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THE PARADOX OF STRATEGIC CONTROLS

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This paper reviews the literature on strategic controls. It summarizes the main theoretical arguments that have been put forward for establishing strategic control systems, and contrasts these arguments with evidence that suggests that few companies in fact have a strategic control system in place. The paper then identifies some of the difficulties that may be associated with establishing a strategic control system, points up issues that require further empirical research, and suggests a framework for exploring a contingency theory concerning the sorts of businesses in which strategic control systems would be most and least valuable.

INTRODUCTION

This paper explores a paradox at the core of strategic management thinking: the conflict between theory and practice on strategic controls. The recent literature on strategic management clearly advocates the establishment of some system of strategic controls to monitor strategic progress and ensure the implementation of strategic plans (see, for example, Govindarajan and Gupta, 1985; Hrebiniak and Joyce, 1984; Lorange, 1982; Lorange *et al.*, 1986). Yet, in practice, there are very few companies that identify formal and explicit strategic control measures and build them into their control systems.

Why should this apparent paradox exist? Are there problems with the concept of strategic controls that have not yet been adequately recognized? Do informal, implicit controls work better than a more structured approach? Or have the bulk of companies failed to bring their management processes into line with what is needed to make strategic management work? This paper synthesizes published research on these questions and identifies the most important outstanding issues that should guide future research.

A statement of the arguments in favour of strategic control systems is given, together with a summary of the evidence concerning the current use of such systems. Each of the main reasons for having a strategic control system is then examined and critiqued in more detail, leading to identification of the main questions on which future research should concentrate to determine whether and when strategic controls are valuable.

THE PURPOSE OF CONTROL SYSTEMS

The control system, as understood in this paper, is the process which allows senior management to determine whether a business unit is performing satisfactorily, and which provides motivation for business unit management to see that it continues to do so. It therefore normally involves the agreement of objectives for the business between different levels of management; monitoring of performance against these objectives; and feedback on results achieved, together with incentives and sanctions for business management. The

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control system also provides the basis for decisions on actions to correct deviations from planned objectives.

There are three important reasons for establishing a control system of this sort. First, a fundamental task for any large organization is to coordinate the efforts of all those who work within it (Barnard, 1938), and in particular to reach agreement between managers at different levels in the corporate hierarchy on the plans and strategies that will guide decisions and actions (Sloan, 1963). Agreement on the objectives to be sought by all parts of the organization is a necessary condition for such coordination (Anthony, 1965). As far as possible, the objectives should be precise and measurable, otherwise there is a danger that plans will lack substance and specificity. According to Roush and Ball (1980: 6).

> A strategy that cannot be evaluated in terms of whether or not it is being achieved is simply not a viable or even a useful strategy.

The establishment of control objectives is, in this sense, an essential final step in the planning process (Lorange, 1980).

Second, individual managers must be personally motivated to seek the goals that have been agreed. The provision of personal incentives and sanctions is important in creating this motivation (Slater, 1973). A particular problem concerns the divergence of individual aspirations and corporate goals. In theoretical economics there is an extensive literature, 'agency theory' (Jensen and Meckling, 1976; Baiman, 1982), that deals with the separation of ownership and management in public companies, and the means by which the potentially different goals of 'principals' (owners) and 'agents' (managers) are harmonized. Within the company, there is a similar problem in motivating lower levels of management to work with wholehearted commitment towards the objectives agreed with senior management. The control system provides the personal incentives that align individual and corporate goals and motivate managers to devote their best efforts towards them.

Third, even the best-laid plans will sometimes fail. Senior management must then decide when and how to intervene, either by agreeing to altered goals, pressing for new plans or changing the responsible management. The control system prompts such action. The analogy here is with cybernetic feedback theory (Ashby, 1954; Steinbrunner, 1974). By monitoring performance and identifying deviations from agreed objectives, the control system provides the signals that trigger senior management intervention.

Together, these three reasons constitute a compelling case for establishing some form of control system. This has been recognized by almost all large companies, at least insofar as budgetary control systems have become ubiquitous in recent years (Armstrong, 1987). Such systems generally focus on annual (or shorter-term) performance against financial yardsticks such as, for example, sales, profits and return on investment. Targets for performance against these yardsticks are established at the start of the budgetary process, actual results are monitored, and managers are judged according to whether they achieve (or miss) these targets. Budgets, properly designed and administered, give managers a highly effective control tool and ensure that important aspects of a business (such as cash management) are properly planned and monitored (Peirce, 1954; Merchant, 1985). Furthermore, budgetary control tracks management performance against defined cost and revenue objectives, and provides the basis for feedback and incentives (or sanctions) in terms of career, compensation and the sense of achievement (or failure) that results from being ahead of (or behind) budget.

