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Strategic Change

Towards a philosophy of strategy: reassessing five critical dilemmas in strategy formulation and change

John A. Parnell^{1*} and Donald L. Lester²

- Although there has been a considerable amount of prescriptive research in the strategic management field, top executives are still faced with a number of somewhat philosopbical 'judgment calls' when formulating strategies for their companies.
- Five of these key issues include: (1) approaching strategy as an art or as a science; (2) publicizing strategy content or maintaining its secrecy; (3) seeking strategic consistency over the long term or maintaining flexibility; (4) embracing or avoiding strategic risk; and (5) adopting a top-down or a bottom-up approach to strategic planning.
- This paper examines the predispositions of managers concerning these challenges and integrates them into four comprehensive philosophical approaches to strategy formulation. Prospects for future research are also presented.

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There is increasing evidence that strategy formulation is linked to the top executive's personal philosophy and personality (Hambrick and Fredrickson, 2001; Kotey and Meredith, 1997). Management's self-interest, their personalities, interpretations and influences on strategy have been linked to the strategy formulation process and ultimately performance (Guth and Macmillan, 1986; Janis, 1972; Smircich and Stubbart, 1985; Walsh and Fahey, 1986). Hence in some respects, strategic management remains an intuitive and philosophical undertaking. As such, strategic managers are faced with some key critical 'judgment calls' when formulating strategy for their companies, each of which involves apparent contradictions that must be resolved if a firm is to succeed.

This paper outlines five critical strategic issues that influence strategic decisionmaking. Since a top executive's philosophical perspective on each issue can greatly influence the role he or she plays in strategy formulation, it is argued that the resolution of these practical concerns should be based on a philosophy of strategy based on experience, research and reason. Scales are developed and tested to measure proclivities concerning each issue, followed by suggestions for strategic managers and implications for research.

E-mail: john.parnell@uncp.edu

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School of Business, University of North Carolina at Pembroke, USA

²Center for Entrepreneurial and Family Business Studies, College of Business, Arkansas State University, USA

^{*}Correspondence to: John A. Parnell, Belk Professor of Management, School of Business, University of North Carolina at Pembroke, PO Box 1510, Pembroke, NC 28372, USA.

Question 1: Should strategy be approached as an art or a science?

The art versus science debate is one of the most fundamental issues in strategy formulation. While some may argue that the art-science discussion is merely an academic dispute, the perception of the strategy phenomena, and more specifically the process of strategy formulation, is a key building block of strategy. In other words, one's view of *how* the strategy process should function is inseparable from one's view of *what* the strategy should be (i.e., content).

The difference between the art and science interpretations of strategy is substantial. According to the art perspective, the lack of environmental predictability and the fast pace of change suggest that the inherent value of strategic planning is limited. Instead, strategists should incorporate substantial creativity and intuition in order to design a comprehensive strategy for the firm (Ford and Gioia, 2000). In contrast, followers of the science perspective see the business environment as largely objective, analysable and predictable to a great extent. As such, strategic managers should follow a systematic process of environmental, competitive and internal analysis and build the organization's strategy on this foundation (see Table 1).

Most of the strategy literature has traditionally favoured the science or planning model, whereby strategic managers are encouraged to systematically assess the firm's external environment and, based on perceived strengths and weaknesses, evaluate the pros and cons of myriad alternatives before formulating strategy. The search for causal relationships and objectivity are central to the planning model. By definition, strategic managers should be trained, highly skilled analytical thinkers capable of digesting a host of objective data and translating it into a desired direction for the firm.

In contrast, Mintzberg's (1987) notion of a craftsman, encompassing individual skill, dedication and perfection through mastery of detail, represents the artistic approach to strat-

Table 1. The art and science approaches to strategy

Characteristic	Art	Possible and essential		
Systematic analysis of environment	Difficult at best			
Environmental predictability	Very limited	Extensive		
Perception of environment	Subjective	Objective		
Planning steps	Varies by organization; no one best way	Similar for most or all organizations		
Key intellectual influence	Imagination	Analysis		

egy making. The strategy artist senses the state of the organization, interprets its subtleties and seeks to construct the strategy in the same way that a potter moulds clay. The artist visualizes the outcomes associated with various alternatives and charts a course based on holistic thinking, intuition and imagination.

