

The Emerald Research Register for this journal is available at  
<http://www.emeraldinsight.com/researchregister>



The current issue and full text archive of this journal is available at  
<http://www.emeraldinsight.com/0309-0566.htm>

# Product-market positioning and prospector strategy

Product-market  
positioning

## An analysis of strategic patterns from the resource-based perspective

1409

Received November 2001

Robert E. Morgan

*School of Management and Business, University of Wales Aberystwyth,  
Aberystwyth, UK*

Carolyn A. Strong

*Cardiff Business School, Cardiff University, Cardiff, UK, and*

Tony McGuinness

*School of Management and Business, University of Wales Aberystwyth,  
Aberystwyth, UK*

**Keywords** *Marketing strategy, Strategic evaluation, Competitive advantage, Market position*

**Abstract** *Adopts a firm-level approach and attempts to develop our understanding of the means through which different types of firm compete. Addresses specifically, a lacuna in existing knowledge by investigating a fundamental research question: "How do firms pursuing a prospector mode of market strategy differ from those pursuing a defender, analyzer or reactor strategy in terms of the product-market positioning attributes they exhibit?" Miles and Snow provide the basis for the assessment of strategy types, while "strategic market positioning" is characterised as the product-market positions established by the firm. Conceptualises strategic market positioning as the ways in which firm-specific resources and assets are deployed to build positional advantages in product-markets. Presents analyses of data generated from high technology, medium and large, industrial manufacturing firms and discusses these results in the light of previous findings. Places particular emphasis on the distinguishing characteristics of prospector-type firms. Identifies a number of potential research avenues from this study and discusses several implications for executives.*

### Introduction and background

Many theories have been developed that concern the competitive advantage of firms. By and large, these contributions can be associated with frameworks grounded in three extant paradigms (Teece *et al.*, 1997): the competitive forces paradigm; the strategic conflict paradigm; and the efficiency paradigm, which has given rise to the resource-based view of the firm. First, the competitive forces paradigm (Porter, 1980, 1985) considers the positioning strategies a firm can pursue to earn monopoly rents in an industry or strategic group. Second, the strategic conflict paradigm is founded on game theory and centres on the concepts of competitive deterrence and market imperfections, and emphasises the role of sunk costs and commitment in maintaining a competitive position



European Journal of Marketing  
Vol. 37 No. 10, 2003  
pp. 1409-1439  
© MCB UP Limited  
0309-0566  
DOI 10.1108/03090560310487176

that allows a firm to earn monopoly rents in its product-markets (Shapiro, 1989). Third, the resource-based paradigm emphasises the entrepreneurial rents that a firm earns on extant assets and capabilities that contribute to superior efficiency or differentiation, but which are difficult for rivals to acquire or develop quickly (Penrose, 1959). While the first two paradigms are useful in explaining industry-level forces and competitive interactions between firms that are closely matched in terms of their strategic orientation, their relevance to competitive positioning analysis at the firm-level is limited because they fail to acknowledge the existence of firm-specific assets and capabilities that constrain strategic options and which impart path-dependency to the history of a firm's strategic behaviour and performance. In contrast, the resource-based perspective can facilitate explanations of these firm-level competitive phenomena and has been characterised as the dominant strategy paradigm (Priem, 2001).

Miles and Snow (1978) provide the basis for the assessment of strategy types ("strategic pattern") here, while "strategic market positioning" is characterised as the product-market positions established by the firm (Kald *et al.*, 2000). Consistent with the co-integration of the resource-based view and the strategic positioning construct popularised in the marketing literature (see Fahy and Smithee, 1999), strategic market positioning is conceptualised as the ways in which firm-specific resources and assets are deployed to build positional advantages in product-markets. Recent work has begun to develop these links between the resource-based view and the strategic market positioning construct (Hooley *et al.*, 1998). In this respect, sources of advantage, hereafter referred to as product-market positions, may be regarded as the ways in which firm-specific resources and assets are deployed to build positional advantages in a firm's product-markets. It is product-market positions in this sense, focused on the connectivity between a firm's internal assets and its behaviour and perceived positions in its external environments that form the interests of this research investigation. This interpretation is consistent with these recent attempts to link a firm's positioning strategy to its resources and capabilities, and – in particular – is consistent with the notion that competitive positioning strategies, "give equal weight to market demands and capability profiles when selecting targets and implementing positioning strategies" (Hooley *et al.*, 1998, p. 106).

Day and Wensley (1988) established a research agenda and tradition in which they declared, "businesses seeking advantage are exhorted to develop distinctive competences and manage for lowest delivered cost or differentiation through superior customer value. The promised payoff is market share dominance and profitability above average for the industry. This advice is sound, but usually difficult to follow. Management must first understand the reasons for the current advantages or deficiencies of the business . . . Without a proper diagnosis, managers cannot choose the best moves to defend or enhance

the current position. For many reasons the prevailing approaches to understanding competitive advantages are unlikely to yield valid and insightful diagnoses" (Day and Wensley, 1988, p. 1). In addressing this challenge, several researchers have since empirically examined the relationships between competitive strategy and marketing tactics (McKee *et al.*, 1989; Golden *et al.*, 1995), distinctive marketing competency (Conant *et al.*, 1990; Woodside *et al.*, 1999) and adaptive tactics (McDaniel and Kolari, 1987). However, knowledge remains far from conclusive regarding the association between product-market positions and the mode of competitive strategy employed; more particularly, the issue of which product-market position elements are associated with the "prospecting" or "first mover" mode of competitive strategy is now a question that has attracted the attention of management executives, organizational scientists, industry analysts and prescriptive management theory in general (Robinson *et al.*, 1994; Henderson and Mitchell, 1997; Conger *et al.*, 1998).

This paper reports the findings from an exploratory study of medium and large, high technology, industrial manufacturers. The specific focus of the investigation was to examine empirically the potential differences between firms pursuing the prospector-type of competitive strategy and those pursuing alternative strategy modes ("defender", "analyser" and "reactor" types) with respect to their product-market positions exhibited. This study is presented, first, with a review of extant knowledge regarding modes of competitive strategy, with an emphasis on prospecting strategy behaviour and theories concerned with competitive differences. Second, the nature of product-market positions is discussed and their role in strategy formation is considered. Third, an account of the empirical investigation is given which continues with a description of the analytical approach and research findings. Finally, these results are interpreted and discussed within the context of prior evidence and notable conclusions and implications are drawn from this study.

### Strategic orientation and strategic pattern

Firm-level strategy is synonymous with strategic orientation that is commonly defined as:

[...] how an organization uses strategy to adapt and/or change aspects of its environment for a more favourable alignment (Manu and Sriram, 1996, p. 79).

Variously referred to as strategic pattern, strategic choice, strategic thrust, strategic predisposition and strategic fit; strategic orientation is conceptualised here as relatively enduring in nature; several studies across multiple industries and environmental contexts have reported that firms' strategies may remain remarkably stable for long periods (Schul *et al.*, 1995). To suggest that a firm which has a stable strategy or enduring strategic orientation does not mean that the detailed ways in which it implements the strategy are invariant; rather, it is the general nature of the firm's approach to the marketplace that is stable.

This is endorsed by Fox-Wolfgramm *et al.* (1998) and a significant number of others who argue that, "second-order change, a shift from one strategic orientation to another, is atypical even in times of environmental upheaval . . . Authors have noted, for example, that organizations typically converge around a prevailing archetype: strategic orientation and inertia tend to bound the organizational change to that which is consistent with the archetype representing first-order change" (Fox-Wolfgramm *et al.*, 1998, p. 87). Furthermore, at the firm-level, strategic orientation is typically consistent because it comprises, "a pattern in a stream of decisions (past or intended) that (a) guides the organization's ongoing alignment with its environment and (b) shapes internal policies and procedures" (Hambrick, 1983, p. 5).

Despite the historical difficulty in circumscribing and delineating the strategic orientation construct, various important contributions have been made to improve our understanding of the strategy domain (e.g. Hofer and Schendel, 1978; Porter, 1980; Wissema *et al.*, 1980; Galbraith and Schendel, 1983; Venkatraman, 1989). Arguably one of the most well-received approaches to conceptualising and operationalising strategic orientation has been provided by Miles and Snow (1978) from their study of four diverse industries (college textbook publishing, food processing, healthcare and electronics).

Miles and Snow (1978) classified firms according to how they responded to three key elements of what they referred to as "an adaptive cycle". They suggested that firms could be associated with a strategic pattern depending on how they tackled their strategic management of product-markets ("the entrepreneurial problem"), systems for producing and distributing products ("the engineering problem") and the development of organisational structure and processes to support the entrepreneurial and engineering decisions ("the administrative problem"). As a result, these authors argued that the, "adaptive cycle is a general physiology of organizational behaviour. By dealing with the organization as a whole, the adaptive cycle provides a means of conceptualizing the major elements of adaptation and of visualizing the relationships among them" (Miles and Snow, 1978, p. 27). Their derived typology considers that all firms can be classed as a "prospector", "defender", "analyser" or "reactor". Prospectors tend to adopt a proactive stance to their competitive environment and endeavour to exploit new opportunities along both product and market development growth vectors. In contrast, defender organisations aspire to maintain a stable position through their focus on protecting and securing their product-market activities. Analysers are a hybrid of these first two types and tentatively explore developments in product policy and market opportunities but simultaneously secure key customers, products and skills. Finally, reactor organisations lack any clear strategy and only respond to competitive circumstance when forced to do so in a characteristically inconsistent and unstable manner.

