16 MANAGEMENT CONTROL SYSTEMS

LEARNING OBJECTIVES After studying this chapter you should be able to:

- describe the three different types of controls used in organizations;
- distinguish between feedback and feed-forward controls;
- explain the potential harmful side-effects of results controls;
- define the four different types of responsibility centres;
- explain the different elements of management accounting control systems;
- describe the controllability principle and the methods of implementing it;
- describe the different approaches that can be used to determine financial performance targets and discuss the impact of their level of difficulty on motivation and performance;
- describe the influence of participation in the budgeting process;
- distinguish between the three different styles of evaluating performance and identify the circumstances when a particular style is most appropriate.

Control is the process of ensuring that a firm's activities conform to its plan and that its objectives are achieved. There can be no control without objectives and plans, since these predetermine and specify the desirable behaviour and set out the procedures that should be followed by members of the organization to ensure that a firm is operated in a desired manner.

In an article published many years ago Drucker (1964) distinguished between 'controls' and 'control'. **Controls** are measurement and information, whereas control means direction. In other words, 'controls' are purely a means to an end; the end is control. '**Control**' is the function that makes sure that actual work is done to fulfil the original intention, and 'controls' are used to provide information to assist in determining the control action to be taken. For example, material costs may be greater than budget. 'Controls' will indicate that costs exceed budget and that this may be because the purchase of inferior quality materials causes excessive wastage. 'Control' is the action that is taken to purchase the correct quality materials in the future to reduce excessive wastage. 'Controls' encompasses all the methods and procedures that direct employees towards achieving the organization objectives. Many different control mechanisms are used in organizations and the management accounting control system represents only one aspect of the various control mechanisms that companies use to control their managers and employees. To fully understand the role that management accounting control systems play in the control process, it is necessary to be aware of how they relate to the entire array of control mechanisms used by

organizations. Note that the term **management control system** is used to refer to the entire array of controls used by an organization.

This chapter begins by describing the different types of controls that are used by companies. The elements of management accounting control systems will then be described within the context of the overall control process.

CONTROL AT DIFFERENT ORGANIZATIONAL LEVELS

Control is applied at different levels within an organization. Merchant and Van der Stede (2007) distinguish between strategic control and management control. **Strategic control** has an external focus. The emphasis is on how a firm, given its strengths and weaknesses and limitations, can compete with other firms in the same industry. We shall explore some of these issues in Chapter 22 within the context of strategic management accounting. In this, and the next four chapters, our emphasis will be on management control systems which consist of a collection of control mechanisms that primarily have an internal focus. The aim of management control systems is to influence employee behaviours in desirable ways in order to increase the probability that an organization's objectives will be achieved. Merchant and Van der Stede define management control as dealing with employees' behaviour. They state:

> It is people in the organization that make things happen. Management controls are necessary to guard against the possibilities that people will do something the organizations do not want them to do or fail to do something they should do…. If all employees could always be relied on to do what is best for the organization there would be no need for management control systems.

The terms 'management accounting control systems', 'accounting control systems' and 'management control systems' are often used interchangeably. Both management accounting and accounting control systems refer to the collection of practices such as budgeting, standard costing and periodic performance reporting that are normally administered by the management accounting function. Management control systems represent a broader term that encompasses management accounting/accounting control systems but it also includes other controls such as action, personnel and social controls. These controls are described in the following section.

DIFFERENT TYPES OF CONTROLS

Companies use many different control mechanisms to cope with the problem of organizational control. To make sense of the vast number of controls that are used we shall classify them into three categories using approaches that have been adopted by Ouchi (1979) and Merchant and Van der Stede. They are:

1. action (or behavioural) controls;
2. personnel, cultural and social controls;
3. results (or output) controls.

You should note that management accounting systems are normally synonymous with output controls whereas management control systems encompass all of the above categories of controls.

