



Strategic investment decision making practices: A contextual approach

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ABSTRACT

This paper proposes a contextual approach to explaining differences in strategic investment decision (SID) making practices. First, a systematic contextual framework is developed from the existing research literature. Then this framework's potential for explaining differences in SID making practices is explored through 14 case studies of U.K., U.S. and Japanese companies from both stable and dynamic business sectors. Our findings suggest substantial SID differences across our four contextual categories of *market creators*, *value creators*, *refocusers* and *restructurers*. The differences relate to the emphasis on strategic versus financial considerations, the thoroughness and rigidity of financial analysis, the attitudes towards incorporating less easily quantifiable factors and the level of hurdle rates.

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1. Introduction

The literature on strategic investment decision (SID) making practices¹ has provided ample evidence of the general use of capital budgeting techniques, such as DCF (e.g. Alkaraan and Northcott, 2006; Arnold and Hatzopoulos, 2000; Farragher et al., 1999; Graham and Harvey, 2001; Pike, 1996). Indeed, most research in the field has aimed at presenting an overview of prevailing corporate practice with regard to *which* techniques are being used (e.g. Arnold and Hatzopoulos, 2000; Farragher et al., 1999; Pike,

1983, 1996; Sandahl and Sjögren, 2003). However, there is still a need to know more about *how* these techniques are being used (Alkaraan and Northcott, 2006; Butler et al., 1991) and *how these practices may vary* across various contextual settings (Haka, 1987; Slagmulder et al., 1995; Verbeeten, 2006). Furthermore, sociologists would argue for yet deeper investigation of the organisational processes entailed (Miller and O'Leary, 2005, 2007).

Field study evidence also further indicates that SIDs are not always primarily based on financial considerations and there may be considerable differences in the extent to which strategic versus financial considerations are emphasised in their evaluation (Butler et al., 1991; Carr and Tomkins, 1996, 1998; Jones and Dugdale, 1994). Cross-country research suggests that these differences may be associated with the national context (Carr and Harris, 2004; Carr and Tomkins, 1996, 1998; Jones et al., 1993; Shields et al., 1991). Additionally, documented differences in the emphasis on strategic versus financial considerations among companies from the same country contexts suggest that these differences may be associated with other contextual variables, as well (e.g. Alkaraan and Northcott, 2006 cf. Butler et al., 1991; Sandahl and Sjögren, 2003). Hitherto, the SID literature has provided only scant evidence on which contextual variables, besides the country context, could be

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¹ The term strategic investment decision (SID) refers to a decision on a substantial investment which has a significant effect on long-term performance and the organisation as a whole (Carr and Tomkins, 1996, 1998). Capital budgeting literature has not always distinguished more strategic types of investment (e.g. Graham and Harvey, 2001; King, 1975; Klammer, 1972; Klammer and Walker, 1984; Pike, 1983; Sihler, 1964); but a substantial body of research now attests to the importance of this distinction (Alkaraan and Northcott, 2006; Butler et al., 1993; Marsh et al., 1988; Oldcorn and Parker, 1996).

associated with these differences (Chen, 2008; Verbeeten, 2006).

This paper aims to address this void by proposing a systematic contextual framework for explaining differences in SID making practices. The framework developed encompasses important, but neglected contingencies that are derived from the broader strategic management and strategic management accounting (SMA) literatures. These contingencies are integrated to construct a general contextual framework that explains SID making practices in terms of a company's 'market orientation' and its 'performance in relation to shareholder expectations'.² The framework developed gives rise to a fourfold categorization of companies comprising *market creators*, *value creators*, *refocusers* and *restructurers*.

The framework's potential for explaining differences in SID making practices is subsequently tested on an exploratory basis through 14 case studies of U.K., U.S. and Japanese companies operating in vehicle component (10) and telecommunications (4) sectors. Potential differences in SID making practices are explored initially, in regard to the use of capital budgeting techniques, and then in regard to companies' overall SID approaches.³

The results of the 14 case studies indicate substantial differences in SID approaches across the 4 contextual categories. These are evident from the extent to which decisions are made based on strategic versus financial considerations, the thoroughness and rigidity of financial analysis, and attitudes towards incorporating less easily quantifiable factors such as synergies into calculations. An expected tendency for hurdle rates to rise as we move from the most strategically orientated *market creator* category towards the most financially orientated *restructurer* category is also clearly observed.

The remainder of the paper is organised as follows. An overview of research related to SID making practices is presented. Then the explanatory contextual framework for SID making practices is constructed and followed by a description of the research method. The research findings are presented, first in respect of potential contextual differences in the use of capital budgeting techniques, and second in respect of the companies' overall approaches to SIDs. The conclusion comprises a summary of the findings, a discussion of their broader implications, and a suggestion of areas for further research.

2. Literature overview on SID making practices

2.1. Capital budgeting techniques

The corporate use of capital budgeting techniques has been examined extensively (e.g. Alkaraan and Northcott, 2006; Arnold and Hatzopoulos, 2000; Carr and Tomkins, 1996, 1998; Farragher et al., 1999; Graham and Harvey,

2001; Haka, 1987; King, 1975; Klammer and Walker, 1984; Klammer et al., 1991; Pike, 1983, 1988, 1996; Sandahl and Sjögren, 2003; Sangster, 1993; see Haka, 2007 for a review). Most research, in the field, has focused on the use of capital budgeting techniques in particular country contexts, addressing the use of techniques *inter alia* in the U.K. (e.g. Alkaraan and Northcott, 2006; Arnold and Hatzopoulos, 2000; Pike, 1996), the U.S. (e.g. Farragher et al., 1999; Graham and Harvey, 2001; Klammer et al., 1991), Continental Europe (e.g. Carr and Tomkins, 1996, 1998; Carr et al., 1994), and Japan (e.g. Carr, 2005; Carr and Tomkins, 1998; Jones et al., 1993; Kim and Song, 1990; Shields et al., 1991; Yoshikawa et al., 1989). Research findings demonstrate cross-country differences in the use of capital budgeting techniques. For example, the use of DCF techniques is more extensive among Anglo-Saxon companies (e.g. Arnold and Hatzopoulos, 2000; Graham and Harvey, 2001; Pike, 1996). Japanese, Continental European and Scandinavian companies may, on the other hand, sometimes rely more on less sophisticated techniques, such as the payback period when making decisions on SIDs (Carr and Tomkins, 1996, 1998; Sandahl and Sjögren, 2003; Shields et al., 1991; Yoshikawa et al., 1989).

A limited amount of research has been conducted on the potential association between the use of capital budgeting techniques and contextual variables, other than the country context (Chen, 1995, 2008; Haka, 1987; Verbeeten, 2006). The relationship between corporate size and the use of techniques has been the most extensively covered topic. There is consistent evidence that large companies are more likely to use sophisticated techniques, such as DCF (Farragher et al., 1999; Graham and Harvey, 2001; Pike, 1996).⁴ Available empirical evidence also suggests that the use of sophisticated techniques is more common among companies that operate in predictable as opposed to unpredictable business environments (Chen, 1995; Ho and Pike, 1998), among highly leveraged companies (Graham and Harvey, 2001; Klammer et al., 1991) and among companies that face financial uncertainty (Verbeeten, 2006). Companies facing a challenging financial situation have also been found to set tighter financial targets (Van Cauwenbergh et al., 1996).

2.2. Broader approaches to SIDs

Field study based research on SID making practices indicates that there are cross-country differences also in the extent to which SIDs are based on strategic versus financial considerations. Research findings suggest that U.K. companies may have a tendency to overlook strategic considerations and focus strongly on financial analyses, while Japanese and German companies may downplay financial evaluation and emphasise strategic considerations. U.S. companies may, on the other hand, have a more balanced approach, paying attention to both strategic and financial

² The terms in italics will be explained in more detail when we build our framework in Section 3.3.