THE CASE FOR STRATEGIC CONTROLS

Budgetary control, however, stresses financial objectives and usually concentrates only on the coming twelve months. It does not deal with a company's progress relative to its competitors; it does not cover non-financial objectives that may be important to the eventual achievement of secure profitability and competitive strength; it pays no explicit attention to longer-term goals and objectives; and it does not generally take account of social objectives such as health and safety, the physical environment, etc. Many writers on business strategy (for example, Andrews (1980), Dearden (1969), Lorange (1980), Lorange *et al.* (1986), Richards (1978),

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Roush and Ball (1980)) have therefore argued that control objectives set primarily in terms of next year's budget are insufficient as they can lead to a misdirection of effort.

Amongst the most forceful and influential of these critics of short-term, financial controls are Hayes and Abernathy (1980). They state, for example, that

> Innovation, the life blood of any vital enterprise, is best encouraged by an environment that does not unduly penalize failure, [but] the predictable results of relying too heavily on short-term financial measures—a sort of managerial remote control—is an environment in which no-one feels he or she can afford . . . even a momentary drop in the bottom line.

and

> By their . . . devotion to short-term returns and 'management by numbers' many [American managers] have effectively forsworn long-term technological superiority as a competitive weapon. In consequence, they have abdicated their strategic responsibilities.

Strategic planning, with a concern for long-term business viability and success, is seen as the necessary balance to shorter-term, budget planning. This is because, in the words of Donaldson and Lorsch,

> There is an inherent incompatibility between the time required to bring about fundamental strategic change and the customary financial planning cycles (1983: 166).

Several writers (for example Anthony, 1965) have therefore characterized the planning process as having three stages: setting strategic objectives, planning for strategic implementation and operational planning. These stages of planning need to be integrated, and should result in objectives and controls that are consistent at all stages.

> The operational plan should be completely consistent with and in the context of the strategies involved. The control activities should be related directly to this operational plan. Thus, the day-to-day managing of the business relates back to the strategic plan. Indeed, unless this coupling exists, the strategic plan will become irrelevant with time (Gage, 1982).

By analogy with budgetary control systems, strategic control systems require targets or objectives, performance against which can be monitored and measured, with the results being fed back to the responsible management and the reward system linked to performance. But strategic control systems involve longer-term objectives than budgetary control systems. This creates problems, since, as Hrebiniak and Joyce (1986) suggest, there is a natural tendency for managers to react more positively to short-term rather than long-term objectives. Controls against objectives that are five years away can never be as powerful as controls against next year's targets. Hrebiniak and Joyce, therefore, suggest that strategic control systems should specify short-term goals (or milestones) which need to be achieved in order that the strategy ultimately be implemented. The strategic milestones are not targets in themselves, but rather things you pass on the way:

> To achieve long-term aims, it is necessary to develop operating objectives that purposely translate strategy into manageable short-term pieces for implementation (Hrebiniak and Joyce, 1984: 110).

Management 'myopia' (Hrebiniak and Joyce, 1986)—a tendency to be motivated more by immediate than distant goals—is natural and generally healthy. The way to build constructively on this tendency is to establish short-term measures of long-term strategic progress.

In designing a strategic control system, then, it is important to ensure a balance between strategy and operations, the long term and the short term. Lorange (1988) argues that to ensure sufficient attention is given to strategic issues, there should be separate strategic and operational budgets which should be controlled against independently. The strategic budget setting would be the final step in a process that begins with setting strategic objectives, this being followed by strategic programming and milestone setting. Setting separate strategic and operational budgets is suggested as a way of preventing managers sacrificing strategic considerations to achieve short-run performance targets.

Camillus and Grant (1980), in contrast, argue that strategic implementation is best dealt with by deliberately integrating the strategic programming and operating activities into a single 'operational planning process', which would include a statement of quantitative goals (both financial and non-financial) and a description of action plans

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to be implemented. According to Camillus and Grant, such an action plan statement would include detailed descriptions of actions to be taken, deadlines and results to be achieved plus the identities of the manager responsible for implementing the plan and the senior manager responsible for monitoring its implementation.

A third approach to ensuring that strategic issues are given sufficient attention is suggested by Salter (1973), Lorange and Murphy (1983) and Govindarajan (1984). The strength, pervasiveness and immediacy of financial control systems is reinforced by having financially dominated bonus systems, linked to performance against budget. Under such circumstances, agency theory suggests that the manager is likely to trade off strategic considerations against short-term performance. Therefore, these authors argue, if strategy is important, then the reward system should be linked, to some extent, to the implementation of strategy.

> Annual bonuses . . . usually emphasize the short term, so a manager wants to 'look good' at the end of the year. To prevent his concentration on his own immediate rewards, top management should evaluate . . . the long-run implications of subordinates' actions and reward them at least in part on that basis (Salter, 1973).

