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Email: C.Van-Staden@massey.ac.nz

THE DEVELOPMENT OF A STRATEGIC CONTROL FRAMEWORK AND ITS RELATIONSHIP WITH MANAGEMENT ACCOUNTING

by

C.H. Durden

School of Accountancy
College of Business
Massey University
Palmerston North
New Zealand

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Abstract

Management accounting systems have been criticised for being excessively focused on short-term performance. As a result long-term strategic direction and goals may have been neglected. To help overcome this problem it has been suggested that organisations should adopt strategic management accounting techniques and management control systems which are orientated towards the achievement of strategic goals. This paper argues that integration with strategic control would significantly enhance the relevance of management accounting systems. In developing such an approach this paper first integrates the salient features of the extant strategic control models in a framework that recognises the needs of the current business environment. And second, it examines how strategic control could be used as the basis for developing management accounting systems that have a stronger strategic focus.

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1. INTRODUCTION

Over the past 15-20 years the management accounting discipline and it's role within organisations have been the subject of considerable academic debate (Kaplan, 1983; Kaplan, 1984; Johnson & Kaplan, 1987; Volman, 1990; Dent, 1990; Eccles, 1991; Cooper, 1996; Foster & Young, 1997; Shields, 1997). A major criticism is that traditional management accounting systems neglect long-term direction and overall firm viability, as they tend to encourage and enable managers to focus on short-term performance (Kaplan, 1984). It has been pointed out that management accounting and control systems often do not seem to reflect the changes in the contemporary business environment, which is characterised by, for example, flatter organisational structures, high-tech manufacturing, and greater worker empowerment (Otley, 1994).

Researchers have argued that to enhance the relevance of management accounting systems they need to be aligned more closely, in terms of measurement focus and practice, with an organisation's long-term goals and strategies. In relation to this view, two main approaches have been suggested in the literature. The first relates to the adoption of various techniques and practices and is generally described as 'strategic management accounting' (e.g., Simmonds, 1981; Bromwich, 1990; Dixon & Smith, 1993; Guilding, Cravens & Tayles, 2000). However, this approach may have limited usefulness because it does not explicitly consider the strategic focus of the underlying control system package (Otley, 1999). The second approach is concerned with the development of overall management control systems that have a stronger strategic and long-term focus (e.g., Simons, 1987; Daniel & Reitsperger, 1991; Dent, 1990; Roberts, 1990; Langfield-Smith, 1997; Vaivio, 1999). This approach recognises that: "to talk of the 'management control system' may itself be misleading… Organizational control systems are more like packages. Different elements are added by different people at different times" (Otley, 1999, p.379). Similarly, it has been suggested that:

> We need, in fact, a better language to describe management control processes. Control systems are used for multiple purposes: monitoring, learning, signalling, constraint, surveillance, motivation and others. Yet, we use a single descriptor – management control systems – to describe these distinctly different processes (Simons, 1990, p.142).

Based on this position, the usefulness of management accounting could be further enhanced by focusing on the control system components that are likely to be relevant from a management accounting perspective, rather than the overall 'management control system' (Otley, 1999).

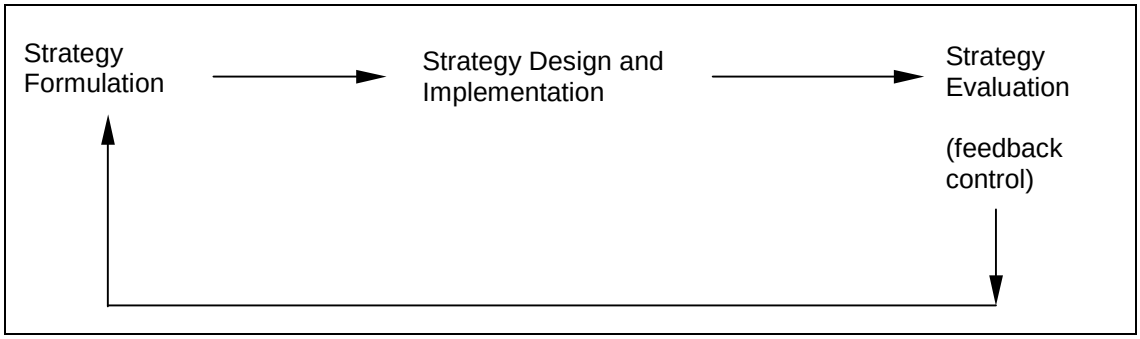
This paper proposes to integrate the salient features of the extant strategic control models in a framework that more effectively recognises the needs of the current business environment. The paper also examines how strategic control could be used as the basis for developing management accounting systems that have a stronger strategic focus. The underlying direction of the paper is exploratory because there is no pre-existing theory suggesting how the two areas of strategic control and management accounting could or do interact. This paper represents an initial step in the building of theory relating to the interface between management accounting and strategic control. In this sense the proposed framework provides a basis for empirically examining the organisational practice of strategic control and management accounting systems, and their interaction.

The remainder of the paper is organised as follows. Section two defines strategic control and considers the influence of strategic perspective on strategic control and how this may affect the operation of such systems. Section three discusses the practice of strategic control in terms of barriers and limitations and implementation issues. Section four briefly describes strategic control models identified in the literature, while section five identifies and classifies the core attributes or elements that are common across the models examined. Section six consolidates the material covered in the earlier sections and proposes a general strategic control framework and argues that this could be integrated with management accounting systems. Finally, section seven contains a summary and conclusion.

2. STRATEGIC PERSPECTIVE AND STRATEGIC CONTROL

Strategic control can be described as a type of management control that is specifically focused on the monitoring of strategic progress and the implementation of policies to achieve strategic goals (Goold & Quinn, 1990). In general, strategic control is operationalised using non-financial measures (Goold & Quinn, 1990; Bungay & Goold, 1991) and forms part of the strategic management process (Preble, 1992).

Figure 1. Traditional explanation of the strategic management process



Source: Preble (1992)

Most theorists adopt a normative approach in explaining the strategic management process (see figure 1), which incorporates three stages, i.e., formulation (or statement of mission) stage, design and implementation stage, and evaluation (or strategic control) stage (Hamermesh, 1986; Pearce & Robinson, 1986; Preble, 1992; Langfield-Smith, 1997).

