

Part One

The Context of Management Accounting

In Part One of the text we try to set out some aspects of the context in which management accounting information is used in organizations. As Amigoni (1978) reminds us, Simon's (1954) research team had identified three different purposes served by accounting information in practice, namely scorecard, attention-directing and decision-making. Traditional management accounting texts strongly emphasize the last role of decision-making and consider in detail the precise accounting information that is necessary in order to take specific decisions. In so doing, they take economics as their major conceptual framework. However, they are less explicit about the attention-directing function, despite normally spending a considerable number of pages on the calculation of budgetary variances, and devote very little attention to the scorecard role of performance evaluation. Thus, the focus of traditional texts is clearly on decision-making rather than control.

Accounting for Management Control represents an attempt to counter-balance this emphasis by focusing on the role of management accounting information as a means of exercising control both within and over organizations. In part we do this because decision-making and control can be seen as complementary aspects of accounting information use. More fundamentally, we see decision-making as just one part of a larger cycle of planning and control. Thus, in order to appreciate properly the decision-making role of accounting information we need to view it in the wider context of control. Further, having adopted this point of view, we begin to understand that accounting information is just one type of information that may be used in a controlled process, and that we need to consider the wider control options that are available and the information requirements of each.

The readings presented to complement Part One of the text tend to move progressively from a fairly tight modelling of control processes, as typified by the cybernetic tradition, towards a more diffuse framework characterized by attempts to exercise control in the context of a complex and uncertainty-ridden organization. However, we break this pattern by beginning with Machin's (1983) wide-ranging definitional overview of the development of management control concepts between 1965 and the early 1980s, and by concluding with Amigoni's (1978) down to earth application of contingency ideas in a practical setting. In this way we hope to illumin-

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ate some of the many facets of control systems design and use, and to illustrate something of the complexity of the practical application of principles of control.

The readings in this section roughly parallel the chapters of the text, although several, such as Dermer (1988) and Birnberg *et al.* (1983), are difficult to categorize and are also relevant to later parts.

DEFINITIONS OF CONTROL

We cannot begin to discuss the topic of management control without mentioning Anthony's classic definition (1965) that management control is concerned with 'ensuring that organizations use their resources effectively and efficiently in achieving their objectives'. This definition neatly side-steps two problems. First, it avoids the need to discuss the sense in which organizations have objectives and the procedures by which they establish and clarify them. That is, strategic planning is taken as given. Secondly, it saves having to delve into the complexities of exercising control in particular situations with specific characteristics and constraints. That is, operational control issues are avoided. The middle ground of management control is thus, at first sight, dominated by accounting control. However, as Machin (1983) so neatly observes, the very framework that was produced at the high point of the accounting domination of control systems theory carried within it the seeds of our present dilemma. That is, even in Anthony's own framework accounting techniques were categorized primarily into the operational control arena where the source discipline was seen to be economics. Anthony's recognition of social psychology as the source discipline for management control leads Machin to argue that it became inevitable that the mainstream of teaching and research in management control systems would swing away from accounting systems.

But such an observation only raises rather than solves the definitional problems of a discipline that seeks to be concerned with issues of control in human organizations. Machin (1983) therefore considers other disciplinary bases for such an intellectual endeavour focusing in turn upon 'management', 'systems' and 'control', and seeing in each a new facet of the issue. His own conclusion is very much at the individual level of analysis, for he approaches the problem from the point of view of a manager attempting to exercise control over any situation that may confront him (or her). But his analysis is valuable to all those who seek to understand better how the subject of management control has arrived at its present state of knowledge and development.

