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Generic strategies and performance – evidence from manufacturing firms

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Abstract

Purpose – The purpose of this study is to examine the relationship between business-level strategy and organisational performance and to test the applicability of Porter's generic strategies in explaining differences in the performance of organisations.

Design/methodology/approach – The study was focussed on manufacturing firms in the UK belonging to the electrical and mechanical engineering sectors. Data were collected through a postal survey using the survey instrument from 124 organisations and the respondents were all at CEO level. Both objective and subjective measures were used to assess performance. Non-response bias was assessed statistically and it was not found to be a major problem affecting this study. Appropriate measures were taken to ensure that common method variance (CMV) does not affect the results of this study. Statistical tests indicated that CMV problem does not affect the results of this study.

Findings – The results of this study indicate that firms adopting one of the strategies, namely cost-leadership or differentiation, perform better than "stuck-in-the-middle" firms which do not have a dominant strategic orientation. The integrated strategy group has lower performance compared with cost-leaders and differentiators in terms of financial performance measures. This provides support for Porter's view that combination strategies are unlikely to be effective in organisations. However, the cost-leadership and differentiation strategies were not strongly correlated with the financial performance measures indicating the limitations of Porter's generic strategies in explaining performance heterogeneity in organisations.

Originality/value – This study makes an important contribution to the literature by identifying some of the gaps in the literature through a systematic literature review and addressing those gaps.

Keywords Manufacturing industries, Management strategy, Mechanical engineering, Organizational performance, Electrical engineering, United Kingdom

Paper type Research paper

1. Introduction

The extant literature suggests that organisational strategies can be broadly classified into three different levels namely the corporate-level strategy, business-level strategy and functional-level strategy (Hax and Majluf, 1984; Grant and King, 1982; Bourgeois, 1980). The corporate-level strategy is concerned with domain selection, that is to say, the vertical, horizontal, and market scope and linkage and level of integration among different businesses (Bourgeois, 1980; Rumelt, 1974). The business-level strategy is concerned with domain navigation, that is to say how the firm competes effectively in

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an industry (Hambrick, 1980; Beard and Dess, 1981). Functional-level strategies focus on the maximisation of resource productivity within each specific function and they are generally derived from the business strategy (Schendel and Hofer, 1979). Corporate-level strategy is too aggregated for understanding the strategic response to environmental influences such as competitive moves, technological changes, entry and exit of competitors, while a key function of strategy is to integrate activities of key functions and as such functional level strategies are not particularly important (Venkatraman, 1989). Not surprisingly, business strategy provides the focus for a significant majority of the strategy research studies.

Generic business strategies can be organised broadly into two groups namely typologies and taxonomies. Typologies are inductively driven qualitative characterisation of the "strategic behaviour of business organisation", where the strategic types are rooted in a set of parsimonious classificatory dimensions or conceptual criteria (Venkatraman, 1989, p. 943). The strategic management literature outlines a number of typologies (e.g. Miles and Snow, 1978; Abell, 1980; Porter, 1980; Miles, 1982). Taxonomies are empirically derived based on the measurement of a few indicators of firms' strategic behaviour and they represent the existence of internally consistent configurations. Prominent taxonomies include Miller and Friesen (1978) and Galbraith and Schendel (1983). Their development is sensitive to the choice of underlying dimensions as well as the analytical method used to extract the taxonomies (Hambrick, 1984; Miller and Friesen, 1984).

> While taxonomies serve to capture the comprehensiveness and integrative nature of strategy through their internal coherence, they do not reflect the "within-group" differences along the underlying dimensions (Venkatraman, 1989, p. 943).

Typologies are theoretically derived dimensions which rely on identifying and measuring the key traits of the strategy and assessing differences and similarities across a profile consisting of a set of characteristics that collectively describe the strategy (Robinson and Pearce, 1988; Venkatraman, 1989). This type of strategy classification has attracted greater attention because it aids the understanding and focus on the ordering of information. Hence, in this study the focus will be on typologies.

2. Strategy typologies

In this section we will provide a summary of key typologies. The range of strategic behaviours and their key characteristics for each typology are summarised in Table I.

A number of studies that have operationalised business-level generic strategies have been published in leading academic journals (e.g. Hambrick, 1982; Dess and Davis, 1984; Miller, 1987; Conant *et al.*, 1990; Jennings and Lumpkin, 1992; Jennings and Seaman, 1994; Marlin *et al.*, 1994; Frambach *et al.*, 2003; Andrews *et al.*, 2006). Most of these studies have operationalised business-level strategies using either Miles and Snow (1978) typology or Porters (1980) typology. Even the recently published studies in leading academic journals have used these typologies to operationalise business-level strategies (e.g. Kim *et al.*, 2004; Jermias and Gani, 2004; Allen *et al.*, 2006; Desarbo *et al.*, 2005; Moore, 2005). This indicates that these typologies are contemporary and are effective in explaining performance heterogeneity among organisations.

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Author(s)	Typologies/taxonomies	Characteristics
Buzzell *et al.* (1975)	(1) Building	(1) Improving market share by introducing new products, increasing marketing efforts etc.
	(2) Holding	(2) Maintaining existing level of market share
	(3) Harvesting	(3) Achieving high short-term earnings and cash flow by permitting market share to decline
Utterback and Abernathy (1975)	(1) Performance maximising	(1) Emphasis in product and/or service performance; technology, and product R&D emphasised
	(2) Sales maximising	(2) Marketing emphasis to increase total sales and market share of firm
	(3) Cost minimising	(3) Emphasis placed on process technology/R&D to decrease total cost of production
Hofer and Schendel (1978)	(1) Share increasing	(1) High investment to increase share of market
	(2) Growth	(2) Maintain position in expanding markets, investment at industry norms
	(3) Profit	(3) Investment at industry norms, cost controls to "throw off cash"
	(4) Market concentration and asset reduction	(4) Realignment of resources to focused, smaller segments
	(5) Turnaround	(5) Improve strategic posture, may require investment
	(6) Liquidation	(6) Generate cash while withdrawing from market
Miles and Snow (1978)	(1) Defenders	(1) Organisations which have narrow product-market domains
	(2) Analysers	(2) Organisations which operate in two types of product-market domains, one relatively stable, the other changing
	(3) Prospectors	(3) Organisations which almost continually search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends
	(4) Reactors	(4) Organisations in which top managers frequently perceive change and uncertainty occurring in their organisational environments but are unable to respond effectively
Vesper (1979)	(1) Multiplication	(1) Expansion of market share by multiplying present market structures
	(2) Monopolising	(2) Eliminate competition, establish barriers to entry, and control resources

(*continued*)

Table I.
Typologies of business-level generic strategies

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Author(s)	Typologies/taxonomies	Characteristics
	(3) Specialisation	(3) Specialise in products and/or production process
	(4) Liquidation	(4) Give up business and market position
Abell (1980)	(1) Dimensions of scope of offerings	(1) Scope of a business in terms of customers it serves, the customer functions it serves or the technologies it utilises
	(2) Extent of differentiation across product-market segments	(2) Extent to which the company differentiates its offering across segments like customer groups, customer functions and technologies
	(3) Degree of competitive differentiation	(3) Degree to which a company differentiates itself from its competitors
Wissema *et al.* (1980)	(1) Explosion	(1) Improve competitive position in short-term
	(2) Expansion	(2) Improve competitive position in long term
	(3) Continuous growth	(3) Maintain position in expanding markets, normal investment
	(4) Slip	(4) Give up market share to generate cash in growing market
	(5) Consolidation	(5) Give up market share to generate cash in stable market
	(6) Contraction	(6) Liquidate assets and terminate market position
Porter (1980)	(1) Cost leadership	(1) Efficiency, experience curve policies, overhead control, and other cost reductions
	(2) Differentiation	(2) Creating uniqueness in product and/or service
	(3) Focus	(3) Focusing on specific buyer group, or market
Miles (1982)	(1) Domain defence	(1) Preservation of traditional product-market through (i) creation and control of vital information and (ii) lobbying and co-opting of influential elements of the institutional environment
	(2) Domain offence	(2) Improvement of economic performance in traditional product-market through (i) product innovation and (ii) market segmentation
Galbraith and Schendel (1983)	Strategy types for consumer products:	
	(1) Harvest	(1) Strategy of disinvestment. Firms using this strategy type show a clear and consistent effort to harvest the business by their actions

(*continued*)

Table I.

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Author(s)	Typologies/taxonomies	Characteristics
	(2) Builder	(2) Strategies of firms with strong commitments to their products, promotion and R&D. Builder strategies are used by firms attempting to rapidly expand sales and/or gain market share position
	(3) Cashout	(3) Firms following this strategy may utilise advertising and promotion to inflate their product's perceived worth to command higher prices, higher margins and hence higher profits. Firms operating in declining markets may employ a form of promotional hype in order to extend the life of their product
	(4) Niche or specialisation	(4) Firms follow a specialisation strategy emphasising high quality product or service characteristics. They give importance to R&D efforts and new product introductions
	(5) Climber	(5) Firms display narrow product bases, low prices and inferior quality postures
	(6) Continuity	(6) Corresponds to continuity or Status quo strategy
Galbraith and Schendel (1983)	Strategy types for industrial products:	
	(1) Low commitment	(1) This is a strategy of low commitment. This strategy type coincides with the harvest strategy type for consumer products
	(2) Growth	(2) A growth strategy for firms with a strong commitment to their products. Investment is very high and there is a strong commitment to expand market position
	(3) Maintenance	(3) This is a hybrid strategy combining the characteristics of a continuity strategy with those of a cost reduction strategy
	(4) Niche or specialisation	(4) Specialisation strategy similar to that of consumer goods organisations. Superior quality posture, high pricing policies and narrow product line with only marginal emphasis on promotional activities are some of the characteristics of this strategy
Herbert and Deresky (1987)	(1) Develop	(1) The basic strategy is to grow through locating and exploiting new product and market opportunities

Table I.