³ The term approach refers to broader attitudes and orientations, and encompasses tendencies to emphasise strategic versus financial considerations in the evaluation.

⁴ We draw on Haka et al. (1985) to use the term 'sophisticated techniques' to refer to capital budgeting techniques such as Net Present Value (NPV) and Internal Rate of Return (IRR) that consider the risk-adjusted discounted net cash flows expected from a project.

considerations (e.g. Carr, 2005; Carr and Tomkins, 1996, 1998; Jones et al., 1993).

Corresponding evidence of differences in the extent to which SIDs are based on strategic versus financial considerations have also been documented among companies in the same country. For example, Sandahl and Sjögren (2003) found that some large Swedish companies base their decisions solely on sophisticated financial analysis while many of the companies promoting the traditional payback period technique tend to emphasise strategic considerations. Research evidence from the U.K. points to variation in the financial and strategic emphasis, as well (Alkaraan and Northcott, 2006 cf. Butler et al., 1991).

These documented differences in the balance of strategic versus financial considerations within the same country context indicate that contextual variables other than the country context are important influences on practice. However, available empirical evidence indicating an association with other contextual variables is very limited. There is some evidence to suggest that the higher levels of integration in manufacturing investment do attract a greater strategic emphasis (Abdel-Kader and Dugdale, 1998; Meredith and Hill, 1987).

Consequently, researchers have advocated the need for more contextually based research studies designed to explain differences in SID making practices (Haka, 1987; Ho and Pike, 1998; Slagmulder et al., 1995; Verbeeten, 2006). This study aims to address this gap by developing an explanatory contextual framework for SID making practices. The development of this framework is outlined in the following section.

3. Towards a contextual approach for SID making practices

3.1. Oldman and Tomkins' contextual framework: the contexts of market orientation and need for turnaround

The development of the framework takes Oldman and Tomkins' (1999) four-state Cost Management Model as a starting point as it provides one of the most developed approaches to explaining differences in SMA practice. Their framework focuses on a sub-set of SMA, i.e. strategic cost management (SCM) and proposes a theoretical framework that encompasses important contextual variables. Their study is also one of the few SMA studies that are supported by several substantial and detailed case studies.⁵ It provides evidence that companies' SCM practice variation can be explained by a four-state Cost Management Model that categorises companies into four categories based on the extent of their *market orientation* and their *need for turnaround* (Fig. 1).⁶

⁵ Although some researchers on SMA exclude SIDs from the field of SMA (e.g. Guilding et al., 2000; Roslender, 1995), Bromwich and Bhimani (1994) and Tomkins and Carr (1996) position SIDs as a central field within SMA. The significance of SIDs is also reflected in that the MAR 1996 Special Issue on Strategic Management Accounting included several articles on SIDs (Carr and Tomkins, 1996; Van Cauwenbergh et al., 1996; Shank, 1996).

⁶ For the purposes of further discussion related to the development of our own contextual framework, we have transposed Oldman and

Strong market orientation	Radical innovation Focused investment	Continuous market innovation Growth investment
	Product pruning Minimum investment/ Divestment	Continuous process improvement Process/maintenance investment
Weak market orientation	Strong turnaround need	No turnaround need

Fig. 1. Oldman and Tomkins' (1999) four-state cost management model.

Although they do not explicitly address SID making practices, they find differences in the type of investment favoured across their four contextual categories. This suggests that their framework may also have some relevance for explaining differences in SID making practices (Chen, 1995; Klammer et al., 1991).

The strategic management, SMA and SID literatures give direct support for the pertinence of Oldman and Tomkins' (1999) *market orientation* and *need for turnaround* contextual variables for explaining differences in SID making practices. These literatures suggest that financial turnaround shifts companies towards a greater financial orientation (Bibeault, 1981; Carr et al., 1994; Slatter, 1984), and that financial uncertainty and high leverage are associated with the use of more sophisticated capital budgeting techniques (Graham and Harvey, 2001; Verbeeten, 2006). Companies facing a difficult financial situation are also likely to operate a more formal investment decision making process and will set tighter financial targets (Van Cauwenbergh et al., 1996). In addition, substantial literature arguing for a distinction between market and financial orientations (Barwise et al., 1989) suggests that companies with a weak market orientation are likely to put more emphasis on financial considerations, while strongly market orientated companies will emphasise strategic considerations.

3.2. Modifying Oldman and Tomkins' contextual framework

Although *market orientation* and *need for turnaround* are pertinent in explaining differences in SID making practices (see e.g. Bibeault, 1981; Doyle, 1992; Graham and Harvey, 2001; Verbeeten, 2006), the strategic management, SMA, and SID literatures suggest that Oldman and Tomkins' (1999) framework may need to be modified to explain adequately differences in SID making practices. These modifications are discussed below by focusing on the two axes of their framework (see Fig. 1).

Tomkins' (1999) original axes here so that *need for turnaround* appears on the horizontal axis, and the *market orientation* on the vertical axis.

3.2.1. Modifying the need for turnaround axis

SIDs involve long-term decisions, while turnaround is likely to be an inherently transitory circumstance. Companies may not be willing to change their SID making practices frequently as this would destroy any consistency in their approach to these decisions. Companies may thus be more likely to adjust their SID making practices in response to a more long-lasting decline in performance. For the analysis of SIDs, performance might, therefore, be better conceived in terms of some longer term, more multi-dimensional concept of performance.

This, in turn, requires recognition that goals and objectives will primarily reflect shareholder influence. However, it is possible that in some cases this may be extended to encompass other stakeholders (Johnson et al., 2008, pp. 153–163) and so could modify the pure shareholder value pursuit implied by Rappaport (1996), particularly in stakeholder-driven societies such as Japan. Indeed, no theory exists to explain performance in absolute terms. In classical, formal strategic planning processes it is the gap between performance and shareholder goals and expectations which triggers any top-level strategic reviews or controls (Argenti, 1974). Empirical evidence suggests that SID practices reflect perceptions of shareholder or other stakeholder demands, which in turn vary widely across and even within different country contexts. Frequently, it is these somewhat subjective perceptions, rather than considerations of finance theory alone, which motivate any differences in practices, such as those relating to the tightness of financial targets (Carr et al., 1994).

We would expect weak-performing companies to be highly constrained by tough financial targets, as compared to strong-performers who may have more discretion to emphasise strategic considerations (Bibeault, 1981; Slatter, 1984; Van Cauwenbergh et al., 1996). Any perception of high shareholder demands would add further to such financial constraints.

3.2.2. Modifying the market orientation axis

Although market orientation is likely to be relevant for explaining differences in the extent to which strategic versus financial considerations are being emphasised (Barwise et al., 1989; Doyle, 1992), the strategic management and SMA literatures suggest that market orientation's influence on SID making practices may be moderated or reinforced by a company's strategic orientation (Gupta and Govindarajan, 1984; Miles and Snow, 1978; Porter, 1980), management style (Goold and Campbell, 1987), and the attractiveness (Brownlie, 1985; Robinson et al., 1978) and dynamism of the market in which they operate (Cheung, 1993).

