asymmetries in firm endowments can have a dramatic effect on competition (Shepard, 1987). More recently, work in the new industrial organization tradition stresses the importance of the formation of beliefs in shaping competitive interaction, providing a theoretical basis for believing that historical capabilities may shape competition although providing little specific insight into the precise mechanisms whereby this happens (Tirole, 1988).

In this volume, three papers develop ideas concerning how capabilities affect competition. Jaideep Anand and Harbir Singh, in 'Asset redeployment, acquisitions and corporate strategy in declining industries', explore the relationship between firm capabilities and acquisition strategy. Their research builds on the diversification literature (e.g., Rumelt, 1974). They contrast the long-standing argument that firms can sometimes grow by applying excess resources in new uses (e.g., Penrose, 1959), with arguments that firms face substantial difficulties in adapting resources to new uses (e.g., Nelson and Winter, 1982). The study suggests that firms' existing capabilities play a very different role in different market environments, contingent on whether the market is growing or contracting. The authors show that in the defense sector unrelated acquisitions have performed well when the industry was growing, but that when the industry has been in decline consolidation-oriented acquisitions have outperformed diversification-oriented acquisitions in terms of both *ex ante* stock market reaction and *ex post* operating performance measures.

Anand and Singh's work thus raises an intriguing interaction between environment conditions and business capabilities. One interpretation of their results is that diversification is a valuable method of applying excess resources to new uses when an industry is growing, possibly because the growth provides a slack enough environment that managers can devote sufficient time to the new activities. Once faced with a contracting environment, though, attempts to diversify may distract attention from the need to adapt to the difficult environment. Thus, valuable diversification strategies during growth periods may leave a firm with a legacy that detracts from value during a decline period.

Mary Tripsas' study of the typesetter industry, 'Unraveling the process of creative destruction: Complementary assets and incumbent survival in the typesetter industry', also illustrates how the capabilities that a firm develops in earlier environments may influence current performance. The paper builds on studies of how existing competences shape responses to technological change (e.g., Abernathy and Clark, 1985; Tushman and Anderson, 1986). Tripsas shows that in the typesetter industry incumbent investments in unique typefaces protected them from the impact of competence-destroying technological change. Such competence-destroying change destroyed many of the incumbents' core technological skills, but the firms were often able to survive because of the continuing value of their supporting skills. By contrast, incumbent firms were much less successful in attempting to adapt to changes that created the need for new supporting skills. A simple interpretation of her observations is that incumbents were sometimes protected by barriers to entry. Tripsas, though, shows that these barriers are the result of historical capabilities in the field, thus making concrete the idea that early capabilities can shape later competition dramatically.

Tripsas' paper is particularly intriguing because she measures several dimensions of firm capability, based on the technical and marketing resources of the firms in her study, rather than inferring that capabilities arise as the result of the firms' strategies. Most of the papers in this volume take the latter approach as, indeed, is common in much of the research tradition. While large sample studies often require the inference approach, Tripsas work offers insight about ways to measure capabilities even in studies involving retrospective data collection.

Mariko Sakakibara, in 'Heterogeneity of firm capabilities and cooperative research and development: An empirical examination of motives', explores the relationship between the capabilities of firms and the goals of the interfirm alliances that they create. While there is extensive research in both neoclassical and transaction cost economics exploring the determinants of the form of interfirm relationships, Sakakibara focuses instead on the factors that lead firms to enter cost-sharing rather than skill-sharing relationships. She shows that collaborative relationships formed between firms from different industries are likely to place more importance on skill sharing as a motive for collaboration than are firms from the same industry. She interprets this as suggesting that the heterogeneity of the capabilities of the participants will shape the goals of collaborative relationships. Because the goals of collaborative relationships may well shape later competition in an industry, her work opens intriguing questions about the relationship between collaboration and competition.

Two common points within these five papers speak to the ongoing interaction between competition and capabilities. First, the papers suggest that firms can shape their strategies in response to the demands of competitive environments and, in the process, develop capabilities that suit the competitive environment. At the same time, though, several of the papers suggest that the process of adaptation may create constraints that make it difficult to react quickly and effectively to changes in the competitive environment. Firms may prosper when environmental changes are consistent with their existing capabilities, but will suffer if changes are inconsistent with their capabilities and if other firms can adapt more quickly or if new firms can enter the industry with capabilities that better suit the new environment. Thus, current performance stems from historical capabilities and the historic environments, as well as from current capabilities and environments.