Action or behavioural controls

Behavioural controls (also known as **action controls**) involve observing the actions of individuals as they go about their work. They are appropriate where cause and effect relationships are well understood, so that if the correct actions are followed, the desired outcomes will occur. Under these circumstances effective control can be achieved by having superiors watch and guide the actions of subordinates. For example, if the supervisor watches the workers on the assembly line and ensures that the work is done exactly as prescribed, then the expected quality and quantity of work should ensue. Forms of action

controls described by Merchant and Van der Stede include behavioural constraints, preaction reviews and action accountability.

The aim of *behavioural constraints* is to prevent people from doing things that should not be done. They include physical constraints, such as computer passwords that restrict accessing or updating information sources to authorized personnel, and administrative constraints such as imposing ceilings on the amount of capital expenditure that managers may authorize is an example of an administrative constraint.

Preaction reviews involve the scrutiny and approval of action plans of the individuals being controlled before they can undertake a course of action. Examples include the approval by municipal authorities of plans for the construction of properties prior to building commencing, or the approval by a tutor of a dissertation plan prior to the student being authorized to embark on the dissertation.

Action accountability involves defining actions that are acceptable or unacceptable, observing the actions and rewarding acceptable or punishing unacceptable actions. Examples of action accountability include establishing work rules and procedures and company codes of conduct that employees must follow. Line item budgets that were described in the previous chapter are another form of action accountability whereby an upper limit on an expense category is given for the budget period. If managers exceed these limits they are held accountable and are required to justify their actions.

Action controls that focus on *preventing* undesirable behaviour are the ideal form of control because their aim is to prevent the behaviour from occurring. They are preferable to *detection* controls that are applied after the occurrence of the actions because they avoid the costs of undesirable behaviour. Nevertheless, detection controls can still be useful if they are applied in a timely manner so that they can lead to the early cessation of undesirable actions. Their existence also discourages individuals from engaging in such actions.

Personnel, cultural and social controls

Social controls involve the selection of people who have already been socialized into adopting particular norms and patterns of behaviour to perform particular tasks. For example, if the only staff promoted to managerial level are those who display a high commitment to the firm's objectives then the need for other forms of controls can be reduced.

Personnel controls involve helping employees do a good job by building on employees' natural tendencies to control themselves. In particular, they ensure that the employees have the capabilities (in terms of intelligence, qualifications and experience) and the resources needed to do a good job. Merchant identifies three major methods of implementing personnel controls. They are selection and placement, training and job design and the provision of the necessary resources. Selection and placement involves finding the right people to do a specified job. Training can be used to ensure that employees know how to perform the assigned tasks and to make them fully aware of the results and actions that are expected from them. Job design entails designing jobs in such a way that employees are able to undertake their tasks with a high degree of success. This requires that jobs are not made too complex, onerous or badly defined so that employees do not know what is expected of them.

Cultural controls represent a set of values, social norms and beliefs that are shared by members of the organization and that influence their actions. Cultural controls are exercised by individuals over one another – for example, procedures used by groups within an organization to regulate performance of their own members and to bring them into line when they deviate from group norms. Cultural controls are virtually the same as social controls.

Results or output controls

Output or **results controls** involve collecting and reporting information about the outcomes of work effort. The major advantage of results controls is that senior managers do not have to be knowledgeable about the means required to achieve the desired results or be involved in directly observing the actions of subordinates. They merely rely on output reports to ascertain whether or not the desired outcomes have been achieved. Management accounting control systems can be described as a form of output controls. They are mostly defined in monetary terms such as revenues, costs, profits and ratios such as return on

investment. Results measures also include non-accounting measures such as the number of units of defective production, the number of loan applications processed or ratio measures such as the number of customer deliveries on time as a percentage of total deliveries.

Results controls involve the following stages:

1. establishing results (i.e. performance) measures that minimize undesirable behaviour;
2. establishing performance targets;
3. measuring performance;
4. providing rewards or punishment.