Association between a company's strategic orientation and SMA practices has been well documented in the SMA literature (e.g. Cadez and Guilding, 2008; Chenhall and Langfield-Smith, 1998; Govindarajan and Gupta, 1985; Guilding, 1999; Simons, 1987). However, the research findings in this area are rather fragmented (Fisher, 1995; Langfield-Smith, 1997) as SMA scholars have made use of several different strategy typologies, most notably generic strategies (Porter, 1980), strategic configurations

(Miles and Snow, 1978) and strategic missions (Gupta and Govindarajan, 1984). Research findings do indicate that there may be general differences in the SMA practices between the more entrepreneurial strategy archetypes of *prospector* (Miles and Snow, 1978), *differentiator* (Porter, 1980) and *builder* (Gupta and Govindarajan, 1984), as compared to the more conservative strategy archetypes of *defender* (Miles and Snow, 1978), *cost leader* (Porter, 1980) and *harvester* (Gupta and Govindarajan, 1984; see Chenhall, 2003 and Langfield-Smith, 1997 for reviews on SMA literature).

Though popular in the SMA literature, in practice, only two of Miles and Snow's (1978) four categories have often been applied, *prospectors* and *defenders*; the remaining two, *analysers* and *reactors* have often been omitted in the analysis (see e.g. Cadez and Guilding, 2008; Chen, 2008; Haka, 1987; Simons, 1987). This may be because *analysers* are defined as a hybrid under which companies operate in silos, utilising *prospector* configurations for some types of business and *defender* configurations for other types as they act in different environmental contexts. This compromises the coherence of the categories given that their concepts are predicated upon integrated, consistent approaches to strategy, structure and organisational processes. The *reactor* category is also problematic. Such companies are typically failing in terms of performance, having not adapted in any consistent manner to environments perceived as highly uncertain. Whilst Oldman and Tomkins (1999) also emphasise poor performance as an additional dimension, it is not clear why this should only arise in relation to uncertain environments.

Available evidence on the association between a company's strategic orientation and SMA practices suggests that the more entrepreneurial business strategy archetypes may be associated with stronger strategic orientation (Govindarajan and Gupta, 1985) and a broader use of planning information (Guilding, 1999; Simons, 1987) as compared to the more conservative business strategy types. Although the SID literature has not yet presented any direct evidence for an association between a company's strategic orientation and SID making practices (Chen, 1995, 2008; Haka, 1987), the broader strategic management and SMA literatures suggest that a company's tendency to emphasize strategic versus financial considerations may be moderated or reinforced by its strategic orientation.

The strategic management literature indicates, further, that a tendency to emphasise strategic versus financial considerations in SID making practices may be moderated or reinforced by a company's management style, which can be categorized as *strategic planning*, *strategic control*, and *financial control* styles (Goold and Campbell, 1987). Although a management style principally depicts the way a corporate centre attempts to control other parts of the organization (for example by intervening in strategic planning and monitoring strategic performance, as in the *strategic planning* style, or by engaging in tight financial monitoring, as in the *financial control* style), such styles are also likely to be reflected in the way SIDs are approached. It would be expected that *strategic planning* styles will drive companies to put more emphasis on strategic considerations and on setting less challenging financial targets while

financial control styles generate a stronger financial emphasis and tighter financial targets.

Finally, prior strategic management and SID research suggests that the business sector in which the company operates is likely to be associated with companies' SID making approaches. Available evidence indicates that companies operating in stable business sectors may be more likely to use sophisticated capital budgeting techniques (Chen, 1995) and that they may also gain higher benefits from using such techniques as compared to companies operating in dynamic business sectors (Haka, 1987). Volatile business sectors may drive companies towards a greater emphasis on strategic considerations (Cheung, 1993), although the formality of their strategic analysis may be influenced by business sector dynamism (Eisenhardt and Sull, 2001; Mintzberg, 1994). A tendency to emphasise strategic considerations is likely to be further moderated or reinforced by market attractiveness. Companies operating in attractive business sectors that provide favourable prospects for growth and profitability are likely to put more emphasis on strategic considerations and to set less challenging financial targets as compared to companies operating in less attractive markets (Brownlie, 1985; Robinson et al., 1978).⁷ We view such variables as likely to contribute further to market orientation⁸, and a tendency to emphasise strategic considerations.

3.3. A contextual approach to SID making practices

The previous discussion indicates that Oldman and Tomkins' (1999) framework provides a useful starting position for explaining differences in SID making practices. However, their original *market orientation* and *need for turnaround* dimensions do require modification to take account of key contextual variables pertinent to SIDs. Fig. 2 integrates all these key contingencies into an overall contextual framework that explains differences in SID making practices in terms of a company's '*market orientation*' (which, as explained above, is an extension of the definition for this term used by Oldman and Tomkins, 1999) and its '*performance in relation to shareholder expectations*'.⁹

The new framework proposed gives rise to four broad contingency positions, which we categorise as *market creators*, *refocusers*, *value creators* and *restructurers* to illustrate their different situational contexts.¹⁰ Well-performing

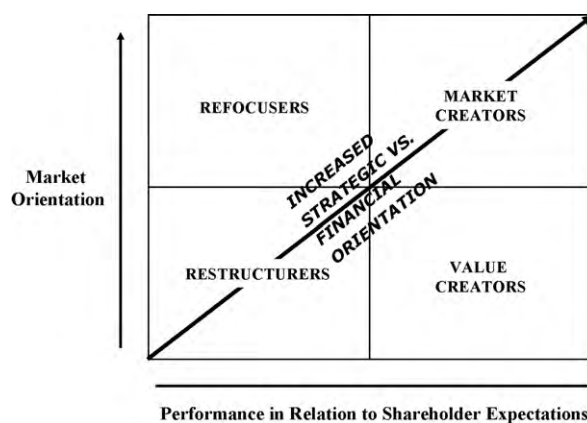


Fig. 2. Contextual framework for strategic investment decision making practices.

market creators are relatively free of short-term financial constraints and can therefore emphasise long-term market development and positioning. They will put a strong emphasis on strategic considerations in their SID making approach, and will be relatively flexible in their use of financial targets. Similarly disposed, but experiencing greater short-term pressures to perform, *refocusers* are likely to be forced into greater conservatism and serious re-focusing, while still having to protect crucial intangible assets, including brands and technology. Thus, *refocusers* will pay attention to both strategic and financial considerations in their SID making approach and set moderately tight financial targets for their SIDs. Well-performing *value creators* emphasise internal efficiencies and 'value creation' for their customers, often through superior cost control. As with *refocusers*, *value creators* will pay attention to both strategic and financial considerations in their SID making approach, and set moderately tight financial targets. Finally, *restructurers* engage in radical re-structuring and cost-cutting due to strong short-term pressures to perform. *Restructurers* will put strong emphasis on financial considerations, set very tight financial targets for their SIDs and, in general, will be very conservative in their SID approaches.

In summary our working hypothesis is as follows:

The SID orientation of a company may be predicted by the four archetypes model reflected in Fig. 2.

The counterfactual is that such differences in practices may be more effectively explained by one or other of our single variables taken in isolation: for example, Miles and Snow (1978)'s major strategic configurations, or even by cross-country differences. A further issue in operationalising the proposed framework is that, while a set of variables can be identified, there is an absence of any theoretical or empirical evidence suggesting that any particular individual variable is more influential than another. Consequently, in this exploratory analysis, variables are integrated on an unweighted basis. Again the counterfactual is that such a

⁷ Building on Robinson et al. (1978) and Brownlie (1985) we use the term market attractiveness to refer to the extent to which a business sector exhibits high profit and growth potential.

⁸ Strictly speaking this may imply a broader concept of market orientation than is sometimes used in the marketing literature (e.g. Doyle, 1992).

⁹ Contingency studies on management accounting (MA) practices have rarely conceptualized performance as an independent variable, having an influence on MA systems/practices. This study draws on Oldman and Tomkins (1999) to consider performance as one of the key variables influencing MA practices.

