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Research Methodology in Strategic Management

Past Accomplishments and Future Challenges

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Despite being a relatively young discipline, strategic management has grown dramatically in size and influence over the past few decades. As with any field, the findings generated within strategic management are only as robust as the research methods used to conduct the analyses. Although strategic management's accomplishments with regard to methods have been substantial, it is confronted by significant challenges as well. The authors describe these accomplishments and challenges, explain how the articles offered in this feature topic help to address certain challenges, and offer suggestions for future work that may create additional progress.

Keywords: *research methods; strategic management; strategy*

There is no doubt that interest in and attention to strategic management research has been increasing dramatically over time. For example, since its introduction in 1980, the *Strategic Management Journal (SMJ)* has grown from a nascent outlet devoted to an emerging field of study to become one of the most highly regarded and influential publications within the management discipline. The Business Policy and Strategy division of the Academy of Management has expanded from a small set of scholars in the early 1980s to more than 5,000 members. Today, the Business Policy and Strategy division is the second largest of the academy's 24 divisions and interest groups, trailing only the Organizational Behavior division. Not only has interest in strategic management increased, but the field's theories and ideas have profoundly influenced neighboring areas such as human resource management (e.g., Huselid, 1995; P. M. Wright, Dunford, & Snell, 2001) and organizational theory (e.g., Oliver 1991, 1997).

As is the case in any research area, the conclusions drawn within strategic management research are only as solid as the methodological practices that underlie the research. To the extent that strategic management studies are conducted appropriately with regard to design, sampling, measurement, analysis, and interpretation of results, confidence in the field's findings are increased. Unfortunately, content analyses focused on strategy research have

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consistently found that there is plenty of room for improvement and redirection (e.g., Bergh & Holbein, 1997; Boyd, Gove, & Hitt, 2005; Shook, Ketchen, Hult, & Kacmar, 2004).

Our overarching goal in assembling this feature topic was to identify a set of articles that could help lay a foundation for methodological improvement and redirection within strategic management and thereby enhance confidence in the findings it generates. Our objectives for this introductory article are much more specific. Below, we define the domain of strategic management, describe the evolution of methods in strategy over time, introduce the articles in the feature topic and place them within the context of the strategy field, and, finally, provide a roadmap for guiding future research methods in strategic management. Thus, the forum as a whole and our article in particular are intended to help close the gap between what we know and what we need to know about research methodology in strategic management.

Defining the Domain of Strategic Management

The field of strategic management has grown quickly since its formal inception in the late 1970s and is now quite broad and diverse (see Bowman, Singh, & Thomas, 2002; Kay, McKiernan, & Faulkner, 2003; and Mintzberg, Ahlstrand, & Lampel, 1998, for thorough historical reviews). By most accounts, management is considered to be a relatively young discipline in comparison to hard sciences and even other social sciences (Pfeffer, 1993). In turn, strategy is considered to be one of the younger subspecialties of the management discipline (Boyd, Finkelstein, & Gove, 2005; Hambrick, 1990). Early-stage disciplines are considered to have less developed paradigms (Kuhn, 1996). Characteristics of an immature discipline include uncertainty about what constitute the important questions to be asked and disagreement about how those questions should be addressed. Much of the discussion of paradigm development focuses on the interplay of competing theories, as a field moves continually toward better understanding of a given phenomenon. Research methods play a key, but often neglected, role in this advancement, as empirical analyses can support, question, or extend a theoretical argument. As a field advances, so should its level of methodological rigor.

Research methods have contributed substantially to the development of the strategy field's domain. In fact, some of the earliest studies of strategy have had enduring effects due, in part, to their methodological structure (see Hitt, Gimeno, & Hoskisson, 1998). Several exemplars stand out. First, Chandler (1962) presented several case histories of leading companies. His unusually detailed and in-depth insights led to subsequent significant theory development in transaction cost economics, information processing, diversification, agency theory, and decision-making theories, among others. Although Chandler is well recognized for reporting important strategic problems facing managers, the inroads provided by his case study methodology provided a platform for others to begin developing theories to explain strategic phenomena. Intensive, specific observation into the inner workings of company strategies has since been used by others, including Miles and Snow (1978), Meyer (1982), Eisenhardt (1989), and Henderson and Cockburn (1994). Each of these studies has produced widely influential frameworks and concepts. Collectively, the rich methodologies within these studies provided unusual data that subsequently shaped theory and knowledge.