There are other differences between strategic control systems and budgetary control systems (Hurst, 1982). Strategic controls may be concerned with competitive benchmarks and with non-financial performance measures, as well as with long-term outcomes. This has implications for the sort of data required (softer, more external), the sort of analysis undertaken (less routine, more concerned with options), and for the action consequences (less programmable). Some authors (Argyris and Schon, 1978; Lorange *et al.*, 1986) have also argued for a broader conception of strategic control, such that differences between actual and planned outcomes lead not just to modification in the actions of individuals, but also to questioning of the assumptions of the plan itself. Argyris terms this 'double-loop learning', which is the equivalent of a thermostat questioning its orders.

Probably the most comprehensive approach to strategic controls is proposed by Lorange (1982, 1988). He distinguishes three levels in the organization: the 'overall portfolio' (corporate), the 'business family' (division) and the 'business element' (SBU). At each level, he suggests establishing:

1. strategic objectives (the eventual objectives, in terms of competitive strategy);
2. strategic programmes and milestones (the specific tasks by which the strategic objectives will be accomplished, and by when);
3. strategic budgets (the resources to be spent on strategic programmes);
4. operating budgets.

Performance under each heading must be monitored, together with the interrelationships between the performance of each level in the organization. The control system must also identify key assumptions on which the strategy is premised, and track any changes to those assumptions and their performance implications.

The logic in favour of some form of strategic control is, therefore, powerful, and the list of writers who have argued for strategic control is long. What about the management practice?

THE PRACTICE OF STRATEGIC CONTROLS

There has been comparatively little empirical research to investigate whether and how companies use strategic control systems. This, in itself, represents a gap in the strategic management literature. Moreover, the research that has been carried out suggests that, despite the arguments in favour of the concept of a strategic control system, in practice few companies have yet made much progress with the development and use of formal or explicit control systems of this sort. Thus a survey by Horovitz of 52 companies in Europe reached the conclusion that:

> Analysis of current practices has shown that long range and in some cases strategic planning exist. However when one looks at chief executive control, empirical evidence suggests that there is no control system to match such planning (Horovitz, 1979: 5).

The point is reinforced by Lorange and Murphy, who, drawing on U.S. experience, observe:

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A major systemic difficulty that many firms today confront is the inability to develop serviceable criteria for assessing the *long-term* performance of individual business element managers (1983: 130).

Goold and Campbell (1987) also found that there were few British companies, even amongst those who employed the strategic control management style, who had succeeded in defining and using explicit strategic milestone measures.

In research currently in progress this finding has been confirmed. A mail survey of the 200 largest British companies has revealed that only a small number of companies (11 per cent) would claim to employ a strategic control system of the type described above (Goold and Quinn, 1988). Personal discussions with consultants and academics in the U.S. and Europe have also failed to identify more than a handful of companies with experience of operating a fully fledged strategic control system (Goold, 1988).

One must conclude either that there is a strange, even paradoxical, lag between theory and practice, or that the benefits of strategic control systems have been greatly overstated in the previous literature. Each of the main reasons for establishing a strategic control system will, therefore, be examined in more depth, to cast light on whether and when strategic controls are practically valuable.

COORDINATION AND PRECISION IN PLANNING

The idea that well-managed companies should move forward in accordance with detailed and precise plans and strategies has recently come under attack. Quinn (1980) has argued that most strategic change proceeds step-by-step or incrementally, and that grand designs with precise and carefully integrated plans seldom work. The best that can be achieved is to introduce some sense of direction, some logic into the incremental steps. This view stresses the messy, political nature of decisions, the need for flexibility and opportunism, and the difficulty of controlling strategic change.

In a similar vein, Mintzberg (1987) has written about the 'crafting' of strategy. He draws a parallel between the potter at his wheel and the strategist. As the potter begins to work, he has some general notion of the artifact he wishes to create. But the detailed design, and even the whole conception, evolves as the potter works with his clay, seeing new possibilities emerge as his work progresses. Here it is uncertainty about how a given design will work out in practice, and a need to allow for the creative element, that lead to the conclusion that the view of the corporate strategist as a rational planner should be replaced by the craftsman analogy.

These arguments cast doubt on the value of rigid strategic control systems. Especially in businesses that face a rapidly changing environment, or in which strategy needs to change frequently and opportunistically, fixed strategic goals may be dysfunctional. At the extreme, a formal and inflexible commitment to pre-set strategic goals and milestones will prevent the very adaptability which Quinn and Mintzberg see as the essence of good strategy.

This does create a dilemma for the designer of strategic control systems. Too much rigour and inflexibility may (in some businesses) be counter-productive. But vague goals and loose linkage to incentives and sanctions undermine many of the purposes for which control systems are intended. Choices and trade-offs must therefore be made between formal and precise control systems and more informal, looser approaches to strategic control. These choices have not been adequately dealt with by previous writers on strategic controls. In particular, further research is needed to address the following questions:

1. How can strategic controls be devised that are compatible with uncertainty in the business environment, and with the need for flexibility and creativity in evolving strategy?
2. Should businesses that face especially high degrees of uncertainty, or in which strategy needs to be particularly flexible, pay less attention to strategic controls?