(*continued*)

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Author(s)	Typologies/taxonomies	Characteristics
	(2) Stabilise	(2) The basic strategy is to maintain its competitive position through efficient asset utilisation and/or market segmentation
	(3) Turnaround	(3) The basic strategy is to arrest and reverse the declining fortunes of the business as quickly as possible
	(4) Harvest	(4) The basic strategy is to disinvest while retaining interim operational viability in order to generate at least minimum returns toward financial target such as cash flow or ROA and to attract buyers
Douglas and Rhee (1989)	(1) Broad-liner	(1) Focus on high product quality and consistent with their broad market scope/product quality strategy; these types of organisations have high levels of market share and ROI
	(2) Innovator	(2) They have extremely high proportion of new products in their product line and they emphasise innovativeness rather than marketing effort
	(3) Integrated Marketer	(3) Exhibit some characteristics of broad-liner like broad market scope and above average quality. They also exhibit high customer concentration and a high degree of vertical integration
	(4) Low Quality	(4) Low product quality, narrow market scope and have below average market share
	(5) Nicher	(5) Adopt a highly focused market niche strategy and target a small number of highly concentrated customers. They focus on high product quality and target a premium high quality segment
	(6) Synergist	(6) They have a relatively narrow market scope, but product quality and percentage of new products were below average

Source: Adapted from Galbriath and Schendel (1983)

Table I.

2.1 Operationalisations of strategy typologies

According to Snow and Hambrick (1980) there are four different approaches for operationalising and measuring business level strategies:

(1) investigator inference;

(2) self-typing;

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(3) external assessment; and
(4) objective indicators.

In the investigator inference approach, the researcher conducts interviews with the managers of the organisation and uses all the available information about the organisation contained in annual reports, government documents and press releases and assesses the organisation's strategy. This information is processed using a typological framework and the strategy of the organisation is identified.

In the self-typing approach, senior managers of the organisation are asked to characterise the organisation's strategies. According to Conant *et al.* (1990) there could be two types of self-typing. In the normal self-typing approach, respondents are asked to classify their organisation as a particular strategic type based on paragraph descriptions of various strategy typologies explained earlier. The other one is the self-typing approach complemented by investigator-specified decision rules. In this approach, the extent to which a firm's strategy is conformed to a particular strategic type is assessed using multi-item Likert-type scales intended to measure each of the strategic types in a particular typology.

In the external assessment approach, the self-typing measures of strategy are confirmed by obtaining the ratings of individuals external to the organisation like competitors, consultants, industry analysts and expert panels. While using objective indicators, there is no reliance on the perceptions of either the managers of the organisation or external individuals. Instead the objective indicators approach uses quantifiable published data like the product-market data.

In order to examine the operationalisation of business-level strategy using strategy typologies, a systematic literature review of the papers published in leading academic journals was conducted. The literature suggests that the most prominent of the strategic typologies are those by Miles and Snow (1978) and Porter (1980) (Bantel and Osborn, 1995). Hence, only those studies which have operationalised business-level strategy using the Miles and Snow typology and Porter's typology were selected for the literature review. The contents pages of *Strategic Management Journal*, *Academy of Management Journal*, *Academy of Management Review*, *Journal of Management*, *Journal of Management Studies*, *Long Range Planning* and *British Journal of Management* were thoroughly searched to identify the articles in which business-level strategy was operationalised. The electronic databases namely Business Source Complete, JSTOR and Emerald were also searched in the title, author supplied key words and abstract using the key words like "business-level strategy", "strategy", "porter" and "Miles and Snow".

3. Findings from the literature review

The literature review was helpful in identifying some gaps in the literature. It was found that a small number of studies (e.g. O'Farrell *et al.*, 1992; Parker and Helms, 1992; Cronshaw *et al.*, 1994; Andrews *et al.*, 2006; O'Regan and Ghobadian, 2006) have examined the relationship between business-level strategy and performance among UK based organisations. Out of these studies, only O'Regan and Ghobadian (2006) have focussed on manufacturing organisations belonging to the engineering sectors. The literature review suggested that there has been a lack of consistency in the use of constructs for measuring strategies in the studies belonging to both the groups

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(Porter's and Miles and Snow). While the paragraph descriptions used to describe the strategies proposed by Miles and Snow (1978) in the studies has been consistent, the constructs used in the self-typing complemented by investigator-specified decision rules approach in both the categories has been inconsistent. For example Kotha and Nair (1995) had measured differentiation strategy using the advertising intensity construct, Homburg *et al.* (1999) used constructs namely creating customer value, premium product or brand image and high prices to measure differentiation strategy. While Cost leadership strategy was measured using the manufacturing costs and prices construct by Lee and Miller (1996), it was measured by Chan and Wong (1999) in terms of availability of surplus funding, back-up by the parent/holding company and low financing costs. Such inconsistency in measuring strategy is visible in the studies that have operationalised strategy using Miles and Snow typology. While Ramaswamy *et al.* (1994) measured prospector strategy in airline industry using the constructs namely service expenditure, first class service, service emphasis and promotion expenditure, Moore (2005) operationalised it using innovative trading practices and entry into new markets. Similarly, defender strategy was operationalised by Ramaswamy *et al.* (1994) in terms of operational expenditure, schedule completion rate and revenue load factor, Moore (2005) assessed it using constructs such as maintaining a safe niche, sticking to the existing trading practices and giving emphasis to improving current ways of trading rather than developing new methods. The examples cited above illustrate the inconsistency in using the constructs while measuring strategy and this could be a serious drawback of the studies. In addition, the sample size used was below 100 in a large number of studies (e.g. Jennings and Lumpkin, 1992; Beekun and Ginn, 1993). This study fills some of these gaps by focussing on manufacturing organisations in the UK belonging to engineering sectors and by using a large sample. Furthermore, the constructs chosen to measure business-level strategy in this study, were reviewed by a panel of strategy scholars, and the changes suggested by them have been incorporated in the measurement scale.

The main findings of the principal studies examining the relationship between strategic types and organisational performance are summarised in Table II.

The numbers of studies which found support and which did not find support for the views such as: firms adopting a dominant strategic orientation perform better than stuck-in-the-middle firms; and firms adopting integrated strategies perform better than those which adopt only one particular strategy, are shown in Table III.

4. Research model and hypotheses

The conceptual framework used in this study is shown in Figure 1.

As shown in the conceptual framework this study examines the relationship between business-level strategy and both subjective and objective measures of performance. The primary aim of this study is to establish the importance of a clear strategy in improving organisational performance. The organisations belonging to the sample were classified into four strategic groups namely cost-leadership, differentiation, integrated strategy and stuck-in-the-middle and their performance was compared. The first three groups have clearly defined business-level strategies and they should perform better than the stuck-in-the-middle group, which does not have a clear strategy.

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Author(s)	Findings
Porter's typology	
Dess and Davis (1984)	Organisations adopting one of the strategies perform better than stuck-in-the-middle companies
Karnani (1984)	Organisations adopting either a cost-leadership or differentiation strategy were able to increase their market share and profitability
Prescott (1986)	Environment moderate the strength of relationship between strategy and performance
White (1986)	Firms following a cost-leadership strategy performed well when they had low autonomy and differentiators performed well in conditions of high autonomy
Lawless and Finch (1989)	The relationship between strategy and performance vary by environment
Wright *et al.* (1991)	Firms which adopted a cost-leadership strategy performed better than others competing with alternative strategies if the cost-leaders were able to achieve a lower cost position than others. Similarly the performances of differentiators were better than other firms following alternative strategies if they exhibited superior differentiation characteristics than others. Firms which employed integrated strategies by combining cost-leadership and differentiation outperformed other firms
O'Farrell *et al.* (1992)	Among service firms, those adopting a differentiation strategy performed better than the ones which are stuck in the middle
Parker and Helms (1992)	The performance of firms pursuing mixed strategies in the textile mill products industry was almost on a par with firms pursuing a single strategy
Miller and Dess (1993)	Performance across strategic types vary significantly
Cronshaw *et al.* (1994)	Sainsbury's in the UK uses both cost leadership and differentiation strategies and they are able to perform well in the market by using this integrated strategy
Marlin *et al.* (1994)	Performance in maximum and differentiated choice situations was greater than performance in minimum and incremental choice situations
Kling and Smith (1995)	Those airlines which were pursuing one of the three generic strategies enjoy better competitive positions in the industry and superior profitability
Kotha and Nair (1995)	Strategy and environment significantly influence firm profitability
Lee and Miller (1996)	The strategy-environment match is positively associated with performance
Kumar *et al.* (1997)	The hospitals pursuing focussed cost-leadership and focussed differentiation strategies performed well. However those hospitals using combination strategies by combining cost leadership and differentiation performed poorly
Chan and Wong (1999)	Banks adopting more than one strategy outperform others which follow only one strategy
Smith and Reece (1999)	A business-strategy focussed on customer service indirectly affected performance through its significant effect on productivity