A second is Rumelt (1974). In contrast to the fine-grained studies described above, a large-sample time series design popularized by Rumelt (1974) has had significant and enduring effects on strategy thinking. Although Rumelt carefully examined the companies in his sample, the research design and analysis used in his study were to become a mainstay in the field, popular even today. Moreover, Rumelt's finding that "strategy matters" helped create a literature that has become one of the most popular in the strategic management field (Bergh, 2001; Ramanujam & Varadarajan, 1989). Although we do not want to attribute the prevalence of longitudinal designs solely to Rumelt, his was a pioneering study that had tremendous impact, and since then such study types have become widespread and commonplace (Bergh & Holbein, 1997; Greve & Goldeng, 2004).

The strategic management field experienced a theoretical renaissance of sorts during the 1980s, which in turn created the need for new methodological perspectives that in turn influenced knowledge development. Most notably, Porter's (1980) five-force framework of industry effects, Wernerfelt's (1984) resource-based view of firm-specific qualities, and Williamson's (1975, 1985) model of transaction cost economics led to conceptual challenges that required new methodological approaches. Specifically, Porter identified how various aspects of a firm's factor and product markets could influence the price and cost structure of an industry and in turn have an impact on the profitability potential of the industry and its incumbents. This logic, which was derived from an area of microeconomics called industrial organization, was tested with regression analyses. Porter is widely credited with bringing useful theory to the strategic management field, but the need to test his arguments ushered in regression analyses, which replaced the prevalent use of tests such as correlations and mean comparisons.

At about the same time, scholars also collected publicly held data to define and assess company strategies and industry subgroups. The use of multivariate techniques such as factor and cluster analysis increased quickly, as they enabled researchers to reduce large data sets into groups and types. The rise of these data reduction analytical methods and access to secondary data sources enabled researchers to expeditiously develop and test hypotheses about industry, strategic groups, strategy types, and performance. Subsequent studies compared multiple approaches to deriving strategic groups within an industry (e.g., Ketchen, Thomas, & Snow, 1993; Nath & Gruca, 1997). The importance of industry was also associated with another set of innovative methodological applications that may provide insights into theory development.

In the mid-1980s, Richard Schmalensee initiated a lengthy debate when he argued that industry characteristics mattered more than firm effects in explaining a company's performance. His 1985 article "Do Markets Differ Much?" challenged some of the more central tenets of strategic management. Not surprisingly, a stream of studies subsequently investigated Schmalensee's methodology and findings. Initially, Rumelt (1991) disputed Schmalensee's contention on the basis of methodological features and empirically demonstrated that industry actually mattered less for performance considerations than firm characteristics. Since then, a stream of studies has used a large variety of measures, samples, and analytical techniques to disentangle the relative effects of industry and firm on performance (e.g., McGahan & Porter, 1997; see McGahan & Porter, 2005, and Ruefli & Wiggins, 2005, for an update). In particular, variance decomposition techniques and analyses have been introduced as methods for better understanding theoretical boundaries.

This industry versus firm debate introduced new methodological innovations that have the potential to provide new insights into other theoretically important topics.

Finally, one of the more vexing problems facing today's researchers may have its origins in seminal works in the 1980s. Wernerfelt's (1984) resource-based view and Williamson's (1975, 1985) conception of transaction cost economics gave researchers important frameworks for considering centrally important questions, yet carried the difficulty of measurement; in the case of Wernerfelt's resource-based view, researchers struggled with operationalizing the attributes of competitive advantage, whereas with Williamson's conception of transaction cost economics, scholars sought to capture costs resulting from bargaining and negotiating that were essentially impossible to observe, let alone measure. In both cases, the constructs could not be directly observed and led to conclusions that researchers needed to capture the conditions that led to, or were the result of, evidence of the theory (see Godfrey & Hill, 1995). Several studies and commentaries have considered the implications of theory building and testing under such conditions (see Chi & Levitas, 2006; Daellenbach & Rouse, 2007; and Lajili, Madunic, & Mahoney, 2007, for recent reviews)