This view of strategic orientation belongs to the classificatory school of business strategy, which attempts to classify firms' strategy according to either

*ex ante* conceptual arguments or *ex post* empirically derived groupings. These classifications are respectively known as typologies (e.g. Miles and Snow, 1978) and taxonomies (Wright *et al.*, 1995). This form of methodology is well grounded in the management literature, but it must be acknowledged that such schemata restrict analysis to inter-group comparison, which prevents any investigation on an intra-group basis (Speed, 1993). Therefore to suggest, for example, that a firm may be pursuing either a prospector, defender, analyser or reactor strategy (Miles and Snow, 1978) is interesting, but it might be considered crude because important dimensions may be excluded from the typology and subtle nuances that compose a strategic orientation and explain behaviours and actions, may be undetected. Nonetheless, there is strong evidence that this approach is not as simplistic as it might *prima facie* appear; one example of many indicates that Miles and Snow's (1978), "strategic typology represents a complex theory which has served as a stimulus for a large body of empirical research" (Kald *et al.*, 2000, p. 198). Further, this conceptualisation is regarded as relatively sound and inclusive – for a review of the arguments supporting the validity and reliability of this approach and its associated operationalisation see Shortell and Zajac (1990), Doty and Glick (1994) and James and Hatten (1995).

### **Prospector strategy and strategic differences**

The extent of environmental turbulence and complexity experienced by high technology firms is now without precedent, driven by the increased pace of change in information and communications technologies, fundamental advances in commercial research and development, increasing integration within the global economy, and growth in demand for products with significant knowledge-based components (Department of Trade and Industry, 1998). Within such environments it can be suggested that incumbent firms should become more cognisant of the need to be prospector-oriented (Naman and Slevin, 1993). This can be likened to being more entrepreneurial (Dess *et al.*, 1997) and strategically innovative (Markides, 1998) or simply attempting to exploit the benefits of being a first-mover (Kerin *et al.*, 1992), market pioneer (Robinson *et al.*, 1994), newcomer (Mitchell, 1991) or first entrant (Green *et al.*, 1995) in the relevant product-market. Previous empirical studies provide evidence that environmental turbulence (Naman and Slevin, 1993) and environmental complexity (Zahra, 1991) are both positively related to innovative, risk-taking and proactive behaviour by firms. These dimensions are considered properties of the corporate entrepreneurship construct (Barringer and Bluedorn, 1999), but also correspond closely with prospector-orientation. The nature of prospecting strategic behaviour is now becoming more of a competitive requirement (*The Economist*, 1998) with little sanctuary from aggressive competitive actions in most product-markets (Doyle and Wong, 1998).

Segev (1987) argues that being a prospector-type company is most compatible with entrepreneurial orientation (see Burgelman, 1983), which much of the commercial business media present as an ideal that should be pursued by all within a company. Furthermore, a substantial literature is devoted to the value, properties and means of creating greater prospecting behaviour. A recent study by Crant (2000, p. 435) observed that: "Many practitioner-oriented publications argue that managers should be more proactive on the job, and that proactive behaviour is an increasingly important component of job performance. Organizational research on the antecedents and consequences of proactive behaviour has appeared in several different literatures and has taken different approaches toward defining, measuring and understanding proactivity" (for a recent review of the diverse set of literatures that directly address proactive behaviour in organisational contexts see Crant (2000)).

The debate surrounding whether firms should pursue ideals of strategic "similarity" or "differences" compared with their competitor referents is well developed within the strategic management literature – for an extensive review of both of these viewpoints see Deephouse (1999). The arguments within this debate transcend extant schools of thought in strategy and organisation research with the fundamental premises being that, "by being different a firm benefits because it faces less competition, *ceteris paribus* . . . By being the same, a firm benefits because it is recognized as legitimate, *ceteris paribus*" (Deephouse, 1999, p. 147). Consequently, the literature is replete with contradictory prescriptions concerning strategic similarity and differences (Suchman, 1995).

The arguments in support of (prospecting) differences contend that a firm with a "different" strategic orientation benefits, under certain conditions, because of the following reasons:

- The prospector faces less competition for resources (Baum and Singh, 1994).
- Potential failure rates are reduced (Hannan and Freeman, 1977).
- Imitation provides little advantage that is not sustainable and prospector orientation tends to provide a greater level of sustainability (Jennings and Zandbergen, 1995).
- High rents can be generated as the firm faces less competition and develops a possible monopoly of strategic space (Baum and Singh, 1994).
- Distinct strategic positions are characterised by resource profiles that are rare, non-substitutable and inimitable (Barney, 1991).
- Profits from a distinct position tend to persist for a period (Gimeno and Woo, 1996) and prospector orientation provides gains in market share, sales growth and new product sales in comparison with analysers, defenders and reactors (Matsuno and Mentzer, 2000). Also, in

product-markets characterised by turbulence and competitive intensity, normative studies recommend aggressive strategic behaviour, which is primarily concerned with exploiting and developing resources more rapidly than competitors (Clark and Montgomery, 1999), in order to generate performance pay-offs in sales growth and profitability (Covin and Slevin, 1991; Zahra, 1993; Zahra and Garvis, 2000; Lumpkin and Dess, 2001).

- Proactiveness and market-seeking are central to prospector orientation (Aragón-Correa, 1998; Luo and Park, 2001) and reflects a firm's inertia for exploiting emerging opportunities, experimenting with change and mobilising first-mover actions (Dess *et al.*, 1997; Lynn *et al.*, 1996) based on their strategic discovery processes (Shane, 2000). Characterised as wandering between and within product-market domains, this trait is an enabler for competitive advantage because of its proactive pursuit of new products and new markets. Grounded in action orientation, proactiveness has been associated with competitive superiority due to the "step-ahead" tactics pursued and market leadership characteristics exhibited by firms with this strategic orientation (Gatignon and Xuereb, 1997).
- Risk aspects of strategic orientation can be described as the possible losses or gains that are derived from an action. Therefore, risk-taking is important in resource allocation situations and can act as a key parameter in determining the decision processes involved in prospector orientation (Dickson and Giglierano, 1986). Risk-oriented firms are purported to combine the entrepreneurial skills of constructive risk taking with opportunistic venture seeking (Bettis and Hall, 1982).

### Product-market positions and strategic positioning

Segev (1989) draws certain similarities and contrasts between the Miles and Snow (1978) typology described above and Porter's (1985, p. 487) generic strategies of differentiation, cost leadership and focus. However, it should be recognised that he observed fundamentally, "the two typologies are different, each stressing somewhat different aspects of business-level strategy". In addition, he argued theoretically that the prospecting-type firm may exhibit various additional strategic characteristics not reported by Miles and Snow (1978) and these "characteristics" form the empirical interests of this study.

Beyond Segev's (1989) work, many other accounts have been reported that declare multiple conceptual departures between Miles and Snow (1978) and Porter (1985). For instance, it was suggested recently that: "Although the strategic typologies of Miles and Snow (1978), Porter (1980), and Gupta and Govindarajan (1984) are based on many common assumptions, they focus on different characteristics of a business unit strategy: strategic pattern, strategic position and strategic mission" (Kald *et al.*, 2000, p. 203) – these authors expand on this distinction arguing that Gupta and Govindarajan (1984) capture

strategic mission, Miles and Snow (1978) provide the basis for strategic pattern, and Porter (1985) describes strategic positioning (see Kald *et al.*, 2000, Figure 2, p. 207 for a summary). Consequently, the Miles and Snow (1978) conceptualisation adopted here is an approach for capturing the strategic pattern or “problem and solutions sets” (Miles and Snow, 1978) and is not designed to reflect product-market positions *per se*. Furthermore, the Miles and Snow (1978) approach describes the type of firm and does not discriminate among types in business performance terms – other strategy studies (e.g. those based on Porter (1985) and Gupta and Govindarajan (1984)) make explicit that strategic orientation makes a significant contribution in explaining business performance, while many studies subscribing to the Miles and Snow (1978) conceptualisation have not found that levels of business performance discriminate between the four (or three[1]) modes of strategic pattern unless various mediating/moderating variables are introduced to the analysis (e.g. Smith *et al.*, 1986; McKee *et al.*, 1989; Woodside *et al.*, 1999).

In their work, Miles and Snow (1978) focused primarily on the structures and managerial processes underlying the strategic patterns and “only surmised about the functional (production, marketing, etc.) policies that might accompany each strategy” (Hambrick, 1983, p. 10). While other studies have embellished on certain elements of such functional practices (McDaniel and Kolari, 1987; McKee *et al.*, 1989; Conant *et al.*, 1990), knowledge is distinctly limited as to which specific product-market positions are emphasised by what type of strategic orientation in relation to the Miles and Snow typology. More specifically, given the aspirational qualities of the prospector-type firm described above, further research is needed regarding the distinctive differences between prospectors and other strategic patterns in terms of the resources and positions they use to pursue competitive advantage.

Consistent with the integration of the resource-based view and the strategic market positioning construct, product-market positions are defined here as the ways in which firm-specific resources and assets are deployed to build positional advantages in a firm’s product-markets. The subject of the research, therefore, is the boundary-spanning activities that connect a firm’s internal resource base and its external competitive positions in product-markets. The ways in which resources and assets are used secures competitive positions, which determine a firm’s business performance levels in comparison with its main competitors (Bharadwaj *et al.*, 1993; Hunt and Morgan, 1995; Hooley *et al.*, 1998).

Significant interest has been displayed in the role of resource-based capabilities as a means of creating competitive advantage (Mahoney and Pandian, 1992). It has been argued that:

Resources are considered to be the basic inputs to the production process. Firm-specific resources include items of capital equipment, skills and individual employees, brand names ... On their own however, few resources are productive. Productive activity requires the



cooperation and coordination of teams of resources. A capability is the capacity for a coordinated set of resources to perform some task or activity. Resources are the source of a firm's capabilities; capabilities are the main source of its competitive advantage (Grant, 1991). Thus although there may be conceptual distinctions, it is difficult from a measurement perspective to divorce the concepts of resource availability and the capability to utilize those resources (Chandler and Hanks, 1994, p. 334).

Consequently, we are interested to investigate the boundary-spanning ways in which firm-specific resources and assets are deployed to build positional advantages in a firm's product-markets.