Formulation is concerned with forming strategies and implementation is focused on the subsequent transformation into actions (Johnson & Scholes, 1989). The evaluation stage ensures that strategies are reformulated or amended based on actual outcomes.

The implicit underlying basis of strategic control is some form of conceptual understanding and explication of the expression 'strategy'. Common to most descriptions of strategy is a future orientation and a focus on long term performance and business 'success' (Langfield-Smith, 1997). For example, an early definition of strategy was expressed as follows: "The determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action, and the allocation of resources necessary for carrying out these goals" (Chandler, 1962, p.13). Other definitions of strategy focus on, for example, the rate of change in products or markets (Miles & Snow, 1978), and competition, and the concept of competitive advantage (Porter, 1985; Henderson, 1989).

Strategy can be broken into various sub-types, such as corporate strategy, business (or competitive) strategies, and operational strategies (Langfield-Smith, 1997). Corporate strategy is concerned with the types of business to operate and how resources should be focused to achieve competitive advantage. Business strategies are linked with the various individual business units that comprise the overall corporate organisation. Operational strategies relate to the contribution of various functional areas, within individual business units, to overall corporate and business strategies.

The descriptions of strategy suggest that its development is relatively formal or deterministic in nature. Strategy in this sense can be regarded as a process which involves linking or matching explicitly an organisation's goals, structures, and operations with the environmental circumstances it faces (Mintzberg, 1990). On this view, organisations should also ensure that there is a process in place to evaluate or control strategy (Langfield-Smith, 1997), and hence it reinforces the need for a strategic control component as part of the overall strategic management process.

Some researchers suggest however that strategic management, rather than being a clearly identifiable and rational process, is a fragmented concept and requires a process of 'muddling through' to achieve strategic goals (Mintzberg, Raisinghani & Theoret, 1976; Mintzberg; 1988; 1994). Accordingly, strategy development is a craft like process which cannot be readily subjected to systematic and formal procedures (Mintzberg, 1987). On this view, formal strategy development could also be considered as a ritual, with real strategy development taking place outside of this process. For example it has been suggested that:

> A more extreme view is that rational normative models of strategy exist in organizations only as ritual, and that the "true" strategy of an organization is not the

> one formally espoused in mission statements and company documents, strategy develops and resides in the minds of key managers. (Langfield-Smith, 1997, p.210)

Mintzberg (1990) in particular argues that there are potentially significant dangers associated with focusing on a strategy which is clearly defined and well articulated. He states (1990, p.185):

> ... a danger in articulating strategy is that while strategists may be sure for now, they can never be sure forever. The more clearly articulated the strategy, the more deeply imbedded it becomes in the habits of the organisation as well as the minds of its strategists.

Based on this view it can be argued that strategic control systems could embody an overly rigid strategic perspective and therefore may limit innovation and long term performance by constraining an organisation's ability to focus on valid measures or respond to competitive and environmental pressures (Quinn, 1980; Mintzberg, 1987; Lorange & Murphy, 1984; Goold & Quinn, 1993). Research has indicated that strategic control systems may confine managers to pre-specified plans and goals, which in turn may prevent them from identifying new opportunities and reacting appropriately to threats (see Ittner & Larcker, 1997). In this regard it can be contended that: "[An] 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" (Goold & Quinn, 1990, p.52). Following this line of thinking it could be argued that organisations need highly adaptable structures and the ability to react rapidly and/or opportunistically, rather than rigid systems of strategic control, in order to manage an environment likely to be in a continual state of upheaval and change.

Strategy as a craft

While it seems logical that rational normative models of strategy should include a strategic control component, its relevance seems less certain if strategy is considered a craft like activity. This is because the development of strategy is not necessarily viewed as a formal process which includes an explicit and formal evaluation stage. However, an intended purpose of strategic control is to enable organisations to operate in a more strategically fluid or flexible manner (Schreyogg & Steinmann, 1987; Preble, 1992). Therefore strategic control should help to reduce the risk of strategies becoming rigid and strongly imbedded. Accordingly strategic control systems could operate effectively within organisations that follow strategic perspectives that are not based on a rational normative framework.

The description of strategy as a fragmented and craft like activity also appears unstructured and lacking in clarity in relation to how the continuing relevance of strategy is maintained. In this respect, the adoption of strategic control would provide a structured means of helping to ensure that strategies remain current, but without requiring the adoption of a formal rationalistic type strategic framework. Additionally, the potential problems associated with strategies that become

rigid and imbedded may also indicate that firms should adopt a package of both formal and informal strategic controls (Kim & Campbell, 1995).

3. STRATEGIC CONTROL IN PRACTICE

The literature examining strategic control is generally theoretical and would arguably appear esoteric to practising managers, with only limited specific guidance provided to assist in the implementation of such systems (e.g., Preble, 1992; Ittner & Larcker, 1997). In particular, when compared with traditional management and operational controls (e.g., defect ratios, response rates), managers may perceive strategic control as a difficult and perplexing task and be uncertain about how and where it should operate within real-world organisations. Further, strategic control systems may be costly to install and operate, requiring a large investment in analysis, planning, and bureaucracy, which could hinder organisational performance (Lorange & Murphy, 1984; Goold & Quinn, 1993). Organisations planning to adopt strategic controls may also encounter problems trying to devise measurable strategic objectives that are considered as tangible and credible as financial objectives (Asch, 1992).

Barriers and limitations to strategic control

Prior research indicates that the implementation of strategic control can be difficult. Three main barriers and limitations have been identified, focusing on cost, measurement and behavioural issues (see table 1).

The first barrier and limitation relates to the cost of creating and developing a strategic control function and subsequently promulgating a set of strategic control tools and measures throughout an organisation. For example, increased bureaucracy and associated costs may outweigh the benefits of implementing a strategic control system (Ittner & Larcker, 1997)

The potential complexity of strategic control and the importance of devising measures that are robust and workable comprise the second barrier and limitation. This requires strategic plans which are relatively lucid and focused, and measures that are explicitly linked to strategic outcomes (Ittner & Larker, 1997). Strategic controls are also required that can incorporate uncertainty and flexibility in the implementation of strategy (Goold & Quinn, 1990).