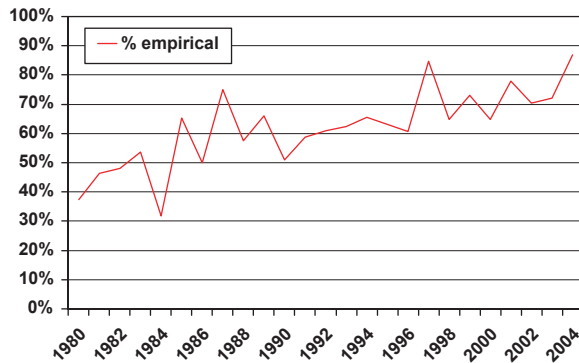
In sum, the strategic management literature encompasses a large number of subjects and topics, and to some, it appears to be fragmented and lacking a cohesive identity. In addition, despite the widespread application of a few central frameworks and concepts, multiple definitions of strategic management abound, most of which lack an integrative nature. In response, a recent study attempted to offer a cohesive definition of strategic management and identify its parameters. Nag, Hambrick, and Chen (2007) surveyed scholars who participate in the Business Policy and Strategy Division, published articles in *SMJ*, or both. They concluded that strategic management could be defined as "the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources to enhance the performance of firms in their external environments" (Nag et al., 2007, p. 942). We turn next to an analysis of evolution of the methods that have been used to examine these initiatives and their effects on performance.

The Evolution of Methods in Strategic Management

To provide an overview of methodological trends in the field, we reviewed empirical articles that were published in *SMJ* between 1980 and 2004—the first 25 years of the journal. Because *SMJ* is the main discipline-specific outlet for strategy and it emphasizes empirical work, it is an excellent source for documenting basic methodological trends. In its 1st year of publication, *SMJ* had four issues and a total of 24 articles. Of these articles, 9 were empirical. By 1990, the journal had grown substantially: There were 55 empirical articles, or about half of the total. For the period 2000-2004, nearly three quarters of the published articles were empirical. Figure 1 shows the relative emphasis on empirical articles in *SMJ* over this 25-year span. At a very basic level, then, we have observed dramatic growth both in the volume of articles devoted to strategy topics and in the use of empirical tools to address these questions.

Given that strategy is a fairly young field, it is probably not surprising that we have seen major changes in the methodologies of strategy articles over time as well. In an effort to summarize some of these trends, we conducted an analysis of some basic design features

Figure 1
Growth of Empirical Articles in *Strategic Management Journal*



over three time windows: 1980 through 1982, 1990 through 1991, and 2000 through 2002. Our data differ from those of Shook, Ketchen, Cycyota, and Crockett (2003) in that (a) we examined all studies in our focal years, whereas they examined a subset of studies in their focal years, and (b) we examined a broader scope of issues (sample size, timeframe, data type, and analytic tools vs. analytic tools only in Shook et al., 2003).

Our analysis is summarized in Table 1. One of the most obvious changes has been in both the size and composition of samples that have been used for analysis. The median sample size has grown from 207 observations in the 1980-1982 window to 142 observations in the 1990-1992 window and 1282 observations in the 2000-2002 window. Typical sample sizes vary widely throughout this time period: For the 1980-1982 window, for example, the smallest study had 10 observations, and the largest had 1,484. For 2000-2002, the range was 36 to 27,956. Consequently, the mean sample size has been substantially larger than the median, with an average of 88 observations for 1980-2002 and 234 for 2000-2002.

Both the sampling time horizons and the nature of the data have also changed considerably over time. For 1980-1982, virtually all (97%) of the articles used cross-sectional designs. That proportion fell to 91% for 1990-1992 and 86% for 2000-2002. In terms of the type of data studied, nearly half of the 1980-1982 articles relied on surveys as the data source. For the latter time periods, however, archival sources were dominant. Laboratory studies as a source of data were used infrequently during all three time periods. There were also a number of studies during all of the time periods examined that used a combination of survey and archival data. Although there were many papers that used common databases such as COMPUSTAT or PIMS, there was overall a very broad range of archival sources for these empirical articles.

The type of analysis used over these three windows also changed quite substantially. Fields at an early stage of paradigm development are often criticized for relatively simplistic theories and analysis. The articles that appeared in the 1980-1982 window of *SMJ* reflect the youth of the strategy field at that time. For example, nearly one in six empirical articles reported only descriptive statistics. One out of five empirical articles relied on