Unfortunately there is relatively little research that explicitly considers how capabilities and environments jointly shape each other. Most studies that attempt a more general understanding rely on either overly simple models of the firm, in the case of research into the way in which the environment shapes capabilities, or on overly simple models of the environment, in the case of research into the way in which capabilities shape the environment. Much of the relevant research is also overtly static or one-dimensional, in the sense that there is little focus on the continuing dynamics of the interaction between capabilities and environments. We need equally rich models of the firm and the environment that take both organizational and economic modes of explanation seriously.

THE RECIPROCAL RELATIONSHIP BETWEEN COMPETITION AND CAPABILITIES

Two theoretical papers in this volume begin to speak to the need to examine the reciprocal relationships between capabilities and competitive environments. Margaret Peteraf and Mark Shanley in 'Getting to know you: A theory of strategic group identity', argue that strategic groups of firms arise from social learning and identification. This research builds on work that argues that groupings within industry shape competition and performance (e.g., Caves and Porter, 1977), but which most often defines strategic groups in terms of differences in firm characteristics. In contrast, Peteraf and Shanley begin to develop a theory of the formation of strategic groups that is cognitively based. Their work thus attempts to unite both a more complex model of the firm, as consisting of boundedly rational managers working with constantly evolving mental models, with a more complex notion of the environment. Their work is also exciting since in principle it is quite consistent with economic modes of explanation, and one can imagine building on it to develop a theory of strategic groups that recognizes both the role of social learning and of more traditional economic forces in shaping competition.

William Ocasio, in 'Towards an attention-based view of the firm', also offers a thoughtful first cut at a possible way forward through the interwoven issues of competition and capabilities. Ocasio builds on an underdeveloped insight in Simon's (1947) early work on administrative behavior to frame a theory of the firm as a structure for the focusing of attention. Ocasio argues that firm behavior is the result of the ways in which the firm distributes and regulates the attention of its decision-makers. In exploring the regulation of attention he builds on three premises: one at the level of individual cognition, one at the level of social cognition, and one at the organizational level. His work argues that multiple levels of analysis are critically important determinants of firm actions. He focuses on the joint role of formal procedures and structures and informal processes of individual and social cognition as factors in shaping managerial attention. While Ocasio focuses less on the ways in which managerial attention shapes the environment, his model allows a rich discussion of the ways in which the competitive environment both shapes and is shaped by the regulation of attention within the firm.

One of the reasons that we suspect that this line of attack may be particularly important is that Ocasio's model, like that which Peteraf and Shanley develop, is potentially compatible with models of the firm and the environment framed in ecological or economic terms. Neither paper claims that the social/cognitive modes of explanation dominate all others and both papers, we believe, provide potentially fruitful openings for researchers interested in exploring the interaction between capabilities and the environment in more detail.

Both papers serve to remind us of how dangerous it can be to equate all environmental factors to competition and all organizational factors to capabilities. One interpretation of Peteraf and Shanley's work, for example, is that market environments are not just about competition but that they are also, in a fundamental way, about strategic group identity, which involves both competition and support. Similarly, Ocasio's attention-based perspective suggests that existing organizational capabilities do not fully determine the deployment and development of new capabilities. Instead, the development of new capabilities is the complex result of interactions between firm structures and administrative processes that managers often only partially understand and influence.

IMPLICATIONS FOR FURTHER RESEARCH

Clearly, far more work remains to explore the reciprocal relationship between capabilities and competition. Part of this work will undoubtedly occur within the bounds of disciplines, such as economics and organization theory, that study business organizations. As we noted earlier, though, we believe that researchers working within the tradition of strategic management may be uniquely positioned to undertake this research.

We believe that this collection of papers raises two important implications for further strategy research. The first is that the debate as to which of the resource-based or the industry structure perspectives on firm strategy and performance is the more valid is not a particularly useful one.