By contrast, Otley and Berry (1980) explore the meaning of control in an organizational context by concentrating on a cybernetic model and assessing its applicability in an organizational context. They outline four necessary conditions for control, but concentrate particularly on the need for a predictive model of any process which is being controlled. Here the gulf between cybernetics and organizational control becomes apparent, for most organizational control systems have such inadequate predictive models that the whole cybernetic concept of absolute control becomes

inappropriate. Control in organizations is inevitably partial and imperfect. Machin (1983) had pointed out the oddity of the English language possessing only one term for various types of control; here this peculiarity is extended as it is realized that 'control' has very different meanings in different contexts. In particular, the concept of organizational control is problematic for several reasons. The first concerns the nature of organizational objectives; it is argued that different types of organization will have objectives that differ in nature. In general, organizations will not have agreed objectives but may have negotiated plans of action which remain valid in the short term until a further round of negotiation occurs. Secondly, the location of the predictive model necessary for control may be unclear; typically different models may reside in the minds of different managers, and all may be imperfect. Finally, the action taken in response to a mismatch signal may include the adaptation of the standard of achievement being sought; thus control becomes a dynamically changing activity, adapting to new circumstances. The paper concludes by arguing that progress may most effectively be made by the structured and intensive observation of the operation of organizational control systems in action.

ORGANIZATIONAL CONTROL

An application of this approach is supplied by Vickers' (1967) lecture entitled 'Stability, Control and Choice', given originally in 1957, for Sir Geoffrey Vickers is a rare example of a practising manager who has codified and distilled his wide experience into theoretical insights. Rooted in cybernetics and systems theory, he attempts to translate the principles of control which have been found to be applicable in the control of physical processes to the control of organizations. In passing, he remarks upon the oddity of our language not distinguishing between systems which are open to information and those which are not; still less are we able to distinguish between types of openness to information in terms of an ascending hierarchy. However, he also distinguishes between positive (goal-seeking) control and negative (threat-avoiding) control. Most discussions of accounting control are expressed in terms of goal-seeking, but it may be more realistic to think of organizational behaviour as being predominantly threat-avoiding. At the very least, such a conception avoids the need to have mutually agreed goals, for different groups may well act effectively against different types of threat with no necessity of prior agreement between them. Thus an organization may be characterized as operating in the interstices of a multitude of constraints, in a feasible region eked out by management. Vickers argues that the distinction between good and less good management may be in the size of the feasible region each develops; a poor management is characterized by being driven by circumstances beyond its control, whereas a good management keeps the initiative and preserves space in which to operate. Finally Vickers draws attention to the role of time in control; not only must an effective

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control response be identified, it must also be implemented and take effect within a time frame that permits reaction to its effects.

A major control in human organizations is the form of organizational structure adopted. Chapter 2 of the text outlines the development of organization theory, a theme that is later taken up in Part Three when divisional forms of organization are more extensively analysed. Organization theory provides a complement to the more abstract and impersonal systems approaches developed in the first chapter. The fundamental challenge lies in the design of control mechanisms that permit a degree of rational and ordered behaviour in human organizations. A major guiding paradigm has been that of contingency theory, the idea that the most appropriate form of organization is dependent upon external circumstances.

This approach is used by Ouchi (1979) when he draws an important distinction between behaviour controls and output controls, a distinction which is taken up in Chapter 5 of the text. He regards the ability to measure results (outputs) as a fundamental constraint upon control systems design. Where such ability is low, control has to concentrate solely on the specification and monitoring of specific behaviours. He also regards knowledge of the transformation process (an idea very similar to the predictive model in the Otley and Berry (1980) scheme) to be fundamental. Where such knowledge is imperfect control must inevitably concentrate upon outputs rather than behaviours, because senior managers do not possess the necessary knowledge to specify appropriate behaviours. Combining these two elements into a 2×2 matrix produces four distinct combinations, only three of which can be controlled by monitoring behaviours or outputs. Where there is low ability to measure outputs coupled with imperfect knowledge of the transformation process, neither behaviour nor output control is appropriate. Here Ouchi argues that 'clan' control, characterized by ritual and ceremony, is all that remains. However, this can perhaps be extended into the realm of all so-called 'social' controls, including personnel controls. Personnel controls involve the selection of appropriate kinds of people (i.e. those who have already been socialized into adopting particular norms and patterns of behaviour) to perform particular tasks. Thus the control of many professional activities such as accountancy work and research and development may be primarily controlled by such means when other controls become inappropriate.