¹⁰ Perceptive readers will recognize that our framework subsumes the well-known Directional Policy Matrix framework (see, e.g. Brownlie, 1985; Hussey, 1978; Robinson et al., 1978), which in turn yields *build*, *hold*, and *harvest* strategy typologies of notable interest to e.g. Gupta

and Govindarajan (1984), Langfield-Smith (1997) and Cadez and Guilding (2008).

seemingly random approach is unnecessary: and that it is therefore preferable to stay with just one, more theoretically established categorisation approach.

4. Research approach and methodology

In order to empirically explore the above proposed framework's explanatory power on SID making practices, matched comparative case studies on company SID practices have been undertaken. These cases were particularly pertinent to our research objective for two key reasons. Firstly, they provided rich enough data to enable scoring along the several variables identified above as relevant and to explore overall SID approaches in considerable depth. Secondly, they enabled comparison of the SID practices across the four contextual categories described above.

To explore the influential dimensions of the four contingency-based typologies, companies representing diverse business sector and shareholder influence contexts were selected. These comprised companies from the telecommunications sector (at the time of study an attractive, dynamic business sector) and vehicle components (at the time of study a relatively stable, less attractive sector). To extend the range of shareholder influence contexts, the vehicle component sample covered Japanese as well as U.K. and U.S. companies. Earlier studies had indicated that Anglo-Saxon and Japanese companies exhibit substantial differences in shareholder influences (Carr, 2005; Carr and Tomkins, 1998). The resulting sample included 4 matched telecom companies (2 U.K., 2 U.S.) and 10 matched vehicle component companies (3 U.K., 4 U.S. and 3 Japanese). All case companies were large, multinational companies, operating in several countries, and among the global or regional leaders in their industries.

Interviews with senior executives, who had been personally involved with SIDs, formed the basis of the 14 case studies (see Appendix A). In 7 out of the 14 cases, interviews were conducted with several company representatives. The interview approach was predominantly one of discussion around broad themes, aimed at obtaining managers' own perceptions of practices and events. An interview guide was used to ensure cross-case comparison of specific themes, e.g. in the use of capital budgeting techniques. We also prompted managers to give their explanations of the wider aspects of management control, strategic planning and the competitive situation. Interviews averaged approximately 2.5 h and all were taped and transcribed.

The empirics were exploratory in nature and were drawn from an international study on SID practices conducted by one of the authors between 1994 and 1997. Although over a decade old, the data remains appropriate for an initial assessment of the corporate typologies developed in the paper. These typologies are expected to be enduring in nature, similar to those of Miles and Snow (1978) which have been in research use for over 30 years. Moreover, in three of the companies (one from each country), some further data, gathered in 2001–2003, was available and was used to confirm the longitudinal durability of the typologies. For example, in all three of these cases the principal capital budgeting techniques had remained the same and the hurdle rate targets had likewise remained largely unchanged.

Data analysis involved several phases. To enable positioning of the companies in the context of the proposed explanatory framework, investigated companies were first scored on a scale between 1 and 9 on all contextual variables. To analyse our composite strategic orientation variable, we reviewed the quotations for all the four sub-variables (market/financial orientation, strategic configuration, generic strategy and management style) individually. The assessment was theoretically informed and entailed searching for quotations that would provide an indication of, for example, a *prospecter* type strategic configuration. The scores were assessed by two researchers working independently through all transcripts. Key quotations underlying the judgments were then collated to facilitate cross-case comparison across all variable scores. After joint analysis and comparison, the two researchers agreed on their final scores. To assess the validity of our scoring, we asked for independent reviews from experienced academics in the field from two different universities, working independently of each other. This analysis resulted in almost identical scores. The first researcher's initial scores diverged one point from our original scores in two instances. The second researcher agreed on all scores. The scores used in the study were confirmed after discussion with the authors. This independent analysis resulted in no material differences in the scores, or changes in the categorisation of companies.

Where appropriate, use was made of secondary research data based on publicly available information. Performance scores were determined using a detailed financial benchmarking of companies, against each other and their worldwide sector peers. As the performance score aimed to capture companies' long-term financial and strategic performance, benchmarking was based on 5-year average sales growth %, 5-year average ROCE % (Y1994, Y1999 and Y2004), and relative market shares (Y1996). The details of the financial benchmarking are elaborated in more detail in Appendix B. Market attractiveness scores were determined by assessing the 5-year average sales growth % and 5-year average ROCE % for the two business sectors, as elaborated in Appendix C. Finally, market dynamism scores were assessed first for the telecommunications and vehicle component sectors overall. After this, the scores for individual companies were determined in the light of evidence that particular companies experienced more or less dynamic environments as compared to their sectors overall.

All of the interview transcripts were then reviewed to identify potential differences in the SID practices across the contextual categories. The transcripts were first examined for any potential differences in the use of capital budgeting techniques, hurdle rates, and other specifics related to the use of techniques. As well as analysing differences across the four contextually based categories, a systematic cross-check was made for differences against every composite contextual variable on a one-by-one basis. These analyses addressed the counter-hypothesis of whether our framework does have further explanatory power than that possessed by any individual variable. For example, do we really need all our new categories, rather than say just Miles and Snow (1978)'s strategic configurations? Checks were also made for differences in the SID practices of Anglo-

Table 1
Analysis of contextual positions of investigated companies.

	BritTel1	BritTel2	AmTel1	AmTel2	BritComp1	BritComp2	BritComp3	AmComp1	AmComp2	AmComp3	AmComp4	JapComp1	JapComp2	JapComp3	Mean score
Market orientation															
Market context															
1 = extremely stable environment, 9 = extremely dynamic environment	8.0	7.0	7.0	7.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.5	3.0	4.4
1 = very low market attractiveness, 9 = very high market attractiveness	8.0	8.0	8.0	8.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.1
Average market context	8.0	7.5	7.5	7.5	4.0	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.8	3.5	4.8
Strategic orientation															
1 = very strong financial orientation, 9 = very strong market orientation	3.0	5.0	5.0	3.0	5.0	2.0	5.0	5.0	5.0	5.0	6.0	9.0	9.0	9.0	5.4
1 = purely cost leadership, 9 = purely differentiation	7.0	5.0	5.0	5.0	6.0	4.0	8.0	3.0	5.0	6.0	7.0	4.0	6.0	8.0	5.6
1 = extreme defender ^a , 9 = extreme prospector	9.0	3.0	4.0	6.0	8.0	5.0	4.0	6.0	6.0	6.0	7.0	6.0	7.0	7.0	6.0
1 = extreme financial control style, 9 = extreme strategic planning style	5.0	5.0	2.0	6.0	5.0	3.0	4.0	8.0	6.0	5.0	5.0	9.0	7.0	8.0	5.6
Average strategic orientation	6.0	4.5	4.0	5.0	6.0	3.5	5.3	5.5	5.5	5.5	6.3	7.0	7.3	8.0	5.7
Market orientation	7.0	6.0	5.8	6.3	5.0	3.5	4.4	4.5	4.5	4.5	4.9	5.5	5.5	5.8	5.2
Performance in relation to shareholder expectations															
Performance															
1 = severe financial crisis 9 = very high performance above expectations	9.0	7.0	6.0	4.0	8.0	2.0	3.0	3.5	4.5	7.0	5.5	8.0	6.0	4.0	5.5
Shareholder influence															
1 = very high shareholder influence 9 = very low shareholder influence	3.0	5.0	2.0	2.0	5.0	3.0	3.0	7.0	5.0	6.0	4.0	9.0	9.0	8.0	5.1
Performance in relation to shareholder expectations	6.0	6.0	4.0	3.0	6.5	2.5	3.0	5.3	4.8	6.5	4.8	8.5	7.5	6.0	5.3

^a Similarly to most SMA and SID studies applying Miles and Snow's (1978) typology, we have operationalised their typology simply as a continuum between defender and prospector (see e.g. Cadez and Guilding, 2008; Chen, 2008).