Table II.
Results of the studies

(*continued*)

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Author(s)	Findings
Huang (2001)	No significant difference in the performance of stuck-in-the-middle firms and firms pursuing innovation and cost-leadership strategies. Firms following an innovation strategy outperformed firms following cost-leadership strategy
Kumar *et al.* (2002)	Differentiators had stronger market orientation than cost leaders and market orientation had a more positive impact on performance of differentiators than cost leaders
Powers and Hahn (2004)	Banks pursuing a cost-leadership strategy performed better than the ones which were stuck-in-the-middle and the ones which used either a differentiation strategy or a focus strategy did not perform better than stuck-in-the-middle banks
Kim *et al.* (2004)	Cost-leaders performed at the lowest level and firms combining cost-leadership and differentiation strategies performed at the highest level
Koo *et al.* (2004)	Differentiation strategy was associated with superior performance in on-line firms and focus strategy was correlated with good performance in click-and-mortar firms
Ge and Ding (2005)	Customer orientation had the strongest relationship with business-level strategy and performance
Torgovicky *et al.* (2005)	Among ambulatory health care service providers in Israel, those firms which adopted either a differentiation strategy or a focus strategy resulted in superior organisational performance than stuck-in-the-middle companies
Miles and Snow typology	
Hambrick (1983)	Environment had a significant influence in the relationship between strategic types and performance
Conant *et al.* (1990)	Marketing competencies of prospectors were superior to those of analysers, defenders and reactors. But the prospectors, analysers and defenders performed equally well and outperformed reactors
Parnell and Wright (1993)	In terms of revenue growth Prospectors outperformed others, but in terms of profitability Analysers outperformed others. Reactors had the lowest level of performance. Integrated strategies were useful for sustaining competitive advantage
James and Hatten (1994)	Strategic type had a small effect on performance
Ramaswamy *et al.* (1994)	Defenders performed better than Prospectors
Parnell (1997)	Reactors had the lowest and balancers had the highest level of performance in terms of ROA
Hoque (2004)	There was a significant relationship between management's strategic choice and performance
Moore (2005)	Prospectors, defenders and analysers performed consistently while reactors performed inconsistently. Prospectors had a stronger positive relationship with performance
Andrews *et al.* (2006)	There was a positive relationship between Prospector strategy and performance and a negative relationship between Reactor strategy and performance
O'Regan and Ghobadian (2006)	Among manufacturing SMEs, Prospectors perform better than Defenders

Table II.

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Porter's (1980) framework suggests that organisations adopt three potentially successful generic strategic approaches:

(1) overall cost leadership;
(2) differentiation; and
(3) focus for outperforming other firms in an industry.

By adopting one of these generic strategies organisations can mitigate the threat from five competitive forces (see Porter, 1980):

(1) bargaining power of suppliers;
(2) bargaining power of new entrants;
(3) bargaining power of buyers;
(4) bargaining power of substitutes; and
(5) rivalry among existing firms.

Some scholars have raised concerns about the effectiveness of Porter's generic strategies (e.g. Miller, 1992; Bowman, 2008) and some others have proposed alternative strategy frameworks (e.g. Treacy and Wiersema, 1997; Kim and Mauborgne, 2005). However, the literature contends that Porter's (1980) strategy framework has "spurred

Table III.
Strategy and performance

Findings	Studies which supported this finding	Studies which did not support this finding
Firms adopting a dominant strategic orientation perform better than stuck-in-the-middle firms	10 1 – Partially supported	1
Firms adopting integrated strategies perform better than those which adopt only one particular strategy	4	2

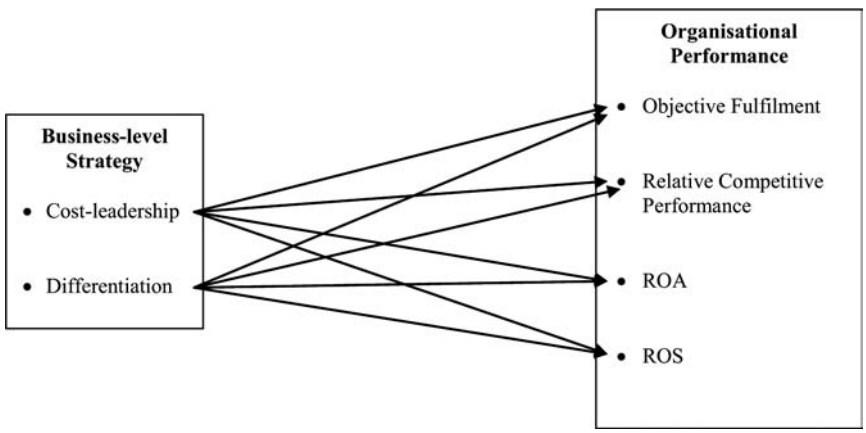

Figure 1.
The relationship between business-level strategy and performance

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the most theoretical refinement and empirical analysis" (Dess *et al.*, 1995, p. 375). Hence, in this study Porter's (1980) typology was used to operationalise business-level strategy. A large number of studies like Homburg *et al.* (1999); Marlin *et al.* (1994); Lee and Miller (1996); Kabadayi *et al.* (2007); Helms *et al.* (1992); Auzair and Langfield-Smith (2005) and Wai-Kwong *et al.* (2001) have operationalised Porter's generic strategies using only cost-leadership and differentiation constructs. Hence, cost-leadership and differentiation constucts were used to operationalise generic strategies in this study. According to Porter a firm can become "stuck in the middle" for one of the two reasons (Kim *et al.*, 2004):

(1) if it fails to develop a strategy in at least one of the three directions, it may become stuck in the middle leading to poor performance; and

(2) if it tries to pursue more than one generic strategy simultaneously they can become stuck in the middle.

However, empirical evidence suggests that pursuance of an integrated strategy by combining both cost leadership and differentiation is helpful in earning above-average returns (e.g. Dess *et al.*, 1999; Kim and Lim, 1988). In this study organisations giving emphasis to both cost-leadership and differentiation strategies are classified under the integrated strategy group. Stuck-in-the-middle companies are defined as those firms that do not give emphasis to either cost leadership or differentiation strategies.

One of the significant findings of the literature review is that strategy typologies are an effective tool for explaining performance heterogeneity in organisations. Organisations that do not have a dominant strategic orientation (stuck-in-the-middle companies) and Reactors (Miles and Snow, 1978) tend to have the lowest level of performance. The literature review also highlights the importance of adopting a particular strategic orientation while competing with others in its chosen domain of operations. By and large the findings of previous studies indicate that firms adhering to one of the strategic types perform better than firms without a dominant strategic orientation (stuck-in-the-middle companies). However, as pointed out earlier, only a few studies have examined UK based organisations, and out of them, only one study has looked at engineering sector. There have been inconsistencies in the operationalisation of business-level strategies in the previous studies. Because of these gaps in the literature a need for examining the impact of generic strategies on organisational performance was identified.

The following hypotheses have been formulated to assess the nature of relationship between business-level strategy and performance:

H1. Organisations having a clear business-level strategy by adopting one of the strategies namely cost-leadership, differentiation or integrated strategies will perform better than those organisations which are stuck-in-the-middle.

H2. Organisations following integrated strategies will perform better than those pursuing either a cost-leadership strategy or a differentiation strategy.

5. Research methodology

The constructs used for measurement, sampling procedure, data collection method and issues relating to common method variance are discussed in this section. Data was collected through a postal survey using a survey instrument; seven-point Likert-type

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scales were used to measure the constructs. Business-level strategy was measured using cost-leadership and differentiation dimensions and the measurement scale was adapted from Luo and Zhao (2004). The items in the scale highlighted various competitive activities and the respondents were asked to indicate the extent to which their firms focussed on these activities in comparison to their main competitors in the last five years. The adapted measurement scale was sent to ten strategy scholars for review and based on their comments the scale was modified. In this study organisational performance was measured using subjective and objective measures. Subjective measures are objective fulfilment and relative competitive performance and objective measures are return on assets (ROA) and return on sales (ROS). The measurement scales for objective fulfilment and relative competitive performance were adapted from Ramanujam and Venkatraman (1987). Objective fulfilment is defined as the extent to which the organisation has achieved its short-term and long-term performance objectives and minimised the problems. Respondents were asked to indicate the extent to which their organisation has fulfilled its objectives in the last five years. Relative competitive performance is defined as the extent to which organisational performance has either improved or deteriorated in terms of sales, profit, market share, return on assets, return on equity, return on sales, current ratio, overall firm performance and competitive position. The respondents were asked to compare their performance in the last five years with their main competitors based on these nine factors. The literature provides strong support for the technique of subjective performance measurement (e.g. Dess and Robinson, 1984; Pearce *et al.*, 1987; Priem *et al.*, 1995; Brews and Hunt, 1999). Moreover, in many studies examining the impact of generic strategies on performance, subjective performance measures have been extensively used. For example, Homburg *et al.* (1999) have measured performance using three dimensions:

(1) adaptiveness;
(2) effectiveness; and
(3) efficiency.