It may also be argued that an emphasis on accounting-based controls tends to lead to all control situations being seen as occupying Ouchi's first box (i.e. perfect knowledge of the transformation process and high ability to measure outputs). This argument is similar to that put forward by Earl and Hopwood (1981) and outlined in Chapter 1 of the text. It needs to be recognized that not all problems are neatly analysable under conditions of assumed certainty; control systems have to operate in an imperfectly understood world of considerable ambiguity. Thus Ouchi's ideas can be seen as an early application of contingency ideas to the problem of designing information systems to help the exercise of control in conditions of uncertainty.

Contingency theories of organization developed in the 1950s and 1960s

were extended into the realm of management accounting in the mid-1970s, but were treated somewhat uncritically by management accounting researchers. A brief summary of the contingency theory of management accounting is given in the text, but the article by Otley (1980) concentrates on evaluating the validity of this transfer. He argues that the field has suffered from the uncritical transfer of results; this has led to the use of an over-simple theoretical model which has given misleading results. Moreover, the concentration upon contingent variables has led to a neglect of the effects of those variables. The only writers to treat these latter seriously were Gordon and Miller (1976) and Amigoni (1978). Otley (1980) concludes that it is inappropriate to consider organizational design and accounting controls separately and in isolation. An organizational control system comprises these and other parts (as described in Chapter 5) and, in theory at least, they need to be designed conjointly. But contingency theory focuses attention on effectiveness, both as a criterion of the choice of controls and as a contingent variable in its own right. Herein lies a fundamental problem. If the effectiveness of controls influences organizational behaviour in the choice of control systems as it surely does (e.g. in the emphasis placed on short-term financial controls in organizations facing financial crisis), how can effectiveness be used as a criterion on which to base the rational selection of controls. At the very least control systems must be evaluated as integrated wholes possessing a high level of mutual interdependence. Failure to do this will lead to invalid conclusions being drawn.

Birnberg *et al.* (1983) address the same issue from the point of view of accounting controls and take up Ouchi's theme that accountants have typically sought to reduce uncertain situations into frameworks characterized by well-structured tasks and highly measurable outputs. They review the frameworks proposed by several organizational theorists, including Perrow, Thompson and Ouchi, to substantiate this contention and point out that the result of such an attitude is the encouragement of dysfunctional behaviour on the part of subordinate managers forced to work under such a control structure. They then present a valuable summary of the accounting-based literature on budgetary and organizational control. This culminates in an analysis of the methods managers may use to distort the messages conveyed by an accounting information system, categorized into smoothing, biasing, focusing, gaming, filtering and engaging in 'illegal' acts. Thus the very system designed and used by senior managers to control their subordinates can be turned upon them. Subordinate managers can take advantage of the weaknesses in the information being used for control to present the messages they wish to be received by their superiors. Practical control systems used in organizations are thus very subtle in their effects. Both superior and subordinate managers are using the information system to effect control, but each will also be using the information system to increase their own control over achieving their own personal objectives as well as achieving organizational objectives. Any organizational control system is thus attempting to exercise control over a whole set of self-controlling subsystems, and the effect of any

control action is difficult to predict because it needs to take into account the responses of each of those subsystems.

A BROADER CONCEPTION OF CONTROL

Dermer (1988) takes up the point that control does not only reside at senior management levels in an organization and presents a broader conception of the control process, set within a pluralistic organizational context. He argues that conventional views of control see organizational order as the creation of management, strategy and cybernetics, but that such a view is inadequate. An alternative perspective views organizations as arenas within which a variety of stakeholders interact as they attempt to satisfy their individual needs. The resulting order, he argues, is not the creation of any one participant but rather evolves from the collectivity of interactions.

Fundamental to this analysis is the assumption that individual stakeholders engage in autonomous activity which seeks to resolve the contradictions they perceive between management's strategy and the actual conditions they face. From a managerial viewpoint, senior managers are attempting to exercise control over a situation they know less about than their subordinates. From the standpoint of the subordinates, their performance is being measured and assessed using imperfect knowledge and measurement. Under such circumstances, subversion of the official control system may be necessary in order to achieve organizational goals effectively; it may also be subverted to pursue individual goals.