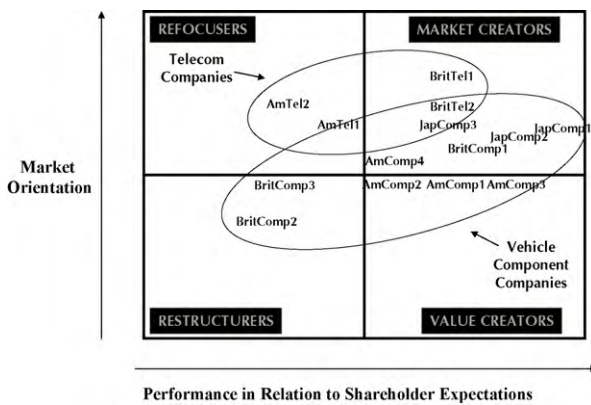


Fig. 3. Contextual positions of investigated companies. Pseudonyms are used throughout, suffixes 'Brit', 'Am' and 'Jap' indicating British, American and Japanese origins, and 'Tel' and 'Comp' indicating telecommunications and vehicle component sectors.

Saxon and Japanese companies. This analysis addressed the other counter-hypothesis that country context, rather than contextual category, might afford a more convincing explanation of differences observed. Since our analyses included only 14 cases, these analyses were inevitably very tentative, but provided, nonetheless, some indication of the individual variable and country influences.

Thereafter, the transcripts were reviewed and analysed again, this time with an attempt to identify emergent themes that would characterize the overall SID approaches of the four corporate types. Finally, the transcripts of the three follow-up interviews were analysed and compared with initial interview transcripts to assess any changes in SID practices subsequent to initial interviews.

5. Research findings

5.1. Positioning companies in terms of our contextual framework

Table 1 presents the scores used for positioning investigated companies against our earlier proposed framework. Scores for the market context and strategic orientation variables are aggregated first to provide overall positioning on the vertical axis (*market orientation*). The scores for the performance and shareholder influence variables are then aggregated to provide positioning along the horizontal axis (*performance in relation to shareholder expectations*). The scores for the market context and strategic orientation dimensions are themselves averages from component elements, drawn from our overall framework and are detailed separately in Table 1.

Fig. 3 draws on the analysis from Table 1 to position the investigated companies within the proposed framework. Vehicle component companies operating in a stable and less attractive business sector, and exhibiting diverse market orientation, performance and shareholder influence contexts are spread among the *market creator*, *value creator* and *restructurer* categories. Telecom companies operating in a dynamic and attractive business sector and showing a general tendency to be market orientated are, on the other

hand, clustered exclusively in the upper *market creator* and *refocuser* categories. Although substantial differences are evident for the two sectors, there is nevertheless a significant level of overlap, particularly in the *market creator* category suggesting that some companies, even located in such different sectors, are subject to similar overall contextual influences.¹¹

5.2. Analysis of capital budgeting techniques for contextual categories

Our analysis in Table 2 shows little systematic variation in terms of the actual choice of specific capital budgeting techniques employed. Companies typically employ about four different techniques, DCF techniques and particularly IRR being the most popular and also the most influential. Any differences by category are generally subtle. *Value creators* and *market creators* most frequently prioritize some form of DCF technique; they downplay the traditional payback method, sometimes preferring return on capital methods. *Refocusers* and *restructurers*, by comparison, are distinctive only in that all of them utilise EPS growth targets, a technique utilised by no *value creators* and just one *market creator*. All *refocusers* and *restructurers* also perceive substantial shareholder pressures, so this may be the reason for the more extensive use of EPS growth targets. *Refocusers* and *value creators* utilise a greater number of capital budgeting techniques as will be discussed later.

Table 3 on financial targets and time horizons adopted in applying capital budgeting techniques exhibits more systematic differences among the contextually based categories. IRR hurdle rates rise as we move from the strategically orientated *market creator* category towards the more financially orientated *restructurer* category. The average hurdle target rates are 16% for *market creators*, 18% for *value creators*, 20% for *refocusers*, and 22% for *restructurers*.¹² These differences in the hurdle rates appear to reflect differences in the cost of capital, as we find the premium set over cost of capital to show less systematic difference across our contextual categories. The most noteworthy difference here is that the most strategically orientated *market creators* appear to be willing to accept lower premiums. The payback target and time horizon figures for the *market creator*, *value creator* and *refocuser* categories are, on the other hand, remarkably similar.

Reflecting their weak performance and strong shareholder influence, *restructurers* exhibit a consistent, distinctly conservative approach. Their IRR target hurdle rates are correspondingly higher, averaging 22% compared to 18% average for our whole sample. Similarly, their payback targets are shorter, averaging 2.5 years compared to 4 years for our whole sample. Their time horizons are even more

¹¹ Most companies were well distinguished by our four contextual categories, but for three, positions were less clear-cut. This grouping virtually on the border between *market creators* and *value creators*, nevertheless, lay distinctly apart from *market creator* companies in our sample, and exhibited distinctive SID making practices.

¹² Please note that this data was gathered in the 1990s. These hurdle rates may hence seem high in comparison with current interest rate levels.

Table 2
Use of capital budgeting techniques by contextual categories.

Categories	Capital budgeting technique most frequently prioritized	Other techniques applied (listed in the order of prioritization)	Average number of techniques applied
Market creators	IRR	Return target, NPV, payback, EPS growth, sensitivity analysis	3.4
Value creators	IRR/NPV/return target	Payback, sensitivity analysis	4.3
Refocusers	NPV/EPS growth	IRR, return target, payback, sensitivity analysis	5.0
Restructurers	IRR/payback	EPS growth, sensitivity analysis	3.5
All companies	IRR	NPV, return target, payback, EPS growth, sensitivity analysis	3.9

distinctive, averaging only 3 years, compared with 9 years for our whole sample.

5.3. Overall SID approaches

More in-depth analysis of the qualitative interview data suggests more profound differences in the overall SID approaches across our four contextual categories. Most significantly, the data suggests systematic, expected differences in the extent to which SIDs are based on strategic as opposed to financial considerations. As expected, *market creators* exhibit a strong emphasis on strategic considerations and use financial analysis in a supportive role. *Restructurers*, on the other hand, tend to put strong emphasis on financial considerations and pay very little attention to strategic analysis. *Value creators* and *refocusers* demonstrate a more balanced emphasis on both strategic and financial considerations, but exhibit other marked differences in their overall SID approaches. The overall SID approaches of our four contextual categories are portrayed in more detail in the following sections.

5.3.1. Market creators

Consistent with the contextual framework, *market creators* tend to put strong emphasis on strategic considerations when making decisions on strategic investments. Although *market creators* often also conduct financial analyses, these analyses tend to have a secondary, supportive role in their strategic investment decision making. Executive Vice President of Operations at AmComp4 explained: “We will still argue for strategic decision making as the dominant basis for investment strategy after going through all this generation of (financial) valuation. . . . Financial people are support people, not decision makers.” The strategic emphasis is also reflected in the fact that *market creators* often determine specific strategic criteria for evaluating their strategic investments.

Market creator companies are also willing to allow for significant flexibility in the use of financial targets. If an

investment is viewed as strategically significant, there could even be attempts to modify financial valuations in order to meet the set financial criteria. Executive Director at BritTel1 explained: “If we saw IRR’s which are low, then frankly we wouldn’t be very interested in investing there. . . if the first cut is not looking right, but you still feel deep down it is an interesting investment, we will still try to justify it financially.” Strict financial targets could be seen as a hindrance for achieving the rather aggressive growth targets of many *market creator* companies. The Head of Strategic Planning at BritTel2 commented: “Any fool can put in a big hurdle rate but what that does is - you know- if X has a lower hurdle rate than me, they will accept growth opportunities that I will reject.”

