Has Strategic Management Shed the Normal Science Straightjacket?: Revisiting Bettis' (1991) Critiques

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The purpose of strategic management research is to learn why some organizations outperform others and then convey this knowledge to managers (Rumelt et al., 1994; Summer et al., 1990). Although strategic management traces its roots to the early twentieth century (e.g., Barnard, 1938), many scholars credit Chandler’s (1962) study of strategy and structure as the inquiry that launched strategic management as a field of study. Three decades later, broad critiques of organizational science research and the volume of published strategic management research prompted scholarly assessments of the field (e.g., Bettis, 1991; Daft and Buenger, 1990; Daft and Lewin, 1990; Meyer, 1991; Mintzberg, 1990; Summer et al., 1990).

Daft and Lewin (1990) outlined broad critiques of the organizational sciences in general. That same year, Mintzberg offered important but narrower critiques centered on the design school of strategy. The scope of Bettis’ (1991) assessment lay in between these pieces. More specifically, of the assessments offered in the early 1990s, the one offered by Bettis (1991) is notable for deriving specific
critiques of the state of strategic management research. Bettis’ overarching concern was that the field had become ensnared in a normal science “straightjacket” similar to that constraining the organizational sciences in general (Daft and Lewin, 1990). A field that relies mainly on normal science (Kuhn, 1962) is limited to taking narrow approaches to well-defined issues, constraining creativity and intellectual development (Daft and Lewin, 1990). Bettis (1991) expressed concern that this was true of strategic management research, inhibiting researchers’ abilities to explain why some firms outperform others and, thus, deterring the development of valuable knowledge for researchers and managers.

Over a decade has passed since Bettis’ admonitions were offered, and if researchers have not addressed these concerns, it might call the field’s direction into question. This suggests that an assessment of the field’s current state is timely and warranted. Given this, our article’s purpose is to assess how much progress has been made concerning the five critiques offered by Bettis (1991). In chronicling the progress made, we also identify remaining challenges for the field. More broadly, our objective parallels Bettis’ objective — to “help stimulate further reflective thinking in the field” (1991:315).

**FIVE CRITIQUES FOR STRATEGIC MANAGEMENT**

Bettis (1991) offered five specific critiques about strategic management research. Taken together, these critiques lend support for his contention that strategic management research was stuck in a normal science “straightjacket.” We document each critique below.

**Critique 1 — Dated Concepts/Lack of Relevance**

Bettis’ (1991) first critique was that strategic management research suffered from the use of dated concepts, such as the study of irrelevant organizational structures. In particular, he questioned the relevance of many studies in the 1980s that focused on obsolete organizational forms, such as the M-Form organization described by Chandler in 1962, the use of diversification typologies developed in the early 1970s (Rumelt, 1974; Wrigley, 1970), and over-studied firms such as the Fortune 500. He argued that researchers needed to focus on more relevant topics, and that it is troubling that researchers make broad generalizations when much of the data used to make such generalizations were from Fortune 500 organizations. Thus, he cited the need for progressive research that applied directly to business and government contexts.

**Critique 2 — Ethnocentric Focus**

Bettis’ (1991) second critique was that the bulk of strategic management research was ethnocentric. His argument was based on two key points. First, he argued that commerce often extends beyond U.S. borders but most research does not. Second, he posited that firms from different countries have different structures, cultures, and problems than the U.S. firms most often represented in strategy research. Drawing on Lyles’ (1990) survey, he indicated that although strategy scholars recognized the importance of re-
search in international and global competition, few pursued such research and that much more was needed.

Critique 3 — Method Dominates Theory

Bettis' (1991) third critique claimed that, at the time of his article, many researchers blindly acquired large amounts of data to perform multivariate statistical analyses. Bettis suggested that this practice allowed the data/method, as opposed to theory, to determine patterns of research inquiry and theory development. Consistent with this claim, Summer et al. (1990) argued that a significant amount of strategy research conducted in the 1980s was cross-sectional/correlational in nature, and that numerous studies used pre-existing archival databases such as Compustat and PIMS. Overlooked in these comments is that there was still a sizable body of research relying on case studies, interviews, and surveys that followed in the tradition of seminal work such as Chandler (1962) and Miles and Snow (1978). Yet other notable scholars chose to point out the value of archivally-based studies. For instance, Meyer (1991) suggests that using secondary data help researchers overcome some of the biases associated with self-report data. Thus, such research has both merit and disadvantages. Indeed, Bettis did not call for a halt of such research. Instead, he asserted that methodological diversity should be encouraged, which is a common suggestion for organizational research (e.g., Cosier, 1983; Jick, 1979).