When certain types of, "resource-based capabilities are abundant, firms that exhibit such traits survive more easily, grow more rapidly, are more profitable and have more organizational slack . . . Competence and superior processes in one or more of the firm's value-chain functions are thought to enable the firm to generate rents from a resource advantage. Thus we expect a firm with a wide variety of resource-based capabilities to have a *broad range of possible actions* and to be able to exploit numerous resources" (Chandler and Hanks, 1994, p. 334, emphasis added). It is anticipated that firms such as prospectors generally exhibit these resource-based capabilities more than other strategic patterns.

A comprehensive appreciation of product-market positions requires an understanding of the complex, boundary-spanning ways in which a firm's resources are connected with its competitive positions. This presents a particular kind of challenge to strategy and organisation researchers because, on the one hand, managers have been typically regarded as the most useful source of information about the perceived competences and capabilities that are internal to firms, while on the other hand, it can be argued that customer-centric research methods are more appropriate for the assessment of positional advantages (Day and Wensley, 1988). In either case the most appropriate and relevant way in which the researcher can assess the key issues is via mental models that enable competitive situations to be selected, classified, sorted, simplified and interpreted by the individual (Kiesler and Sproull, 1982). This approach, applied to the mental models of managers, has gained a substantive position in strategic management research under the label of the emerging revisionist view which seeks to determine how, "managers make sense of their complex and fluid competitive market arena and then decide where and how they have achieved a competitive advantage" (Day and Nedungadi, 1994, p. 31).

Founded on this approach Roth and Morrison (1992), following Miller (1987), argued that product-market positions could be represented in four dimensions: complex innovation, marketing differentiation, product/market scope and conservative cost control. In contrast, Katsikeas (1994) reports four comparable dimensions: production capability, marketing capability, product superiority and competitive pricing. Chandler and Hanks (1994), on the other hand, propose three dimensions: innovation, quality and cost leadership. In addition, Day and

Nedungadi (1994) identify seven product-market position themes: low cost processing, superior service, dealer strength, lowest delivered cost, broad market scope, segment focus and innovative features. Alternatively, Wright *et al.* (1995) suggest three product-market position dimensions: high costs and high innovation/differentiation; low costs and low innovation/differentiation; and low costs and high innovation/differentiation. Hooley *et al.* (1998) propose that there are six basic positioning strategies, each differentially rooted in the resource profiles of firms: low price; superior quality; rapid innovation; superior service; differentiated benefits; and tailored offering. Thus, while there may be some overlap regarding the nature of product-market positions, the particular means by which firms can compete appear to differ markedly.

We now report the empirical study conducted which attempted to identify the differences between firms pursuing the prospector-type of business strategy and those associated with the defender, analyser and reactor strategy modes with respect to their product-market positions on the basis that, "we still however know relatively little about how it is that, over time, some firms manage to become successful using their capabilities, while other firms do not" (Helfat, 2000, p. 955).

### Research method

#### *Sampling considerations*

The sampling frame was compiled from the Kompass directory of UK firms and, following a systematic random selection, a list of 1,000 medium and large, high technology, industrial manufacturers was generated for survey purposes. The threshold-level for minimum firm size was 100 employees. This criterion was employed in order to exclude smaller firms that typically lack a comprehensive product-market position portfolio and tend to compete based on niche strategy indicating the unique nature of their decision making (Lyles *et al.*, 1993; Dodge *et al.*, 1994). This control for firm size both accommodates the fact that the large firms dominate the high technology sector (Hughes, 1999) and reduces the effect of spurious results attributed to type of firm (see Murphy *et al.*, 1996). In circumscribing the nature of high technology firms, various formal approaches such as the Organization for Cooperation and Development's criterion of a research and development to sales ratio of more than 4 per cent were considered. However, for the purposes of this study a liberal interpretation of high technology was applied which included those firms characterised by: rapid product innovation; exploitation of frequent new technologies in production processes; a high level of technical and scientific expertise necessary for operations; and research and development being a key driver underlying the future growth of the industry. In practice, the main proxy indicator used by governments and industry to determine high technology sectors exhibiting these characteristics tends to be Standard Industry Classification codes. Consequently, the following sectors were sampled:

instrument engineering and precision equipment; electrical, electronic, data processing and nucleonic equipment; advanced mechanical engineering; chemical and oil-related; and selected heavy industry and high technology transportation plant and equipment.

A single key-informant was targeted in each sampling unit, namely the head of marketing. Despite the fact that it has been argued that measurement error can arise from differences between informants within the same sampling unit (Bowman and Ambrosini, 1997; Phillips, 1981), we contend that this method is appropriate for use in this study because of the particular subject matter under investigation. The nature of the empirical approach and the conceptual character of the study justified why a single key-informant, as a senior executive of a firm, should be targeted. Guidelines provided by Huber and Power (1985) for using the key-informant technique were followed in an attempt to minimise the effects of potential systematic and random sources of measurement error.

#### *Survey administration and respondent issues*

The survey was administered pursuant with Dillman's (1978) guidelines for the total design method. prenotification letters, questionnaire package and a series of reminder correspondence were respectively dispatched to informants. A total of 181 responses were received, of which 32 were ineligible because: company policy prevented involvement in external studies; firms had moved principal location; respondent organisations fell below the minimum medium size threshold of 100 full-time personnel; or the research instrument was inadequately completed. Although the response rate yielded may *prima facie* appear low, the rate is comparable with other studies adopting a similar research design (Piercy and Morgan, 1994; Diamantopoulos and Schlegelmilch, 1996; Harzing, 1997). Furthermore beyond Dillman's (1978) protocols, recommended practice concerning questionnaire salience and length, return postage, anonymity guarantee and university sponsorship were all incorporated in order to bolster the potential response (Jobber and O'Reilly, 1998; Roth and BeVier, 1998).

In a study of the definition of response rates, Wiseman and Billington (1984) observed that most researchers fail to report survey returns correctly in their empirical studies. That is, often factors such as ineligibility and number of non-contacts go unreported. The method of response rate calculation proposed by the Council of American Survey Research Organizations (CASRO) (1982), takes account of these factors and makes an assumption that the percentage of ineligible responses among non-respondents is equivalent to that in the respondent set. This method of response rate calculation has been welcomed as a source of standardization for research reports (Wiseman and Billington, 1984) and has also been extensively used in academic papers (Karimabady and Brunn, 1991). By adopting the CASRO response rate standard for this study, the survey yielded a response rate of 18 per cent.

Respondent firms ranged across the industrial sectors surveyed. Firm size was similarly distributed with number of employee bands scoring the following proportion of the respondent set: 100-250 employees = 45 per cent; 251-500 employees = 34 per cent; 501-1,000 employees = 8 per cent; and, 1,001 employees or more = 13 per cent. Analyses of individual respondent characteristics revealed that the majority were marketing directors (55 per cent), while the remainder of the respondents were marketing/business development managers (42 per cent), or other executive personnel appointed at the strategic apex of the firm (3 per cent). Doubts regarding the suitability of the informants surveyed are assuaged by the fact that the mean tenure of respondents in their employer firms was 11 years; indicating that informants were familiar with and experienced regarding the strategic priorities and resources and capabilities of their firm.

Non-response bias was tested in a manner that has become the convention in assessing non-response bias in mail surveys of organisational research issues (see Armstrong and Overton, 1977). The data set was divided into two groups: early respondents to the mail survey and late respondents, determined by a mid-point threshold date between the initial mailing and the date of the returned questionnaire. The basic rationale for this is that late respondents are more similar to non-respondents than early respondents. No differences were computed across the product-market position dimensions and the conclusion was drawn that the respondents are not significantly dissimilar to non-respondents.

#### *Construct operationalization and measurement*

Snow and Hrebiniak's (1980) approach for describing the strategic patterns characterised by the Miles and Snow (1978) typology was used for assessment of firms' strategic orientation. These strategic patterns are:

- *Prospector*. This firm typically operates within a broad product-market domain that undergoes periodic redefinition. The firm values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. The firm responds rapidly to early signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this type of firm may not maintain market strength in all of the areas it enters.
- *Defender*. The firm attempts to locate and maintain a secure niche in a relatively stable product area. The firm tends to offer a more limited range of products than its competitors, and tries to protect domain by offering high quality, superior service, lower prices and so forth. Often this type of firm is not at the forefront of developments in the industry – it tends to resist industry changes that have no direct influence on current areas of operations and concentrates instead on doing the best possible job in a limited area.

- *Analyser*. This firm attempts to maintain a stable, limited line of products, while at the same time moving out quickly to follow a carefully selected set of the more promising new developments in the industry. The firm is seldom "first in" with new products. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, the firm can frequently be "second in" with a more cost-efficient product.
- *Reactor*. This firm does not appear to have a consistent product-market orientation. The firm is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, the firm responds in those areas where it is forced to by environmental pressures.

Respondents were asked to specify which paragraph most closely described their firm's approach, when compared with competitors, in their main marketplace. Respondents were informed that none of the paragraphs characterised inherently "good" nor "bad" strategic behaviour and indices, rather that the strategy labels indicated in the list above, were assigned to each paragraph for coding purposes. The use of this approach generated 55 prospectors, 24 defenders, 46 analysers and 24 reactors.

This paragraph approach has been commonly used and validated extensively (e.g. Speed, 1993; James and Hatten, 1995; Rajagopalan, 1996) and it was considered more convenient than the lengthy multi-item strategy typology batteries used by Hambrick (1981) and Conant *et al.* (1990) because of the inherent response bias likely to be attributed to more competitively dominant firms and the perceived sacrifice in response rate using such an approach. Further, several studies have found empirical support for the stance adopted here where, for instance, Shortell and Zajac (1990) have validated the Miles and Snow strategy typology and managers' ability to self diagnose their firm's relative strategic orientation, and Conant *et al.* (1990) reported strong convergence between the multi-item assessment and the self-typing paragraph approach.