Some very prospectively oriented *market creator* companies have also adopted very bold attitudes towards incorporating synergies into calculations. They consider potential investments as part of their global investment portfolio, and pay strong attention to getting synergies out of these businesses at an operating level. In contrast, some less prospective *market creators* have a more cautious, yet open, attitude towards calculating synergies. They take into account synergies that can be measured in advance.

5.3.2. Value creators

Value creators tend to take a more balanced approach to SID making by paying attention to both strategic and financial analysis. Central to the *value creator* approach tends to be an intention to provide decision-makers with a multi-faceted, thorough analysis. Vice President of financial administration at AmComp1 explained this approach: “I think AmComp1 culture is, we want to make every analysis as accurate as possible, and then react and use the data to make decisions.” Reflecting the intention to conduct profound analysis, *value creators* are often not content with using only standard strategic techniques, and have developed other, complementary techniques to assist strategic evaluation. This was exemplified by the comment of the Vice President of financial administration at AmComp1:

Table 3
Financial targets and time horizons by contextual categories.

Categories	IRR target, %	Premium over cost of capital, %	Payback target, years	Time horizon, years
Market creators	16	6.3	5	8
Value Creators	18	8.5	4	11
Refocusers	20	9.5	5+	10
Restructurers	22	8	2.5	3
All companies	18	7.4	4	9

"We'll think about it (BCG, Five Forces), but we are not rigorous to say those are the only things we are going to think about... We have got methodologies that we have developed overtime."

As the strategic investment decisions of *value creators* are influenced by strategic considerations, *value creators* are, like *market creators*, willing to stretch their financial targets if investments are viewed as strategically significant. Senior Vice President of AmComp2's automotive business noted: "We wouldn't want to (go below the return target), but in a few cases we have, rarely, but we have... I could tell you that I have never gone into single digits, but I have on occasion looked at something in the 10% range."

Value creators tend to take a rather open attitude towards synergies when evaluating their strategic investments. The Director responsible for acquisitions, divestitures and joint ventures at AmComp3 commented: "We look at all the kind of cost and sales based synergies, technology, product, you name it; we look at it fairly broadly and rigorously, speculating of potential synergies, probably putting more weight on cost base because that's more in our control..."

5.3.3. Refocusers

As with the *value creators*, the two *refocusers* in our sample pay attention to both strategic and financial analysis. Whereas *value creators* tend to put specific emphasis on the thoroughness of their strategic analysis, the two *refocusers* in our sample exhibit a tendency to strive towards very sophisticated financial analysis. The corporate development director at AmTel1 explained their approach: "Yes, strategy is important and it has to fit... otherwise we won't do it, but that is only the first cut and the first threshold decision criteria. It is always in the end going to come down to, 'Is it financially attractive for us to do?'"

Striving towards very thorough and sophisticated financial analysis is reflected in *refocusers'* attempts to conduct their analysis in accordance with the latest financial theory, for example by calculating the cost of capital on a continuous basis. The corporate development director of AmTel1 explained: "You see our philosophy is to determine the cost of capital as best we can and recognise there is going to be some fluctuation. We try to keep abreast of what's going on in the financial theory as much as possible and we try to use it as much as practical." The Vice President of strategic management at AmTel2 stated: "They re-assess the cost of capital, I think on an hourly basis in our financial organisation, so that it is always going on...we try to analyse those situations, we try to model those situations and run sensitivity analysis."

High shareholder influence, which is typical of *refocuser* companies, is reflected in shareholder value creation being viewed as a primary driver when making decisions on strategic investments. Vice President of strategic management at AmTel2 explained: "We have all the primaries (financial analysis) you ever want to see, but essentially if you boil it down to its least common denominator... you have to build growth on earnings per share." Perhaps reflecting the high shareholder influence, *refocusers* tend to take a much more cautious attitude towards calculating synergies than their *market creator* and *value creator* peers. They incorpo-

rate synergies into calculations only when there is a very high probability for these synergies to materialize.

5.3.4. Restructurers

As suggested by the contextual framework, *restructurers* exhibit a very strong financial emphasis. Strategic considerations are given very little attention. Deputy Marketing Director at BritComp2 commented bluntly: "We are going in to make money, and to return cash. We are not just doing it for strategic reasons. Hence, the emphasis is on financial side when looking at these projects... So we don't accept their (Germans') view which is that strategy is what counts in any conflict with the financials. From our perspective, this would be 'nuts'."

Potentially influenced by their low performance and high shareholder influence, *restructurers* tend to set very tight financial targets for their SIDs. The director responsible for finance and acquisitions at BritComp3 explained: "We use the sensitivity analysis and we use the gap between the two hurdle rates, you might say we are ultra conservative... Now that means that we are more likely to turn down deals that they would go forward with and we have experience of that."

The financially constrained position of *restructurer* companies also tends to drive them to take a very short-term perspective in evaluating SIDs. As expected, *restructurers* are very cautious in their attitude towards calculating synergies when evaluating strategic investment decisions. The cautious attitude towards synergies is driven by the high shareholder influence encountered by *restructurers*. The director responsible for finance and acquisitions at BritComp3 explained, "When you have built a successful business to date and the shareholders are behind you and you have a good market rating, to bring in the unquantifiables into your next year you are running a very big risk, because it is not only the risk for the acquisition to the brink of benefits you thought it was going to get, but it is the impact it has on your total business because all of a sudden the confidence in the management by investors goes and so your market rating goes. Overall the loss of value to shareholders is very, very significant, so if you like, we are cautious."

To conclude, the qualitative data analysis provides significant evidence confirming expected differences in the extent to which SIDs are based on strategic as opposed to financial considerations across our four contextual categories. We find also other marked differences in the contextual SID approaches. These are summarized in the following in Fig. 4.

6. Discussion

This study provides evidence of substantial differences in the way companies make their decisions on strategic investments. These differences are not revealed simply in regard to the *choice* of capital budgeting techniques, but are also particularly apparent in the way the techniques are used, and in how they *influence* decision making on strategic investments.

Given reports of the widespread use of capital budgeting techniques such as DCF, the extent of convergence in the choice of techniques is not surprising (see e.g. Graham

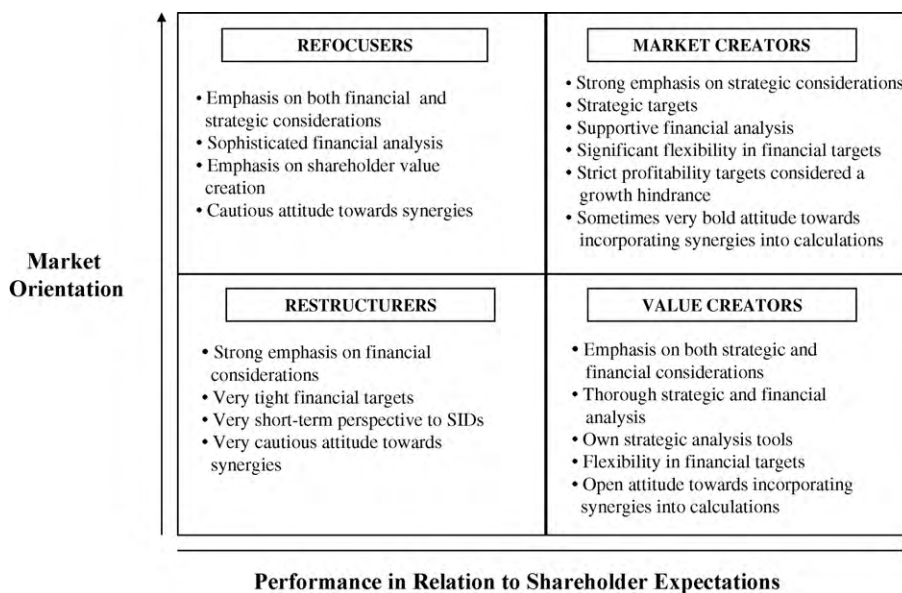


Fig. 4. Contextual strategic investment decision making approaches.

and Harvey, 2001; Sangster, 1993). What makes this more notable is the fact that, in the research design of this study, key contextual variables have been deliberately extended (e.g. market context and country/shareholder influence context). Yet, the degree of convergence in the use of capital budgeting techniques remains high. This is despite the international nature of the study and prior evidence of cross-country differences in the use of capital budgeting techniques (e.g. Carr and Tomkins, 1996, 1998; Jones et al., 1993).