Critique 4 — Second-class Economics Research

The fourth critique put forth by Bettis was that many strategic management researchers "do second-class economics research instead of using economics to do first-class strategic management research" (1991: 316). Because strategic management has deep economic roots (Rumelt et al., 1994), it is not surprising to find that occasionally the distinction between the two fields is somewhat blurred. Indeed, later in 1991, an entire special issue of Strategic Management Journal (SMJ) was devoted to examining the intricate relationship between strategic management and economics (Schendel, 1991). Although there is a somewhat controversial overlap between the two fields, Bettis' (1991) key concern was that, in addition to economics, the field also needed to draw on theories from other disciplines (e.g., sociology).

Critique 5 — Lack of Prescription

Because managerial prescription is considered a primary contribution that strategic management research makes (Meyer, 1991), Bettis' (1991) fifth critique, which falls in this area, might be the most scathing of all. His overarching concern here was that researchers focused too much on providing theoretical explanations rather than meaningful prescriptions for industry and government. He felt that this trend detracted from the field's ability to meet its full potential, and that even scholarly research needed to inform practice.

The preceding discussion indicates that Bettis admonished researchers in five specific ways. He asserted that his critiques were offered not through a
scholarly analysis, but instead by his impressions of the general literature trends at the time. In contrast, we systematically chronicled research trends to determine if the field has progressed toward shedding the normal science straightjacket. Next, we outline the method used to determine whether progress was made relative to each critique.

**METHOD**

**Sample**

Our data are drawn from 725 strategy articles published in the *SMJ* and the *Academy of Management Journal (AMJ)*. To capture the state of the research at the time of Bettis’ 1991 article, we examined empirical articles published from 1987-1991. To examine how the field has progressed to date, we chose the most recent articles (2000-2004) for comparison. This gap in timeframes would enable Bettis’ (1991) critiques to become known and permit researchers to alter their research accordingly.

To ensure that we examined only strategic management articles, we investigated all *SMJ* articles (Bergh and Holbein, 1997) and *AMJ* articles that fit Summer et al.’s (1990) definition of strategic management research. Specifically, Summer et al. assert that strategic management research examines relations among the environment, strategy, leadership and organization, and performance. If an *AMJ* article examined such relations, it was included in our data set. *Strategic Management Journal* articles that were purely conceptual or methodologically oriented were not included. We limited our investigation to *SMJ* and *AMJ* because of their reputations for publishing high-impact strategic management research (BPS Division Journal Survey, 2003).

**Procedure and Measures**

We used content analysis procedures to code data from the articles (Stone-Romero et al., 1995). Our first step was to establish coding criteria that could show whether progress has been made concerning Bettis’ (1991) critiques. Thus, before coding commenced, we developed a coding sheet and rules for coding. The coding scheme allowed us to collect data regarding each of Bettis’ critiques. However, if a study did not specify coding criteria regarding a specific critique or the criteria did not fit into the categories Bettis outlined, we placed this study in an “other” category.

For Critique 1, which posited that researchers pursued topics involving dated concepts that lacked relevance, we collected data on the phenomenon and type of firm under investigation. Specifically, data on the phenomenon included M-Form, interfirm relationships, diversification, or mergers and acquisitions; data on the firms included Fortune 500 and all others.

For Critique 2, which argued that strategy research was ethnocentric (i.e., U.S. focused), we recorded the sampled firms’ home countries and whether researchers acknowledged differences in country contexts. Thus, we coded whether an article studied: 1) U.S. headquartered firms, 2) non-U.S. headquartered firms (e.g., Russia), or 3) firms headquartered in different countries (e.g., U.S., Mexico, and Canada headquartered firms included in sample), and then grouped the latter two categories. Further, of those articles in the latter category, we
coded whether the article contained information about country differences (e.g., cultural or regulatory). Our objectives here were to determine whether there was an increased focus on international strategy research and whether researchers included key differences between countries.