The final barrier and limitation relates to the development of a new control system and the motivational, behavioural, and political barriers which may hinder its integration and use. For example, organisational members may be resistant to accepting new patterns of measurement and control (Lorange & Murphy, 1984). Strategic controls also need to be suitable for motivating managers (Goold & Quinn, 1990). In this sense the political and cultural acceptability of a strategic control system may impede its successful implementation and use (Lorange & Murphy, 1984; Goold & Quinn, 1990).

Table 1 - Barriers and limitations to strategic control

Barriers and limitations	***Cost***	***Measurement***	***Behavioural***
Ittner & Larcker (1997)			
Unfocused strategic action plans		✓	
Limitations in performance measures		✓	
Increased bureaucracy and associated costs	✓		
Inflexible control systems		✓	
Lorange & Murphy (1984)			
Systemic barriers and control system complexity		✓	
Behavioural barriers, corporate culture and resistance to change			✓
Political acceptability barriers			✓
Goold & Quinn (1990)			
Devising suitable strategic controls		✓	
Defining strategic goals to motivate managers			✓
Incorporating management judgement		✓	
Enhancing management confidence and cohesion			✓

Overall these issues would seem to relate to technical difficulties and problems of on-going refinement in relation to the design of real-world strategic control systems. This is because the development and application of strategic control systems is still in it's infancy and further progress is required in terms of practical systems suitable for real-world organisations (Preble, 1992). Accordingly, the limitations and barriers identified are not likely to represent fundamental obstacles or difficulties associated with implementing effective strategic control systems.

Implementing strategic control

Ideally the adoption of strategic control systems should provide organisations with a direct and tangible means of focusing on longer term performance goals and help avoid the problems often associated with using, for example, traditional 'precise and objective' accounting measures for this task (Lorange & Murphy, 1984; Goold & Quinn, 1990). Aligning performance measurement and control systems with long-term goals and strategies should positively influence organisational performance (Bart & Baetz, 1998; Ireland & Hilt, 1992). Hence, by implication the implementation of an effective strategic control system should also positively influence performance. This is likely to be of particular relevance if the business environment is turbulent and rapidly changing. However, apart from identifying various barriers and limitations, research indicates no distinct pattern concerning the overall adoption and practice of strategic control. While persuasive arguments and detailed explanations are provided in the literature supporting the implementation of strategic control systems, surveys of practice, in particular within the context of US and European organisations, have found only minimal evidence of adoption (e.g., Goold & Campbell, 1987; Goold & Quinn, 1988).

Daniel and Retsperger (1991) investigated the links between quality strategies and control systems by Japanese firms and suggested that a consistency between the two areas has

contributed to their competitive success. Additionally, they suggest that Japanese firms generally have implemented effective and useful strategic control systems. Simons (1990) describes how managers can use selected control systems interactively. This enables managers to closely monitor strategic uncertainties they believe are important to the achievement of organisational goals. While Simons (1990) does not adopt the specific term 'strategic control', he nonetheless clearly illustrates an important benefit associated with the adoption of strategic control systems. Research by Kim & Campbell (1995) suggests that high performing Korean multinationals have strong formal control systems. In particular, they argue that differences in performance are mainly explained by differences in strategic control systems. A study by Ittner & Larcker (1997) examining the automotive and computer industries in Canada, Germany, Japan, and the United States, found that organisations following a quality orientated strategy tended to adopt strategic control practices recommended in the literature. However, the results provided only mixed support for the hypothesis that organisations aligning control systems and competitive strategies achieve higher performance.

Overall it seems that few organisations specifically incorporate strategic controls as part of an overall control system framework (Lorange & Murphy, 1984; Preble, 1992; Horovitz, 1979; Goold & Quinn, 1990). In this regard it has been suggested:

> One might speculate … that the practice of strategic control is lagging behind the theory, that the benefits of such systems are being overstated, or that the systems need further development before they can be made more practical for organizations to use (Preble, 1992, p.396).

It is unclear how strategic control systems are used (or why they are not used) in practice to control and evaluate strategy. Further, only limited systematic research has been undertaken investigating the links between organisational strategy and control system design generally (Huff & Reger, 1987; Dermer, 1990; Perera, Harrison & Poole, 1997). It may be that the benefits of strategic control have been overstated. There is a need for research to provide further insights into our understanding of the extent to which strategic control systems are implemented in organisations and the concerns, if any, associated with such implementation.