Table 1
A Longitudinal Comparison of Articles Published in *SMJ*

Key Methodological Issues	1980-1982	1990-1992	2000-2002
Sample size			
Min	10	10	36
Max	1,484	8,002	27,956
<i>M</i>	207	451	1,282
<i>Mdn</i>	88	142	234
Timeframe (%)			
Cross-section	97	91	86
Longitudinal	3	9	14
Data (%)			
Archival	34	64	60
Survey	47	26	30
Lab	3	3	1
Archive and survey	12.5	6	9
Analysis (%)			
Descriptive	15	3	
Means/correlation	22	20	6
Regression/analysis of variance	34	56	66
Chi-square	19	7	
Discriminant and cluster	16	10	
Structural equation modeling/path analysis		3	14
Network analysis		1	1
Other		3	13
Moderation (%)			
Interaction	12.5	17.5	40
Subgroup	12.5	14.5	10

Note: Not all columns total to 100% due to rounding. Multiple methods were recorded for the analysis of several studies leading to totals above 100%.

means and correlations as their primary analysis. A similar proportion reported chi-square tests or contingency tables. Regression and analysis of variance (ANOVA) were the most common form of analysis, used by approximately one third of the articles. Discriminant and cluster analyses were also commonly used, typically in the context of strategic groups. Shook et al. (2003) used narrower categories for analytic tools (e.g., single vs. multiple regression) than we did; readers interested in narrower distinctions should find that article of interest.

By the 1990-1992 window, there was major shift away from more basic analyses (e.g., descriptive studies, means, correlations, and contingency tables) with a corresponding rise in the use of regression and ANOVA models. This time period also saw the introduction of other types of analysis, including path analysis and structural modeling and network analysis. For the 2000-2002 window, regression and ANOVA became the dominant type of analysis, used in 66% of studies. The use of structural modeling grew substantially during this period as well, with its relative use growing by a factor of approximately five. Network tools remained a niche application and were used in only a minor proportion of studies.

Our final comparison across these three time horizons concerns the use of moderation. A recent review identified moderation as the most prevalent tool used to analyze contingency studies (Boyd, Haynes, & Hitt, 2007). Moderation can occur as either form or strength (Venkatraman, 1989), which are tested via the use of interactions of subgroups. Table 1 demonstrates that empirical strategy studies have made substantial gains in the use of these contingency tools. In the 1980-1982 window, there was an even balance of interaction and subgroup studies; overall, these tools were used in one quarter of the empirical articles published during this period. Use of these tools increased during the 1990-1992 window, and overall use of moderation in 2000-2002 was double that in 1980-1982. One should note, however, that by 2000-2002, interaction had overwhelmingly become the tool of choice for moderation analysis. This is consistent with trends in the organizational behavior and human resource management disciplines (Aguinis, Beaty, Boik, & Pearce, 2005).

Given the rapid growth in both the volume and the diversity of empirical strategy articles, a vibrant research stream has emerged that offers both critique and suggestions for improving future articles. These articles fall into three forms: broad-based narrative reviews, content analyses of published articles, and best practice guidelines. The first category offers a broad overview of the field's development and implications for methodology. Hitt et al. (1998), for example, identified a number of targets for improvement, including hypothesis generation, range of analytic tools used, assessment of causality, and the application of qualitative and nontraditional tools.

More recently, Hitt, Boyd, and Li (2004) noted that real progress has been made on several of those topics, particularly in regard to longitudinal studies and structural models. They also identified a number of additional topics of concern, including basic issues such as statistical power, construct measurement, and causality. Hitt et al. also provided a table summarizing key content analyses of methods topics in strategy. One encouraging sign for the field is the growing presence of these types of reviews. Table 2 lists the content analyses covered in Hitt et al.'s 2004 article, as well as more recent contributions.

As shown in Table 2, half of these content analyses have been published since 2003. The foci of these content analyses include (among others) construct measurement, structural modeling, and longitudinal designs—all topics that had previously been designated as underserved. One conclusion that can be drawn from these articles is that scholars are often quick to address methodological areas of omission once such areas have been identified. A final contribution to research on strategy methods has been a series of best practice articles published in the book series *Research Methodology in Strategy and Management* (Ketchen & Bergh, 2007). As discussed by Lohrke (2008), Shook (2008), and Wright (2008b), articles in this book series review and integrate different aspects of methodology for a broad range of topics. There are too many articles to summarize individually, as this series is in the process of assembling its fifth volume. The articles in the various *Research Methodology in Strategy and Management* volumes address specific theoretical perspectives (e.g., discretion, resource-based view, and upper echelons), traditional tools (e.g., meta-analysis, strategic groups, and survey data collection), and more specialized methods (e.g., cause mapping, conjoint analysis, Internet data collection, and repertory grids).