For Critique 3, which asserted that method dominates theory, we collected data on the data source from each article and created five categories. Specifically, we coded for primary - survey, primary - interview/observation/experiment/other, mixed primary data approach (e.g., survey and interview), secondary - archival (e.g., Compustat), or a mixed approach (i.e., use of primary and secondary data). Because Bettis questioned the reliance on large-scale archival databases, we assessed whether recent research used more alternative data sources.

For Critique 4, which suggested that strategic management research is too often second-class economics research, we collected data on each article's theoretical underpinnings. Specifically, we coded whether articles drew from: 1) economic theories, 2) non-economic theories, or 3) used an integrative approach that examined the phenomenon through more than one theoretical lens. To derive criteria for whether a theory was grounded in economics, categorizations used by Ramos-Rodriguez and Ruiz-Navarro (2004: 994) were followed. Specifically, they argue that economic theories include: transaction cost theory (Williamson, 1975, 1985), agency theory (Jensen and Meckling, 1976), evolutionary economics (Nelson and Winter, 1982), resource-based theory (Barney, 1991; Wernerfelt, 1984), structure-conduct-performance (Porter, 1980), and strategic groups (Caves and Porter, 1977). Although not explicitly mentioned in the article, we included game theory because it is related to economics (e.g., the structure-conduct-performance paradigm) (Van Witteloostuijn, 2002). All other theories (e.g., resource dependence and institutional theory) were considered non-economic. If researchers used more non-economic theories over time, we considered this progress.

For Critique 5, which posited that strategy researchers do not offer enough managerial prescriptions, we examined discussion and conclusion sections to determine if authors offered specific managerial implications or prescriptions. Although Bettis' (1991) concern was that research needed to inform practice in a meaningful way, we only coded whether implications or prescriptions were offered. Thus, we did not attempt to rate the quality of the prescriptions.

Analysis

Once the data were coded, we compared article content between the two time periods. Because each journal published more issues and articles from 2000-2004, we created periodic use indices (PUIs). This technique has been used in previous research designed to assess research trends over time. Stone-Romero et al. (1995) used PUIs to show how organizational researchers designed studies from 1975-1993. More recently, Shook et al. (2003) used this technique to show the most common methodological approaches used by strategic management researchers from 1980-2001. Periodic use indices are created by dividing the frequency of data points concerning a specific critique by the total number of articles in each timeframe and then multiplying by 100. A PUI of 10 means that 10 per-
cent of the articles during a time period related to the issue at hand. Indices were created for each time period. By examining all articles published in each time period, the indices controlled for the number of articles published, thereby providing relative comparisons rather than simply counts.

After computing each PUI, we conducted mean difference tests using t-tests. If the mean difference between indices of time period one and time period two was statistically significant and in the correct direction, we concluded that the field made significant progress concerning a specific critique.

RESULTS

In this section, we chronicle the progress made regarding Bettis’ (1991) five critiques. Table 1 outlines sample sizes, and indicates the PUIs and statistical significance for each critique. Critique 1 addresses phenomena and firms under investigation. The PUIs for Critique 1 changed from 14.2 to 7.7 (outdated concepts), 12.2 to 28.0 (contemporary), and 13.9 to 8.9 (Fortune 500 firms) between the time periods 1987-1991 and 2000-2004. The mean difference test results were in the anticipated directions and all but one showed some statistical significance. This indicates that researchers studied outdated topics, such as the M-Form, less in time period two, and studied contemporary topics, such as interfirm relationships, more. Further, the results suggest that researchers focused less on Fortune 500 firms, although they are still popular subjects. Taken together, these results suggest that some progress has been made relative to Critique 1.

Critique 2 focuses on the issue of ethnocentrism in strategy research. The relevant PUIs changed from 68.9 to 50.1 (studies of U.S. headquartered firms) and 20.3 to 37.1 (studies of non-U.S. headquartered firms or with samples involving firms from multiple countries) between time periods, respectively. Of the articles involving non-U.S. headquartered firms or firms from multiple countries, we found that researchers today are more likely to outline key country differences (e.g., cultural or regulatory). Specifically, the PUI changed from 7.4 to 18.2. All but one relevant mean difference test result was statistically significant, which suggests that strategy researchers are now more focused on non-U.S. firms and recognize that there can be key differences among countries.