Mintzberg's (1987) notions of 'deliberate' and 'emergent' strategies reflect differences between the strategies that emanate from the two schools of thought. Nonetheless, most scholars continued to proceed with the assumption that deliberate strategies are preferred and emergent strategies invariably result from ineffective planning and/or environmental unpredictability.

The relevance of the philosophical debate between the art and science schools of thought cannot be overstated. 'Strategy scientists' tend to minimize or reject altogether the role of imagination and creativity in the strategy process and do not tend to be receptive to alternatives that emerge from any process other than a comprehensive, analytical approach. 'Strategy artists' often view strategic planning exercises as time poorly spent and may not be as likely as those in the science school to make the effort necessary to maximize the value of a formal planning process (Hamel, 1996; Hoffman, 2001).

In reality, there is substantial evidence to suggest that strategy is both an art and a science. On the one hand, following a com-

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prehensive process of strategy development and implementation is more likely to improve prospects for success. This may be more critical for businesses that face low levels of uncertainty (Courtney *et al.*, 1997). As Mintzberg stated:

When an organization is in a stable environment and has no use for an innovative strategy, then the development of formal, systematic strategic plans (and main-line strategies) may be in order. (1989: 54)

On the other hand, the creative dimensions of strategy, such as brainstorming and qualitative forecasting, should not be eschewed, particularly when an organization finds itself in unstable environments requiring innovative strategies. Strategic managers should follow a systematic strategic management model, while recognizing that the steps in the model are neither all-encompassing nor specifically sequential.

Question 2: Should strategies be openly disseminated or bidden?

In many respects the evidence for the existence of a strategy can permeate an organization. Indeed, the entire body strategy-performance literature operates on the assumption that a strategy can be known by examining accounting data, company reports, executive perceptions, or the like. To some extent, a firm's customers appreciate knowing what a company is attempting to accomplish and prospective investors tend to hesitate when they do not have a clear vision of the firm's position and future priorities. Sharing strategic information with lower level managers and employees may enhance both job comprehension and organizational commitment. Hence, the arguments for a 'public' strategy are intuitively obvious.

However, a number of challenges emanate from a free dissemination of the organization's strategy. Open discussion to any group outside of top management (e.g., middle managers, investors, community leaders, etc.) may be easily translated into competitive intelligence for rival firms. Participants in the strategy process become more attractive to other industry players and may be lured away for competitive reasons. The issue can become quite controversial when one considers the extent to which strategic intentions should be openly discussed with partner firms. As a result, most strategic managers argue for at least some degree of strategic privacy.

The Chinese warrior Sun Tzu is often cited as an historical proponent of the hidden strategy perspective (Michaelson, 2001), arguing that all war is based on deception and that effective military manoeuvres are ones that are not easily predicted by one's opponent. It is analogous to suggest that the most effective competitive strategy must be one that other industry players cannot understand. Sharing strategic information with stakeholders can assist competitors in comprehending the firm's strategy.

It is difficult to argue with this prima facie notion of deceptive strategies. However, strategic secrecy may not only keep a strategy hidden from those who might wish to exploit it, but also from those who can contribute to its development or are responsible for implementing it. However, in an environment where managers frequently move from one company to another, forthright strategic discussions with employees may ultimately result in sharing confidential strategic intentions with competitors. In addition, effective communication with investors and business media can be critical to the maintenance of a firm's share price, although it can involve the dissemination of sensitive information.

Ideally, strategic managers would involve all key individuals in the organization, as well as other key stakeholders (e.g., suppliers, customers, etc.) in the strategic management process, without disseminating key knowledge to those who may have a current or potential competitive interest against the firm. Although this balancing act is difficult, if not impossible to accomplish, distinguishing the most critical and confidential data and decisions from that which is of little value or cannot be readily concealed is central to the

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process. Specifically, executives should identify a narrow scope of data and competitive intelligence that should remain confidential to top managers, and then take steps to ensure that such information is not disseminated beyond the inner circle.

Question 3: Is strategic consistency more important than strategic flexibility?