Product-market positions were operationalised following a review of pertinent variables sourced to previous studies. A battery of items was compiled (Table I) to capture the principal product-market positions likely to be exhibited by a sample of industrial manufacturers. These measures were related to studies by Miller and Friesen (1978), Bourgeois (1980), Dess and Davis (1984), Robinson and Pearce (1988), Parker and Helms (1992), and Roth and Morrison (1992). Some of the items in Table I refer more obviously to a firm's internal resources and competences, while others are more closely related to its external market positions. Respondents were presented with the following question: "It is rather common for firms competing in the same industry to choose different methods through which to compete. Please indicate the degree to which your firm has emphasized each of the following

**Table I.**  
Principal components  
analysis of  
product-market position  
items

Product-market position	Factor loading <sup>a</sup>						
	(CA1) Production process orientation	(CA2) Marketing capabilities	(CA3) Quality orientation	(CA4) Price-cost leadership	(CA5) Product scope and development	(CA6) Differentiation focus	Communality
Major expenditure on production process-oriented R&D	0.82	0.18	0.06	0.05	0.20	0.02	0.77
Innovation in manufacturing process	0.80	0.01	0.27	0.04	0.02	0.10	0.73
Major effort to ensure availability of raw material	0.63	0.01	0.14	0.13	-0.27	0.19	0.55
Building brand identification	-0.37	0.80	-0.06	0.02	0.13	0.16	0.69
Innovation in marketing techniques and methods	-0.04	0.73	0.32	0.05	-0.11	0.01	0.66
Strong influence over channels of distribution	0.31	0.62	-0.06	0.05	0.13	-0.15	0.53
Developing and refining existing products	0.14	0.52	0.09	-0.25	0.39	0.05	0.52
Extensive customer service capabilities	0.03	0.01	0.79	-0.03	0.07	-0.12	0.65
Specific efforts to ensure a pool of highly trained experienced personnel	0.28	0.11	0.69	-0.05	0.18	-0.03	0.61
Extremely strict product quality control procedures	0.38	-0.03	0.50	0.12	-0.03	0.24	0.49

(continued)

Product-market position	Factor loading <sup>a</sup>						Communitality
	(CA1) Production process orientation	(CA2) Marketing capabilities	(CA3) Quality orientation	(CA4) Price-cost leadership	(CA5) Product scope and development	(CA6) Differentiation focus	
Concerted effort to build reputation within industry	0.12	0.22	0.50	0.19	-0.07	0.49	0.60
Pricing below competitors	-0.05	-0.22	0.03	0.75	0.05	-0.07	0.62
Products in lower priced market segments	0.14	0.13	-0.19	0.68	0.15	-0.18	0.59
Continuing overriding concern for lowest cost per unit	0.17	0.14	0.18	0.65	-0.12	0.14	0.54
New product development	0.07	0.13	0.04	-0.10	0.80	0.09	0.68
Broad product range	-0.09	0.05	0.12	0.28	0.71	-0.01	0.62
Emphasis on the manufacture of specialty products	0.04	-0.13	-0.08	-0.02	0.18	0.85	0.79
Products in higher priced market segments	0.28	0.22	-0.01	-0.21	-0.07	0.60	0.54
Eigenvalues	3.63	2.01	1.78	1.37	1.32	1.13	
Percentage of variance explained	20.20	11.20	9.90	7.60	7.40	6.30	

Note: <sup>a</sup> Principal components analysis with varimax orthogonal rotation converging in eight iterations

Table I.

competitive methods over the past three years." The response scale ranged from "Not at all considered" (1) to "Major emphasis" (7). The three-year retrospective time-horizon was used to take account of year-to-year or seasonal variations common in competitive marketplaces.

### Analysis and results

Principal components analysis was performed on these data in order to transform the set of product-market position measures into a composition of unrelated linear combinations of such items. Using the varimax orthogonal rotation procedure, in line with the Kaiser (1958) normalisation criterion, six factors were extracted accounting for 62.6 per cent of the total variance (Table I). The derived factor solution was conceptually interpretable and characterised by a clear factor structure indicating convergent validity within each factor and discriminant validity between factors. The factors were labelled:

- (1) production process orientation (CA1);
- (2) marketing capabilities (CA2);
- (3) quality orientation (CA3);
- (4) price-cost leadership (CA4);
- (5) product scope and development (CA5); and
- (6) differentiation focus (CA6).

Apart from CA1, which is entirely internally oriented, the individual factors each represent a mixture of firms' internal competences and external positioning. This pattern in the results is consistent with our conceptualisation of product-market positions as boundary-spanning activities that connect a firm's internal resource base and its external competitive positions.

Indices were computed for each factor by determining the mean summated score for individual items with a loading greater than 0.50 (Crawford and Lomas, 1980). In order to ensure suitable scale assessment, data checks needed to be conducted prior to comparative statistical analyses. First, the Cronbach alpha coefficient for each factor scale was calculated (Table II) and it was observed that, although CA4-6 exhibited relatively low alpha values, all measures satisfied Nunnally's (1967) threshold of acceptable reliability for exploratory research. Second, scale validation was accomplished by item-to-total scale correlation analysis which revealed that all bivariate relationships were both positive and highly statistically significant (Table II). Consequently, the six product-market position scales were considered appropriate for assessing differences amongst the four strategic patterns of prospector, defender, analyser and reactor.

Table III displays the mean scores for each strategic pattern across the product-market positions. Given our aim of investigating the specific ways in



Product-market position dimension	Mean	SD	Cronbach's alpha	Item-total scale correlation <sup>a</sup>			
				(1)	(2)	(3)	(4)
CA1: production process orientation	3.90	1.52	0.74	0.84	0.85	0.74	–
CA2: marketing capabilities	4.40	1.26	0.67	0.79	0.68	0.71	0.65
CA3: quality orientation	5.33	1.01	0.67	0.70	0.76	0.70	0.68
CA4: price-cost leadership	3.76	1.20	0.55	0.76	0.72	0.71	–
CA5: product scope and development	5.28	1.29	0.53	0.84	0.81	–	–
CA6: differentiation focus	4.71	1.47	0.53	0.86	0.79	–	–

1425

Table II.  
Scale statistics

Note: <sup>a</sup> Pearson's *r*. All coefficients are statistically significant where  $p < 0.001$

which prospectors compete in comparison with other strategic patterns in UK high technology sectors, it is notable that, with just one exception, prospectors place more emphasis than every other strategic pattern on every product-market position.

To test for statistical significance of the observed differences in Table III a multivariate analysis of variance revealed that significant overall differences existed across the strategic patterns. Univariate analyses, with *post hoc* comparisons, were then examined to specifically assess inter-group differences. Most notable are the observed differences between prospectors and reactors, prospectors placing significantly greater emphasis on four of the six product-market positions: marketing capabilities (CA2), quality orientation (CA3), product scope and development (CA5) and differentiation focus (CA6). Compared with defenders, prospectors place significantly more emphasis on marketing capabilities (CA2) and product scope and development (CA5). Compared with analysers, prospectors emphasise product scope and development (CA5) and differentiation focus (CA6) to a significantly greater extent.

The results, therefore, identify the conceptual nature of the differences between Miles and Snow's strategic patterns, and also illustrate the specific product-market positions that prospectors in UK high technology sectors emphasise significantly more than other strategic patterns. The next section discusses these results more fully and relates them to previous research findings.

## Discussion

The pattern of results in Table I supports our conceptualisation of product-market positions as boundary-spanning activities that connect a firm's internal resource base and its external positions. In so doing they also suggest adding a pointer to the direction in which strategic management research might be developed. Although some researchers (e.g. Collis and Montgomery, 1995) explicitly view the resource-based perspective as one that combines the internal analysis of the firm with an external analysis of its

**Table III.**  
Differences in  
product-market  
positions among  
strategic patterns

Product-market position dimension	Strategic pattern						Duncan's test ( $p < 0.05$ )
	Prospector (P)	Defender (D)	Analysar (A)	Reactor (R)	Univariate F-value		
CA1: production process orientation	3.93	3.56	4.15	3.68	0.95		
CA2: marketing capabilities	4.80	3.95	4.33	4.04	3.56*		P > D; P > R
CA3: quality orientation	5.52	5.36	5.32	4.84	2.47		P > R
CA4: price-cost leadership	3.90	3.38	3.79	3.77	1.04		
CA5: product scope and development	5.80	4.60	5.06	5.15	6.32*		P > D; P > A; P > R
CA6: differentiation focus	5.17	4.72	4.43	4.13	3.63*		P > A; P > R

*Multivariate summary*  
 Wilks' lambda = 0.70; approximate  $F = 2.52^{**}$   
 Pillai's trace = 0.32; approximate  $F = 2.47^{**}$   
 Hotelling's trace = 0.38; approximate  $F = 2.56^{**}$   
 Roy's largest root = 0.20

**Notes:**  
 \*  $p < 0.05$ ; \*\*  $p < 0.001$

industry and wider competitive environment, there is little consensus on this (Fahy and Smithee, 1999). Many writers maintain the distinction between “outside-in” and “inside-out” approaches to strategy analysis, and debate whether strategy should be environment- or resource-led (de Wit and Meyer, 1998). Our findings support Collis and Montgomery (1995) and more recent attempts (Hooley *et al.*, 1998; Fahy and Smithee, 1999) to develop an integrated view, in which the key aspects of strategy are neither internal capabilities nor external positioning, but are focused on the nature and extent of connectivity between a firm’s resources and its external environment. The key strategic issue in the turbulent context of high technology firms is adaptive fit between an organisation and its environment. There is no persuasive theoretical premise to devote privileged attention to either one over the other.