Nevertheless, close observation of the manner in which these techniques really influence SIDs reveals differences in approaches that do, indeed, vary in accordance with the contextual framework proposed. Correspondingly, *market creators* exhibit the most strategically orientated approach to SIDs. Financial analyses have a more supportive role and they are likely to be over-ridden or even manipulated by decision-makers. At the other extreme, *restructurers* emphasise financial considerations and are more rigid and conservative when handling targets and non-quantifiables. As expected, *value creators* and *refocusers* pay attention to both strategic and financial considerations. They also emerge as the most thorough and also the most active in terms of the number of techniques utilised. *Refocuser* practices reflect perceived pressures to improve shareholder value, with a heavy emphasis on EPS growth targets; *value creators* do not use such targets at all and, by comparison, are more amenable to strategic arguments.

Correspondingly, from Fig. 2, a consistent pattern of IRR rates is apparent, increasing as we move from the most strategically orientated *market creator* category to the most financially orientated *restructurer* category. *Restructurers* are also unique in adopting far shorter term time horizons and payback targets, whilst all other categories here exhibit very similar practices.

The counter-argument to using the four-typology framework developed, is that differences in SID making

practices may be explained more simply and plausibly, by an individual variable. This counterfactual was addressed by systematically cross-checking for differences against every contextual variable on a one-by-one basis. Since the analysis included only 14 cases, the results must be interpreted with care but, given this caveat, individual variables do appear to provide only a partial indication of why SID practices differ. For example, the variables included in the composite strategic orientation variable (strategic configuration, generic strategy, market/financial orientation and management style) were each found to have different impacts on SID practices. None of the individual variables appeared to dominate other explanatory variables.

Considering Miles and Snow (1978) in isolation, our *market creators* versus *value creators* at first sight seem similar to more traditional *prospectors* versus *defenders* typologies. However, our tentative uni-variable analysis indicates that the latter categorisation does not predominate other explanatory variables. Furthermore, the Miles and Snow model does not handle the issue of poor/failing performance well. For Miles and Snow only *reactors* (an entirely different category not endorsed in other SMA studies) are associated with poorer performance. Our poorer performing cases might conceivably have been classified as *reactors* had they all grouped just above the mid-way vertical axis given their uncertain environments, offset by ill-adaptive market orientations. We observed, by contrast, two groups, one relatively higher and the other relatively lower on our vertical 'market orientation' axis. Thus, poorly performing types do not conform to just one single *reactor* typology. Moreover, these two groups (differently positioned in our framework as respectively *refocusers* and *restructurers*) exhibit different SID making behaviours, and these would have been inexplicable if Miles and Snow's typology were used. Finally the hybrid *analyser* position, half-way between *prospectors* and *defenders*, can also be accommodated in our framework.

The strongest counter-argument to our more complex categorisation is that differences in country contexts alone may explain differences in practice. Here, the literature suggests a strong convergence in practice within Anglo-Saxon countries, such as the U.K. and the U.S.A, and differentiation in countries such as Japan (Carr, 2005; Carr and Tomkins, 1998). When comparing the cross-country influence to the explanatory power of our contextual framework, our tentative analysis of 14 cases indicates that the country context does have a particularly strong influence on the number of capital budgeting techniques and the level of IRR target hurdle rates, but the proposed contextual framework better explains differences in the time horizon adopted. When addressing the broader SID making approaches, we find our contextual framework has a much stronger explanatory power when compared to the cross-country influence. Although all three Japanese companies in our sample fall into the more strategically oriented *market creator* category, this category also includes companies from the Anglo-Saxon U.K. and U.S. contexts, providing evidence that companies from quite different country environments are subject to similar contextual influences and exhibit similar behaviour in terms of SID making practices. The thesis of cross-country influence would also fail to explain the intra-country differences in SID making practices that have been found (see Fig. 2 for the contextual positions of investigated companies and Fig. 4 for the contextual SID making approaches).

Each of the individual variables used in the study do appear to contribute, in part, to the explanation for differences in SID making practices. However, when combined into the four contextual categories, explanation is enhanced considerably. The proposed corporate typologies model also affords recognition of country context effects as extreme as those found in Japan, in so far as these are effectively transmitted through the indirect country effects included in the framework (see e.g. Carr, 2005; Carr and Tomkins, 1998).¹³ The proposed model has thus the virtue of wider applicability than models that omit these important indirect country effects. It is suggested here that researchers should use universal frameworks with some appreciation and understanding of cultures quite different to their own.

While the use of the four firm types developed in this paper does contribute to the understanding of how contextual factors can help explain SID practice (as demonstrated above), their novelty and limited testing means that their generalisability has yet to be fully established. 14 cases categorised into four typologies composed from a wide range of variables cannot aspire to statistical rigor. The justification for limiting the number of cases is that our research is exploratory, case-based and involves considerable attention to contextual considerations (Butler et al., 1993; Marsh et al., 1988). Nowhere is this more important and nowhere is survey-based, statistically orientated

research more vulnerable than in decision making at a genuinely strategic level. Confidentiality considerations and the sheer difficulty of responding to complex, strategic oriented questions, compromise the generation of reliable data from forced choice scales.

7. Conclusion and directions for future research

Empirical research in management accounting (MA) consistently demonstrates that both similarities and differences arise in the intrinsic nature of techniques and in the way in which they are applied. Identifying the determinants of practice is a central quest for MA researchers. Without such knowledge, explanations and understanding of the discipline will be defective and prescription hazardous. One way of tackling this quest is the route followed in this paper. MA variation can be accounted for as a response to a set of situational characteristics which can be used to define explanatory contexts which can be used to categorise corporate behaviour. This is an approach widely adopted in the investigation of how strategy impinges on MA practice.

The contribution of this paper has been to encompass a wide range of acknowledged variables into a single overall contextual framework and to explore this framework's potential for explaining differences in SID making practices. The empirical aspect of the research comprised an exploratory set of 14 matched field case studies from the U.K., U.S. and Japan, providing coverage of vehicle components and telecommunications sectors. Application of the four contextual categories in the framework provided a successful explanation of variation in companies' overall SID approaches and the specific decision support techniques adopted.

The findings indicate substantial differences in approach across the four firm typologies, particularly in terms of the emphasis on strategic versus financial considerations, the thoroughness and rigidity of financial analysis and the attitudes towards incorporating less easily quantifiable factors such as synergies into calculations. Additionally, IRR target rates are higher in the most strategically orientated *market creator* category as compared to the most financially orientated *restructurer* category. Choice of specific investment techniques exhibits more moderate systematic variation, but this can be explained by the near universal adoption of discounting techniques in large firms.