In many other similar studies like Lee and Miller (1996), Kabadayi *et al.* (2007) and Wai-Kwong *et al.* (2001) subjective performance measures have been used. The measurement scales used in this study are shown in the Appendix. In the questionnaire the sub-headings namely cost-leadership and differentiation were not provided in the section on business-level strategy and the items were randomised. The financial data for five years from 2002 to 2006, for 88 out of the 124 organisations that participated in the survey, was collected from a commercial database, and the profitability ratios ROA and ROS were calculated. Average values of these two ratios for five years were calculated. The accounting measures of performance suffer the limitations of varying depreciation, inventory, and lease valuation methods. This problem can be minimised by taking averages of financial ratios for a few years (Hambrick, 1983). Many authors like Kim and Lim (1988); Miller (1989); Hambrick and Lei (1985); Thomas and Ramaswamy (1996) and Hambrick (1983) have used averages of financial ratios as a measure of performance in similar studies.

The sample of firms for the survey was selected from a leading commercial database. The 2003 UK SICs codes have been used as the basis for selecting the sample. Companies having more than 50 employees belonging to Section – D Manufacturing, Subsections DJ, DK, DL and DM were included in the sample. These SIC codes

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represent the electrical and mechanical engineering firms in the UK. Altogether there were 4,511 companies in the sampling frame. A simple random sample of 700 organisations was generated from the population consisting of 4,511 companies. Telephone calls were made to these 700 organisations to verify the names of the Chief Executives and the addresses of the organisations. Some of the organisations clearly indicated that they did not want to take part in a survey, and they were removed from the sample. A total of eight firms had gone into administration and hence could not take part in the survey; 16 organisations were inactive, and had to be excluded from the sample. Finally, a sample consisting of 569 organisations was obtained. Questionnaires were mailed to the Chief Executives of these 569 organisations, with a covering letter and business reply envelopes. Salant and Dillman (1994) suggested sending a follow-up postcard to the members of the sample eight days after sending the questionnaire. However, since a telephone call is more effective than a postcard, telephone calls were made to all the companies that had not responded eight days after receiving the questionnaires. Following Salant and Dillman (1994), three weeks after the first mailing, questionnaires with covering letters and business reply envelopes were mailed again to the non-respondents. This data collection process resulted in 124 usable responses. 11 questionnaires were undeliverable. The overall response rate according to the formula suggested by De Vaus (2002) is 22.22 per cent. According to the guidelines provided by Salant and Dillman (1994) the minimum number of responses necessary at 95 per cent confidence level and +/- 10 per cent sampling error for a population size of 5,000 based on the conservative assumption that the population is relatively varied (50/50 split) is 94. We have received 124 responses and this is greater than the minimum number of responses suggested by Salant and Dillman (1994). Table IV summarises the details of the sample selection process.

Common method variance (CMV) refers to the amount of spurious covariance shared among variables because of the common method used in collecting data (Buckley *et al.*, 1990). In typical survey studies in which the same rater responds to the items in a single questionnaire at the same point in time, data are likely to be susceptible to CMV (Kemery and Dunlap, 1986; Lindell and Whitney, 2001). Potential causes for spurious correlation between self-report measures are consistency motif, social desirability, behaviour due to stimuli setting and knowledge deficiency (Podsakoff and Organ, 1986; Miller and Roth, 1994). The constructs used in this study required the respondents to report on discrete events reducing the likelihood of distorted self-reports and/or socially desirable responses. Hence, the CMV problem is minimised to a great extent. For reducing the impact of consistency motif, Salancik and Pfeffer (1977) suggested that the questionnaire could be designed in such a way that the dependent variables follow the independent variables. In this study the questionnaire was designed in line with this suggestion. CMV problem can be moderated by choosing the right informant (Miller and Roth, 1994). High-ranking

Total number of companies in the population	Number of companies included in the simple random sample	Number of companies to which the questionnaire was mailed	Number of responses received
4,511	700	569	124

Table IV.
Summary of the sampling process

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informants can be a more reliable source of information than their lower ranking counterparts (Phillips, 1981). Strategic decisions are top-level decisions and only those directly involved can provide valid answers (Tan and Tan, 2005). In this study the CEOs of the participating organisations were the respondents and hence the CMV problem is moderated. Podsakoff *et al.* (2003) have suggested that protecting respondent anonymity could reduce method bias. In this study, the covering letter accompanying the questionnaires clearly indicated that all replies would be treated in the strictest confidence and no names or identities of individual firms would be revealed or disclosed to third parities.

The one factor test proposed by Harman (1967) offers a statistical procedure for testing the magnitude of CMV problem. According to this test all the variables of interest are entered into a factor analysis. If there is a major CMV problem the test result will indicate:

- emergence of a single or very small number of factors from the factor analysis; and/or
- one general factor accounting for the majority of covariance in the predictor and criterion variables (Podsakoff and Organ, 1986, p. 536).

All the 27 variables were entered into an exploratory factor analysis, using principal components method, to determine the number of factors that are necessary to account for the variance in the variables. The exploratory factor analysis carried out revealed the presence of seven distinct factors with eigenvalues greater than 1.0, rather than a single factor. The seven factors together accounted for 68.63 per cent of the total variance; the first (largest) factor did not account for a majority of the variance (25.10 per cent). Thus, no general factor is apparent.

6. Data analysis

The issues relating to non-response bias and internal consistency as well as the results obtained by testing the hypotheses are discussed in this section. The procedure adopted by Ghobadian and O'Regan (2006) was used to assess non-response bias. Non-response bias was examined by comparing the means of the responses received from early and late respondents. *t*-tests were conducted to find out whether significant differences existed in the means of cost-leadership, differentiation, performance – objective fulfilment, and relative competitive performance variables between these two groups. The *p* values obtained from the *t*-tests corresponding to each of these variables are shown in Table V.

The tests indicated that no significant difference existed between the means of the responses received from early and late respondents. Some of the non-respondents were contacted and were requested to answer a few questions relating to business-level strategy. The difference between the means of the measures main sample, and that of

Table V.
Results of the *t*-tests comparing early and late respondents

Variable	*p*-value (two-tailed)
Cost-leadership	0.40
Differentiation	1.00
Performance – objective fulfilment	0.85
Relative competitive performance	0.81

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35 respondents who answered a small number of questions, was statistically compared by doing a *t*-test. The differences were not statistically significant. The non-respondents who did not agree to answer the small number of questions were requested to explain the reasons for non-participation. In most of the cases they said that it was because of lack of time to complete the questionnaire. In some cases the company policy did not allow them to respond to surveys.

The internal consistency method is the most commonly used method to assess the reliability of measures and it assesses the consistency among the variables in a summated scale. A diagnostic measure of internal consistency – which is commonly used in management research – is the reliability coefficient which assesses the consistency of the whole scale. Cronbach's alpha (Cronbach, 1951; Nunnally, 1979; Peter, 1979) is the most widely used reliability coefficient to measure internal consistency. In this study Cronbach's alpha has been used to assess the reliability of the scales. Even though many authors have suggested that the lower limit of Cronbach's alpha is 0.7, in empirical research 0.6 is also acceptable (Robinson *et al.*, 1991). The Cronbach's alpha values obtained for each of the scales are shown in Table VI.

H1 and *H2,* examining the relationship between strategic types and performance were tested using ANOVA.

6.1 Hypothesis testing

The correlations between cost-leadership, differentiation, objective fulfilment, relative competitive performance, ROA and ROS are shown in Table VII.

Both cost-leadership and differentiation are strongly correlated with objective fulfilment. However, both these strategies are not significantly correlated with relative competitive performance, ROA and ROS.

A new nonmetric variable representing the four strategic types, namely: cost-leadership, differentiation, integrated strategies and stuck-in-the-middle, was created[1]. The organisations that have above-median scores in cost-leadership, and

Variable	Cronbach's alpha
Cost-leadership	0.825
Differentiation	0.776
Performance – objective fulfilment	0.755
Relative competitive performance	0.917

Table VI. Cronbach's alpha values of the measurement scales

Variable	Mean	SD	1	2	3	4	5	6
Cost – leadership	4.8347	0.9972	1					
Differentiation	4.5860	0.9752	0.113	1				
Objective fulfilment	4.9798	0.7293	0.353*	0.303*	1			
Relative competitive performance	4.9686	0.8938	0.151	0.094	0.417*	1		
ROA	5.9191	11.0706	−0.069	0.016	−0.145	0.047	1	
ROS	3.4435	7.3850	0.069	0.121	0.045	0.061	0.843*	1

Note: *Correlation is significant at the 0.01 level

Table VII. Correlations, means and standard deviations of business-level strategy and performance variables

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below-median scores in differentiation, were classified as cost-leaders, and the ones which have above-median scores in differentiation, and below-median scores in cost-leadership, were classified as differentiators. The organisations that have above-median scores in both cost-leadership and differentiation were classified as firms following integrated strategies. In this study stuck-in-the-middle companies are defined as those organisations that do not give emphasis to cost-leadership, differentiation or integrated strategy. In other words, those organisations do not have a clearly defined strategy. Hence, organisations having below-median scores in both cost-leadership and differentiation were classified as stuck-in-the-middle companies. The number of organisations belonging to each of these groups is:

- cost-leadership – 41;
- differentiation – 23;
- integrated strategies – 30; and
- stuck-in-the-middle – 30.