Our results illuminate the specific nature of the competitive differences between strategic patterns in the high technology sector. Most striking, when comparing the full profiles of the strategic patterns, is the observation that the reactor firms emphasise not one product-market position more than prospectors, and place significantly less emphasis on marketing capabilities (CA2), quality orientation (CA3), product scope and development (CA5) and differentiation focus (CA6). The implication is that, in the UK high technology sector, they appear bereft of any advantages that potentially enable a reactor to outperform a prospector. Interpretation of this finding leads us to consider previous research that suggests: “reactors represent a residual strategy – they lack consistency in strategic choice and perform poorly” (Parnell and Wright, 1993, p. 30); “reactors do not present any consistent pattern of response behaviour to environmental conditions” (Matsuno and Mentzer, 2000, p. 4); and “the reactor does not have a consistent response to the entrepreneurial problem” (Slater and Olson, 2000, p. 814). There are various reasons that might account for this:

- management may fail to articulate and implement a viable business strategy with supporting market propositions;
- there may be a lack of synergy between technology, structure, processes and overall business strategy; and
- there may be resistance to organic initiatives because of misplaced adherence to a failing strategic plan (Miles and Snow, 1978).

In previous literature that has discussed reactors, it has been suggested that they might exhibit a late-mover mode of operation that can often eclipse pioneer firms in markets (Shankar *et al.*, 1998), and several accounts exist as testimony to this (e.g. the personal computer and video game markets). It can be argued that late-mover advantages can accrue to the reactor firm in two ways. First, the pioneer might invest heavily in determining the category concept and buyer attraction for the product (Carpenter and Nakamoto, 1989); then, after consumer preferences and behaviours have been established, the

late-mover reactor can develop a unique product position, undercut on price or out-distribute the pioneer (Shankar *et al.*, 1998). Second, the late-mover might be able to by-pass the pioneer through innovative means (Berndt *et al.*, 1995). However, the research results reported here indicate that high technology reactor firms in the UK are capable of taking neither route to competitive advantage over prospectors.

Turning to a comparison in terms of the individual factors, quality orientation (CA3) requires consideration because our results demonstrate that it is one of the two most important product-market positions, especially for defenders and analysers who rated it as the most important factor; prospectors and analysers as the second most important; and the only significant difference is between prospectors and reactors. The items that compose CA3 (extensive customer service capabilities, personnel training, quality control, reputation building) are of intuitive importance for high technology firms, and are consistent with their need to build an image of trust and reliability in their customer base.

The findings of particular interest in Table III are the product-market positions that distinguish prospectors from other strategic patterns: marketing capabilities (CA2); product scope and development (CA5); and, differentiation focus (CA6). Turning first to product scope and development (CA5), prospectors rated this as the most important product-market position, and emphasized it significantly more than all other strategic patterns. The two items that load highly on this factor (new product development; broad product range) suggest, in the high technology sector, that it involves competences spanning research and development (R&D) and commercial innovation. Such an interpretation allows a close relationship to be drawn between the results of this research and the earlier literature on prospecting strategic patterns; particularly issues involving problems and solutions at the entrepreneurial-engineering interface. The results are also consistent with previous research that finds evidence indicating prospectors spend a significant percentage of turnover on research and development (Hambrick, 1983); suggests that, for many prospecting firms, maintaining the image of an innovator in product terms is an even more important than securing high profitability (McDaniel and Kolari, 1987); and, finds that: "prospectors have a strong concern for product and market innovation and attempt to pioneer in those areas" (Manu and Sriram, 1996, p. 80).

The results in Table III reveal significant differences between prospectors and both defenders and reactors for marketing capabilities (CA2). Marketing capabilities are fundamental ingredients of organisational prosperity (Day, 1994) and developing such capabilities is one of the most effective ways a firm can implement a customer-focused strategy (Woodruff, 1997). These capabilities enable a firm to synchronise resource deployment and encourage proactive exploitation of identified market opportunities (Vorhies and

Yarbrough, 1998). The finding that prospectors emphasise marketing capabilities more than reactors is consistent with the proactive versus reactive paradigm in marketing management (Piercy, 1981). Regarding prospectors and defenders, we find that the former pay significantly more attention to branding, product policy, distribution and advances in marketing methods when compared with the latter. For the defender firm, a preoccupation with the internal business environment is common which causes executives to be myopic in their planning and decision making resulting in an emphasis on efficiency rather than frame-breaking effectiveness (Day and Nedungadi, 1994). This narrow focus leads the defender to pay less attention to the marketplace where customers, suppliers, competitors and allied constituencies all exist. In contrast, the prospecting firm is able to experiment with new marketing methods and identify patterns in emerging market trends and customer preferences. Thus, a firm pursuing, "a prospector strategy is the creator of change and uncertainty in the marketplace to which competitors are forced to react" (Stathakopoulos, 1998, p. 539). It might be surprising that no prospector-analyser differences were calculated for CA2, but it needs to be recognised that the analyser-type of competitive strategy is a prospector/defender hybrid. One reason that no difference was found here might be that the analyser, being informed but conservative, displays many of the market orientation characteristics documented within the literature. For instance, two seminal studies conceptualise market orientation with a focus on information processing functions (Kohli and Jaworski, 1990; Narver and Slater, 1990) indicating the limited differences likely between the analyser mode of strategy (implicitly market-driven) and the prospecting mode of strategy (explicitly market-driven). For instance, analysers are, by their character, intensive market scanners and they exhibit frequent dialogue with customers and commonly assess their competitors' activities (Slater and Narver, 1993). In this regard, Slater and Narver (1993) report market orientation as a significant parameter in their estimation of both prospector and analyser groups from a sample of 140 industrial strategic business units.

The items that compose CA6 are characteristic of premier, quality, bespoke high technology products that serve a narrow market segment. Previous research (e.g. Parker and Helms, 1992) has found that such elements empirically capture the differentiation focus strategy presented by Porter (1980), and it is this connection that explains the label assigned to CA5. Day and Nedungadi (1994, p. 39) suggest that firms with a market-driven focus inherently maintain a "segment focus" on a particular homogenous group(s) within the mass market. Table III reveals that prospecting firms emphasise this product-market position significantly more than analysers and reactors, but that no significant difference was observed between the prospector and defender groups of firm. A possible interpretation of this finding, particularly given the earlier discussion of CA3 which is the product-market position rated

most highly by defenders, is that industrial-based high technology defender businesses might enjoy unique loyalty benefits and thus are able to exploit the long-term relationships invested with customers. Furthermore, in such markets switching costs tend to be high which may allow the defender to sustain a dominant position, like the prospector firm, within narrow customer segments founded on a differentiation approach in terms of product-market positions.

For both the production process orientation (CA1) and price-cost leadership (CA4) product-market positions, no significant differences ( $p > 0.05$ ) were found between any pair of strategic patterns from these data. For production process orientation it was anticipated that defenders in particular, with their internal focus, would have outstripped the prospector group. However, it needs to be understood that in order for prospectors to maintain their proactive orientation, the commercial realities of developments in production and engineering are required to ensure continuity, coherence and prudent growth in organisational performance. Similarly, price-cost leadership (CA4) involves performing many activities at a lower cost than competitors while still offering a parity product (Bharadwaj *et al.*, 1993). Such direct advantages can often be temporary (Day and Wensley, 1983; Chandler and Hanks, 1994) and are vulnerable to being undermined by customers' perceived relative quality in both fragmented and consolidated industries. Therefore, this might explain the non-significant finding for this dimension in distinguishing prospectors from other strategic patterns and also noteworthy is the extremely low relative emphasis placed on price-cost leadership positioning by all firms surveyed.

### Conclusions and implications

Although the prospector mode of strategic behaviour has been studied for more than two decades it remains that this type of firm is: "a complex business to manage" (Slater and Narver, 1993, p. 47). This study found that the key distinguishing features of this pioneer, first-mover and entrepreneurial firm was the way in which it articulated its product-market positions, which are the ways in which firm-specific resources and assets are deployed to build positional advantages in product-markets. The main findings reveal that prospectors place more emphasis than at least one of the alternative strategic patterns (defenders, analysers and reactors) on marketing capabilities, quality orientation, product scope and development and differentiation focus. Prospecting strategy is not only externally focused (Wright *et al.*, 1995), but also balances the signals and demands of the marketplace with internal skills and capabilities. Related to the concept of "strategic fit" between the internal and external environment, this study demonstrates how, in a changing external environment, prospecting firms articulate their sources of competitive advantage in a dynamic sense. Given that the prospector attempts not only to seek but maintain strategic fit, it follows that this firm's heightened awareness of potential external opportunities and flexibility towards internal developments will be enduring in nature.

These features are laudable and many executives in organisations will aspire to adopt a prospecting outlook in management philosophy, decision making and strategic practice, especially those in competitive marketplaces experiencing environmental uncertainty and turbulence. Such executives may learn from findings in several respects. Attempts should be made to engineer the key dimensions of product scope and development, marketing capabilities and differentiation focus to organisational thinking. These are product-market positions that will allow the firm to reassess and develop its portfolio of customer offerings, build on market standing established through excellence and achievement, and ensure a focused approach to positioning within specific target markets. The means through which such changes could be made might include policy revisions, internal marketing efforts and wholesale strategic change programmes. In addition, executives in prospecting firms will need to support and develop these product-market positions by constructing an appropriate platform for building a prospecting culture capable of questioning organisational norms and assumptions, focusing on the implementation of strategies not merely the formulation of creative ideas, and encouraging generative learning and innovation through trial and experimentation.

Future investigations in this field may wish to consider a number of research avenues that have been arisen from this study. Certain questions have already been raised within theories of competitive analysis and conjectural variations (Mueller, 1997) that are associated with the findings here. These theories concern competitive interactions in the marketplace and are relevant because they provide a dynamic element to market evolution. Moreover, Bowen and Wiersema (1999) propose methods to extend the relevance and rigour of strategy and organisation research by suggesting that we move beyond cross-sectional methods that are most often used in applied settings and assume static parameters across firms and over time. Naturally, inferences from this study are limited but more powerful and systematic longitudinal methods might be used in future studies where strategic positioning issues are analysed in combination with the strategic pattern exhibited by firms.