Critique 3 concerns the question of whether method dominates theory in strategy research. The relevant PUIs changed from 34.1 to 23.3 (primary data), 45.9 to 54.1 (secondary data), and 14.9 to 21.9 (mixed approach) between time periods, respectively. Thus, we found that, in contrast to our expectations, primary data were used less, and that secondary data were used more, in time period two. Encouragingly, we also found that researchers mixed primary and secondary data more often in time period two. Four of six relevant mean difference test results were significant, but only one was pointed in the anticipated direction.

Theoretical underpinnings of strategy articles are the emphasis of Critique 4. The relevant PUIs changed from 23.3 to 42.4 (economic theories) and 42.2 to 37.8 (non-economic theories) between time periods. In contrast to our expectations, the mean difference test results were sta-
### Table 1 - Periodic Use Indices (PUIs) for Each Critique

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<td>Critique 1 - Concept/Phenomenon Studied</td>
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<tr>
<td>Outdated</td>
<td>42</td>
<td>33</td>
<td>14.2</td>
<td>7.7</td>
<td>-</td>
<td>-</td>
<td>p &lt; .01</td>
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<tr>
<td>M-Form</td>
<td>14</td>
<td>9</td>
<td>4.7</td>
<td>2.1</td>
<td>-</td>
<td>-</td>
<td>p &lt; .10</td>
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<tr>
<td>Diversification</td>
<td>28</td>
<td>24</td>
<td>9.5</td>
<td>5.6</td>
<td>-</td>
<td>-</td>
<td>p &lt; .05</td>
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<tr>
<td>More Contemporary</td>
<td>36</td>
<td>120</td>
<td>12.2</td>
<td>28.0</td>
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<td>+</td>
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<td>Interfirm Relationships</td>
<td>16</td>
<td>86</td>
<td>5.4</td>
<td>20.0</td>
<td>+</td>
<td>+</td>
<td>p &lt; .01</td>
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<tr>
<td>Mergers and Acquisitions</td>
<td>20</td>
<td>34</td>
<td>6.8</td>
<td>7.9</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Other - Not Categorized</td>
<td>218</td>
<td>276</td>
<td>74</td>
<td>64.3</td>
<td>-</td>
<td>-</td>
<td>p &lt; .01</td>
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<tr>
<td>Fortune 500</td>
<td>41</td>
<td>38</td>
<td>13.9</td>
<td>8.9</td>
<td>-</td>
<td>-</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Other or Not Clearly Specified</td>
<td>255</td>
<td>391</td>
<td>86.1</td>
<td>91.1</td>
<td>+</td>
<td>+</td>
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<td>Critique 2 - Study Context</td>
<td></td>
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<td>U.S. Headquartered Firms</td>
<td>204</td>
<td>215</td>
<td>68.9</td>
<td>50.1</td>
<td>-</td>
<td>-</td>
<td>p &lt; .01</td>
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<tr>
<td>Combined non-U.S. or Multiple Country Headquartered Firms</td>
<td>60</td>
<td>159</td>
<td>20.3</td>
<td>37.1</td>
<td>+</td>
<td>+</td>
<td>p &lt; .01</td>
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<tr>
<td>Single Country non-U.S. Headquartered Firms</td>
<td>28</td>
<td>102</td>
<td>9.5</td>
<td>23.8</td>
<td>+</td>
<td>+</td>
<td>p &lt; .01</td>
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<tr>
<td>Headquarters Across Multiple Countries</td>
<td>32</td>
<td>57</td>
<td>10.8</td>
<td>13.3</td>
<td>+</td>
<td>+</td>
<td>ns</td>
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<tr>
<td>Not Clearly Specified</td>
<td>32</td>
<td>55</td>
<td>10.8</td>
<td>12.8</td>
<td>-</td>
<td>-</td>
<td>ns</td>
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<tr>
<td>Differences Among Countries (Yes)</td>
<td>22</td>
<td>78</td>
<td>7.4</td>
<td>18.2</td>
<td>+</td>
<td>+</td>
<td>p &lt; .01</td>
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<td>No Differences Among Countries</td>
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<td>351</td>
<td>92.6</td>
<td>81.6</td>
<td>-</td>
<td>-</td>
<td>p &lt; .01</td>
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<td>Critique 3 - Data Source</td>
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<td>Primary – Overall</td>
<td>101</td>
<td>100</td>
<td>34.1</td>
<td>23.3</td>
<td>+</td>
<td>-</td>
<td>p &lt; .01</td>
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<td>Questionnaires</td>
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<td>56</td>
<td>14.5</td>
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<td>Neutral</td>
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<td>Interview/Observation/Experiment/Other</td>
<td>45</td>
<td>23</td>
<td>15.2</td>
<td>5.4</td>
<td>+</td>
<td>-</td>
<td>p &lt; .01</td>
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<tr>
<td>Mixed Primary Data</td>
<td>13</td>
<td>21</td>
<td>4.4</td>
<td>4.9</td>
<td>+</td>
<td>+</td>
<td>ns</td>
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<td>Secondary – Database</td>
<td>136</td>
<td>232</td>
<td>45.9</td>
<td>54.1</td>
<td>-</td>
<td>+</td>
<td>p &lt; .10</td>
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<tr>
<td>Mixed Approach</td>
<td>44</td>
<td>94</td>
<td>14.9</td>
<td>21.9</td>
<td>+</td>
<td>+</td>
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<td>Other or Not Clearly Specified</td>
<td>7</td>
<td>3</td>
<td>2.4</td>
<td>0.7</td>
<td>-</td>
<td>-</td>
<td>p &lt; .10</td>
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Table 1 (Continued) – Periodic Use Indices (PUIs) for Each Critique