An organization's strategic managers may choose to commit to a strategic course of action for an extended period of time and enjoy the benefits of organizational learning and a clear customer image. Alternatively, an organization can remain flexible so that it does not become committed to products, technology, or market approaches that may become outdated. In a perfect world, organizations commit to predictable, successful courses of action, and strategic change is only incremental. However, outcomes are not always predictable and the environment is dynamic. Hence, for most firms, strong arguments can usually be made for substantial strategic shifts, even when performance is not lacking (Grewel and Tansuhaj, 2001).

Interestingly, the popular business press has been consistently inconsistent with regard to this debate over the years. When traditional firms perform poorly, their strategic managers are exhorted to promote flexibility and strategic renewal to improve profitability. In contrast, when bold strategic changes fail, pundits and industry experts assert that a company must return to its 'core business'. Hence, it is easy to migrate freely from one side of the debate to the other, often with convincing empirical and intuitively appealing arguments.

Proponents of the strategic change and flexibility school make four primary arguments. First, a strategy tends to yield superior performance when it 'fits' with the organization's environment. Without strategic flexibility, an organization cannot adapt to its changing external environment (Parnell, 1997). Even if an organization's strategy is effectively aligned with its environment, an environmental shift

may necessitate strategic change to maintain alignment. In a similar vein, changes in competition and technology necessitate a change in the knowledge base within the organization if it is to prosper (Hannan and Freeman, 1977; Ulrich, 1987; Whipp *et al.*, 1989). The state of the environment is not always fully understood by strategy formulators, and top managers may be most likely to contemplate a strategic change when perceived environmental uncertainty is high (Wernerfelt and Karnani, 1987).

Second, flexibility is critical since an organization can seek first-mover advantages by entering a new market or developing a new product or service prior to its competitors (Gannon *et al.*, 1992; Petersen and Welch, 2000). Being a first mover can help secure access to scarce resources, increase the organization's knowledge base, and result in substantial long-term competitive advantage, especially when switching costs are high (Lieberman and Montgomery, 1988). An emphasis on strategic consistency can preclude movement into attractive strategic domains.

The extent to which this factor can affect firm activity and performance depends on a number of factors. For example, first-mover advantages tend to be greatest when competitors are roughly the same size and possess similar resources (Wernerfelt and Karnani, 1987). When this is not the case, large competitors that possess vast resources can afford to wait while others make initial investments, subsequently responding to market successes with greater reach, superior distribution channels and economies of scale. Similarly, smaller competitors with more limited resources may wish to 'pass' on a new idea. Even when small competitors become the first movers and are successful, a larger firm can still enter the market successfully (Mascarenhas, 1992).

Third, it is argued that an organization should modify its strategy as its set of unique human, physical, capital and informational resources change (Barney, 1991; Lado *et al.*, 1992). Proponents of the resource-based view of strategy have noted that competitive

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advantage often occurs from such organizational attributes as informational asymmetries (Barney, 1986), culture (Fiol, 1991), resource accumulation (Dierickx and Cool, 1989) and the minimization of transaction costs (Camerer and Vepsalainen, 1988), and that strategies should reflect change in these capabilities. Resource shifts necessitating strategic change may be more prevalent in some organizations than in others (Hitt *et al.*, 1998).

Following this logic, strategic change can improve an organization's ability to adapt by forcing healthy changes within the business. The initial pain associated with change may be offset by the emergence of a lean, rejuvenated organization with a fresh focus on its goals and objectives. In contrast, organizations that maintain strategic consistency over time may become stagnant, limiting the creativity and potential contributions of their human resources.

Fourth, strategic change may be necessary if desired performance levels are not being attained by the organization. In many cases, top managers may believe that a change in strategy will improve the ability of the business to generate revenues or profits, increase market share and/or improve return on assets or investment. Indeed, many studies have concluded that declining profitability is the most common catalyst for strategic change (Boeker, 1989; Webb and Dawson, 1991). New chief executives are often recruited to attempt strategic changes upon entering the organization (Greiner and Bhambri, 1989).