Thus the empirics, although limited in scale, do support the potential of the proposed framework to explain SID practice. In order to confirm this potential and to more fully investigate the utility of the typology, further research is needed. First, there is a need for deeper organisational field studies, to verify and further develop understanding of the nature of SID making practices and to further elaborate the implications of the firm types for the finance function. While covering three continents and 14 cases, the scope of the empirics precludes study of the related underlying organisational processes as proposed by Miller and O'Leary (2005, 2007). An enhancement of the clarity of key variables and expected relationships from process-centred research could provide a basis for studies designed

¹³ Previous studies have provided evidence for significant cross-country differences in shareholder influence, market orientation and management style, in particular between Anglo-Saxon and Japanese companies (see e.g. Carr, 2005; Carr and Tomkins, 1998).

to provide a more extensive and rigorous statistical analysis. A key challenge in pursuing larger scale studies of this type is access to reliable, credible data on the commercially sensitive and highly complex data pertinent to SIDs. It would also be desirable to have more longitudinal studies to explore further the question of consistency of SID making practice and the applicability of the four proposed firm types over time.

Finally, the developed contextual framework may have a wider applicability for explaining differences in SMA (as opposed to merely SID) practice. Most variables in the framework were derived from the broader SMA and strategic management literatures. Therefore, further studies could, for example, seek to examine whether the framework can help explain differences in companies' utilisation of strategic cost management tools, of externally orientated SMA techniques (see e.g. Cadez and Guilding, 2008; Guilding, 1999; Guilding and McManus, 2002) or of more strategically oriented controls, such as the Balanced Scorecard (Kaplan and Norton, 2001).

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Appendix A. Background information about the interviews and SIDs discussed^a

Company	Persons interviewed	Date of the interview	Estimated length in minutes	Length of the transcripts in words
Initial interviews				
BritTel1	Executive Director	04-Sep-97	75	5600
BritTel2	Head of Strategic Planning	11-Sep-97	120	8456
AmTel1	Director, Corporate Development; Director, Financial Planning; Controller	06-Sep-94	150	37,105
AmTel2	Vice President, Strategic Management	28-Jul-94	100	7184
BritComp1	Manager responsible for BritComp1's operations in the US	09-Sep-94	80	4307
	Manager responsible for BritComp1's operations in France	03-Jun-98	150	15,624
BritComp2	Deputy Marketing Director; Group Financial Controller	22-Aug-97	75	3775
BritComp3	Director responsible for finance and acquisitions on a corporate level	28-Aug-97	150	13,948
AmComp1	Vice President, Fin' Administration; Director, Fin' Analysis; Gen' Man' Sector X Operations	24-Aug-94	150	26,884
AmComp2	Senior Vice President; Controller of AmComp2's Automotive business	01-Sep-94	150	34,511
AmComp3	Director responsible for acquisitions, divestitures and joint ventures	12-Aug-94	100	18,956
AmComp4	Executive Vice President, Operations; Assistant to Executive Vice President	07-Sep-94	180	44,011
JapComp1	several senior executives involved in SIDs	31-Aug-95	100	8298
JapComp2	Director responsible for investment decisions	30-Aug-95	125	12,206
JapComp3	General Manager Corporate Planning Officer	Aug-95	115	11,894
Total (initial interviews) in minutes and words			1820	252,759
Follow-up interviews				
BritComp1	Strategic Planner	21-Jan-01	80	9534
JapComp1	General Manager of Corporate Planning Department	20-Sep-02	70	2266
AmComp1	Head of Finance; Financial President of a major business	17-Sep-03	70	12,562
Total in minutes and words			2040	277,121
Estimated total number of interview hours			34	
Estimated average interview time per company (in hours)			2.43	

^aPseudonyms are used throughout, suffixes 'Brit', 'Am' and 'Jap' indicating British, American and Japanese origins; 'Tel' and 'Comp' indicating telecommunications and vehicle component sectors.

Appendix B. Analysis for the performance scores

Company	Score ^a	Long-term financial performance						Market position	Additional comments
		5-Year average sales growth %			5-Year average ROCE %				
		Y2004	Y1999	Y1994	Y2004	Y1999	Y1994	Relative market share ^b	
BritTel1	9.0	1390.63	313.84	211.49	-5.23	30.04	46.20	0.30	
BritTel2	7.0	29.95	31.38	3.67	10.29	14.53	13.37	0.15	
AmTel1	6.0	-19.52	49.75	20.35	11.84	11.34	9.18	0.24	
AmTel2 merged corp	4.0	114.88	140.54	20.46	11.17	15.27	5.82	n.a.	Merged after the interview.
Av Tel (top 28 w'wide)		101.44	194.43	307.48	6.89	10.24	9.23		
BritComp1	7.0	35.27	67.64	-17.96	13.15	27.02	6.93	0.16	Worldwide no 1. Long-term survivor. High margins.
BritComp2	2.0			29.62			5.21	0.04	Showed losses even in extraordinary items. Acquired subsequently by a failed company.
BritComp3	3.0		452.26	643.59		12.58	3.16	0.01	
AmComp1	3.5	34.66	47.51	28.33	5.19	9.80	3.70	0.17	
AmComp2 ^c	4.5	50.56		17.60	16.42	23.10	5.56	0.28	Auto division subsequently divested.
AmComp3	7.0	48.18	50.53	26.88	9.14	13.88	8.60	0.22	Consistency in performance over the years.
AmComp4 ^d (tire division)	5.5	-5.22	56.52	61.89	7.45	12.89	16.18	0.17	We evaluate the figures sceptically, as these figures relate only to the tire business.
JapComp1	8.0	96.99	-2.60	36.57	5.34	5.28	5.03	0.43	Number 1 VC company in Japan, Number 2 globally
JapComp2	6.0	183.03	-8.35	56.59	1.88	4.21	2.92	0.07	ROCE over local cost of capital; excellent long-term growth
JapComp3	4.0	45.44	-6.17	58.33	0.85	1.50	2.25	0.03	Figures show negative performance, but include business unrelated to vehicle components
Av Comp (top 42 w'wide)		49.30	242.75	70.20	5.26	11.35	6.20		
Average (Sample)	5.5	167.07	99.40	85.53	7.29	13.96	9.58	0.17	

^a The scores for performance determined intuitively by taking into account long-term financial performance, market position and additional comments.

^b Relative market share calculated by dividing 1996 sales by those for the largest player in the industry; as BritTel1 operates in a different segment, BritTel1 evaluated against the largest player in that segment; as AmTel1 operates both in the segments of BritTel1 and BritTel2, we calculated AmTel1's relative market share by using the average sales figure of the largest companies in both segments.

^c The figure for 5-year average ROCE 1994, and the figures for 5-years sales growth for 1994 and 1999 are based on the data for former AmComp2.

^d Tire division, figures for AmComp4 (corporate).

Appendix C. Analysis for the market attractiveness scores

Company name	Averaged 5-year sales growth for the industry ^a		Scores ^{c,d}
	Averaged 5-year ROCE % for the industry ^b		
	Y1996	Y1996	
BritTel1	44	10	8
BritTel2	44	10	8
AmTel1	44	10	8
AmTel2	44	10	8
BritComp1	9	8	4
BritComp2	9	8	4
BritComp3	9	8	4
AmComp1	9	8	4
AmComp2	9	8	4
AmComp3	9	8	4
AmComp4	9	8	4
JapComp1	9	8	4
JapComp2	9	8	4
JapComp3	9	8	4
Average (our sample of 14 companies)			5

^a Averaged 5-year sales growth calculated by dividing the total averaged 5-year sales growth of all companies in the industry by the number of companies in the industry.

^b Averaged 5-year ROCE calculated by dividing the total averaged 5-year ROCE for the whole industry by the number of companies in the industry.

^c The scores for market attractiveness determined intuitively by taking into account average 5-year sales growth and ROCE % figures.

^d The scores for telecommunications industry based on 52 companies listed on the Thompson database, the scores for the vehicle component industry based on 638 companies listed on Thompson.

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