4. MODELS OF STRATEGIC CONTROL

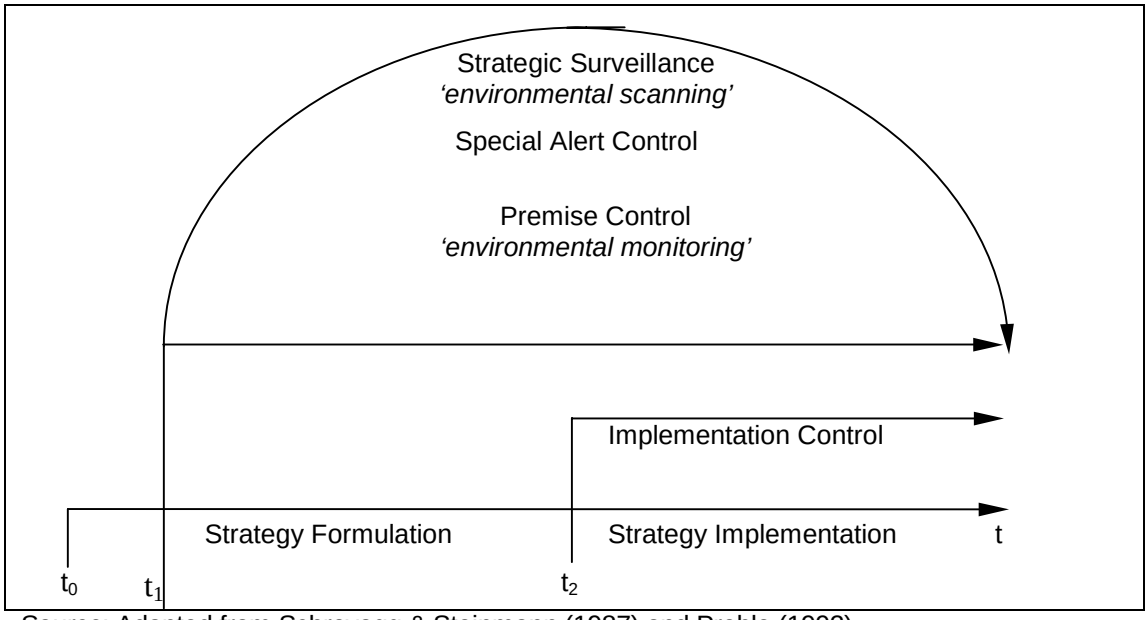
A number of independently developed models have been identified in the literature which provide varying levels of guidance concerning how organisations should formally implement and manage strategic control. The first substantive theoretical approach to strategic control was delineated by Schreyogg & Steinmann (1987) who proposed a formal three-step model, which was later refined and extended by Preble (1992). Two further models that deal with strategic control were developed by Simons (1995; 2000) and Ittner & Larcker (1997). Early approaches to strategic control tended to be based on the application of various techniques and methods and lacked a robust theoretical foundation (e.g., Horovitz, 1979; Lorange, 1980; Glueck & Jauch, 1984). This

section briefly describes each model. The individual components of the models are formally examined in the next section.

Three step model of strategic control

Schreyogg & Steinmann (1987), based on a normative approach, developed a three step model of strategic control.

Figure 2 - Strategic Control in the Strategic Process



Source: Adapted from Schreyogg & Steinmann (1987) and Preble (1992).

The core components of this model are premise control (environmental monitoring), implementation control, and strategic surveillance (environmental scanning). The model was later extended, and further developed to help facilitate its practical application, by Preble (1992) who also added a special alert control component (see figure 2). Figure 2 indicates that formulation of strategy starts at time (t_0). Premise control is established at the point in time of initial premising (t_1). Strategic surveillance and special alert control also commence at this time. At the commencement of strategy implementation (t_2), implementation control is also initiated. All control components are in operation from the time of strategy implementation (t_2) (Schreyogg & Steinmann, 1987).

Process orientated model of business strategy and management control

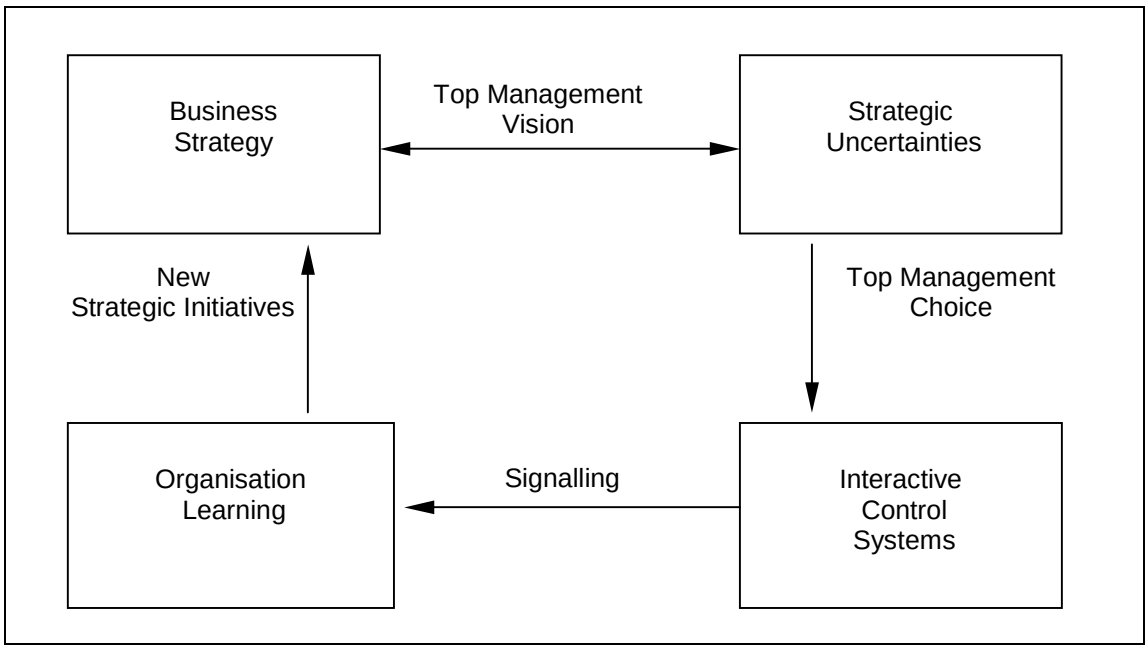
A model developed by Simons (1995; 2000) is focused on management control more generally and does not explicitly utilise the term 'strategic control'. However, a key element of Simons' (1995; 2000) framework is the implementation, accomplishment, and monitoring of strategic goals. Therefore, Simons' (1995; 2000) delineation of management control encompasses a strategic control perspective.

While Simons' (1995; 2000) overall model contains four elements, only two, diagnostic control and interactive control, are of direct relevance to strategic control (the other two elements are beliefs systems and boundary systems). The diagnostic control and interactive control elements are defined as follows (Simons, 1994, pp.170-171):

> *Diagnostic control systems*: These are exemplified by business plans and budgets. Important performance variables are monitored and deviations from standard are corrected.
> *Interactive control systems*: Formal systems used by senior management to regularly and personally involve themselves in the decision activities of subordinates. The factor influencing the design of interactive systems are perceived strategic uncertainties. Any diagnostic control system can be made interactive by continuing and frequent top management attention and interest.