In contrast to the strategic change arguments, proponents of the strategic consistency school argue for strategy stability on four grounds. First, a change in any key strategic, environmental or organizational factor may entice strategic managers in a business to modify its strategy to incorporate these changes. However, since such variables are constantly evolving, this is a challenging process and strategic inaction may minimize uncertainty. Indeed, a strategic change is most risky when competitors are better equipped to respond if it is deemed successful (Wernerfelt and Karnani, 1987). Furthermore,

a successful strategic change is often seen as unsuccessful in the short run, and its sponsors must endure efforts to return to the former strategy when organizational 'losers', typically those whose careers may suffer as a result of the change, will mount a stiff opposition (Gaertner, 1989; Yoshihara, 1990). As such, strategic change can challenge the assumptions of all organizational members and may be difficult to implement even with employee support (Saffold, 1988; Scholes, 1991).

Second, measures required to implement a change in strategy may necessitate substantial outlays of capital. For example, a shift from a prospector or analyser strategy to a defender strategy may require investments in sophisticated production equipment to lower production costs, a characteristic more important to effective implementation of a defender strategy (Miles and Snow, 1978). Similarly, a shift from a defender or analyser strategy to a prospector strategy may require outlays to develop or enhance research and development facilities.

As mentioned above, when an organization initiates a strategic change, especially one that delves into a new arena, competitors often take a 'free ride' (Lieberman and Montgomery, 1988). Large firms can afford to enjoy the ride since they possess the resources to respond effectively when necessary (Wernerfelt and Karnani, 1987). Indeed, one business may subsidize a change that has the potential to benefit the entire industry.

Third, consumer confusion may result from strategic change. For example, if a business employing a low cost strategy attempts to switch to a differentiation strategy, its price-oriented customers may become confused and leave in pursuit of another low cost leader, while those willing to pay a premium price for differentiated products may not recognize or positively perceive the organization's strategic change. Many will likely recall remnants of the previous strategy (perhaps advertising campaigns), and may not even consider the organization for future business.

Finally, even when strategic change results in a successful new product or service, there

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is no assurance that this success can be maintained. In fact, competitors may distort consumer perceptions and reap the benefits of the initial strategic change. For example, when a consumer goods company implements an 'imitation strategy' (Foxman et al., 1990), consumers may purchase the imitation product thinking it is the original. If the consumer dislikes the product, this dissatisfaction can be transferred to the original. On the other hand, if the consumer likes the product, the consumer may realize that the product is an imitator and transfer the positive associations with the original product to that of the imitator. Either scenario can prove costly to the originator (Loken et al., 1986). In sum, a resolution of this debate remains inconclusive. Nonetheless, it is clear that the costs and benefits of strategic change must be assessed before strategic managers commit the organization to action. Indeed, commitment to a set of core strategic principles can pay dividends to an organization by focusing its employees on a clear goal and increasing its predictability among customers and other key stakeholders. However, organizations must be capable of embracing positive change. The key for strategic managers is to identify the critical strategic parameters that should define the organization (e.g., quality, value, servicing a specific market niche, etc.), and promote flexibility within them.

Question 4: What degree of risk is inherent in strategy formulation? How much competitive intelligence is enough?

Strategy is about making choices (Porter, 1985), some of which appear to be riskier than others. Environmental scanning is at best an inexact science and strategic managers are inevitably left with varying amounts of risk and uncertainty associated with each strategic alternative they possess. According to one school of thought, strategy formulation is inherently risky and top managers should not forego attractive opportunities because of a lack of certainty.

However, a second school contends that risk reduction is the primary responsibility of top management (Jauch and Kraft, 1986). Executives therefore, should be skilled at processing information so that risk can be avoided, or at least severely minimized, in strategy formulation. Risk, they argue, will inevitably lead to failure over the long term.

Although managers in a number of innovative firms have touted the advantages of embracing risk, the fast-food giant McDonald's historically has eschewed risk in strategy making, opting instead to promote and expand its concept of consistent, quality hamburgers and related food products. While McDonald's is generally considered to be a successful firm, it is interesting to note that of its three most substantial innovations over the past three decades - the Big Mac, the Egg McMuffin and Chicken McNuggets only one emanated directly from corporate research and development efforts. Rather, two were invented by franchisees and the one developed through corporate efforts was launched only after seven years of testing (Ghemawat and Khanna, 2000).