Although our data suggest that past accomplishments involving research methods have been substantial, it is clear that important challenges remain as well. For example, at the

Table 2
Content Analyses of Strategic Management Methodology Topics

Study	Focus	Number of Articles	Time Frame	General Findings
Bergh (1993)	Longitudinal analyses	114	1988-1992	There are three recurring patterns of misuse of time within studies.
Bergh (1995)	Repeated measures	31	1980-1994	Repeated measures analyses have not adhered to appropriate practices; shows that findings differ between common and recommended practices.
Ketchen & Shook (1996)	Cluster analysis	45	1977-1993	Implementation of cluster analysis methodology often less than ideal.
Mone, Mueller, & Mauland (1996)	Statistical power	210	1992-1994	Average statistical power of management studies is low, especially for small and medium effect sizes.
Bergh & Holbein (1997)	Longitudinal designs	203	1980-1993	More than 90% of studies had Type I bias because of insufficient attention to methodological assumptions.
Hubbard, Vetter, & Little (1998)	Replications	37	1976-1995	Few replication studies published; replications more common in <i>Strategic Management Journal</i> than in <i>Academy of Management Journal</i> or <i>Administrative Science Quarterly</i> .
Bowen & Wiersma (1999)	Cross-sectional designs	90	1993-1996	Insufficient attention given to common issues associated with cross-sectional designs.
Ferguson & Ketchen (1999)	Power in configurations research	24	1977-1996	92% of published articles in this research stream had insufficient power.
Bergh & Fairbank (2002)	Measurement of change	126	1985-1999	Strategy researchers tend not to recognize methodological requirements while measuring changes, which could lead to inaccurate findings and flawed conclusions.
Short, Ketchen, & Palmer (2002)	Sampling	437	1980-1999	Fewer than 20% of studies used random sampling; only 40% of studies checked for sample representativeness.
Shook, Ketchen, Cýcyota, & Crockett (2003)	Data analytic trends	297	1980-2001	The use of specialized analytical techniques is growing, but many scholars report that they are ill-equipped to use these techniques.

(continued)

Table 2 (continued)

Study	Focus	Number of Articles	Time Frame	General Findings
Bergh, Hanke, Balkundi, Brown, & Chen (2004) Greve & Goldeng (2004)	Internal validity Longitudinal analysis	76 101	1994–1998 1998–2002	Most studies fail to control for one or more threats to internal validity. Although use of longitudinal tools is increasing, there is little consistency across studies regarding analyses.
Shook, Ketchen, Hult, & Kacmar (2004) Williams, Gavin, & Hartman (2004)	Structural equation modeling Structural equation modeling	92 18	1984–2002 2000–2003	Rapid adoption of structural equation modeling, but use and reporting of results often less than ideal. Recent structural equation modeling studies are highly sophisticated and test complex models.
Boyd, Gove, & Hitt (2005)	Construct measurement	196	1998–2000	Most strategy constructs are measured with single indicators. Little emphasis placed on reliability or validity.
Podsakoff, Shen, & Podsakoff (2006) Hoetker (2007)	Formative indicators LOGIT and PROBIT models	45 157	1994–2003 1995–2005	Multi-indicator constructs consistently represented using reflective versus formative indicators. The use of LOGIT and PROBIT models is often less than ideal.
Armstrong & Shimizu (2007)	Methods in resource-based view studies	125	1991–2005	Researchers have overcome some challenges involved in studying resources and their effects, but other challenges remain.

heart of the strategic management field are the executives who formulate, implement, and monitor strategic initiatives. Yet, the methods most often used to tap into executives' motives, preferences, and decisions (such as surveys) are quite limited in their ability to capture these nuanced phenomena. Also, strategic management deals with multiple levels of analysis, including individuals (i.e., executives), firms, strategic groups, and industries. Yet, the methods used to examine multilevel phenomena (such as variance decomposition) are relatively unsophisticated and thus leave many complex but key questions unanswered. Although strategic management has imported techniques from fields such as economics and psychology, it has ignored developments in fields such as geography that have the potential to shed new light on strategic phenomena. Next, we describe how the articles offered in this special topic forum make progress toward addressing these deficiencies.