The operation of interactive control systems is illustrated in figure 3. This demonstrates that interactive controls are designed to help managers interpret and evaluate various strategic uncertainties which may impact the implementation of business strategy. Interactive controls also signal how organisations should adapt or respond to the strategic uncertainties (i.e., organisational learning) and subsequently reformulate existing strategy.

Figure 3 - Process model of relationship between business strategy and management control systems

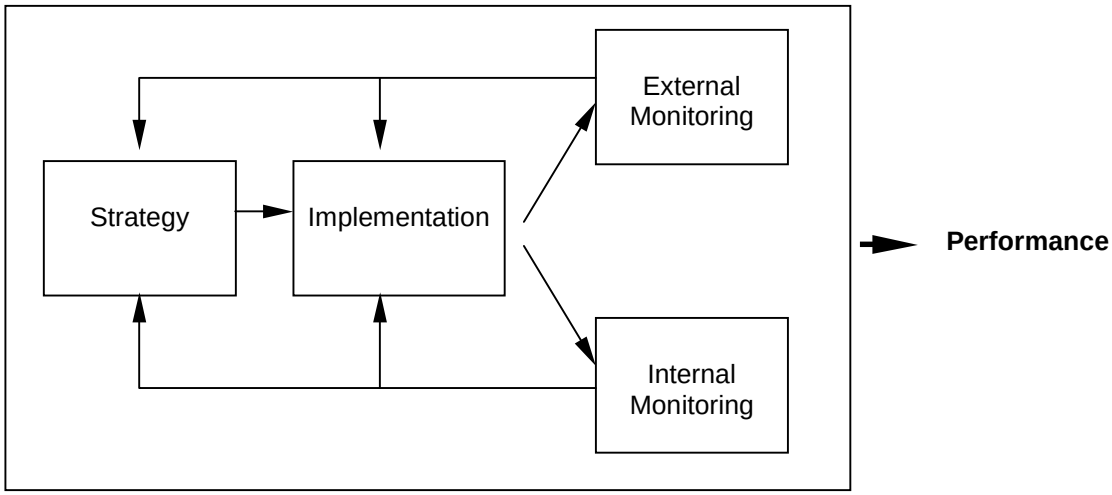


Source: Simons, (1991), p.51

Conceptual model of strategy, strategic control and organisational performance

A conceptual model of strategic control is outlined by Ittner & Larcker (1997) (see figure 4).

Figure 4 - Conceptual model of strategy and strategic control and organisational performance



Source: Adapted from Ittner & Larcker (1997) p. 295.

The model includes three main components, implementation, internal monitoring, and external monitoring. Figure 4 indicates that planned strategy implementation should be monitored in terms of both internal measures and targets (i.e., formal reporting cycle comparing actual results against planned outcomes) and external environmental factors. The results of monitoring may then be used to effect changes in strategy formulation and implementation. Overall, the process should lead to higher organisational performance.

5. THE ATTRIBUTES OF STRATEGIC CONTROL

The models described in the previous section consider strategic control from different perspectives. What is lacking is a comprehensive underlying framework that integrates the various attributes or elements of strategic control that have been proposed. This section identifies the core attributes or elements that are common across the three models examined with a view to developing a general strategic control framework.

Feedback control

Conventionally strategic control has been examined from a feedback control perspective (Daft & Macintosh, 1984). The models of strategic control described in the previous section all have some degree of focus on feedback control, variously identified as implementation control, diagnostic control and internal monitoring. This is where existing performance standards are assumed to be correct and deviations are considered as evidence of 'failure' (Schreyogg & Steinmann, 1987). For example Schendel & Hofer (1979, p.18) adopt a feedback perspective and define strategic control as follows:

> Strategic control focuses on the dual questions of whether: (1) the strategy is being implemented as planned; and (2) the results produced by the strategy are those intended. The basic criteria used to answer these questions are derived from: (1) the strategy and action plans developed to implement strategy; and (2) the performance results that strategy is expected to produce. If a deviation occurs, then feedback takes place and the strategic management process recycles.

Within the three-step model, feedback control is labelled 'implementation control', and is concerned with monitoring the effects of actions as they impact on strategy and continuously questioning the basic direction of strategy. Implementation control is used to help assess the continuing viability of established strategies based on the feedback control information received (Schreyogg & Steinmann, 1987).

Diagnostic control systems form the feedback component of the process orientated model of business strategy and management control. Diagnostic control is retrospective in focus and provides historical information about performance in relation to predetermined strategic goals and targets. If deviations from expected outcomes are identified, then diagnostic control will result in corrective action being taken (Simons, 1995).

The conceptual model of strategy, strategic control and organisational performance has a significant feedback control focus. Two of its three main components - implementation and internal monitoring - are feedback focused. This model in effect defines these two aspects as a prime dimension of strategic control.

Feedforward Control

The availability of feedback control information however, is likely to be slow because it is generally not examined until processes are complete (Preble, 1992). Therefore strategic control could additionally incorporate a feedforward (or double loop learning) element. This means that established strategic plans and goals are also subjected to the control process and that performance is assessed in a manner which is future directed and anticipatory, rather than only on the basis of predetermined strategies and goals process (Schreyogg & Steinmann, 1987; Preble, 1992). If environmental change is rapid then it may be difficult to assess the relevant impact of deviations from predetermined strategic plans using a feedback approach. This is because the feedback information may in effect be rendered redundant for the reason that environmental circumstances necessitate a reformulation of strategy (Schreyogg & Steinmann, 1987). In other words the predetermined strategic goals may no longer be fully relevant or valid, which may therefore make interpretation of performance in relation to strategic goals problematic. This aspect is considered in the identified models as premise control, strategic surveillance, special alert control, interactive control and external monitoring.

In the three-step model premise control, strategic surveillance and special alert control are designed to fulfil a feedforward function. Premise control requires a continuous process of 'environmental monitoring' in relation to external business, social, and industry environments with regard to factors such as forecasts of expected inflation, likely legislation, and competitive changes (Jauch & Glueck, 1988; Lorange, Morton & Ghoshal, 1986; Preble, 1992). The premises under consideration relate to expected or predicted conditions that were incorporated into the initial strategic planning process (Schreyogg & Steinmann, 1987). In general premise control is a highly selective and focused activity that is concerned with monitoring relevant variables *previously* identified by an organisation.