A theme derived from this research is the manner in which prospector firms perceive reactions from competitors (i.e. other prospectors and defenders, analysers and reactors) and the impact this has on subsequent strategic behaviours and the product-market positions that are emphasised. In fact, it has even been suggested that some firms may simply set out to "react" in the most hostile manner:

[...] competitive reactions may hurt a firm regardless of the accuracy with which the reactions are perceived; indeed one of the practical implications of much of the research on competitive reactions is to better understand how competitors can best react to hurt a firm (Clark and Montgomery, 1996, p. 117).

The explication of this notion, within the context of prospecting strategic behaviour, would be both interesting and timely. An additional question could

be proposed, beyond the premise that prospecting strategic behaviour is an ideal that should be pursued by a firm, and both its management and shareholders, whereby analysis is made of a firm's balance between being strategically "different" and being strategically "similar" to its competitor referents. As various researchers have suggested, firms often face conflicting pressures to conform and to differentiate (Chen and Hambrick, 1995) within an industry and these forces are balanced at a point that is called the "competitive cusp" (Porac *et al.*, 1989, p. 414). Deephouse (1999) has recently advanced this notion as the theory of strategic balance and rather than study firms according to conventional strategic pattern, insights may be revealed by addressing strategic positioning and strategic pattern issues within the context not of conformity or distinctiveness, but rather of an eclectic form of strategic practice.

Researchers might also consider the role of contingency effects such as the degree of strategy level, environmental turbulence, product-market characteristics and industry setting which may all confound, to a greater or lesser extent, the findings reported here. Regarding this first consideration of strategy level, future interests may develop to evaluate the interplay within levels of the strategy hierarchy. We have studied business-level strategy exclusively here but issues of corporate parenting and its effects on both strategic pattern and strategic positioning may prove to be influential (see Varadarajan *et al.*, 2001). Similarly, replication studies would help to facilitate a greater understanding and improve overall knowledge of the manner in which prospectors differ, in competitive terms, from defenders, analysers and reactors.

#### Note

1. On the basis that certain studies do not include reactor-type firms.

#### References

- Aragón-Correa, J.A. (1998), "Strategic proactivity and firm approach to the natural environment", *Academy of Management Journal*, Vol. 41 No. 5, pp. 556-67.
- Armstrong, J.S. and Overton, T.S. (1977), "Estimating non-response bias in mail surveys", *Journal of Marketing Research*, Vol. 14, August, pp. 396-403.
- Barney, J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17, pp. 99-120.
- Barringer, B.R. and Bluedorn, A.C. (1999), "The relationship between corporate entrepreneurship and strategic management", *Strategic Management Journal*, Vol. 20, pp. 421-44.
- Baum, J.A.C. and Singh, J.V. (1994), "Organizational niche overlap and the dynamics of organizational mortality", *American Sociological Review*, Vol. 100, pp. 346-80.
- Berndt, E.R., Bui, L., Reiley, D. and Urban, G.L. (1995), "Information, marketing and pricing in the US anti-ulcer market", *American Economic Review, Papers and Proceedings*, Vol. 85 No. 2, pp. 100-5.
- Bettis, R.A. and Hall, W.K. (1982), "Diversification strategy, accounting determined risk and accounting determined return", *Academy of Management Journal*, Vol. 25, pp. 254-64.



- Bharadwaj, S.G., Varadarajan, P.R. and Fahy, J. (1993), "Sustainable competitive advantage in service industries: a conceptual model and research propositions", *Journal of Marketing*, Vol. 57, October, pp. 83-98.
- Bourgeois, L.J. (1980), "Performance and consensus", *Strategic Management Journal*, Vol. 1, pp. 227-48.
- Bowen, H.P. and Wiersema, M.F. (1999), "Matching method to paradigm in strategy research: limitations of cross-sectional analysis and some methodological alternatives", *Strategic Management Journal*, Vol. 20, pp. 625-36.
- Bowman, C. and Ambrosini, V. (1997), "Using single respondents in strategy research", *British Journal of Management*, Vol. 8, pp. 119-31.
- Burgelman, R.A. (1983), "Corporate entrepreneurship and strategic management: insights from a process study", *Management Science*, Vol. 29, pp. 1349-64.
- Carpenter, G.S. and Nakamoto, K. (1989), "Consumer preference formation and pioneering advantage", *Journal of Marketing Research*, Vol. 26, August, pp. 285-98.
- Chandler, G.N. and Hanks, S.H. (1994), "Market attractiveness, resource-based capabilities, venture strategies and venture performance", *Journal of Business Venturing*, Vol. 9 No. 4, pp. 331-49.
- Chen, M. and Hambrick, D.C. (1995), "Speed, stealth and selective attack: how small firms differ from large firms in competitive behaviour", *Academy of Management Journal*, Vol. 38, pp. 453-82.
- Clark, B.H. and Montgomery, D.B. (1996), "Perceiving competitor reactions: the value of accuracy (and paranoia)", *Marketing Letters*, Vol. 7, pp. 115-29.
- Clark, B.H. and Montgomery, D.B. (1999), "Managerial identification of competitors", *Journal of Marketing*, Vol. 63, July, pp. 67-83.
- Collis, D.J. and Montgomery, C.A. (1995), "Competing on resources: strategy in the 1990s", *Harvard Business Review*, Vol. 73, July-August, pp. 118-28.
- Conant, J.S., Mokwa, M.P. and Varadarajan, P.R. (1990), "Strategic types, distinctive marketing competences and organizational performance: a multiple measures-based study", *Strategic Management Journal*, Vol. 11 No. 5, pp. 365-83.
- Conger, J.A., Finegold, D. and Lawler, E.E. (1998), "Appraising boardroom performance", *Harvard Business Review*, Vol. 76, January-February, pp. 136-48.
- Council of American Survey Research Organizations (1982), *On the Definition of Response Rates*, CASRO Special Report, The Council of American Survey Research Organizations, Port Jefferson, NY.
- Covin, J.G. and Slevin, D.P. (1991), "A conceptual model of entrepreneurship as firm behaviour", *Entrepreneurship Theory and Practice*, Vol. 16, pp. 7-24.
- Crant, J.M. (2000), "Proactive behaviour in organizations", *Journal of Management*, Vol. 26 No. 3, pp. 435-62.
- Crawford, F.M. and Lomas, R.A. (1980), "Factor analysis: a tool for data reduction", *European Journal of Marketing*, Vol. 14, pp. 414-20.
- Day, G.S. (1994), "The capabilities of market-driven organizations", *Journal of Marketing*, Vol. 58, October, pp. 37-52.
- Day, G.S. and Nedungadi, P. (1994), "Managerial representations of competitive advantage", *Journal of Marketing*, Vol. 58, April, pp. 31-44.
- Day, G.S. and Wensley, R. (1983), "Marketing theory with a strategic orientation", *Journal of Marketing*, Vol. 47, Fall, pp. 79-89.

- Day, G.S. and Wensley, R. (1988), "Assessing advantage: a framework for diagnosing competitive superiority", *Journal of Marketing*, Vol. 52, April, pp. 1-20.
- de Wit, B. and Meyer, R. (1998), *Strategy: Process, Content*, 2nd ed., International Thomson Business Press, London.
- Deephouse, D.L. (1999), "To be different, or to be the same? it's a question of strategic balance", *Strategic Management Journal*, Vol. 20, pp. 147-66.
- Department of Trade and Industry (1998), *Our Competitive Future: Building the Knowledge Driven Economy – Analysis and Background*, Department of Trade and Industry, London.
- Dess, G.G. and Davis, P. (1984), "Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance", *Academy of Management Journal*, Vol. 27, pp. 467-88.
- Dess, G.G., Lumpkin, G.T. and Covin, J.G. (1997), "Entrepreneurial strategy making and firm performance: tests of contingency and configurational models", *Strategic Management Journal*, Vol. 18, pp. 677-95.
- Diamantopoulos, A. and Schlegelmilch, B.B. (1996), "Determinants of industrial mail survey response: a survey-on-surveys analysis of researchers' and managers' views", *Journal of Marketing Management*, Vol. 12, pp. 505-31.
- Dickson, P.R. and Giglierano, J.J. (1986), "Missing the boat and sinking the boat: a conceptual model of entrepreneurial risk", *Journal of Marketing*, Vol. 50, July, pp. 58-70.
- Dillman, D.A. (1978), *Mail and Telephone Surveys: The Total Design Method*, John Wiley & Sons, New York, NY.
- Dodge, H.R., Fullerton, S. and Robbins, J.E. (1994), "Stage of the organizational life cycle and competition as mediators of problem perception for small businesses", *Strategic Management Journal*, Vol. 15, pp. 121-34.
- Doty, D.H. and Glick, W.H. (1994), "Typologies as a unique form of theory building: toward improved understanding and modeling", *Academy of Management Review*, Vol. 19, pp. 230-51.
- Doyle, P. and Wong, V. (1998), "Marketing and competitive performance: an empirical study", *European Journal of Marketing*, Vol. 32 No. 5/6, pp. 514-35.
- (The) Economist (1998), "Size does matter", *The Economist*, 23-29 May, pp. 57-8.
- Fahy, J. and Smithee, A. (1999), "Strategic marketing and the resource based view of the firm", *Academy of Marketing Science Review*, No. 10, available at: [www.amsreview.org/amsrev/theory/fahy\\_10-99.html](http://www.amsreview.org/amsrev/theory/fahy_10-99.html)
- Fox-Wolfgramm, S.J., Boal, K.B. and Hunt, J.G. (1998), "Organizational adaptation to institutional change: a comparative study of first-order change in prospector and defender banks", *Administrative Science Quarterly*, Vol. 43, pp. 87-126.
- Galbraith, C.S. and Schendel, D.E. (1983), "An empirical analysis of strategic types", *Strategic Management Journal*, Vol. 4, pp. 153-73.
- Gatignon, H. and Xuereb, J.M. (1997), "Strategic orientation of the firm and new product performance", *Journal of Marketing Research*, Vol. 34, February, pp. 77-90.
- Gimeno, J. and Woo, C.Y. (1996), "Hypercompetition in a multimarket environment: the role of strategic similarity and multimarket contact in competitive de-escalation", *Organization Science*, Vol. 7, pp. 322-41.
- Golden, P.A., Johnson, D.M. and Smith, J.R. (1995), "Strategic orientation and marketing strategies in transition economies: a study of Russian firms", *Journal of Strategic Marketing*, Vol. 3, pp. 1-22.