It is possible that this debate remains a semantic one, at least to some extent. Various connotations of risk abound, both in the academic literature and among executives. Nonetheless, differing perspectives on acceptable amounts of uncertainty continue to exist. While the minimization of uncertainty is desirable, strategic managers have a number of analytical and qualitative techniques at their disposal to transform their strategic environments in the direction of certainty. Strategic managers must identify key decision criteria and then develop systematic resources to glean current and reliable data that can readily drive these decisions.

Question 5: Should top-down or bottom-up approaches to strategy formulation be employed?

Most scholars agree that at least some nonexecutive level managers should be involved in the strategy formulation process. The key

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issue however, is the most appropriate degree of involvement. Top-down proponents argue that seasoned executives are the only ones in the organization with the collective experience, acumen and fiduciary responsibility required to chart the strategy. In contrast, bottom-up proponents argue that since middle and lower-level managers will eventually be charged to implement a strategy, they should play a central role in its development.

Research has emphasized the role of multiple managers in building the superior performing organization of recent years (Hurst et al., 1989; Markoczy, 2001; Sayles, 1993; Wooldridge and Floyd, 1990), whereas much of the strategy research in the 1970s and early 1980s followed Ansoff (1965) and others (Andrews, 1971; Schendel and Hofer, 1979), relying on the top manager for insight into an organization's strategic intentions. Although the concept of middle management involvement in strategy is not a recent phenomenon, the last decade has produced evidence to suggest that strategy formulation and implementation can reflect a diverse array of top and middle management inputs (Hart, 1992; Hiam, 1993; Westphal and Fredrickson, 2001). Mintzberg and Waters' (1985) notion of deliberate and emergent strategies acknowledges the significant role of top and middle managers in the strategic management process. As Nichol (1992) put it, strategy synchronization is a team effort, requiring contributions and knowledge from both middle and senior managers.

In sum, since the trends towards bottom-up approaches to decision making is a recent phenomenon, it appears that executives should continue to establish strategies because they have the expertise and experience to 'see the big picture'. However, the increased education of the work force at all levels and the general trend towards decentralization over the past two decades suggest that a strict top-down approach may not yield the best strategy. Hence, top executives should exhibit strategic leadership and accept full responsibility for the strategic management of the organization. However, progres-

sive firms augment this reality with systems that encourage the input of middle and lowerlevel managers and even non-managers, to the extent to which they are willing and able to contribute.

Methodology

In order to explore possible relationships between views concerning each of these issues and performance, the present study sought to develop scales to serve as initial measures for each of the five philosophical concerns. Between 6 and 10 items were developed as potential measures for each of the five factors. An initial survey of all of the items was administered to 177 managers in the Southeastern United States. Following the initial data analysis, a number of items were eliminated based on wording, loading or redundancy concerns and three items were selected as measures for each factor. The resulting survey instrument contained these 15 items, as well as a previously validated three-item scale to measure satisfaction with organizational performance (Parnell, 2000; Parnell and Carraher, 2002).

The final instrument was administered to 229 middle and upper-level managers from the Southeastern United States, 69% of whom were male, 31% female. The mean years of experience with the current employer was 6.7, while the mean years of experience in the industry was 10.9.

Respondents represented a variety of industries. Although this phenomenon introduces some degree of cross-industry variation into the study, the constructs and relationships were hypothesized to be consistent across industries. Although support for such relationships with a cross-industry sample can be more difficult to engender, it was pursued in order to lend greater credence to the generalizability of the findings.

Findings

The principal components (Harman and Jones, 1966) factor extraction technique

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Table 2. Results of factor analyses