This collection of papers underlines the fact that both organizational capabilities and the firm's environment drive strategy and performance. Moreover, these papers argue that key dimensions at the firm and environmental levels have reciprocal relationships, so that firms develop capabilities, either through choice or selection, that then shape the environment which, in turn, further shapes capabilities. Thus, firm strategy and performance fundamentally arise from interactions between organizational and competitive factors at several levels of analysis.

A common theme emerges from the work concerning the sequential nature of the interrelationships. The papers suggest that firms develop organizational capabilities as they act in competitive, institutional, and cognitive environments, where capabilities arise both by design and as the unexpected by-products of firm actions. The capabilities, managers' understanding of the capabilities, and the historical context that surrounds them then condition firms' reactions to changes in their environment. The reactions and firm performance in turn affect the structure of the industry, and all these changes generate new information which in turn creates new learning opportunities. Thus, the papers view strategy and performance as an ongoing sequence of capabilities-conditioned adaptations by firms which in turn become exogenous events in the environments of the managers of other firms.

This sequence is intriguing because it highlights the fact that constraints on firm action arise from both individual and organizational factors. The bounded rationality of individual decision-makers and the pursuit of subgroup goals are relatively well known as constraints on a firm's ability to adapt to environmental change successfully. In addition, the degree to which firms can manage their organizational capabilities and their complex interactions with the competitive environment also shape their actions. We suspect that longitudinal studies that explicitly focus on the nature of these organizational and environmental interactions as they evolve over time, and that pay particular attention to the ways in which capabilities and environmental conditions shape each other, are thus likely to be particularly fruitful for both theory and practice.

Fortunately, strategy researchers have always been willing to study subjects that cut across existing conceptual boundaries. The fundamental questions of strategy research, concerning why businesses act and how those actions affect business performance, involve multiple causes. The causes are often idiosyncratic to particular businesses, and they often involve many levels of analysis. At the core, a grounding in strategic management research is a reflection of the idea that one needs something other than extensions of traditional theories of market and social environments, organizations, or individual behaviors to understand the determinants of firm performance. Instead, one needs perspectives that focus on how the intersections among individual, organizational, and environmental incentives produce the entities that we recognize as business organizations and the activities and performance that we recognize as business strategy. Strategy researchers are particularly well positioned to conduct the complex, multidimensional, multilevel longitudinal studies that we suspect are necessary if we are to fully understand the interactions between competence and competition.

The second major implication of these papers is to suggest that, for strategy researchers, the important question is not that of which disciplinary perspective or mode of explanation is a more appropriate one, but rather that of the conditions under which a given mode of explanation is most appropriate. The papers in this volume, for example, characterize the environment in several ways, from simple metrics such as density or growth to more complex concepts such as social enactment. As these papers demonstrate, all these modes of explanation are potentially valuable. We need, perhaps, contingent theories of explanation. It might be the case, for example, in environments that are highly competitive, such as environments characterized by rapid technological change, no economies of scale and minimal intellectual property protection, that neoclassical economic or purely ecological models of the environment are more useful than the types of model that Peteraf and Shanley propose. In more complex environments characterized by much more slack and uncertainty, by contrast, institutional or social psychological modes of explanation might be more useful. We suspect that interdisciplinary conversation about particular, concrete research settings might be one way in which to develop such contingent theories. For example, a team of researchers studying an industry or market from a variety of perspectives might help to develop a sense for which theoretical lenses best describe which aspects of the phenomenon, under what conditions. We would not expect a single unified theory to emerge from such efforts, because such a unified explanation is clearly a long way off, even if it is a desirable goal, but we would expect it to produce fruitful and novel generalizations.

We believe that this is a particularly exciting time to be a strategy researcher. Strategy is one of the few fields where researchers working with different disciplinary tools routinely attack the same problems. Of the authors of the papers in this volume, for example, several studied as economists, several as organizational theorists, and several as strategy researchers. Thus, the research seminars and the journals of strategic management are potentially fruitful territory for the kind of interdisciplinary conversation we believe is a key step in making progress on understanding why firms undertake the actions that we observe and how those actions affect their performance.

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