Analysis of Variance was conducted with this variable as the independent variable, and performance as dependent variable. ANOVA was conducted four times with the performance measures namely: objective fulfilment; relative competitive performance; ROA; and ROS as dependent variables. The results of the five ANOVAs are summarised in Table VIII.

The *F*-tests for the first two ANOVAs using the subjective measures of performance produced statistically significant results at $p < 0.05$ level. However, the results of the *F*-tests conducted using the objective measures of performance were not statistically significant. This indicates that there is a significant difference between the performances of some of the groups of organisations belonging to the four strategic types in terms of the subjective measures of performance. However, in terms of the objective measures of performance, the performance difference was not significant. The results of the *post hoc* tests obtained from the five ANOVA tests are summarised in Table IX. Tukeys's extension of the Fisher least significant difference (LSD) method has been used to carry out the *post hoc* tests.

The *post hoc* tests indicate that organisations having a clear business-level strategy by adopting one of the strategies namely cost-leadership, differentiation or integrated strategy perform better than stuck-in-the-middle companies in terms of objective fulfilment, relative competitive performance and ROS. The differences in the performance levels between the clear strategy groups and stuck-in-the-middle companies are statistically significant at $p < 0.05$ level when objective fulfilment is the dependent variable. The difference in performance levels between stuck-in-the-middle

Table VIII. Summary of the ANOVA tests

Dependent variable	Levene's test for homogeneity of variances	*F*	*p*
Objective fulfilment	$p = 0.341$	$F(3,120) = 5.127$	0.002
Relative competitive performance	$p = 0.266$	$F(3,120) = 3.628$	0.015
ROA	$p = 0.316$	$F(3,84) = 0.227$	0.877
ROS	$p = 0.387$	$F(3,84) = 0.263$	0.852

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Dependent variable	(I) Strategic type	(J) Strategic type	Mean difference (I – J)	Std error	*p*	95% Confidence interval Lower bound	Upper bound
Objective fulfilment	Cost-leadership	Differentiation	−0.0652	0.1811	0.719	−0.4238	0.2933
		Integrated strategy	−0.2778	0.1670	0.099	−0.6085	0.0529
		Stuck-in-the-middle	0.4111*	0.1670	0.015	0.0804	0.7418
	Differentiation	Cost-leadership	0.0652	0.1811	0.719	−0.2933	0.4238
		Integrated strategy	−0.2126	0.1927	0.272	−0.5940	0.1689
		Stuck-in-the-middle	0.4763*	0.1927	0.015	0.0949	0.8578
	Integrated strategy	Cost-eadership	0.2778	0.1670	0.099	−0.0529	0.6085
		Differentiation	0.2126	0.1927	0.272	−0.1689	0.5940
		Stuck-in-the-middle	0.6889*	0.1795	0.000	0.3335	1.0443
	Stuck-in-the-middle	Cost-leadership	−0.4111*	0.1670	0.015	−0.7418	−0.0804
		Differentiation	−0.4763*	0.1927	0.015	−0.8578	−0.0949
		Integrated strategy	−0.6889*	0.1795	0.000	−1.0443	−0.3335
Relative competitive performance	Cost-leadership	Differentiation	−0.2490	0.2257	0.272	−0.6959	0.1979
		Integrated strategy	−0.2646	0.2082	0.206	−0.6768	0.1476
		Stuck-in-the-middle	0.3947	0.2082	0.060	−0.0175	0.8068
	Differentiation	Cost-leadership	0.2490	0.2257	0.272	−0.1979	0.6959
		Integrated strategy	−0.0156	0.2401	0.948	−0.4911	0.4598
		Stuck-in-the-middle	0.6436*	0.2401	0.008	0.1682	1.1191
	Integrated strategy	Cost-leadership	0.2646	0.2082	0.206	−0.1476	0.6768
		Differentiation	0.0156	0.2401	0.948	−0.4598	0.4911
		Stuck-in-the-middle	0.6593*	0.2237	.004	0.2163	1.1022
	Stuck-in-the-middle	Cost-leadership	−0.3947	0.2082	0.060	−0.8068	0.0175
		Differentiation	−0.6436*	0.2401	0.008	−1.1191	−0.1682
		Integrated strategy	−0.6593*	0.2237	0.004	−1.1022	−0.2163
ROA	Cost-leadership	Differentiation	−0.8183	3.4145	0.811	−7.6084	5.9717

(*continued*)

Table IX.
Post hoc tests – strategic types and performance

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Dependent variable	(I) Strategic type	(J) Strategic type	Mean difference (I – J)	Std error	p	95% Confidence interval Lower bound	Upper bound
ROS	Differentiation	Integrated strategy	1.7277	3.1840	0.589	−4.6040	8.0595
		Stuck-in-the-middle	1.3301	3.3104	0.689	−5.2531	7.9132
		Cost-leadership	0.8183	3.4145	0.811	−5.9717	7.6084
	Integrated strategy	Differentiation	2.5461	3.5312	0.473	−4.4762	9.5683
		Stuck-in-the-middle	2.1484	3.6457	0.557	−5.1014	9.3982
		Cost-leadership	−1.7277	3.1840	0.589	−8.0595	4.6040
	Stuck-in-the-middle	Differentiation	−2.5461	3.5312	0.473	−9.5683	4.4762
		Cost-leadership	−0.3977	3.4308	0.908	−7.2201	6.4248
		Differentiation	−1.3301	3.3104	0.689	−7.9132	5.2531
	Cost-leadership	Integrated strategy	−2.1484	3.6457	0.557	−9.3982	5.1014
		Differentiation	0.3977	3.4308	0.908	−6.4248	7.2201
		Stuck-in-the-middle	0.4520	2.2763	0.843	−4.0746	4.9786
	Differentiation	Integrated strategy	0.8740	2.1226	0.682	−3.3470	5.0951
		Stuck-in-the-middle	1.9133	2.2069	0.388	−2.4755	6.3020
		Cost-leadership	−0.4520	2.2763	0.843	−4.9786	4.0746
	Integrated strategy	Differentiation	0.4220	2.3541	0.858	−4.2594	5.1034
		Stuck-in-the-middle	1.4612	2.4304	0.549	−3.3719	6.2943
		Cost-leadership	−0.8740	2.1226	0.682	−5.0951	3.3470
	Stuck-in-the-middle	Differentiation	−0.4220	2.3541	0.858	−5.1034	4.2594
		Cost-leadership	1.0392	2.2871	0.651	−3.5090	5.5874
		Differentiation	−1.9133	2.2069	0.388	−6.3020	2.4755
	Cost-leadership	Integrated strategy	−1.4612	2.4304	0.549	−6.2943	3.3719
		Stuck-in-the-middle	−1.0392	2.2871	0.651	−5.5874	3.5090

Notes: Based on observed means. *The mean difference is significant at the 0.05 level

Table IX.

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companies and both the differentiation strategy group and integrated strategy group, are statistically significant at $p < 0.05$ level when relative competitive performance is the dependent variable. This difference is not statistically significant between cost-leaders and stuck-in-the-middle companies in terms of relative competitive performance. The performance differences between the groups are not statistically significant when ROS is the dependent variable. Cost-leaders and differentiators performed better than stuck-in-the-middle companies in terms of ROA. However, the performance level of the integrated strategy group was worse than the stuck-in-the-middle group when ROA was the dependent variable. The results provide only partial support for *H1*. The integrated strategy group performed better than cost-leaders and differentiators in terms of the subjective measures of performance. However, in terms of the objective performance measures, the performance level of the integrated strategy group was worse than cost-leaders and differentiators. Hence, there is insufficient evidence to support *H2*.

7. Conclusion

The results of the ANOVA conducted to test hypotheses *H1* and *H2* indicate that cost-leaders and differentiators performed better than stuck-in-the-middle companies in terms of both the subjective and objective performance measures. This finding conforms to the findings of many other studies (e.g. Dess and Davis, 1984; O'Farrell *et al.*, 1992). Firms pursuing an integrated strategy performed better than stuck-in-the-middle firms in terms of all performance measures except ROA. The cost-leaders and differentiators performed better than the organisations following integrated strategy when the financial performance measures were the dependent variables. This indicates that integrated strategies are not as effective as cost-leadership and differentiation strategies for improving financial performance. This finding provides support to Porter's view that combination strategies may not always be effective in organisations. It also confirms the findings of some studies (e.g. Kumar *et al.*, 1997) which found that firms adopting integrated strategies performed poorly. However, some other studies (e.g. Wright *et al.*, 1991; Chan and Wong, 1999) have reported that firms following integrated strategy performed better than the ones adopting only one type of strategy. The correlations between the strategic types and the performance measures indicate that cost-leadership and differentiation strategies help organisations to fulfil their objectives. However, they are not very helpful in improving the financial performance, and the performance in comparison to competitors. This finding points towards the limitations of Porter's generic strategies in explaining performance heterogeneity.

This study makes an important contribution to the literature by identifying some of the gaps in the literature through a systematic literature review, and addressing those gaps. The issue of inconsistent operationalisation of the constructs in the previous studies has been pointed out earlier. This issue has been addressed in this study. The literature review indicated that not many studies have looked at manufacturing organisations in the UK, and out of these, only a few studies have focussed on engineering sectors. This study augments the literature by examining the relationship between business-level strategy and performance in UK based manufacturing organisations belonging to electrical and mechanical engineering sectors.