- Grant, R.M. (1991), "A resource-based theory of competitive advantage: implication for strategy formulation", *California Management Review*, Vol. 33, Spring, pp. 114-35.
- Green, D.H., Barclay, D.W. and Ryans, A.B. (1995), "Entry strategy and long-term performance conceptualization and empirical examination", *Journal of Marketing*, Vol. 59, October, pp. 1-16.
- Gupta, A.K. and Govindarajan, V. (1984), "Business unit strategy, managerial characteristics and business effectiveness at strategy implementation", *Academy of Management Journal*, Vol. 27, pp. 25-41.
- Hambrick, D.C. (1981), "Environment strategy and power within top management teams", *Administrative Science Quarterly*, Vol. 26 No. 2, pp. 253-76.
- Hambrick, D.C. (1983), "Some tests of the effectiveness of functional attributes of Miles and Snow's strategic types", *Academy of Management Journal*, Vol. 26 No. 1, pp. 5-26.
- Hannan, M.T. and Freeman, J. (1977), "The population ecology of organizations", *American Journal of Sociology*, Vol. 82, pp. 929-64.
- Harzing, A.-W. (1997), "Response rates in international mail surveys: results of a 22-country study", *International Business Review*, Vol. 6 No. 6, pp. 641-65.
- Helfat, C.E. (2000), "Guest editor's introduction to the special issue: the evolution of firm capabilities", *Strategic Management Journal*, Vol. 21, pp. 955-9.
- Henderson, R. and Mitchell, W. (1997), "The interactions of organizational and competitive influences on strategy and performance", *Strategic Management Journal*, Vol. 18, pp. 5-14.
- Hofer, C.W. and Schendel, D.E. (1978), *Strategy Formulation: Analytical Concepts*, Free Press, New York, NY.
- Hooley, G., Broderick, A. and Möller, K. (1998), "Competitive positioning and the resource-based view of the firm", *Journal of Strategic Marketing*, Vol. 6, pp. 97-115.
- Huber, G.P. and Power, D.J. (1985), "Retrospective reports of strategic-level managers: guidelines for increasing their accuracy", *Strategic Management Journal*, Vol. 16, pp. 171-80.
- Hughes, A. (1999), *Enterprise, Innovation, and High-tech SMEs: The Economics of the Knowledge Driven Economy*, Department of Trade and Industry, UK Government/Centre for Economic Policy Research, London.
- Hunt, S.D. and Morgan, R.M. (1995), "The comparative advantage theory of competition", *Journal of Marketing*, Vol. 59, April, pp. 1-15.
- James, W.L. and Hatten, K.J. (1995), "Further evidence on the validity of the self-typing paragraph approach: Miles and Snow strategic archetypes in banking", *Strategic Management Journal*, Vol. 16, pp. 161-8.
- Jennings, P.D. and Zandbergen, P.A. (1995), "Ecologically sustainable organizations: an institutional approach", *Academy of Management Review*, Vol. 20 No. 4, pp. 1015-52.
- Jobber, D. and O'Reilly, D. (1998), "Industrial mail surveys", *Industrial Marketing Management*, Vol. 27, pp. 95-107.
- Kaiser, H.F. (1958), "The Varimax criterion for analytic rotation in factor analysis", *Psychometrika*, Vol. 23, pp. 187-200.
- Kald, M., Nilsson, F. and Rapp, B. (2000), "On strategy and management control: the importance of classifying business", *British Journal of Management*, Vol. 11, pp. 197-212.
- Karimabady, H. and Brunn, P.J. (1991), "Postal surveys to small manufacturers", *Industrial Marketing Management*, Vol. 20, pp. 319-26.
- Katsikeas, C.S. (1994), "Export competitive advantages: the relevance of firm characteristics", *International Marketing Review*, Vol. 11 No. 3, pp. 3-53.

- Kerin, R.A., Varadarajan, R.P. and Peterson, R.A. (1992), "First-mover advantage: a synthesis, conceptual framework and research propositions", *Journal of Marketing*, Vol. 56, pp. 33-52.
- Kiesler, S. and Sproull, L. (1982), "Managerial response to changing environments: perspectives on problem sensing from social cognition", *Administrative Science Quarterly*, Vol. 27, pp. 548-70.
- Kohli, A.K. and Jaworski, B.J. (1990), "Market orientation: the construct, research propositions and management implications", *Journal of Marketing*, Vol. 52 No. 2, pp. 1-18.
- Lumpkin, G.T. and Dess, G.G. (2001), "Linking two dimensions of entrepreneurial orientation to firm performance: the moderating role of environment and industry life cycle", *Journal of Business Venturing*, Vol. 16, pp. 429-51.
- Luo, Y. and Park, S.H. (2001), "Strategic alignment and performance of market-seeking MNCs in China", *Strategic Management Journal*, Vol. 22, pp. 141-55.
- Lyles, M.A., Baird, I.S., Orris, J.B. and Kuratko, D.F. (1993), "Formalized planning in small business: increasing strategic choices", *Journal of Small Business Management*, Vol. 31, pp. 38-50.
- Lynn, G., Morone, J. and Paulson, A. (1996), "Marketing and discontinuous innovation: the probe and learn process", *California Management Review*, Vol. 38, pp. 8-37.
- McDaniel, S.W. and Kolari, J.W. (1987), "Marketing strategy implications of the Miles and Snow strategic typology", *Journal of Marketing*, Vol. 51, October, pp. 19-30.
- McKee, D.O., Varadarajan, P.R. and Pride, W.M. (1989), "Strategic adaptability and firm performance: a market-contingent perspective", *Journal of Marketing*, Vol. 53, July, pp. 21-35.
- Mahoney, J.T. and Pandian, J.R. (1992), "The resource-based view within the conversation of strategic management", *Strategic Management Journal*, Vol. 13, pp. 363-80.
- Manu, F.A. and Sriram, V. (1996), "Innovation, marketing strategy, environment and performance", *Journal of Business Research*, Vol. 35, pp. 79-91.
- Markides, C. (1998), "Strategic innovation in established companies", *Sloan Management Review*, Vol. 40, Spring, pp. 31-42.
- Matsuno, K. and Mentzer, J.T. (2000), "The effects of strategy type on the market orientation – performance relationship", *Journal of Marketing*, Vol. 64, October, pp. 1-16.
- Miles, R.E. and Snow, C.C. (1978), *Organizational Strategy, Structure and Process*, McGraw-Hill, New York, NY.
- Miller, D. (1987), "The structural and environmental correlates of business strategy", *Strategic Management Journal*, Vol. 8, pp. 55-76.
- Miller, D. and Friesen, P.H. (1978), "Archetypes of strategy formulation", *Management Science*, Vol. 24, pp. 921-33.
- Mitchell, W. (1991), "Dual clocks: entry order influences on incumbent and newcomer market share and survival when specialized assets retain their value", *Strategic Management Journal*, Vol. 12, pp. 85-100.
- Mueller, D.C. (1997), "First-mover advantages and path dependence", *International Journal of Industrial Organization*, Vol. 15 No. 6, pp. 827-50.
- Murphy, G.B., Trailer, J.W. and Hill, R.C. (1996), "Measuring performance in entrepreneurship research", *Journal of Business Research*, Vol. 36, pp. 15-23.
- Naman, J. and Slevin, D. (1993), "Entrepreneurship and the concept of fit: a model and empirical tests", *Strategic Management Journal*, Vol. 14 No. 2, pp. 137-53.

- Narver, J.C. and Slater, S.F. (1990), "The effect of a market orientation on business profitability", *Journal of Marketing*, Vol. 52 No. 3, pp. 20-35.
- Nunnally, J.C. (1967), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Parker, B. and Helms, M.M. (1992), "Generic strategies and firm performance in a declining industry", *Management International Review*, Vol. 32, pp. 23-39.
- Parnell, J.A. and Wright, P. (1993), "Generic strategy and performance: an empirical test of the Miles and Snow typology", *British Journal of Management*, Vol. 4, pp. 29-36.
- Penrose, E. (1959), *The Theory of the Growth of the Firm*, Basil Blackwell, London.
- Phillips, L.W. (1981), "Assessing measurement error in key informant reports: a methodological note on organizational analysis in marketing", *Journal of Marketing Research*, Vol. 18, November, pp. 395-415.
- Piercy, N.F. (1981), "Company internationalisation: active and reactive exporting", *European Journal of Marketing*, Vol. 15 No. 3, pp. 24-40.
- Piercy, N.F. and Morgan, N.A. (1994), "The marketing planning process: behavioural problems compared to analytical techniques in explaining marketing plan credibility", *Journal of Business Research*, Vol. 29, pp. 168-78.
- Porac, J.F., Thomas, H. and Baden-Fuller, C. (1989), "Competitive groups as cognitive communities: the case of Scottish Knitwear Manufacturers", *Journal of Management Studies*, Vol. 26, pp. 397-416.
- Porter, M.E. (1980), *Competitive Strategy*, Free Press, New York, NY.
- Porter, M.E. (1985), *Competitive Advantage*, Free Press, New York, NY.
- Priem, R.L. (2001), "Tautology in the resource-based view and the implications of externally determined resource value: further comments", *Academy of Management Review*, Vol. 26.
- Rajagopalan, N. (1996), "Strategic orientations, incentive plan adoptions and firm performance: evidence from electric utility firms", *Strategic Management Journal*, Vol. 18, pp. 761-85.
- Robinson, R.B. and Pearce, J.A. (1988), "Planned patterns of strategic behaviour and their relationship to business unit performance", *Strategic Management Journal*, Vol. 9, pp. 43-60.
- Robinson, W.T., Kalyanaram, G. and Urban, G.L. (1994), "First-mover advantages from pioneering new markets: a survey of empirical evidence", *Review of Industrial Organization*, Vol. 9, pp. 1-23.
- Roth, K. and Morrison, A.J. (1992), "Business-level competitive strategy: a contingency link to internationalization", *Journal of Management*, Vol. 18 No. 3, pp. 473-87.
- Roth, P.L. and BeVier, C.A. (1998), "Response rates in HRM/OB survey research: norms and correlates, 1990-1994", *Journal of Management*, Vol. 24, pp. 97-117.
- Schul, P.L., Davis, P.S. and Hartline, M.D. (1995), "Strategic adaptation to extended rivalry: effects on organizational performance", *Journal of Business Research*, Vol. 33, pp. 129-42.
- Segev, E. (1987), "Strategy, strategy making and performance – an empirical investigation", *Management Science*, Vol. 33 No. 2, pp. 258-69.
- Segev, E. (1989), "A systematic comparative analysis of two business-level strategic typologies", *Strategic Management Journal*, Vol. 10, pp. 487-505.
- Shane, S. (2000), "Prior knowledge and discovery of entrepreneurial opportunities", *Organization Science*, Vol. 11 No. 4, pp. 448-69.
- Shankar, V., Carpenter, G.S. and Krishnamurthi, L. (1998), "Late-mover advantage: how innovative late entrants outsell pioneers", *Journal of Marketing Research*, Vol. 35, February, pp. 54-70.