Item	Summary	Loading		
ART subsc	cale (alpha = 0.618)			
ART1	Strategies should be meticulously planned	0.859		
ART2	Strategy formulation is an art	0.671		
ART3	Strategy formulation should be approached as a scientific process			
HIDE sub	scale (alpha = 0.570)			
HIDE1	Keep the details of strategies secret	0.676		
HIDE2	Communicate openly the details of strategies to employees	0.788		
HIDE3	Communicate the details of strategies to the media	0.583		
FLEX sub	scale (alpha = 0.611)			
FLEX1	Strategies should remain flexible so that they can easily change	0.753		
FLEX2	Stick to the strategy over the long term	0.691		
FLEX3	Maintain consistency in strategies over time	0.822		
RISK subs	scale (alpha = 0.566)			
RISK1	Risk cannot and should not be avoided when formulating strategies	0.802		
RISK2	Responsibility of the executive to reduce risks inherent in strategy	0.571		
RISK3	A certain amount of risk is inevitable	0.722		
TOP subse	cale (alpha = 0.651)			
TOP1	Strategies should be handed down from the top	0.849		
TOP2	Maximum input from all employees in the organization	0.630		
TOP3	Executives should develop strategies for the company	0.821		
PERSAT sa	ubscale (alpha = 0.807)			
PERSAT1	Satisfied with current profitability of my company	0.879		
PERSAT2	Satisfied with current growth of my company	0.886		
PERSAT3	Satisfied with current non-financial performance of my company	0.784		

resulted in single factor loadings in the five scales ranging from 0.571 to 0.879 (see Table 2). Scholars and statisticians have suggested desired minimum loadings ranging from 0.500 to 0.700. Coefficient alpha (Cronbach, 1951) for the scales ranged from 0.513 to 0.652, indicating a moderate level of internal consistency, an important indication of reliability (Kuratko et al., 1990; Peter, 1979). The three-item scale to measure satisfaction with performance produced loadings ranging from 0.777 to 0.842, with a coefficient alpha of 0.775. Factor scores (regression method) were computed to serve as composite measures for each of the factors.

None of the first four philosophy measures was significantly correlated with performance satisfaction. However, the belief that the strategy formulation process should rest solely with top management (TOP) was correlated with performance satisfaction (0.112), a relationship significant at the 0.05 level.

The second phase of the analysis sought to develop a typology of strategic philosophy across the five dimensions. Since Ward's clustering algorithm is likely to yield clusters of similar sizes (Barney and Hoskisson, 1990), the cases were clustered along the five philosophy measures. Four clusters with 76, 74, 153 and 112 cases were generated (**Table 3**).

Managers in the first cluster tended to view strategy as a scientific process whose outcomes should remain proprietary. Strategic

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Table 3. Results of cluster analysis

Cluster	ART	HIDE	FLEX	RISK	ТОР	Satisfied with perform
1: Planners (<i>n</i> = 76)	-0.939	1.137	-0.666	0.401	-0.088	-0.088
2: Artists $(n = 74)$	0.470	0.319	0.091	-1.020	0.092	0.012
3: Participants $(n = 153)$	0.081	-0.410	0.740	-0.008	-0.716	-0.106
4: Controllers ($n = 112$)	0.216	-0.422	-0.618	0.413	0.977	0.196

consistency is a major concern, and the acceptance of risk is a given. This 'planning' cluster was exemplified by an acceptance of comprehensive, analytical, formal planning models whose purpose is to help decision makers minimize risk. As Mintzberg (1989) stated, the need for strategic consistency reflects a strong reliance on patterns from the past, as realized strategies are explained in light of planning for those intended in the future.

Managers in the second cluster were characterized by their tendency to view strategy formulation as an art, while rejecting the notion that strategies must involve risk. This 'artistic' cluster viewed strategy as an evolving art form, distinctively qualitative and unable to be manipulated by systematic planning. This group perceived environmental changes to be opportunities to mould organizations towards positive change, as opposed to staying particular courses of action.

Managers in the third cluster viewed strategy as an open process with substantial contributions beyond top management, whose outcome should be flexible. This 'participatory' cluster views strategy making as a group dynamic, a process subject to change. The inputs of organizational boundary spanners and operational specialists are valued in addition to the typical analytical inputs of a top management team.

Managers in the fourth cluster also viewed strategy as an open process, but emphasized strategic consistency and the need for strong top management control. This 'controlling' cluster eschews the prevailing logic that middle managers and other employees should be heavily involved in the process. These managers believe only the top management team

possesses the knowledge and understanding of both the firm and its environment to be in a position to make qualified decisions regarding strategic direction. Interestingly, managers in the fourth cluster were most satisfied with the performance of their organizations, reflecting what is perhaps a self-serving perspective.