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<td><strong>Number of Articles</strong></td>
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<td></td>
<td>296</td>
<td>429</td>
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<td><strong>Critique 4 – Theoretical Perspective</strong></td>
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<tr>
<td>Economics Based</td>
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<td>182</td>
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<td>106</td>
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<td>Integrative Approach – Includes Economic</td>
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<td>76</td>
<td>6.4</td>
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<tr>
<td>Non-Economic Based</td>
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<td>162</td>
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<td>37.8</td>
<td>+</td>
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<tr>
<td>Sociological Theories Only</td>
<td>35</td>
<td>62</td>
<td>11.8</td>
<td>14.5</td>
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<td>Psychological Theories Only</td>
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<td>10.8</td>
<td>7.7</td>
<td>+</td>
</tr>
<tr>
<td>Other – Theory</td>
<td>43</td>
<td>39</td>
<td>14.5</td>
<td>9.1</td>
<td>+</td>
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<td>Integrative Approach – Non-Economic</td>
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<td>5.1</td>
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<td>+</td>
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<td>Not Grounded in Theory</td>
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<td>85</td>
<td>34.5</td>
<td>19.8</td>
<td>-</td>
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<td><strong>Critique 5 - Managerial Prescriptions/Implications</strong></td>
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<tr>
<td>Yes</td>
<td>136</td>
<td>134</td>
<td>45.9</td>
<td>31.2</td>
<td>+</td>
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<tr>
<td>No</td>
<td>160</td>
<td>295</td>
<td>54.1</td>
<td>68.8</td>
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</table>
tistically significant and in the opposite direction, indicating that the field relied more on theories grounded in economics in time period two.

Lastly, Critique 5 addresses the topic of managerial prescriptions in strategy research. The relevant PUI changed from 45.9 to 31.2 between time periods, which was not in the anticipated direction. Further, the mean difference test result indicates that researchers are now offering less managerial implications and prescriptions to a statistically significant degree.

DISCUSSION

Our results suggest that since 1991, strategic management researchers have increasingly looked beyond “wooly mammoth” organizational forms (e.g., M-Form) to conduct studies geared towards understanding modern day “elephants.” Indeed, researchers have shifted their focus from older, less relevant structures to newer ones, such as franchises (Combs and Ketchen, 1999; Shane, 1996) and joint ventures (Parkhe, 1993; Yan and Gray, 1994). Perhaps not surprisingly, Ramos-Rodriguez and Ruiz-Navarro (2004) reported that more recent scholarly research relies less on the works of Chandler (1962), Wrigley (1970), and Rumelt (1974). In addition, more strategy scholars are researching how organizational forms are shaped by information technology innovations. Rohm and Milne (2003), for example, showed how managers use the internet to change existing business models and distribution channel strategies, and how such changes can improve firm performance. Such studies are indeed salient to today’s businesses as information technology changes traditional firm boundaries (Zenger and Hesterley, 1997).