Strategic surveillance is a broad activity that involves continuously scanning the environment to detect as early as possible events or issues, both inside and outside the organisation, that may significantly destabilise the ongoing strategic direction (Schreyogg & Steinmann, 1987). The important focus is emerging and unexpected events (Preble, 1992). In this sense strategic surveillance "must be kept unfocused as much as possible and should be designed as a broad monitoring activity" (Schreyogg & Steinmann, 1987, p.95).

Special alert control is designed to deal with surprise events (e.g., natural disasters, terrorism, major product defects) which have a very low likelihood of occurring but also a potential impact which may threaten the existence of an entire organisation (Preble, 1992). Essentially, this is a special type of strategic surveillance control which should be conducted on a continuous basis throughout the entire strategic management process (Preble, 1992).

The underlying relevance, however, of special alert control within a strategic control framework is unclear. The notion of strategic control implies that organisations operate on a continuous basis within an environment of varying degrees of stability (Schreyogg & Steinmann, 1987). Special alert controls are designed to deal with external shocks which are likely to be very large and that may significantly weaken the operating structures of an entire organisation. Such shocks therefore will disrupt the continuous nature of an organisation's operations and likely require a full re-evaluation of the current and future strategic direction. This means that special alert control supersedes the notion of strategic control, because within a very short time period (e.g., days or even hours) the entire existing strategic direction may become obsolete and redundant. In other words, an organisation will in effect cease to operate in a continuous sense. While the usefulness of special alert control within organisations would seem to be a valid proposition, it is argued that placing it within the sphere of strategic control is inappropriate. Rather, special alert control could form part of a crisis control or risk management function. This is because the extreme and severe nature of the issues special alert controls are being used to address encompass more than just a continuous review and reassessment of strategy.

Interactive control within the process orientated model of business strategy and management is feedforward focused. Simons (1994; 1995; 2000) describes how managers use interactive

control systems as levers of strategic change and renewal to help focus on perceived strategic uncertainties. Information generated by the control system is reviewed on a regular basis by senior managers in face-to-face meetings with subordinates and peers. This involves “continual challenge and debate of the underlying data, assumptions, and action plans” (Simons, 1987, p.352).

The conceptual model of strategy, strategic control and organisational performance has a limited emphasis on feedforward control. External monitoring captures this element, which should be undertaken to provide an assessment of strategic goals in the context of market dynamics including competitor and customer response. A further important component of external monitoring is assessing environmental circumstances to ensure that current strategies remain valid and appropriate and do not become obsolete.

6. TOWARDS AN INTEGRATED FRAMEWORK

The attributes of strategic control have been identified in the previous section. This section consolidates the existing models and proposes an integrated strategic control framework.

Consolidation of existing models

The models and attributes that have been examined above consider the operation of strategic control systems from various perspectives. Preble (1992) further develops the three-step model theoretical framework initially proposed by Schreyogg & Steinmann (1987) and provides guidance concerning the specific tools and approaches that could be adopted to achieve strategic control. The process model proposed by Simons (1995; 2000) is broader than the three-step model of strategic control because it is focused on both the implementation and control of strategy and does not claim to be a strategic control model as such. Simons (1995, 2000) is more focused on developing and articulating a comprehensive strategic management process that can be used within organisations. Ittner & Larker’s (1997) conceptual model is more theoretical and general than the other two models and does not have an underlying systematic framework to illustrate the implementation of strategic controls. Ittner & Larker (1997) do not emphasise the overarching nature and importance of feedforward control. Their model appears to suggest that feedforward controls (external monitoring) are of similar importance to feedback controls (internal monitoring) (see figure 3). This contrasts with Schreyogg & Steinmann (1987), Preble (1992), and Simons (1995; 2000) who argue that feedforward controls (or interactive controls, using Simons’ terminology) are of greater relevance to the strategic control process than feedback controls (diagnostic controls).

Table 2 – Classification of strategic control models into underlying core attributes

Strategic control model components	Core strategic control attributes	
	Implementation and Accomplishment of Strategy (i.e., feedback control)	Continuing viability of Strategy (i.e., feedforward control)
Premise control*		✓
Implementation control*	✓	
Strategic surveillance*		✓
Interactive control**		✓
Diagnostic control**	✓	
Implementation***	✓	
Internal monitoring***	✓	
External monitoring***		✓

*Three-step model of strategic control (Schreyogg & Steinmann 1987; Preble 1992)

**Process orientated model of business strategy and management control (Simons 1995, 2000)

***Conceptual model of strategy, strategic control and organisational performance (Ittner & Larcker 1997)

The strategic control models examined are broadly similar in terms of their underlying design and focus. The attributes of the models reinforce that strategic control comprises the two core elements of feedback control and feedforward control (see table 2). The first core element is focused on control issues relating to the *implementation* and *accomplishment* of established strategies (i.e., feedback control). Implementation and internal monitoring, diagnostic control, or implementation control, capture this element. The second element is focused on control issues relating to events that may threaten the continuing *viability* of established strategies (i.e., feedforward control). External monitoring, interactive control, or premise control and strategic surveillance capture this element.

Detailed specification of the two core elements of feedback control and feedforward control consolidates the concept of strategic control by precisely articulating and differentiating their nature and establishing the critical purpose and function of feedforward control. The nature of feedforward control is further developed within the proposed strategic control framework, which is delineated and explained in the next section.