GOALS AND MOTIVATION

The need to motivate managers to be personally committed to the organization's goals is the second main reason for establishing a control system. In Williamson's words (1975), the aim is

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'consummate' rather than 'perfunctory' discharge of tasks: that is to say, we seek 110 per cent effort rather than the bare minimum necessary to get by. The control system identifies the key goals that the organization wishes to reach, and provides personal incentives for managers to strive towards them. In principle this should be a straightforward process, but in practice it may be less easy to specify strategic goals that are suitable as a basis for motivating managers. We will first review the research that has been carried out on goals and motivation, and then discuss the extent to which strategic goals can be defined that have the right characteristics for engendering 'consummate' motivation.

Research on goals

There has been extensive research into the question of what sorts of goals motivate people most and lead to the best performance. Most of this work relates to individual workers and specific tasks, rather than to the relationship between business heads and their superiors. However, it yields several relevant results.

Specificity of goals

There is evidence that defined, specific goals lead to better performance than vague, 'do-your-best' goals (Locke *et al.*, 1980). Ideally, targets should be clearly stated and objectively measurable, so that performance against them can be precisely assessed.

> When measurable performance criteria or outcomes are lacking . . . performance appraisal and review are subjective, at best, and, at worst, political, arbitrary, and capricious due to the lack of objective performance criteria (Hrebiniak and Joyce, 1984: 118).

'Stretching' goals

Difficult goals are associated with better performance than easy goals, through challenging people more. Hofstede (1967) maintains, for example, that budgets are best seen as a game; managers play to win (i.e. to make budget), and get satisfaction from knowing that the target is a tough one. An easy target makes the game not worth playing. On the other hand, a goal that is seen as too difficult will turn people off and lead to reduced performance (Stedry and Kay, 1966). Managers must accept the goal, rather than rejecting it as an unachievable imposition.

> Set targets which are impossible to achieve and you switch people off. Set targets which are too easy and you also switch them off. Set targets which are difficult but just achievable, and then ensure that you achieve them, and you will switch people on (Harvey-Jones, 1988: 102).

Goold and Campbell (1987) identified the 'stretching' of standards of performance as one of the most important sources of added value by corporate and divisional management. By insisting on 'high-wire' performance, the centre challenges managers down the line to levels of achievement that they would not have attained on their own. Belief in the importance of stretching standards of performance is particularly strong in financial control companies. The notion employed in Tarmac, the British construction company, of 'winners', who grow in self-confidence as they gain experience of meeting high-wire targets and who thrive on the challenge built into the process, reinforces Hofstede's notion of budgets as games.

Top-down or bottom-up

There is conflicting evidence on the relationship between participation in goal-setting and subsequent performance, though the weight of evidence suggests that participatively set goals do not improve performance more than assigned goals (for example, Ivanevich, 1976; Latham and Yukl, 1976). Participation does appear to lead to improved job satisfaction (Milani, 1975; Kenis, 1979; Chenall and Brownell, 1988) but the subsequent link with performance has not been clearly demonstrated.

The importance of participation does, however, appear to depend on the complexity of the task involved, with complex (but not simple) tasks being performed significantly better as a result of participation (Campbell and Ginrich, 1986). This enhanced performance follows from participation providing more insight into the task and hence a better understanding of how to tackle it (Locke and Schweiger, 1979). The goals set in the strategic control process are unlikely to be simple; rather they will be complex goals for which an implementation strategy will have to

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be developed. Thus, for example, given a goal of 'increased market share by 5 per cent', the business manager generally has several options available. In such circumstances, participation should lead to improved decision-making and greater 'ownership' of the goals in question.

Feedback, incentives and sanctions

The original Hawthorne experiments (Roethlisberger and Dickson, 1939) showed that, simply by focusing attention on a group's performance, its achievement level is enhanced. That is, feedback on performance by itself improves subsequent performance. Merchant (1985: 50) has restated this argument:

> [Feedback] can heighten employee awareness of what is expected of them and should help stimulate performance.

Goold and Campbell (1987) have, however, shown that in companies where goals were seen as contractual commitments, the motivational force of feedback on performance was correspondingly higher.

Feedback should be reinforced by incentives and sanctions which should be consistent with the goals set by a manager (Govindarajan and Gupta, 1985). Thus, if a manager has set the strategic goal of long-term growth it would be wrong to use a reward scheme based purely on annual profits.

Goals for business managers

Most of the previous research on goals and motivation has concerned lower levels in the organization than the business head. At lower levels, tasks are comparatively simple and goals can be clearly defined to match the tasks. The business head, by contrast, is responsible for overseeing many different functions, each with its own task. The list of goals for all of these functions would be huge—far too long to be manageable by the business head. There is therefore a need for fewer, more synoptic measures. This can be achieved by choosing results-orientated goals and setting priorities among goals.