Generalisability or external validity refers to the extent to which results from data can be generalised to other situations. There are two aspects concerning the generalisability

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of findings (Lancaster, 2005). First, the extent to which results obtained from a sample is applicable to the wider population from which the sample is drawn, needs to be assessed. As explained earlier, the non-response bias was assessed in this study and it was found that it was not a problem affecting this study. Hence, the findings are applicable to all the firms belonging to electrical and mechanical engineering sectors in the UK. The second aspect is concerning the applicability of the findings of research focussed on an industry sector, to other industry sectors. While carrying out survey based empirical research, the researcher needs to decide whether a broad multi-industry sample or a narrow sample comprising of a single or limited number of industry sectors, has to be used. Both these approaches have advantages and disadvantages (e.g. Dess *et al.*, 1990). Broad multi-industry samples allow the establishment of a general link between business-level strategy and organisational performance. However, the presence of diverse SIC codes in a sample implies a variability due to the various external contexts which are not easily accounted for, making it difficult to interpret the overall results (Dess, 1987). Targeted studies, on the other hand, facilitate the testing of specific contingent propositions associated with the framework (Dess *et al.*, 1990). Depending on the range of firms studied, industry effects will account for a non-negligible proportion (e.g. Wernerfelt and Montgomery, 1988) of the explained variance in performance as corporate effects and business segment effects (e.g. Hough, 2006) may do. In this study a narrow sample was chosen because the literature posits that industry conditions influence the strategy – performance linkage (Dess, 1987; Hrebiniak and Joyce, 1985). The strategy adopted for selecting the sample for this study implies that the findings can be confidently applied to the sectors covered. However, the claim for generalisability is less strong. The contribution of this paper lies in cumulative theory building. That is to say, the testing of Porter's positioning theory is necessary to assess the applicability of these theories in different contexts in order to identify where they apply and what are the exceptions. Porter (1980) has contended that his strategies are generic in nature, which can be applied to all industries. So if Porter is correct, then the findings obtained in this study concerning the relationship between business-level strategy and performance, should hold true for other industry sectors as well. However, critics of Porter's generic strategies (e.g. Bowman, 2008) have argued that organisational strategies have to be context-specific and generic strategy prescriptions using a simple framework like Porter's would not be effective. If their views are true, the findings may not hold good for other industry sectors.

7.1 Limitations of the study

One of the main limitations of this study is the problem of single respondents (e.g. Bowman and Ambrosini, 1997). However, a number of authors contend that the CEO is likely to provide accurate information about organisational strategies (e.g. Hambrick, 1981). Since all the respondents in this study are CEOs the information they have provided about the strategies of their organisations can be considered to be accurate. This approach is extensively used in strategic management research.

7.2 Directions for future research

Empirical studies like this, examining the relationship between strategic types and performance, can be replicated in other manufacturing sectors in order to ascertain the applicability of these findings in those sectors as well. If similar results are obtained from

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such studies the findings can be generalised to the manufacturing sector. A few case studies can also be conducted among manufacturing firms to augment the findings.

Note

1. The medians of cost-leadership and differentiation variables are 4.833 and 4.667 respectively. The four strategic types were identified as follows:
   If cost-leadership $>$ 4.833 and differentiation $<$ 4.667, strategic type = 1 (cost-leadership).
   If cost-leadership $<$ 4.833 and differentiation $>$ 4.667, strategic type = 2 (differentiation).
   If cost-leadership $>$ 4.833 and differentiation $>$ 4.667, strategic type = 3 (integrated strategy).
   If cost-leadership $<$ 4.833 and differentiation $<$ 4.667, strategic type = 4 (stuck-in-the-middle).

References

Abell, D.F. (1980), *Defining the Business: The Starting Point of Strategic Planning*, Prentice-Hall, Englewood Cliffs, NJ.

Allen, R.S., Helms, M.M., Takeda, M.B., White, C.S. and White, C. (2006), "A comparison of competitive strategies in Japan and the United States", *SAM Advanced Management Journal*, Winter.

Andrews, R., Boyne, G.A. and Walker, R.M. (2006), "Strategy content and organisational performance: an empirical analysis", *Public Administration Review*, Jan/Feb.

Auzair, S.M. and Langfield-Smith, K. (2005), "The effect of service process type, business strategy and life cycle stage on bureaucratic MCS in service organisations", *Management Accounting Research*, Vol. 16 No. 2005, pp. 399-421.

Bantel, K.A. and Osborn, R.N. (1995), "The influence of performance, environment and size on the identifiability of firm strategy", *British Journal of Management*, Vol. 6, pp. 235-48.

Beard, D.W. and Dess, G.G. (1981), "Corporate-level strategy, business-level strategy, and firm performance", *Academy of Management Journal*, Vol. 24 No. 4, pp. 663-88.

Beekun, R.I. and Ginn, G.O. (1993), "Business strategy and interorganisational linkages within the acute care hospital industry: an expansion of the Miles and Snow typology", *Human Relations*, Vol. 46 No. 11, pp. 1291-318.

Bourgeois, L.J. (1980), "Strategy and environment: a conceptual integration", *Academy of Management Review*, Vol. 5 No. 1, pp. 25-39.

Bowman, C. (2008), "Generic strategies: a substitute for thinking?", *The Ashridge Journal*, Spring, pp. 6-11.

Bowman, C. and Ambrosini, V. (1997), "Using single respondents in strategy research", *British Journal of Management*, Vol. 8 No. 2, pp. 119-31.

Brews, P.J. and Hunt, M. (1999), "Learning to plan and planning to learn: resolving the planning school/learning school debate", *Strategic Management Journal*, Vol. 20 No. 10, pp. 889-913.

Buckley, M.R., Cote, J.A. and Comstock, S.M. (1990), "Measurement errors in behavioral sciences: the case of personality/attitude research", *Educational Psychology Measurement*, Vol. 50 No. 3, pp. 447-74.

Buzzell, R.D., Gale, B.T. and Sultan, R.G.M. (1975), "Market share–a key to profitability", *Harvard Business Review*, Vol. 53, January/February, pp. 97-106.

Chan, R.Y. and Wong, Y.H. (1999), "Bank generic strategies: does porters theory apply in an international banking center", *International Business Review*, Vol. 8 Nos 5/6, pp. 561-90.

Conant, J.S., Mokwa, M.P. and Varadarajan, P.R. (1990), "Strategic types, distinctive marketing competencies and organisational performance: a multiple measures-based study", *Strategic Management Journal*, Vol. 11, pp. 365-83.

المنارة للاستشارات

www.mana

Cronbach, L.J. (1951), "Coefficient alpha and the internal structure of tests", *Psychometrika*, Vol. 31, pp. 93-6.

Cronshaw, M., Davis, E. and Kay, J. (1994), "On being stuck in the middle or good food costs less at Sainsburys", *British Journal of Management*, Vol. 5 No. 1, pp. 19-32.

Desarbo, W.S., Di Benedetto, C.A., Song, M. and Sinha, I. (2005), "Revisiting the Miles and Snow strategic framework: uncovering interrelationships between strategic types, capabilities, environmental uncertainty and firm performance", *Strategic Management Journal*, Vol. 26, pp. 47-74.

De Vaus, D.A. (2002), *Surveys in Social Research*, 5th ed., Routledge, London.

Dess, G.G. (1987), "Consensus on strategy formulation and organisational performance: competitors in a fragmented industry", *Strategic Management Journal*, Vol. 8 No. 3, pp. 259-77.

Dess, G.G. and Davis, P.S. (1984), "Porters (1980) generic strategies as determinants of strategic group membership and organisational performance", *Academy of Management Journal*, Vol. 27 No. 3, pp. 467-88.

Dess, G.G. and Robinson, R.B. Jr. (1984), "Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit", *Strategic Management Journal*, Vol. 5 No. 3, pp. 265-73.

Dess, G.G., Ireland, R.D. and Hitt, M.A. (1990), "Industry effects and strategic management research", *Journal of Management*, Vol. 16 No. 1, pp. 7-27.

Dess, G.G., Lumpkin, G.T. and McGee, J.E. (1999), "Linking corporate entrepreneurship to strategy, structure, and process: suggested research directions", *Entrepreneurship: Theory & Practice*, Vol. 23 No. 3, pp. 85-102.

Dess, G.G., Gupta, A., Hennart, J. and Hill, C.W.L. (1995), "Conducting and integrating strategy research at the international, corporate, and business levels: issues and directions", *Journal of Management*, Vol. 21 No. 3, pp. 357-93.

Douglas, S.P. and Rhee, D.K. (1989), "Examining generic competitive strategy types in US and European markets", *Journal of International Business Studies*, Fall.

Frambach, R.T., Prabhu, J. and Verhallen, T.M.M. (2003), "The influence of business strategy on new product activity: the role of market orientation", *International Journal of Research in Marketing*, Vol. 20, pp. 377-97.

Galbraith, C. and Schendel, D. (1983), "An empirical analysis of strategy types", *Strategic Management Journal*, Vol. 4, pp. 153-73.