Proposed framework

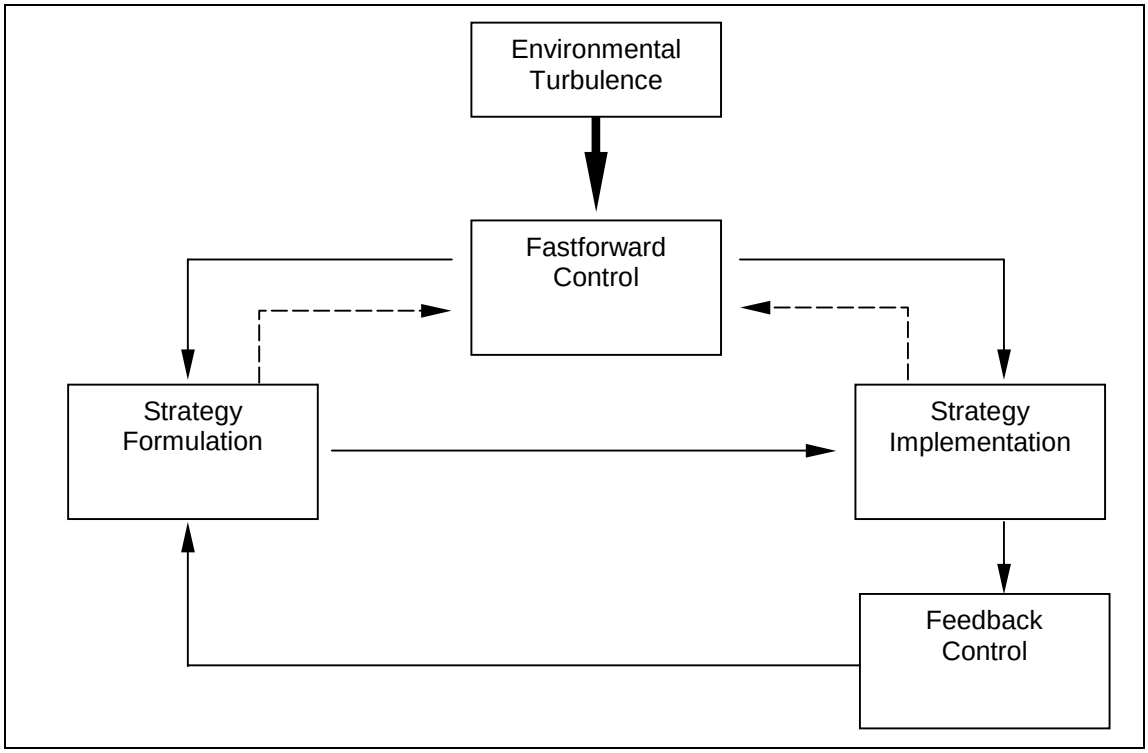
The strategic control models discussed in the preceding sections have feedback control and feedforward control as salient features. This section explains how the core elements of these features could be integrated in a framework that recognises the demands of strategic control in the modern turbulent business environment in a more meaningful way.

The proposed framework establishes a new element, fastforward control, as the focal point (see figure 5), which subsumes feedforward control. The term fastforward control is a more pertinent

description and designation than feedforward control, because, organisations increasingly operate in environments that are rapidly changing and capricious and which are likely to necessitate a greater focus on the appropriateness of strategic direction and goals (Drucker, 1992; Elliott, 1992; Otley, 1994; Shields, 1997; Drucker, Dyson, Handy, & Senge, 1997; Otley, 1999; Zahra, 1999).

Additionally, it is assumed that employees at all levels are more actively involved ('empowered') in the design and use of control systems that are primarily directed towards the achievement of both short term (e.g., budgets) and long-term goals (Otley, 1994; Simons, 1995; Kaplan & Norton, 1996; Langfield-Smith, 1997). The concept of fastforward control encompasses both the established notion of feedforward control and the pressures exerted on traditional business structures resulting from globalisation and the threats posed by information technology and innovative business models, such as e-business (Elliott, 1992). The uncertainty and risks associated with the new and rapidly expanding e-business environment, for example, may create or further enhance organisational demand (e.g., from senior management) for strategic control information. Such information should be fastforward orientated, meaning it is very rapid, succinct, and precise in terms of indicating which strategic elements require immediate and/or in-depth examination.

Figure 5. Strategic control framework



The framework is dynamic in nature and does not assume a cyclical process. Fastforward control operates continuously and instinctively according to the degree of environmental turbulence and has an immediate and direct effect on both strategy formulation and strategy implementation. Figure 5 indicates that fastforward control effectively acts as a shield to the processes of

formulating and implementing strategy. The conventional feedback control loop element of strategic control is a core component of the model. However, the effectiveness of this component is determined to a large extent by fastforward control, depending on the extent of environmental turbulence. Environmental turbulence represents unforeseen pressures and events (in relation to initial strategy formulation) that may threaten strategic accomplishment and which arise between strategy formulation and strategy implementation. Such events activate the operation of fastforward control. The solid line from fastforward control to strategy implementation indicates that environmental turbulence may trigger a direct effect on or change in how strategy is implemented. This is likely to moderate or override planned implementation of strategy that would have been based initially on the strategy formulation stage. The solid line from fastforward control to strategy formulation indicates that environmental turbulence should simultaneously effect or change strategy formulation to maintain the integrity of both this stage and feedback control. The dashed lines from strategy implementation and strategy formulation signify that these components will influence the likely form and operation of fastforward control. Logically the framework or package of fastforward controls adopted will be influenced to a significant degree by how strategy is initially formulated and its planned implementation.

The extent to which fastfoward control directly affects strategy formulation and strategy implementation is contingent on the level of environmental turbulence. The higher (lower) the level of turbulence, the greater (lesser) the likely effect on implementation and formulation. In effect fastforward control enhances the effectiveness of feedback control. If there is environmental turbulence but no fastforward control, then interpretation of the feedback control information is likely to be difficult or even meaningless. This is because the feedback process is lagging and iterative and as a result strategy implementation could end up being based on a strategy formulation stage that has become irrelevant due to environmental turbulence. Conversely, if there is no environmental turbulence then the overall process of strategic control should operate effectively using only feedback control. This is because there will be no pressure (excluding changing management preferences) to reformulate strategies until feedback on implementation is received. Organisations are, however, likely to have difficulty precisely identifying the degree or level of environmental turbulence they are (or will be) encountering over a particular period of time. Furthermore, by it's nature environmental turbulence is dynamic and often unpredictable, rather than in a steady state. Therefore, strategic control is expected to be most effective if both the feedback and fastforward components are present. In this sense fastforward control helps to ensure the integrity of both the feedback control component and the overall strategic control package.