'Results' orientation

Merchant (1985) distinguishes between 'results' control and 'action' control. In the former case, goals are set in terms of outcomes (market share, costs, etc.), whilst in the latter case goals are set in terms of inputs (establish a sales force, build a new plant, etc.). The complexity of the business manager's task and the uncertainties he faces mean that he should be subject to results rather than action controls (Hirst, 1987). Focusing on actions takes away from the business manager the ability to exercise his judgement in making the most of his business as opportunities and threats arise. Senior management therefore needs to leave discretion with the business manager over the detail of his tasks, and to set goals for him that measure major, overall achievements for the business, not the specific steps by which these goals are obtained (Argyris, 1977). That is, goals for the business manager need to focus away from detailed actions and operational matters and onto key results and major management tasks.

Few, prioritized goals

Too many objectives overdetermine a manager's tasks and are liable to be confusing and possibly contradictory. There is a danger that sophisticated MBO systems with multiple objectives may break down in practice.

> Elaborate evaluation . . . shows that MBO's chief effects are an increase in paperwork and in discussion of objectives. . .. When asked what they would recommend as improvements beyond MBO, . . . administrators mention . . . a need for clear mission goals and priorities (Wildavsky, 1984: 185).

A good control system should distinguish a few key, consistent objectives, thereby giving managers a sense of priorities. Alternatively, a distinction should be made between constraints ('achieve at least 15 per cent RoCE', 'don't let net cash flow go negative') and objectives ('maximize sales growth', 'achieve £10 m profits in year 2').

It is for these reasons that the concept of profit responsibility has gained popularity in recent years. The business manager is held responsible for bottom-line profits, but given considerable

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freedom concerning how they are achieved. Budget goals focus on the bottom-line profit figure but not on the detailed line items behind it. Since profits are the ultimate objective of the business they are ideally suited to serve as top-priority, 'result' goals. An unremitting concentration on profit goals is still compatible with ample scope to manage costs, sales, prices, products and so forth on a discretionary basis. Although many people feel that profit goals alone are not enough, it is worthwhile to recognize the attractions of a profit goal as the ultimate in a single, all-embracing 'result' or 'bottom-line' target.

Strategic goals

As argued above, the essence of strategic goals is that they provide a more balanced type of motivation for managers than purely short-term profits. There is an attempt to weigh long-term business development together with short-term performance and to identify a range of key indicators of competitive position rather than focusing exclusively on profitability. Therefore 'strategic' goals stress a different set of concerns to 'operational' or 'budgetary' goals. The key points are that strategic goals should:

1. Look to the longer term: this not only means setting objectives for more distant achievement, but also establishing short-term milestones (a new product launch, a key acquisition) that guide progress towards the objectives and provide a measure of such progress.
2. Be competitively set: a concern with strategy is essentially a concern with competitive position. Hence, a 25 per cent RoCE in an industry that is averaging 30 per cent RoCE is unsatisfactory; and a 5-point gain of market share is unsatisfactory if the key competitor has gained 10 points. Performance measures need to be set not only in absolute terms but also relative to the achievements of competitors.
3. Incorporate financial *and* non-financial objectives. Financial goals are obviously important but the concern with strategy stems from the belief that financial measures do not tell the whole story. Specifically, this year's financial results may be boosted to the detriment of long-term competitive position. We therefore need to complement financial goals with other measures of strategic and competitive position that will give a more rounded overall view of a business. For example, market share or product quality relative to the leading competition may be valuable indicators that will round out a purely financial picture of a business's results.

Difficulties in defining strategic objectives

Table 1 summarizes the above discussion, and identifies the sort of criteria that strategic goals intended to motivate businss managers should ideally meet. Unfortunately, however, it is far from easy to identify such goals. Strategic objectives (competitively set milestones for non-financial targets) are often hard to define with specificity, clarity and precision. If, for example, 'achieving a greater marketing orientation' or 'improving competitive position' is the strategy, it is not obvious precisely how to define and measure achievement. An amalgam of several qualitative indicators may be more suitable than an attempt to focus exclusively on any single (or small number of) quantifiable factors. In these circumstances it is also hard to know what level of achievement represents a 'stretch' goal, and the ability to make goals 'contractual' is reduced. The sorts of strategic goals that are practically possible may depart greatly from those that are ideal for purposes of motivation.

Ouchi (1979, 1980) has recognized these problems in setting strategic control objectives.