Conclusions and directions for future research

The academic answers to these key strategy dilemmas may be elusive but two basic considerations govern the strategic manager's approach to them. First, the validity of the opposite extremes suggests that a working balance must be sought between the apparent contradictions. Second, each top executive must understand how the unique business environment in which he or she operates influences the proper response.

Results of the cluster analysis provide an interesting, although not an all-encompassing initial perspective on how these philosophical approaches might be seen from a broader view. Interestingly, managers in companies whose strategies are controlled by top managers tend to be the most satisfied with the performance levels of their firms.

It is unlikely that research will substantially reduce the responsibility of top executives with respect to these five judgment calls. Nonetheless, a number of research implications emanate from an understanding of these critical issues. Scholars must recognize the assumptions on which their research programmes are based and seek to address issues inherent in these assumptions. Failing to do so can severely limit or even eliminate the prac-

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tical applications of their research, especially for managers who do not share their philosophical perspective.

Considering the art-science debate as an example, strategic managers who adopt the 'strategy as art' perspective may not be willing to consider findings associated with the planning perspective. New or modified planning approaches will likely be seen as cumbersome, academic exercises devoid of practical relevance. In this case, researchers can strengthen the relevance and acceptance of their findings by addressing these concerns directly and, if possible, incorporating aspects of the alternative perspectives into their research designs and/or considerations of managerial implications.

A number of future research issues have been identified. First, the scale development effort in this paper represents an initial effort at measuring philosophical strategy predispositions among managers. Three-item scales were developed for parsimony and initial testing. As these constructs are defined, additional scales should be developed to serve as more reliable and valid measures across samples.

Second, although cluster analysis is a widely accepted analytical approach in strategy research (Cool and Schendel, 1988; Derajtys et al., 1993), the appropriateness of this technique has been seriously questioned (Barney and Hoskisson, 1990; Ketchen and Shook, 1996; Thomas and Venkatraman, 1988). Barney and Hoskisson (1990) noted that on industry data as well as theoretical data, any clustering algorithm, when applied to analyse data, will yield a set of clusters. These resultant clusters should not necessarily be directly interpreted as valid groups. The theoretical question as to whether such groups actually exist or whether they are simply artifacts of the algorithms utilized to generate clusters must also be considered (Barney and Hoskisson, 1990). Although cluster analysis remains the chosen methodology for most strategy-performance studies, researchers have begun to more greatly emphasize the importance of classification schemes utilized in configuration studies (Cool and Schendel, 1988; Derajtys et al., 1993).

Third, managerial consensus — the degree to which managers agree on strategy — is a key consideration is the strategy measurement process (Bowman and Ambrosini, 1997; Thomas and Ramaswamy, 1996). This study did not address the extent to which managers in the same company might share a common philosophical approach.

Fourth, the measurement of performance has also plagued strategy researchers for more than two decades (Venkatraman and Ramanujam, 1986). While strategy researchers struggle with various performance measures such as return-on-assets, stock price and revenue growth, many companies are beginning to use a mixture of financial and nonfinancial measures for performance (Kaplan and Norton, 1997). Most researchers agree that multiple measures offer a rich perspective that cannot be seen by a single approach. However, a consensus on which combination is most appropriate has not yet emerged (Wiliford, 1997). Although the present study considered only performance satisfaction, research in the field should follow a hybrid approach that is less susceptible to validity or reliability concerns associated with a single method.

Finally, the present study considered responses from managers from a variety of industries. As such, some of the factors associated with the perceptions of strategy and performance may be industry-specific. Although the cross-industry approach has its advantages, additional studies that test for similar relationships within specific industries would be helpful.

Biographical notes

John A. Parnell, PhD (University of Memphis) is the William Henry Belk Distinguished Professor of Management at the University of North Carolina Pembroke. He is the author of over 100 refereed journal articles in areas such as competitive strategy, organizational behaviour and strategic decision-making.

Donald L. Lester, PhD (University of Memphis) serves as Associate Professor and Chair of the Center for Entrepreneurial and

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Family Business Studies at Arkansas State University. His research spans the field of entrepreneurship, strategic management and behavioural management issues.

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