Strategic perspectives and the proposed framework

Irrespective of the strategic perspective which organisations explicitly or implicitly follow, be it a formal and relatively rigid process, a craft like activity, or an organisational 'ritual', they should benefit from implementing strategic control systems which have an overriding fastforward orientation. Some organisations follow less formal and rigid strategic management processes

because they perceive strategy largely as organic and continuously flexible. Such organisations may argue that they need to be able to respond rapidly and often opportunistically to changing environmental circumstances, and that a defined and formal strategic management process, including a strategic control component such as that described in the proposed framework, would severely limit such an approach. However, an overriding purpose of strategic control is to help organisations avoid becoming myopically focused on established strategies and viewing strategic control as a discrete task. Rather, strategic control should be designed to facilitate organisations reacting in a rapid and considered manner to a changing environment, which may necessitate continual reassessment and questioning of existing strategic goals. In general, strategic control systems should help organisations to anticipate change and adopt strategies accordingly. Hence, strategic control systems, regardless of the strategic perspective adopted, should enable a critical and continuous questioning and evaluation of core strategic goals relative to changes in internal and external environments. A greater emphasis on fastforward control, which recognises the ongoing dynamic and interactive nature of environmental circumstances and strategy, should assist organisations in more effectively monitoring performance against strategic plans and goals.

Implementing strategic control

Issues identified earlier in this paper suggest that organisations face significant practical challenges if they choose to implement and, more critically, operate strategic control systems. An underlying theme is that organisations need to be able to devise strategic controls that have a level of credibility and formality generally associated with more established measurement and 'environmental monitoring' systems such as management accounting. While the models examined establish the relevance and value of strategic control, there is uncertainty concerning where and how it should operate within organisations. One possibility mentioned is strategic or long term planning (Schreyogg & Steinmann, 1987; Preble, 1992). However, this function generally has more highly developed and established skills in the areas of strategy formulation and implementation, rather than control (Preble, 1992). The apparently low level of strategic control function and the potential barriers associated with it, further reinforce the need for development in this area. Low levels of strategic control implementation may simply reflect that practice is lagging theory or it may indicate significant unresolved issues in relation to strategic control design and implementation, such as a lack of understanding of the linkages among the various components of strategic control systems. Given that the fundamental concept of strategic control is not a new idea, the latter would seem to be a more appropriate explanation.

Strategic control and management accounting

To help generate an increased level of implementation and recognition of strategic control, it would need to be elevated to a position of greater prominence within organisations, and formally identified as an important control instrument. Responsibility for strategic control should arguably be outside of the areas of strategy formulation and implementation (i.e., 'strategic planning'). Separation of responsibility would help ensure that greater emphasis is placed on strategic

control, rather than strategic planning generally (Preble, 1992). This therefore should enhance the integrity and effectiveness of the strategic control function. A means of achieving this could be by integrating strategic control with management accounting. This could be an appropriate location for strategic control because management accounting has a traditional role and established proficiency in the areas of measurement and control generally (Anthony & Govindarajan, 1998; Kaplan & Atkinson, 1998; Zimmerman, 1997). Assuming that a reason why organisations have been unwilling to implement strategic control is because of its apparent complexity and lack of formality, then assigning responsibility for its operation to management accounting may lead to more vigorous development of its application and use. Integrating strategic control with management accounting would also help provide a tangible means of overcoming some of the identified barriers to effective strategic control (e.g., cost and measurement barriers). In general, the barriers relate to technical and design issues, rather than fundamental conceptual problems. Locating responsibility for strategic control within management accounting should also help to minimise the need for a larger and more costly bureaucratic and administrative function and the associated additional costs.

7. SUMMARY AND CONCLUSION

Strategic control is an evolving concept. Its evolution has highlighted inadequacies with conventional normative strategic management process models in regard to the execution of the evaluation stage. In particular conventional strategic management models emphasise the feedback loop nature of evaluation. However, feedback based strategic control information is generally too slow, often wrongly specified as a result of changing environmental circumstances, and emphasises evaluation as a discrete component of the strategic management process. Rather the evaluation and control of strategy should be overarching and continuous in nature, as made salient by the adoption of a feedforward control approach. Hence the underlying foundation of strategic control includes a focus on the implementation and accomplishment of strategy (feedback), and more critically, monitoring the continuing viability of strategy (feedforward).

Of the strategic control models examined, those by Screyogg & Steinmann (1987) and Preble (1992) are the most refined, in terms of their theoretical basis, and have a more direct focus on fastforward control. However all models require further development and refinement in terms of the practice and organisational design aspects of real-world strategic control systems. This in particular seems to be an area where strategic control generally lacks sufficient development. While all the models establish the value of strategic control, there is uncertainty concerning where and how it should operate within organisations. Also reinforcing the need for further development is the suggestion that strategic control should logically operate as an element separate and distinct from strategic planning (i.e., the formulation and implementation stages of the strategic management process). The necessity for further development also appears evident because of the low apparent level of strategic control implementation and the potential barriers that exist to its successful operation. Low levels of implementation may simply reflect that

practice is lagging theory or it may indicate significant unresolved issues in relation to strategic control design and implementation. Given that the concept and theoretical basis of strategic control is not new, then a simple lag effect seems a less likely explanation. Hence it is argued that the low level of implementation relates predominantly to operational issues.

This paper argues that further development of strategic control can be achieved by subsuming feedforward control within fastforward control. This extends the theoretical basis of strategic control by better capturing the influence of various pervasive changes within the external turbulent organisational environment (e.g., greater worker empowerment, e-business structures, information technology). It is also suggested that fastforward control (and therefore strategic control) is comparable with both deterministic and less structured and formal interpretations of strategy. In this regard an overarching strategic control framework has been proposed which incorporates the salient elements of the various models and other factors examined, differentiates between feedback control and feedforward control, and establishes the purpose and function of fastforward control. This framework represents a basis for integrating the operation of management accounting systems and strategic control, and should help overcome the various strategic control barriers and limitations that have been identified in the literature.

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