Table 1. Criteria for strategic objectives for motivating business managers

1	Specific, clear, measurable
2	Stretching
3	Participatively set
4	Feedback, incentives and sanctions, important/ 'contractual' goals
5	'Results'-oriented
6	Few in number
7	Prioritized; constraints distinguished from objectives
8	Long-term objectives *and* short-term milestones
9	Competitive benchmarks and comparisons
10	Financial *and* non-financial objectives

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He argues that in some businesses the ability to measure outputs precisely and objectively is low. This means that 'results'-based controls (Merchant, 1985) are inappropriate. He also claims that it is sometimes hard even to specify the sorts of actions that will be required to bring about the desired outcome, in which case 'action' controls would also be inappropriate. This gives Ouchi a classification scheme for identifying the sorts of controls that are suitable in different situations (see Figure 1). For the business unit general manager, both a clear knowledge of means–ends relationships and the ability to measure outputs precisely and objectively may well be low. In these circumstances, Ouchi suggests 'clan' controls may be preferable to formal strategic controls. What are clan controls? The features that Ouchi stresses are:

1. strong sense of shared values and clan traditions;
2. careful selection, followed by socialization or indoctrination of new members into the shared values of the clan;
3. ability to trust individual clan members to act in pursuit of clan goals without 'senior management' control.

The sorts of examples he gives are hospital consultants and R&D staff. This type of control is a part of what is also referred to by Merchant (1985) as 'personnel' control.

The strength of the clan is that individual clan members can be relied upon to pursue the common clan goals spontaneously. No control system, beyond the socialization process, is needed to bring their personal goals into line with the organization's goals. Therefore it is not necessary to specify and monitor particular activities or milestones. The individual can be relied upon to pursue his best endeavours on behalf of the clan, and he can be given discretion over exactly how he does this. In an uncertain environment, in which control measures are hard to define, this is highly desirable. An explanation for why so few companies have formal strategic controls may be therefore that defining strategic goals is too hard, so that companies are effectively choosing clan controls instead. Such an approach is compatible with the softer, less precise Quinn–Mintzberg views of strategy formulation discussed above.

But Ouchi's work is conceptual rather than empirical. It is unclear whether an absence of formal strategic controls indicates that companies really cannot formulate good strategic goals or simply that they have not tried to do so; and it is also unclear whether (and under what circumstances) 'clan' motivation is actually a viable alternative to a more formal control process. The 'clan control' explanation for absence of strategic controls is an interesting possibility, but it remains unsupported by evidence.

Two main research issues therefore emerge from this discussion:

1. What sorts of attempts to set strategic controls have been made by leading companies and what sorts of goals emerge? How far do they meet the criteria established in Table 1?
2. What are the prime sources of personal

Knowledge of Means-Ends Relationships (i.e. ability to predict what will be outcome of given decisions/policies/strategies)

		High	Low
Ability to Measure Outputs Precisely and Objectively	High	"Action" or "Results" Control (e.g. the Apollo space programme)	"Results" Control (e.g. a profit centre)
	Low	"Action" Control (e.g. a part of a flow line process)	"Clan" Control (e.g. a research lab)

Figure 1. Ouchi's contingency theory of control. Adapted from Ouchi, 1979

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motivation for business managers? What sort of motivation do clan controls, strategic controls and financial controls each provide? Under what circumstances is each most effective?

STRATEGIC CONTROLS AND MANAGEMENT INTERVENTION

The third principal reason for establishing a control system is to guide senior management on when and how to intervene in the affairs of businesses reporting to them. Such interventions may range from a simple discussion of issues with the responsible business manager, through the creation of strong pressure for alternative actions, to the replacement of the management team.

The strategic control process should provide top management with the information they need to decide when to intervene. It is for this reason that Lorange *et al.* (1986), Horovitz (1979) and Schreyogg and Steinmann (1987) maintain that a good strategic control system should not only specify objectives but should also monitor changes in the key assumptions on which a strategy has been premised. The strategic control system then allows assessment of whether the goals and strategies remain valid.

> Strategic control should be viewed as a counterbalancing activity to strategic planning and the question of whether or not the strategic plans are still valid should be asked continuously (Schreyogg and Steinmann, 1987: 94).

Implementing a strategic control system of this sort would involve laying out all the key assumptions behind a strategy, monitoring changes in them, and tracking through the implications of these changes for changes in strategy or goals. Such a system would require a massive investment in analysis, planning and bureaucracy; and, even then, would be unlikely to be comprehensive and accurate. Evidently, many senior managers prefer to rely on their judgement and their general knowledge of a business to decide whether and when to modify goals and strategies. They may feel that an explicit control system is too cut and dried, too formalistic and too simplistic for complex decisions, and may even fear that it will interfere with the use of more intuitive, experiential, judgemental skills—skills which are the essence of good management. Implicit strategic controls are then preferable to more formal, explicit systems (Ansari, 1977).

Simon is representative of this 'intuitive' view of management. Drawing on his work concerning the functioning of the human brain, Simon (1987) suggests that skilful management has more in common with chess than science. The chess grandmaster proceeds by pattern recognition rather than straight logic. He scans the position on the board and draws on his experience to select a few feasible alternative moves to assess. This is not a matter of systematically checking all the alternatives and choosing the best: chess is too complex for that. Rather, it is efficient use of past experience to suggest, semi-intuitively, some good options. Too logical an approach would get bogged down, and would fail to respond in the available time.

By analogy, Simon views the senior manager as scanning the business situation and, from a gestalt of all the relevant factors, arriving at a judgement of an appropriate response.