In addition to moving away from dated concepts, our results suggest that the field is devoting less attention to Fortune 500 firms. Meanwhile, Busenitz et al. (2003) found that the study of entrepreneurship and entrepreneurial firms has enjoyed modest growth in management journals. Thus, although some might argue that strategic management research is still largely focused on the study of large, multidivisional organizations, this evidence suggests that the field has evolved. In sum, scholars examine not only older, established types of organizations, but also address more modern structures and contemporary topics of interest. Future research should continue to include such variety.

Our results also suggest that, since 1991, strategic management researchers have focused more on firms outside the U.S. Indeed, both SMJ and AMJ have devoted special issues to topics involving global business strategy, and researchers have drawn data from over 30 countries. We found a much greater emphasis on global strategic management and/or international, cross-cultural contexts in recent years. Further, we found that authors now try to include key distinctions among countries, such as cultural or regulatory differences, that are unique to the sample. Because these differences often present boundary conditions for many of our well-known theories (e.g., Gibson and Marcoulides, 1995; Kogut et al., 2002), these articles have important implications — they help provide more complete explanations of how firms operate and perform.

Regarding methodology dominating theory, we found that strategic
management researchers now rely more on secondary data sources than when Bettis first voiced his critique. We are encouraged that more researchers are mixing primary and secondary data sources in an effort to triangulate. However, it is unlikely that reliance on archival databases will go away anytime soon because scholars (especially those new to the field) need to publish, and to do so quickly. Using archival databases can be relatively less time-intensive than other methods. Additionally, obtaining primary data from executives (where strategic decisions are made) can be a daunting task. Yet the difficulty of obtaining such data does not reduce its importance or justify the lack of research effort in this area. We still need a better understanding of how strategy is created. Perhaps this task falls mainly to senior scholars, given the pragmatic issues facing their junior colleagues. In sum, whether Bettis’ third critique was accurate in 1991 is subject to debate. It seemed to ignore the vast body of research relying on case studies, interviews, and surveys. However, based on our results, it seems clear that strategy research has not progressed enough relative to his concerns, at least within SMJ and AMJ. But given that these journals tend to publish studies offering more methodological rigor, perhaps this result is not surprising.

Because strategic management has deep economic roots (Rumelt et al., 1994), it is not surprising to find that occasionally the distinction between the two fields is somewhat blurred. Yet Bettis’ (1991) key concern was the overuse and misapplication of economic theories. Our research design did not allow us to examine the latter; however, we did find that the use of economic theories increased during time period two. Indeed, the use of economic theories has more than doubled. Ghoshal’s (2005) recent admonitions suggest that the over-application of economic theories is causing more harm than good. A key implication is that the field might be portraying firms in an overly rational manner, which could reduce the field’s realism. Although the richness of the field of strategy could suffer from a complete halt in drawing upon economic theories, we conclude that researchers must endeavor to incorporate elements from other disciplines and more carefully delineate how these elements can be situated within strategic management’s unique body of knowledge.

Finally, we found that most strategic management research still fails to provide specific managerial implications and prescriptions in their work. There are notable exceptions. For example, Huselid (1995) makes clear the value of strategic human resource systems to managers by identifying specific amounts of turnover prevented and profits increased by using such systems. Although such findings offer meaningful insight into strategic management issues that are relevant to policy makers and practitioners, more insights are needed to ensure that scholarly research informs practice. Further, not including such implications in studies might no longer be an option as journals seek to increase knowledge transfer between academics and practitioners. Indeed, this journal’s (JMIs) goal — “to contribute to the advance of information, ideas, and concepts related to the theory of organizations and the practice of management” — includes doing so. Specifically, it seeks submissions “that have direct practical application to business.” We view
this as a positive step, and believe that other journals should ensure that authors articulate their findings’ relevance to practice. Such an emphasis pervaded early strategy research and should be restored.

Current Challenges

Our assessment reveals that substantial progress has been made toward addressing some of Bettis’ (1991) critiques. There remains, however, much progress to be made. Thus, some key elements of Bettis’ concerns — including the need for more primary data collection, the incorporation of more non-economic theories, and the need for more managerial prescriptions — continue to serve as useful benchmarks for researchers who devise new projects. Alongside the progress made since 1991, other issues have emerged. Below, we detail two fundamental problems that we believe limit strategic management’s ability to inform managers and researchers. This discussion is not meant to be exhaustive. A comprehensive discussion of the challenges facing the field could consume an entire book (cf. Rumelt et al., 1994). Instead, we focus on two basic issues that should be resolved to improve knowledge generation.