Ge, G.L. and Ding, D.Z. (2005), "Market orientation, competitive strategy and firm performance: an empirical study of Chinese firms", *Journal of Global Marketing*, Vol. 18 Nos 3/4.

Ghobadian, A. and ORegan, N. (2006), "The impact of ownership on small firm behaviour and performance", *International Small Business Journal*, Vol. 24 No. 6, pp. 555-86.

Grant, J.H. and King, W.R. (1982), *The Logic of Strategic Planning*, Little Brown and Co., Boston, MA.

Hambrick, D.C. (1980), "Operationalising the concept of business-level strategy in research", *Academy of Management Review*, Vol. 5 No. 4, pp. 567-75.

Hambrick, D.C. (1981), "Strategic awareness within top management teams", *Strategic Management Journal*, Vol. 2 No. 3, pp. 263-79.

Hambrick, D.C. (1982), "Environmental scanning and organisational strategy", *Strategic Management Journal*, Vol. 3.

Hambrick, D.C. (1983), "Some tests of the effectiveness and functional attributes of Miles and Snows strategic types", *Academy of Management Journal*, Vol. 26 No. 1, pp. 5-26.

Hambrick, D.C. (1984), "Taxonomic approaches to studying strategy: some conceptual and methodological issues", *Journal of Management*, Vol. 10 No. 1, pp. 27-41.

المنارة للاستشارات

www.mana

Hambrick, D.C. and Lei, D. (1985), "Toward an empirical prioritization of contingency variables for business strategy", *Academy of Management Journal*, Vol. 28 No. 4, pp. 763-88.

Harman, H.H. (1967), *Modern Factor Analysis*, 2nd ed., University of Chicago Press, Chicago, IL.

Hax, A.C. and Majluf, N.S. (1984), "The corporate strategic planning process", *INTERFACES*, Vol. 14 No. 1, pp. 47-60.

Helms, M.M., Haynes, P.J. and Cappel, S.D. (1992), "Competitive strategies and business performance within the retailing industry", *International Journal of Retail & Distribution Management*, Vol. 20 No. 5, pp. 3-14.

Herbert, T.T. and Deresky, H. (1987), "Generic strategies: an empirical investigation of typology validity and strategy content", *Strategic Management Journal*, Vol. 8, pp. 135-47.

Hofer, C.W. and Schendel, D. (1978), *Strategy Formulation: Analytical Concepts*, West Publishing, St Paul, MN.

Homburg, C., Krohmer, H. and Workman, J.P. Jr (1999), "Strategic consensus and performance: the role of strategy type and market-related dynamism", *Strategic Management Journal*, Vol. 20 No. 4, pp. 339-57.

Hoque, Z. (2004), "A contingency model of the association between strategy, environmental uncertainty and performance measurement: impact on organizational performance", *International Business Review*, Vol. 13 No. 4, pp. 485-502.

Hough, J.R. (2006), "Business segment performance redux: a multilevel approach", *Strategic Management Journal*, Vol. 27 No. 1, pp. 45-61.

Hrebiniak, L.G. and Joyce, W.F. (1985), "Organisational adaptation: strategic choice and environmental determinism", *Administrative Science Quarterly*, Vol. 30, pp. 336-49.

Huang, T. (2001), "The effects of linkage between business and human resource management strategies", *Personnel Review*, Vol. 30 No. 2, pp. 132-51.

James, W.L. and Hatten, K.J. (1994), "Evaluating the performance effects of Miles and Snows strategic archetypes in banking, 1983 to 1987: big or small?", *Journal of Business Research*, Vol. 31 Nos 2/3, pp. 145-54.

Jennings, D.F. and Lumpkin, J.R. (1992), "Insights between environmental scanning activities and porters generic strategies: an empirical analysis", *Journal of Management*, Vol. 18 No. 4, pp. 791-803.

Jennings, D.F. and Seaman, S.L. (1994), "High and low levels of organisational adaptation: an empirical analysis of strategy, structure, and performance", *Strategic Management Journal*, Vol. 15, pp. 459-75.

Jermias, J. and Gani, L. (2004), "Integrating business strategy, organisational configurations and management accounting systems with business unit effectiveness: a fitness landscape approach", *Management Accounting Research*, Vol. 15, pp. 179-200.

Kabadayi, S., Eyuboglu, N. and Thomas, G.P. (2007), "The performance implications of designing multiple channels to fit with strategy and environment", *Journal of Marketing*, Vol. 71, October, pp. 195-211.

Karnani, A. (1984), "Generic competitive strategies – an analytical approach", *Strategic Management Journal*, Vol. 5 No. 4, pp. 367-80.

Kemery, E.R. and Dunlap, W.P. (1986), "Partialling factor scores does not control method variance: a reply to Podsakoff and Todor", *Journal of Management*, Vol. 12 No. 4, pp. 525-44.

Kim, E., Nam, D. and Stimpert, J.L. (2004), "Testing the applicability of porters generic strategies in the digital age: a study of Korean cyber malls", *Journal of Business Strategies*, Vol. 21 No. 1, pp. 19-45.

Kim, L. and Lim, Y. (1988), "Environment generic strategies, and performance in rapidly developing country: a taxonomic approach", *Academy of Management Journal*, Vol. 31 No. 4, pp. 802-27.

المنارة للاستشارات

www.mana

Kim, W.C. and Mauborgne, R. (2005), *Blue Ocean Strategy*, Harvard Business School Press, Boston, MA.

Kling, J.A. and Smith, K.A. (1995), "Identifying strategic groups in the US airline industry: an application of the Porter model", *Transportation Journal*, Vol. 35 No. 2, pp. 26-34.

Koo, C.M., Koh, C.E. and Nam, K. (2004), "An examination of porters competitive strategies in electronic virtual markets: a comparison of two on-line business models", *International Journal of Electronic Commerce*, Vol. 9 No. 1, pp. 163-80.

Kotha, S. and Nair, A. (1995), "Strategy and environment as determinants of performance: evidence from the Japanese machine tool industry", *Strategic Management Journal*, Vol. 16, pp. 497-518.

Kumar, K., Subramanian, R. and Strandholm, K. (2002), "Market orientation and performance: does organizational strategy matter?", *Journal of Applied Business Research*, Vol. 18 No. 1, pp. 37-50.

Kumar, K., Subramanian, R. and Yauger, C. (1997), "Performance-oriented: toward a successful strategy", *Marketing Health Services*, Vol. 17 No. 2, pp. 10-20.

Lancaster, G. (2005), *Research Methods in Management*, Elsevier Butterworth-Heinemann, Oxford.

Lawless, M.W. and Finch, L.K. (1989), "Choice and determinism: a test of Hrebiniak and Joyces framework on strategy-environment fit", *Strategic Management Journal*, Vol. 10, pp. 351-65.

Lee, J. and Miller, D. (1996), "Strategy, environment and performance in two technological contexts: contingency theory in Korea", *Organisation Studies*, Vol. 17 No. 5, pp. 729-50.

Lindell, M.K. and Whitney, D.J. (2001), "Accounting for common method variance in cross-sectional research designs", *Journal of Applied Psychology*, Vol. 86 No. 1, pp. 114-21.

Luo, Y. and Zhao, H. (2004), "Corporate link and competitive strategy in multinational enterprises: a perspective from subsidiaries seeking host market penetration", *Journal of International Management*, Vol. 10 No. 1, pp. 77-106.

Marlin, D., Lamont, B.T. and Hoffman, J.J. (1994), "Choice situation, strategy, and performance: a re-examination", *Strategic Management Journal*, Vol. 15, pp. 229-39.

Miles, R.E. and Snow, C.C. (1978), *Organisational Strategy, Structure and Process*, McGraw-Hill, New York, NY.

Miles, R.H. (1982), *Coffin Nails and Corporate Strategies*, Prentice-Hall, Englewood Cliffs, NJ.

Miller, D. (1987), "The structural and environmental correlates of business strategy", *Strategic Management Journal*, Vol. 8, pp. 55-76.

Miller, D. (1989), "Matching strategies and strategy making: process, content, and performance", *Human Relations*, Vol. 42 No. 3, pp. 241-60.

Miller, D. (1992), "The generic strategy trap", *The Journal of Business Strategy*, Vol. 13 No. 1, pp. 37-41.

Miller, A. and Dess, G.G. (1993), "Assessing Porters (1980) model in terms of its generalisability, accuracy and simplicity", *Journal of Management Studies*, Vol. 30 No. 4.

Miller, D. and Friesen, P. (1978), "Archetypes of strategy formulation", *Management Science*, Vol. 24, pp. 921-33.

Miller, D. and Friesen, P.H. (1984), *Organisations: A Quantum View*, Prentice-Hall, Englewood Cliffs, NJ.

Miller, J.G. and Roth, A.V. (1994), "A taxonomy of manufacturing strategies", *Management Science*, Vol. 40 No. 3, pp. 285-304.

Moore, M. (2005), "Towards a confirmatory model of retail strategy types: an empirical test of Miles and Snow", *Journal of Business Research*, Vol. 58, pp. 696-704.

Nunnally, J. (1979), *Psychometric Theory*, McGraw-Hill, New York, NY.

المنارة للاستشارات

www.mana

O'Farrell, P., Hitchens, D. and Moffat, L. (1992), "Does strategy matter? An analysis of generic strategies and performance in business service firms", *Business Strategy Review*, Vol. 3 No. 1, pp. 71-87.