Challenges Addressed by the Feature Topic Articles

The first challenge described above is the need to better tap into the motives, preferences, and decisions of the executives charged with managing firms strategically. Four of the articles in the feature topic offer contributions toward meeting this challenge. In their article "The Application of DICTION to Content Analysis Research in Strategic Management," Jeremy Short and Timothy Palmer (2008) bring systematic rigor to content analysis of goals created by organizational leaders. Specifically, they use a program called DICTION to analyze the mission statements of 408 business schools. In contrast to most content analysis programs that fixate on word counts, DICTION centers on the subtleties of word choice and verbal tone. As a result, DICTION provides a much richer and more nuanced analysis of executives' proclamations. The authors not only illustrate the value of the program by analyzing the mission statements, they also describe how it could be used to reveal new insights surrounding key concepts such as social identity, culture, and stakeholders.

The issue of how much flexibility executives have in making decisions has long been of interest within the strategic management literature (e.g., Hrebiniak & Joyce, 1985). In response, Hambrick and Finkelstein (1987) developed the concept of managerial discretion to represent the degree to which executives possess flexibility. According to Jack Keegan and Boris Kabanoff's (2008) article, "Indirect Industry and Sub-Industry-Level Managerial Discretion Measurement," the notion of managerial discretion is very appealing conceptually, but the difficulty of operationalizing managerial discretion has led the concept to perhaps have had less impact on the literature to date than it should have. In response, Keegan and Kabanoff have developed what they contend is an improved measurement approach by applying content analysis to thousands of annual reports. Their hope and ours is that this enhanced measurement approach will spark additional inquiry that incorporates managerial discretion into conceptual and empirical models.

Very little research has applied a critical theory approach to executives, their decisions, and their statements. This is unfortunate because critical theory is an excellent tool to expose hidden agendas, reveal subtle biases, and foster self-examination. In their article "Applying Critical Discourse in Strategic Management Research," Nelson Phillips, Graham Sewell, and Steve Jaynes (2008) provide a methodological means to take a

critical approach to executives. Discourse analysis allows a strategic management researcher to tap into the social construction of reality and, more specifically, to diagnose the roles of rhetoric and narrative within strategy processes. The authors apply discourse analysis to activities within a large international banking and financial services institution. Through this case, they demonstrate how discourse analysis can supplement more traditional techniques to provide a richer depiction of what executives do and why they do it.

The final piece that will help researchers to better tap into the motives, preferences, and decisions of executives is Robert Wright's (2008a) research note "Eliciting Cognitions of Strategizing Using Advanced Repertory Grids in a World Constructed and Reconstructed." Wright's focus is on improving the ability to assess managerial cognitions through the repertory grid technique. His position is that although the repertory grid technique has been used productively within strategy research (e.g., Reger & Huff, 1993), the technique can provide even greater value if researchers move away from a rigid approach to the technique and build more heterogeneity into the elements that they study. Through this emphasis on heterogeneity, Wright adopts a constructivist approach to assessing strategy, similar to that of Phillips, Sewell, and Jaynes (2008).

The second challenge we described is improving the assessment of levels of analysis. In their article "Using Qualitative Comparative Analysis in Strategic Management Research: An Examination of Combinations of Industry, Corporate, and Business-Unit Effects," Thomas Greckhammer, Vilmos Misangyi, Heather Elms, and Rodney Lacey (2008) take an important step in this direction. In particular, they introduce qualitative comparative analysis as a useful technique for strategic management research. Qualitative comparative analysis adds value beyond more well-known techniques because it has the ability to diagnose potential interdependence among causal effects at different levels of analysis. The authors demonstrate the technique within the context of the firms versus industry effects debate that has continued within the strategy literature for more than two decades.

The third challenge we described is incorporating developments from fields other than those that are frequent resources for strategy research, such as economics and psychology. Initial progress toward meeting this challenge is offered by Jonathon Doh and Eugene Hahn (2008) in their article "Using Spatial Methods in Strategy Research." The physical location of organizations has long been of interest within the strategic management literature. For example, inquiry into regional clusters of firms such as television and movie studios in Los Angeles, California, and automobile makers in Detroit, Michigan, has played an important role within the competitive dynamics literature (Ketchen, Snow, & Hoover, 2004). Yet, the techniques used to assess the geographic distribution of firms have been, in Doh and Hahn's words, "quite coarse" and "unnecessarily simplified." In response, the authors describe how more advanced techniques for spatial analysis offered by fields such as geography and regional science can enhance strategy researchers' ability to assess key issues such as physical proximity and density.