Issue 1 — Conceptual Fragmentation

One huge challenge facing strategic management is the fragmentation of the field. There has been a proliferation of theories to tackle specific research questions, with many of them having their origins in economics. This is beneficial in the sense that it marks strategy as a forward thinking, ambitious area of inquiry (Ramos-Rodriguez and Ruiz-Navarro, 2004). The downside is that transferring knowledge from one stream to another is problematic because their conceptual foundations are often so distinct. Thus, research that builds bridges between seemingly disparate research streams is sorely needed (e.g., Ketchen et al., 2004). One potential practical impediment is that journals (and some promotion/tenure committees) typically value new ideas higher than efforts to integrate existing ideas. Thus, gatekeepers such as editors and reviewers need to be mindful of their roles in reversing the field’s fragmentation.

Issue 2 — Methodological Accuracy

The years since Bettis’ (1991) critique have seen the emergence of several articles that assess methodological practices. These pieces have consistently found strategy research to have serious shortcomings, suggesting that methodological accuracy is a pre-eminent problem for the field. The use of cluster analysis was found to be poor throughout the literature (Ketchen and Shook, 1996). Bergh (1993, 1995) noted that researchers have consistently violated statistical assumptions, and often executed their methodology incorrectly. Bergh and Holbein (1997) report that only four percent of studies in their review addressed the dynamic aspects of empirical relationships, even when the data were available. Moreover, statistical power is generally inadequate in strategy studies (Ferguson and Ketchen, 1999), sampling decisions are often suspect

1 We thank an anonymous reviewer for this insight.
(Short et al., 2002), and threats to internal validity are pervasive (Bergh et al., 2004). Despite encouragement to escape the “regression paradigm” (Camerer and Fahey, 1985), the use of regression in strategy studies dramatically increased from the 1980s (36% of empirical articles) to the 1990s (65%) (Shook et al., 2003). Finally, the use and reporting of structural equation modeling has often been less than ideal (Shook et al., 2004).

Beyond the improper use of some methodological techniques, the application of some techniques (e.g., regression) limits researchers’ abilities to make strong inferences about the strategy-performance linkage among top performing firms (Camerer and Fahey, 1985; Hitt et al., 1998). Indeed, a key criticism of traditional empirical techniques is that they yield results centered on average firms. Yet the heart of strategy for any given firm is the allocation of resources to achieve its goals, not what firms in general are doing. The best strategies leverage the firm’s core competencies to create competitive advantages and entry barriers. Thus, the nature of a successful strategy is a calculated effort to separate the firm from the average. One implication is that more attention should be devoted to research approaches such as outlier analysis that shed light on the “exception,” rather than on the “rule.” By helping strategy researchers understand key differences between high- and low-performing firms, outlier analysis could improve our knowledge about the strategy-performance relationship and help us provide stronger managerial prescriptions.

**SUMMARY AND CONCLUSION**

Bettis (1991) initially offered his critiques to improve strategic management research. Over a decade later, we are encouraged that we found significant progress has been made toward addressing problems involving dated concepts, over-studied organizations, and ethnocentricity. As a group, strategy researchers have not done enough to use primary data collection, avoid over-reliance on economic theories, and provide managerial prescriptions. Further, conceptual fragmentation and a lack of methodology accuracy have become key challenges that the field must address.

How can we ensure that positive trends continue and negative trends are reversed? We encourage our colleagues to consider the behavioral guidance offered by philosopher Immanuel Kant. His “categorical imperative” suggests that an individual should not take any action that the individual would not want everyone to take. Within strategic management, the harm done to knowledge accumulation efforts by any one study that has some or all of the weaknesses discussed above is typically minimal. Collectively, however, a series of such studies undermined the field’s ability to generate actionable knowledge. Thus, we close this article by suggesting that each of us must recognize our role in the greater enterprise, not just focus on our individual careers. Further, each of us must take some responsibility through our own decisions for the state of the field as a whole.

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2 We thank an anonymous reviewer for this insight.
References


