

Part Two

Accounting for Programmed Decisions

Part Two of the text is concerned with programmed decisions, that is decisions where a good predictive model of the process being controlled is available. The discussion of decision-making reviews the standard management accounting techniques used in practice and concludes that traditional management accounting techniques require far-reaching assumptions about the predictive ability of managers and their advisors to be made. In simple terms, a great deal of stability in both the external environment and in internal behaviour has to be assumed for the techniques to yield appropriate decision rules. It is convenient to focus the discussion on budgetary control for several reasons. First, budgetary control uses most of the usual management accounting techniques at some stage in its progression from planning to control. Secondly, budgetary control is used in almost every organization of any size, and this is reflected in the number of studies on the topic in the research literature. Finally, it was in this area of management accounting that the impact of human and behavioural factors on the use of accounting information was first recognized and studied.

BUDGETS IN OPERATION

The classic article by Buckley and McKenna (1972) provides an excellent summary of this early work on budgetary control which acknowledges both its technical and behavioural aspects, and clearly sets out the assumptions made in its application. Alternative behavioural assumptions are considered, and the impact of factors such as managerial participation in budget-setting are reviewed. Also apparent is the change in emphasis which has occurred over the twenty-year period reviewed. This is perhaps most neatly epitomized in the contrast between the title of Argyris's (1952) seminal contribution 'The Impact of Budgets on People' and Schiff and Lewin's (1971) article 'The Impact of People on Budgets'. The methods used by managers to subvert the rational operation of control techniques was a clear topic of study in the late 1960s and has remained as an important emphasis thereafter. Thus budgeting is being recognized as both a technical and a managerial process, and theories of the human aspects of this process are beginning to be developed. The Buckley and McKenna article can also be seen as representing the end of the universalistic road. Most of the work to this date makes an underlying assumption that there is a best way of operating a budgetary control system

which remains to be discovered. The conclusions section of the article clearly reflects this, being a series of guidelines that are intended to be indicative of good budgetary practice given the implications of behavioural science. From the mid-1970s a more contingent approach was generally adopted, partly influenced by developments in organization theory during the 1960s and partly driven by research results in budgetary control itself.

The chapter selected from Macintosh's (1985) book, intriguingly entitled *The Social Software of Accounting and Information Systems*, carries on from where Buckley and McKenna left off. It reviews the early contributions of both Argyris and Hofstede, but from a perspective that is more based upon organization theory and group dynamics than individual psychology, and introduces Hopwood's famous study on the effects of reliance on accounting measures of performance (RAPM). This found that a heavy reliance on such measures could lead to a variety of dysfunctional consequences, such as high levels of stress and anxiety, poor relationships and, arguably, poor overall performance. These adverse consequences were caused by the inappropriate use of imperfect measures of performance; it appeared that a more flexible style of use was required to avoid such adverse effects. However, a subsequent study by Otley found that these results were not universal. By selecting a research site where accounting performance measures captured performance more accurately, a conflicting set of results were found. Comparison of these two studies leads to a number of conclusions. First, the impact of prevailing external circumstances appears to have more impact than was previously imagined, and individual personality and philosophy of management may be less important. Secondly, these results point toward the need to develop more contingent theories of budgetary control based on differences in organizational type, the environmental circumstances in which they operate, and the norms and values current both within the organization itself and within the society in which it is set. But as Macintosh clearly states, although the participative budgeting concept may have proved to be a myth, it has enabled us to learn a great deal about how financial controls operate in organizations and has also led to the development of new theories of information systems design and use.

The apparent conflict between Hopwood's and Otley's findings has led to a long-lasting debate in the literature, initially at a theoretical level but increasingly involving empirical work. It has thus resulted in what has been described as one of the more coherent streams of management accounting research during the 1980s. The nature and extent of the work it has spawned is well reviewed in Briers and Hirst (1990). Although steady progress has been marred by sometimes inadequate theoretical development and also by sometimes faulty operationalization of concepts, this stream of research has made substantial progress and provides a platform from which future initiatives can be launched. Figure 1 in their article lists an impressive range of relevant variables, categorized into antecedent, independent, moderating, intervening and dependent. This is a most helpful way of organizing prior studies, even though it may have to be recognized that some apparently dependent variables such as performance

may also be independent variables affecting budgetary systems use. For example, increased use of financial controls is widely observed to occur when organizations are experiencing poor performance. But supervisory style still appears to be a key variable in predicting the consequences of a given system of budgetary control. However, Briers and Hirst argue that the effects of supervisory style on behaviour are not straightforward but rather that it is 'filtered' through several moderating variables. Thus their analysis provides a jumping off point for a great deal of further research.

OPERATING BUDGETS

Although behavioural factors are of central importance to the effective operation of a budgetary control system, technical factors cannot be neglected. In their article, Otley and Berry (1979) consider the consequences of aggregating budgets as they move up the organizational hierarchy. This is problematic when the budget estimates are pitched at a level that is different to the expected value of the outcome; that is, budget estimates which are either optimistic or pessimistic. They show that the result of aggregating a set of optimistic (pessimistic) budgets results in a total budget that is even more extreme. Further, commonly used methods of budget amendment, such as *pro rata* budget adjustment, designed to solve such problems result in revised budgets that have different chances of achievement for different managers. They conclude that such commonly used procedures result in unanticipated distortions and propose other methods of dealing with the problem, such as non-additive budgets. They also contend that the explanation for some observed budgetary practices, which initially may seem arbitrary and even counter-productive, may be based on such underlying features of the real world. More generally, they recommend that the budget process should be tailored to fit the requirements of the situation rather than allowing predefined technical procedures to be adopted as these may produce undesirable consequences. Budgeting in practice can thus be seen to require a unique blend of the behavioural and the technical.

These behavioural and organizational studies of the budgetary process lead naturally into Kaplan's (1983) critique of management accounting research, although he initially developed it from a different direction. In particular, he noted the need to consider both financial and non-financial indicators of performance in managing a manufacturing plant. One of the main criticisms of US industry has been the alleged concentration of senior managers on simple, aggregate, short-term financial measures of performance; Kaplan points to the need to develop indicators that are more consistent with long-term competitiveness and profitability. He also suggests that the research methods which are most common in US management accounting research (i.e. arm's length questionnaire-based studies) are inappropriate and recommends a return to more intensive, longitudinal, field-based studies designed to be more exploratory and inductive rather than hypothesis testing and deductive. However, he also recognizes that such approaches may be more risky for junior researchers,

and confines his recommendation to tenured staff! Kaplan thus picks up a theme that has emerged from rather different arguments in the behavioural tradition (see, for example, Otley (1980)). It is significant that calls for a more grounded approach to the inductive generation of theory have emerged from such different traditions.

A more radical analysis of the role of management accounting information in stimulating managerial action is provided by Swieringa and Weick (1987). Traditional management accounting focuses on decision-making, but forceful managerial action does not necessarily flow from good decisions. In addition, it may be that imperfect accounting performance measures which can be viewed as misleading inputs into a decision process can still stimulate forceful, sustained and self-validating action. They thus develop an alternative rationale for the use of simple accounting performance measures, such as RoI, which Kaplan criticizes so heavily. This focus on action picks up the fourth necessary condition for control outlined in the Otley and Berry (1980) model, namely that accounting variances must lead to appropriate corrective action for effective control. However, this conclusion is now presented in a much more plausible interpersonal and social context, and the prerequisites for generating a commitment to forceful action in an organization are analysed.