> Every manager needs to be able to respond to situations rapidly . . . a skill that requires cultivation of intuition and judgment over many years of experience and training (Simon, 1987: 63).

It follows that the attempt to identify a 'few key strategic control variables' will inevitably screen out much information of relevance to the skilful manager, and an explicit strategic control system may conflict with his powers of judgement. Simon's views seem to imply that the very characteristics of 'good' strategic controls trivialize the art of management; they attempt to reduce an inherently complex process to simple terms and, in so doing, inhibit experienced managers more than they help them. Explicit strategic control measures are less likely to be effective than a less well-defined, more implicit sense of direction that will guide the senior manager's response to events as they unfold.

There is force in this attack on strategic controls. But the attack initially seems as powerful against budgets as against strategic controls. If intuition and experience are really the key, and if they are inhibited by formal control systems,

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we should never have seen the budgetary process becoming so widespread. However it may be that the acknowledged limitations of budgets are, in this case, their salvation. Budgets do not pretend to give anything other than a partial view of a business. They are short-term and narrowly financial, with all the limitations described above. Therefore any manager worth his salt must set them in a wider context of judgement. Given all that he knows of the situation, how should he interpret a given deviation from budget? This can never be a mechanical process, and must allow room for judgement. The problem with strategic controls is that, by claiming to identify and encapsulate all that is most important for a business, they reduce the scope for judgement in an unacceptable way.

This line of argument raises some important research issues for strategic control systems.

1. On what basis do senior management decide when to intervene in businesses reporting to them? How far and when is any sort of strategic control system used?
2. Do strategic control systems that are used track the assumptions behind strategies as well as the results they achieve?
3. How far do deviations from background assumptions or from planned results lead automatically to intervention, and how far is it a matter of judgement? If judgement is exercised, what useful role (if any) does the strategic control process play in guiding judgement?
4. What happens if strategic objectives are missed? Are these objectives seen as broad guidelines or tightly defined targets? Do managers who miss their strategic goals run similar risks for their career and compensation as those who miss budget goals? If not, why not?
5. How are formal strategic control systems used in parallel with more informal approaches for senior management decisions about when and how to intervene?

MUTUAL TRUST

In the literature there is a more fundamental attack on the whole concept of control systems and management information systems on the grounds that they damage mutual trust within organizations and entail unforeseen and undesirable second-order consequences.

> An MIS that aspires to be foolproof . . . indicates lack of trust on the part of the user. . .. Subordinates' reactions will tend to be to continuously make management's assertion that they must be monitoring and controlling a self-fulfilling prophecy (Argyris, 1977).

> Rather than performing well, employees often set low goals that can be easily met, manipulate measures to come out with the desired results, and actually sabotage the system's information base (Camman and Naddler, 1976: 67).

The theory is that the stress built into the control process destroys cooperation and mutual trust between individual managers and across management levels; that control goals distort performance, since managers lose sight of the overall strategy by focusing only on the measurable output criteria; and that goals emerge as political compromises between warring factions rather than as considered milestones that measure progress (Argyris, 1952).

Argyris believes that the implicit but 'undiscussable' assumptions behind the control process (in particular, that the boss does not trust his subordinates) invite defensive behaviour and prevent openness. However 'well designed' the control system, it will encounter resistance and cause problems as long as these assumptions remain unchallenged. The answer, he suggests, may lie with some form of OD (organizational development) training to create a more open and trusting environment.

Trust and confidence are, indeed, at the heart of any well-functioning control system. This requires a basic belief by senior management that business managers are competent and vice-versa; mutal agreement that control targets are suitable; and confidence that results achieved will be interpreted with judgement and good sense. Once senior management loses confidence in a business manager, these conditions will quickly cease to hold and the control process will degenerate. The verdict on performance is likely to be negative, almost irrespective of the specific results achieved. Conversely, if confidence in the manager remains high, explanations for deviations from plan will be readily accepted. The level of

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trust, and the atmosphere it brings, fundamentally affect the functioning of the control system.

But Goold and Campbell (1987) found that, used well, the control system can itself play an important part in building mutual confidence. There are three reasons for this. Firstly, the business manager with a history of delivering on his 'contract' earns the confidence of his senior management. The concept of a manager's 'track record' is important and performance against an explicit set of control objectives provides a firm basis on which to build the track record. Secondly, senior management's reactions to deviations from plan create their track record for softness or toughness, for understanding of the business or otherwise. A non-adversarial review process is helpful in concentrating on how to improve the business in future, rather than finding fault with the past. Finally, the control process provides an opportunity for clear personal feedback against specific performance criteria. This is preferable to the less open, more subjective, political assessment process that characterizes some companies ('just not our sort of person').

The need for mutual trust, therefore, is not fundamentally at odds with the notion of strategic controls. Rather, trust is a prime prerequisite of effective control:

> The most important characteristic for the manager is trust, which creates the atmosphere of safety in which the team spirit can operate (Hofstede, 1967).