O'Regan, N. and Ghobadian, A. (2006), "Perceptions of generic strategies of small and medium sized engineering and electronics manufacturers in the UK: the applicability of the Miles and Snow typology", *Journal of Manufacturing Technology Management*, Vol. 17 No. 5, pp. 603-20.

Parker, B. and Helms, M.M. (1992), "Generic strategies and firm performance in a declining industry", *Management International Review*, Vol. 32 No. 1, pp. 23-9.

Parnell, J.A. (1997), "New evidence in the generic strategy and business performance debate: a research note", *British Journal of Management*, Vol. 8 No. 2, pp. 175-81.

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 No. 1, pp. 29-36.

Pearce, J. II, Robbins, D.K. and Robinson, R. Jr (1987), "The impact of grand strategy and planning formality on financial performance", *Strategic Management Journal*, Vol. 8, pp. 125-34.

Peter, J.P. (1979), "Reliability: a review of psychometric basics and recent marketing practices", *Journal of Marketing Research*, Vol. 16, pp. 6-17.

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 No. 4, pp. 395-415.

Podsakoff, P.M. and Organ, D.W. (1986), "Self-reports in organisational research: problems and prospects", *Journal of Management*, Vol. 12 No. 4, pp. 531-44.

Podsakoff, P.M., MacKenzie, S.B., Lee, J. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Porter, M.E. (1980), *Competitive Strategy – Techniques for Analysing Industries and Competitors*, The Free Press, New York, NY.

Powers, T. and Hahn, W. (2004), "Critical competitive methods, generic strategies, and firm performance", *International Journal of Bank Marketing*, Vol. 22 No. 1, pp. 43-64.

Prescott, J.E. (1986), "Environments as moderators of the relationship between strategy and performance", *Academy of Management Journal*, Vol. 29 No. 2, pp. 329-46.

Priem, R.L., Rasheed, A.M.A. and Kotulic, A.G. (1995), "Rationality in strategic decision processes, environmental dynamism and firm performance", *Journal of Management*, Vol. 21 No. 5, pp. 913-29.

Ramanujam, V. and Venkatraman, N. (1987), "Planning system characteristics and planning effectiveness", *Strategic Management Journal*, Vol. 8 No. 5, pp. 453-68.

Ramaswamy, K., Thomas, A.S. and Litschert, R.J. (1994), "Organisational performance in a regulated environment: the role of strategic orientation", *Strategic Management Journal*, Vol. 15, pp. 63-74.

Robinson, J.P., Shaver, P.R. and Wrightsman, L.S. (1991), "Criteria for scale selection and evaluation", in Robinson, J.P., Shanver, P.R. and Wrightsman, L.S. (Eds), *Measures of Personality and Social Psychological Attitudes*, Academic Press, San Diego, CA.

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 No. 1, pp. 43-60.

Rumelt, R.P. (1974), *Strategy, Structure, and Economic Performance*, Harvard Business School Press, Boston, MA.

Salancik, G.R. and Pfeffer, J. (1977), "An examination of the need-satisfaction models of job attitudes", *Administrative Science Quarterly*, Vol. 22 No. 3, pp. 427-56.

المنارة للاستشارات

www.mana

Salant, P. and Dillman, D. (1994), *How to Conduct Your Own Survey*, John Wiley, New York, NY.

Schendel, D. and Hofer, C.W. (1979), *Strategic Management: A new View of Business Policy and Planning*, Little Brown, Boston, MA.

Smith, T.M. and Reece, J.S. (1999), "The relationship of strategy, fit, productivity, and business performance in a services setting", *Journal of Operations Management*, Vol. 17 No. 2, pp. 145-61.

Snow, C.C. and Hambrick, D.C. (1980), "Added measuring organizational strategies: some theoretical and methodological problems", *Academy of Management Review*, Vol. 5 No. 4, pp. 527-38.

Tan, J. and Tan, D. (2005), "Environment-Strategy co-evolution and co-alignment: a staged model of Chinese SOEs under transition", *Strategic Management Journal*, Vol. 26 No. 2, pp. 141-57.

Thomas, A.S. and Ramaswamy, K. (1996), "Matching managers to strategy: further tests of the miles and snow typology", *British Journal of Management*, Vol. 7, pp. 247-61.

Torgovicky, R., Goldberg, A., Shvarts, S., Bar Dayan, Y., Onn, E. and Levi, Y. (2005), "Application of Porters generic strategies in ambulatory health care: a comparison of managerial perceptions in two Israeli sick funds", *Health Care Management Review*, Vol. 30 No. 1, pp. 17-23.

Treacy, M. and Wiersema, F. (1997), *The Discipline of Market Leaders: Choose your Customers, Narrow your Focus, Dominate Your Market*, Addison-Wesley, Reading, MA.

Utterback, J.M. and Abernathy, W.J. (1975), "A dynamic model of product and process innovation", *Omega*, Vol. 3 No. 6, pp. 639-56.

Venkatraman, N. (1989), "Strategic orientation of business enterprises: the construct, dimensionality, and measurement", *Management Science*, Vol. 35 No. 8, pp. 942-62.

Vesper, V.D. (1979), "Strategic mapping – a tool for corporate planners", *Long Range Planning*, Vol. 12 No. 6, pp. 75-92.

Wai-Kwong, F.Y., Priem, R.L. and Cycyota, C.S. (2001), "The performance effects of human resource managers and other middle managers involvement in strategy making under different business-level strategies: the case in Hong Kong", *International Journal of Human Resource Management*, Vol. 12 No. 8, pp. 1325-46.

Wernerfelt, B. and Montgomery, C.A. (1988), "Tobins q and the importance of focus in firm performance", *American Economic Review*, Vol. 78 No. 1, pp. 246-50.

White, R.E. (1986), "Generic business strategies, organizational context and performance: an empirical investigation", *Strategic Management Journal*, Vol. 7 No. 3, pp. 217-31.

Wissema, J.G., van der Pol, H.W. and Messer, H.M. (1980), "Strategic management archetypes", *Strategic Management Journal*, Vol. 1 No. 1, pp. 37-47.

Wright, P., Kroll, M., Tu, H. and Helms, M. (1991), "Generic strategies and business performance: an empirical study of the screw machine products industry", *British Journal of Management*, Vol. 2 No. 1, pp. 57-65.

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Appendix

Measurement Scales for Business-level Strategy

The questions in this section are based on the business strategy of your organisation in the last five years. Please rate the extent to which your company focuses on the following in comparison to your major competitors by circling a number between 1 and 7 for each item.

Cost-leadership

	Much Lower						Much Higher
Emphasis on efficiency of securing raw materials or components (e.g. bargaining down the purchase price)	1	2	3	4	5	6	7
Emphasis on finding ways to reduce costs (e.g. standardising the product or increasing the economy of scale)	1	2	3	4	5	6	7
Emphasis on operating efficiency (e.g. productivity in production or efficiency in outbound logistics)	1	2	3	4	5	6	7
Emphasis on production capacity utilisation	1	2	3	4	5	6	7
Emphasis on price competition (i.e. offering competitive prices)	1	2	3	4	5	6	7
Emphasis on tight control of selling/general/ administrative expenses	1	2	3	4	5	6	7

Differentiation

	Much Lower						Much Higher
Emphasis on new product development or existing product adaptation to better serve customers	1	2	3	4	5	6	7
Rate of new product introduction to market	1	2	3	4	5	6	7
Emphasis on the number of new products offered to the market	1	2	3	4	5	6	7
Intensity of your advertising and marketing	1	2	3	4	5	6	7
Emphasis on developing and utilising sales force	1	2	3	4	5	6	7
Emphasis on building strong brand identification	1	2	3	4	5	6	7

(*Continued*)

Figure A1.

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Measurement Scale for Organisational Performance

Objective Fulfilment

Please indicate the extent to which you have been successful in achieving each of the following objectives in the last five years. For each question please circle one number between 1 and 7 in the scale provided.

	Not at all successful						Very successful
1. Improvement in long-term performance	1	2	3	4	5	6	7
2. Predicting future trends	1	2	3	4	5	6	7
3. Evaluating alternatives based on relevant information	1	2	3	4	5	6	7
4. Avoiding problem areas	1	2	3	4	5	6	7
5. Resolving problems	1	2	3	4	5	6	7
6. Enhancing management development	1	2	3	4	5	6	7

Relative Competitive Performance

Please compare the performance of your organisation in the last five years with that of your main competitors based on the following nine factors. For each factor please indicate your assessment by circling one number between 1 and 7 in the scale provided.

	Has deteriorated significantly						Has improved significantly
1. Sales growth	1	2	3	4	5	6	7
2. Growth in profit after tax	1	2	3	4	5	6	7
3. Market share change	1	2	3	4	5	6	7
4. Return on Assets (ROA)	1	2	3	4	5	6	7
5. Return on Equity (ROE)	1	2	3	4	5	6	7
6. Return on Sales (ROS)	1	2	3	4	5	6	7
7. Current Ratio	1	2	3	4	5	6	7
8. Overall firm performance and success	1	2	3	4	5	6	7
9. Our competitive position	1	2	3	4	5	6	7

Figure A1.

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About the authors

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