The implications of this analysis are largely unexplored. In the short term, it may be that so-called dysfunctional behaviour may actually be beneficial. For example, slack may be regarded as providing the resources and discretion necessary to explore alternatives, and thus to represent an investment in creativity. Overlapping areas of authority may lead to communication which sensitizes participants to make necessary adjustments. Disconcertingly, Dermer argues, phenomena unacceptable from one point of view become desirable, if not mandatory, from another. From a longer-term perspective, the processes of control involved in maintaining a pluralistic order may be in marked contrast to those of a hierarchically managed system. In any real organization these two forces coexist somewhat uneasily; both managerial and autonomous forces exist, but only the former has legitimacy. Yet it may be the latter which most effectively guarantee the organization's long-term survival.

A more specific version of a similar general argument is developed by Hedberg and Jönsson (1978) who argue that organizations need both stabilizers and destabilizers. Current accounting and management information systems are primarily concerned with stabilizing activities. But as environments change the rigid behaviours encouraged by such systems become inappropriate, although they may persist. Thus Hedberg and Jönsson address themselves to designing information systems that will assist organizations to adapt to changing environments. Their solution lies in the design of semi-confusing information systems, and the meaning of

this phrase is sketched out by means of a number of case descriptions. They fully admit that their proposals are not tested theories, but rather inductive generalizations drawn from empirical observation. Nevertheless they give insight into some possible requirements for information systems that will assist in the process of organizational learning and adaptation, as well as in controlling towards a pre-set standard. In Otley and Berry's terminology, they are concerned with updating and amending the organizational predictive model that lies at the heart of any controlled system.

Finally, Amigoni (1978) provides a much needed link between general prescriptions and practical application. He focuses on specific accounting control tools and attempts to assess their appropriateness in different conditions. In one sense, this is an application of contingency theory, for it uses very similar independent variables, but it takes the analysis one step further than most contingency work (with the exception, perhaps, of Gordon and Miller (1976)) by clearly specifying the particular accounting controls that are felt to be most appropriate in particular circumstances.

The particular conclusion Amigoni reaches is that as structural complexity increases, then additional accounting controls can be added, and they will complement those already in existence. By contrast, as the degree of environmental turbulence increases, different accounting tools are required that will replace those already in use. He also notes a shortage of accounting-based techniques that are helpful in coping with high levels of turbulence. This conclusion may or may not be valid; it is notable that it has yet to be the subject of empirical test. But its value lies in giving an indication of the type of hypothesis that can be generated from the body of theory previously outlined. Researchers appear to have experienced great difficulty in moving from the ideas and concepts presented in the literature of organization theory to their application in practical accounting and information systems design. Yet pathways do exist and need to be explored.

CONCLUSIONS

Two strands in the control literature have been identified. The first is managerial in orientation, takes cybernetics as its fundamental theoretical framework, and results in prescriptions for controls that will establish organizational order and stability. The second is pluralistic in orientation, regards control as emerging from the interaction of actors in a situation, and results in observations that are concerned to promote adaptation and learning. It could be argued that these two perspectives are conflicting, but it is probably more helpful to consider them as complementary. All organizations have problems in establishing order, and there can be little doubt that traditional control mechanisms serve a multitude of, generally useful, purposes in these processes. But the alternative view is also necessary to come to a full understanding of how control processes actually operate in practice, although a fully developed theoretical framework has yet to appear.

Both perspectives set the use of accounting information systems and

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controls in a wider context. Traditional approaches have taken much for granted; the purpose of this part of the text will be to open up a wider set of perspectives in which to assess the contribution that accounting controls can make. It may be true that accounting controls have usually been designed as if they operated in a world that is perfectly understood. What is now evident is that they have to be used with care and flexibility, and in conjunction with other control mechanisms, in a world that is much more complex and uncertain than their designers appreciated.