There is, however, a tension between goals as sacrosanct contracts and the sensitive interpretation of results that emerge. In the strategic control process (as opposed to the financial control process) it may not be possible to stress the contract too dogmatically; but it is the contractual nature of the goals that helps in building confidence. While, therefore, we do not accept that the need for mutual trust is a reason for doing without any form of control system, we do feel that there are important research issues concerning the effect of strategic control systems on mutual trust.

1. Do strategic control processes help to build trust between levels in an organization, or does the more subjective nature of the strategic measures used reduce the value of simple financial controls for this purpose?
2. More broadly, how should strategic control systems be designed and implemented to reinforce rather than reduce trust between different levels of management?

CONCLUSIONS AND IMPLICATIONS

The practice of strategic control is much more complex than most writers on the subject have acknowledged. Problems include:

1. devising strategic controls that can accommodate uncertainty and flexibility in the implementation of strategy;
2. defining strategic goals that are suitable for motivating managers;
3. ensuring that strategic control systems assist, rather than attempt to replace, management judgement;
4. building a strategic control system that enhances, rather than destroys, mutual confidence between management levels.

Considerable further empirically based research is needed to explore how companies address these problems, and whether, in what form, and under what circumstances strategic controls can be of real value.

Until research of this kind has been completed, managers need to tread warily in implementing strategic control systems. While the benefits of strategic control remain theoretically attractive, there are evidently considerable difficulties in devising a practically useful strategic control system. Such difficulties are likely to be more pronounced in certain sorts of businesses, and strategic control processes may need to be designed to take account of the specific circumstances faced by each business. For example, in the section on 'Coordination and precision in planning', it was argued that strategic control systems may cause problems of adaptability in businesses that face high levels of uncertainty, or require very flexible and opportunistic strategies. Managers in businesses that face turbulent and rapidly changing environments (Lawrence and Lorsch, 1969) may therefore derive less benefit from strategic controls than managers in more stable or mature businesses.

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Equally, the section on 'Goals and motivation' indicated that, in many businesses, strategic objectives that are suitable as the basis for personally motivating incentives and sanctions will be hard to set. In particular, in businesses where it is difficult to specify strategic objectives whose achievement can be measured with precision and objectivity, the motivational force of strategic controls will be less.

We can combine these observations into a tentative framework for a contingency theory of strategic controls, as shown in Figure 2. The ideal circumstances for strategic controls should be in businesses with low environmental turbulence, and in which it is relatively easy to specify and measure precise strategic objectives. In such businesses a formal strategic control system could be set up and linked to personal rewards, and should help to ensure that the business remains 'on track' strategically.

In businesses where precise strategic objectives can be specified, but where environmental turbulence is high, a strategic control system may still be valuable. However, management should be more ready to modify their strategic objectives as circumstances change, and the link between achievement of strategic objectives and personal rewards should therefore be less mechanistic and compelling. In this sense, the strategic control system should be less 'tightly' administered.

In businesses where environmental turbulence is low but it is hard to specify and measure strategic objectives, the value of a strategic control process would be more related to monitoring business progress than to motivating management. Through tracking a number of less precise indicators of performance it may be possible to obtain a fair impression of movement towards agreed long-term goals. But management cannot be given a few clear targets as a focus for their energies, and the reward system cannot be linked unequivocally to achievement measured by these targets. It is in these circumstances that a more 'clannish' source of motivation may need to be sought.

Lastly, in businesses that face high turbulence and a low ability to establish precisely measurable strategic objectives, the value of a strategic control system would be problematic. Any preset objectives may need to change to reflect changing conditions in the environment, and objectives are in any case hard to set clearly. As such, explicit strategic controls are less valuable either as a guide to progress or for motivational purposes. A constantly updated view of progress, based on a more holistic view of the business, would be needed, and a 'tightly' administered formal strategic control system would be more of a hindrance than a help. Instead a looser, more informal relationship between senior management and the business that stresses directional, long-term goals rather than precise targets may be preferable. This is closer to the strategic planning style of management (Goold and Campbell, 1987).

This framework must be regarded as hypothetical and suggestive only at this stage. However, it does suggest that managers should consider profoundly different approaches to strategic control in different business circumstances. We therefore believe that further empirical research is greatly needed to explore more fully the sorts of strategic control processes that are most appropriate in different businesses. We may then

Environmental Turbulence	Easy	Difficult
High	. Strategic control system valuable, but should not be tightly administered	. Strategic control system problematic
Low	. Strategic control system valuable	. Strategic controls more for tracking progress than motivation

Ability to specify and measure precise strategic objectives

Figure 2. Approaches to strategic controls in different sorts of businesses

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discover whether the apparently paradoxical absence of explicit strategic controls in many businesses represents a real shortcoming in management practice, or simply a recognition of the limited range of situations in which strategic control systems are genuinely valuable.

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