Each of these six articles offers unique insights for improving the rigor of strategic management research. As a complement to these articles, the final paper in the feature topic is "Advancing Strategic Management Insights: Why Attention to Methods and Measurement Matters" by Venkatraman (2008). In this commentary, the author highlights the contribution of each article and presents opportunities for future studies. Additionally, the author also

notes how much the methodological sophistication of the field has improved in the past 25 years.

Conclusion

Beyond the challenges for research methods in strategic management discussed above that are addressed by the articles in the special topic forum, other daunting challenges remain. For example, although the execution and implementation of strategy are important issues to organizations and theorists alike, we appear to lack methods that fully capture these processes. Also, capturing events that evolve over time via longitudinal methods continues to be a vexing task because of the unpredictable and sometimes immeasurable elements that come into play as time unfolds. Controlling for endogeneity (a situation wherein sampling bias creates an alternative explanation for findings; Shaver, 1998) within statistical analyses is a significant hurdle—one that economists seem to delight in emphasizing whenever they serve as reviewers for strategy research submitted to leading journals.

Although these issues are all important, we believe that one methodological challenge for strategic management stands out as the most critical. The ultimate goal of any business school research is to arm executives with ways to enhance the success of their organizations. Offering actionable guidance to executives requires solid, evidence-based conclusions. Such conclusions can be reached only when knowledge is built cumulatively and a preponderance of the evidence points in a particular direction. For example, hundreds of studies of goal setting and subsequent meta-analyses that statistically combined their findings led to the conclusion that goals that are challenging but attainable foster the best performance from employees compared with “do your best” conditions (Locke & Latham, 1990). This is an evidence-based finding that can be leveraged in just about any organization.

However, few topical or thematic areas in strategic management research permit such generalizations. Although some meta-analyses indicate consistency across findings or reconcile differences in results in areas such as diversification strategy and performance (e.g., Palich, Cardinal, & Miller, 2000), the field’s emerging maturity and evolving development may be hampering its abilities to produce solutions that guide decision making and resolution of practical problems. Moreover, the pervasiveness of methodological problems that may reside in design, measurement, and analysis may continue to create limitations in the application of research findings. For example, within individual studies, construct validity is often undermined by the use of dubious archival proxies (Boyd, Gove, & Hitt, 2005). Specifically, research and development intensity reflects the amount of money that a firm invests in research and development relative to its level of sales. Some studies that have purported to test the resource-based view have used this variable to operationalize an organization’s ability to create competitive advantages. Yet, logically, an organization’s level of spending does not necessarily correlate to its capabilities as a competitor, a fact of which fans of the New York Yankees are very cognizant. The Yankees’ payroll far exceeds that of every other major league baseball team year after year, but it has been a number of seasons since the team won the World Series. Construct validity problems such as those surrounding research and development intensity mean that it is often the case in strategy studies that researchers are not measuring what they believe they are measuring.

Furthermore, across studies, the same measure may be used to represent different concepts. As Bromiley and Johnson (2005, p. 25) noted, for example, research and development intensity is used within studies of transaction costs to reflect specific assets, within studies of industrial organization studies to indicate barriers to entry and exit, and within studies of competitive positioning to reflect product differentiation strategies. This creates a significant problem regarding the accumulation of knowledge. Even if research and development intensity were to be found via meta-analysis to help explain performance across extant studies, the theoretical rationale for *why* would remain unclear. There would be no basis to prefer a transaction costs-based explanation over a resource-based view explanation, or vice versa. Moreover, problems in other areas may persist because of the prevalence of methodological practices that provide limited insights. For instance, the ubiquity of cross-sectional designs makes it difficult to generalize into and about dynamic relationships among strategy, execution, and performance (Bergh et al., 2004).

The solution to the problem is clear—authors, journal reviewers, and journal editors must all take it on themselves to raise expectations where design, measurement, and analysis are concerned. We believe that *Organizational Research Methods (ORM)* can play a vital role in this process. Historically, *ORM* has attracted far more submissions from researchers interested in “micro” fields such as organizational behavior and human resource management than it has from strategic management researchers. However, the publication of this feature topic on research methods in strategic management sends a clear message that work on strategy methods is not only welcome but is desired. *ORM* is a prestigious methodology-focused journal wherein strategy researchers can improve their methods, hopefully to the point that knowledge accumulation and evidence-based conclusions will become the norm in the field rather than the exception. The door to *ORM* is wide open; now strategy researchers need merely to walk inside.

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