- Shapiro, C. (1989), "The theory of business strategy", *RAND Journal of Economics*, Vol. 20 No. 1, pp. 125-37.
- Shortell, S.M. and Zajac, E.J. (1990), "Perceptual and archival measures of Miles and Snow's strategic types: a comprehensive assessment of reliability and validity", *Academy of Management Journal*, Vol. 33 No. 4, pp. 817-32.
- Slater, S.F. and Narver, J.C. (1993), "Product-market strategy and performance: an analysis of the Miles and Snow strategy types", *European Journal of Marketing*, Vol. 27 No. 10, pp. 33-51.
- Slater, S.F. and Olson, E.M. (2000), "Strategy type and performance: the influence of sales force management", *Strategic Management Journal*, Vol. 21, pp. 813-29.
- Smith, K.G., Guthrie, J.P. and Chen, M. (1986), "Miles and Snow's typology of strategy, organizational size and organizational performance", in *Academy of Management Proceedings*, Academy of Management, New York, NY, pp. 45-9.
- Snow, C.C. and Hrebiniak, L.G. (1980), "Strategy, distinctive competence and organizational performance", *Administrative Science Quarterly*, Vol. 25 No. 2, pp. 317-36.
- Speed, R. (1993), "Maximizing the potential of strategic typologies for marketing strategy research", *Journal of Strategic Marketing*, Vol. 1, pp. 171-88.
- Stathakolopoulos, V. (1998), "Enhancing the performance of marketing managers: aligning strategy, structure and evaluation systems", *European Journal of Marketing*, Vol. 32 No. 5/6, pp. 536-58.
- Suchman, M.C. (1995), "Managing legitimacy: strategic and institutional approaches", *Academy of Management Review*, Vol. 20, pp. 571-610.
- Teece, D.J., Pisano, G. and Shuen, A. (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, Vol. 18, pp. 509-33.
- Varadarajan, P.R., Jayachandran, S. and White, J.C. (2001), "Strategic interdependence in organizations: deconglomeration and marketing strategy", *Journal of Marketing*, Vol. 65, January, pp. 15-28.
- Venkatraman, N. (1989), "Strategic orientation of business enterprises: the construct, dimensionality and measurement", *Management Science*, Vol. 35 No. 8, pp. 942-62.
- Vorhies, D.W. and Yarbrough, L. (1998), *Attaining Position of Advantage and Superior Performance through the Development of Marketing Capabilities*, Working Paper, College of Business Administration, University of Wisconsin, Oshkosh, WI.
- Wiseman, F. and Billington, M. (1984), "Comment on a standard definition of response rate", *Journal of Marketing Research*, Vol. 21, pp. 336-8.
- Wissema, J.G., Van der Pol, H.W. and Messer, H.M. (1980), "Strategic management archetypes", *Strategic Management Journal*, Vol. 1, pp. 37-47.
- Woodruff, R.B. (1997), "Customer value: the next source for competitive advantage", *Journal of the Academy of Marketing Science*, Vol. 25 No. 2, pp. 139-53.
- Woodside, A.G., Sullivan, D.P. and Trappey, R.J. (1999), "Assessing relationships among strategic types, distinctive marketing competencies and organizational performance", *Journal of Business Research*, Vol. 45, pp. 135-46.
- Wright, P., Kroll, M., Pray, B. and Lado, A. (1995), "Strategic orientations, competitive advantage and business performance", *Journal of Business Research*, Vol. 33, pp. 143-51.
- Zahra, S.A. (1991), "Predictors and financial outcomes of corporate entrepreneurship", *Journal of Business Venturing*, Vol. 8, pp. 319-40.
- Zahra, S.A. (1993), "A conceptual model of entrepreneurship as firm behaviour: a critique and extension", *Entrepreneurship Theory and Practice*, Vol. 18, pp. 5-21.

---

Zahra, S.A. and Garvis, D.M. (2000), "International corporate entrepreneurship and firm performance: the moderating effect of international environmental hostility", *Journal of Business Venturing*, Vol. 15, pp. 469-92.

Product-market  
positioning

**Further reading**

- Baum, J.A.C. and Mezias, S.J. (1992), "Localized competition and organizational failure in the Manhattan hotel industry, 1898-1990", *Administrative Science Quarterly*, Vol. 17, pp. 580-604.
- Black, J.A. and Boal, K.B. (1994), "Strategic resources: traits, configurations and paths to sustainable competitive advantage", *Strategic Management Journal*, Vol. 15, pp. 131-48.
- Eisenhardt, K.M. and Brown, S.L. (1998), "Time pacing: competing in markets that won't stand still", *Harvard Business Review*, Vol. 76, March-April, pp. 59-69.
- James, W.L. and Hatten, K.J. (1994), "Evaluating the performance effects of Miles and Snow's strategic archetypes in banking, 1983 to 1987: big or small?", *Journal of Business Research*, Vol. 31, pp. 145-54.
- Nelson, R. and Winter, S. (1982), *An Evolutionary Theory of Economic Change*, Harvard University Press, Cambridge, MA.
- Parker, D. and Stacey, R. (1994), *Chaos, Management and Economics*, The Institute of Economic Affairs, London.
- Robinson, W.T., Fornell, C. and Sullivan, M. (1992), "Are market pioneers intrinsically stronger than late entrants?", *Strategic Management Journal*, Vol. 13, pp. 609-24.

---

1439

**Tony McGuinness**

Tony McGuinness is Senior Lecturer in Marketing at the School of Management and Business, University of Wales Aberystwyth. His recent published research, in journals, includes *Journal of Strategic Marketing*, *Strategic Change*, *Journal of Industrial Economics*, *European Economic Review* and *International Review of Applied Economics*. Much of his work has addressed the effects of advertising and tax regulations on the marketing of alcohol and tobacco products, and his past appointments include that of advisor to the Institute of Alcohol Studies. Other published research has been on innovation and organisational learning as well as the transactions cost and resource-based theories of the firm, and include *The Economics of the Firm* – a book co-edited with Roger Clarke.

**Robert E. Morgan**

Robert E. Morgan is Professor of Marketing and Strategic Management at the School of Management and Business, University of Wales Aberystwyth. With a background in economics and organisation science, his research interests concern strategic decision processes, organisational cognition and market-based learning. He has acted as workshop leader and advisor to several large organisations (e.g. BT, MITEL, BBC, RS Components, The Environment Agency) and public bodies (e.g. Department of Trade and Industry, Foreign and Commonwealth Office, HM Treasury) on these topics and published his research widely with recent articles appearing in *Journal of Business Research*, *Omega*, *Industrial Marketing Management*, *Journal of Marketing Management*, *International Business Review* and *Journal of Strategic Marketing*, among others.

**Leigh Morris**

Leigh Morris joined Research International as an Associate Director in January 2001, and is based within the Marketing Science Centre. His main responsibilities include supporting and developing the RI branded techniques, leading the segmentation development team, and designing solutions to custom research problems. Leigh also specialises in predictive modelling.

**Brendan Moyle**

Brendan Moyle is a Senior Lecturer in Economics within the Department of Commerce, Massey University at Albany, Auckland, New Zealand. His research interests include conservation management and policy, bio-economic modelling and sustainable use strategies. He has published in a number of international academic and practitioner journals.



---

EJM  
37,10

**Edward Shiu**

Edward Shiu is a Lecturer in the Department of Mathematics at Glasgow Caledonian University. He graduated in Pure Mathematics from University College London in 1972, he has since focused his academic developments in the applications of statistics in marketing. His area of specialism is in multivariate data analysis and statistical modelling within marketing research. His research interests cover the modelling and measurement of service quality in the non-profit sector as well as the development and evaluation of models of consumer behaviour.

**1518**

---

**Magnus Söderlund**

Magnus Söderlund is an Associate Professor of Marketing at Stockholm School of Economics (SSE) in Sweden. He is also Head of the Center for Consumer Marketing at SSE. His research interests include issues related to customer satisfaction and customer loyalty. Söderlund's most recent book, *The Loyal Customer* received the Swedish award "Marketing Book of the Year" in 2001.

**Carolyn A. Strong**

Carolyn A. Strong has previous industrial experience in marketing management with the Royal Mail and is presently Lecturer in Marketing and Strategy at Cardiff Business School, Cardiff University. Her particular research interests involve modelling the impact of customer focus strategies on business performance, specifically in the business-to-business context. Her recent research work has been published in *Journal of Business Research*, *European Journal of Marketing*, *Business in the Contemporary World* and *Public Money and Management*.