The *first stage* involves selecting performance measures for those aspects of activities that the organization wishes to monitor. Ideally, desirable behaviour should improve the performance measure and undesirable behaviour should have a detrimental effect on the measure. A performance measure that is not a good indicator of what is desirable to achieve the organization's objectives might actually encourage employees to take actions that are detrimental to the organization. The term 'What you measure is what you get' can apply whereby employees concentrate on improving the performance measures even when they are aware that their actions are not in the firm's best interests. For example, a divisional manager whose current return on investment (ROI) is 30 per cent might reject a project which yields an ROI of 25 per cent because it will lower the division's average ROI, even though the project has a positive NPV, and acceptance is in the best interests of the organization.

The *second-stage* requirement of a preset performance target informs individuals what to aim for and enables employees or their superiors to interpret performance. The *third stage* specified above relates to measuring performance. Ability to measure some outputs effectively constrains the use of results measures. In the previous chapter you will remember that it was pointed out that the outputs in non-profit organizations are extremely difficult to measure and inhibit the use of results controls. Another example relates to measuring the performance of support departments. Consider a personnel department. The accomplishments of the department can be difficult to measure and other forms of control might be preferable. To encourage the right behaviours results, measures should be timely and understandable. Significant delays in reporting will result in the measures losing most of their motivational impact and a lengthy delay in taking remedial action when outcomes deviate from target. If measures are not understandable it is unlikely that managers will know how their actions will effect the measure and there is a danger that the measures will lose their motivational impact.

The *final stage* of results controls involves encouraging employees to achieve organizational goals by having rewards (or punishments) linked to their success (or failure) in achieving the results measures. Organizational rewards include salary increases, bonuses, promotions and recognition. Employees can also derive intrinsic rewards through a sense of accomplishment and achievement. Punishments include demotions, failure to obtain the rewards and possibly the loss of one's job.

FEEDBACK AND FEED-FORWARD CONTROLS

Feedback control involves monitoring outputs achieved against desired outputs and taking whatever corrective action is necessary if a deviation exists. In **feed-forward control** instead of actual outputs being compared against desired outputs, predictions are made of what outputs are expected to be at some future time. If these expectations differ from what is desired, control actions are taken that will minimize these differences. The objective is for control to be achieved before any deviations from desired outputs actually occur. In other words, with feed-forward controls, likely errors can be anticipated and steps taken to avoid them, whereas with feedback controls actual errors are identified after the event and corrective action is taken to implement future actions to achieve the desired outputs.

A major limitation of feedback control is that errors are allowed to occur. This is not a significant problem when there is a short time lag between the occurrence of an error and the identification and implementation of corrective action. Feed-forward control is therefore preferable when a significant time lag occurs. The budgeting process is a feed-forward control system. To the extent that outcomes

REAL WORLD VIEWS 16.1

Feed-forward control – the virtual engineer and fault prevention

Maintaining manufacturing and process equipment is always a delicate balance between preventative maintenance and repairing faults after they occur. Spare parts and maintenance staff pay is a substantial cost. Most manufacturers engage in preventive maintenance programmes. This usually implies a mixture of following guidelines from equipment manufacturers and the experience of the maintenance staff. Preventative maintenance comes at a cost too, but this needs to be compared to the consequences of letting a piece of equipment go unmaintained. A business needs to avoid its main manufacturing process being down – losses of revenue per day (or even per hour) rack up very quickly.

Modern process equipment typically comes complete with many fault sensors and even remote engineer access via the internet. However, these sensors only report reasons for faults after they occur, i.e. they feed back information. An article in *The Economist* reports on research being conducted at the University of Portsmouth. The research centres on the idea of a 'virtual engineer'. The idea is that a sensor can spot tell-tale signs of likely failure in electrical equipment. This could mean that preventive maintenance happens less frequently as equipment may be perfectly fine beyond its normal maintenance period. The virtual engineer is thus acting as a feed-forward control measure, as it is measuring the performance of electrical components and trying to predict if they will fail.

Questions

1 Why is the type of predictive control mentioned above superior? List some reasons why.

2 What kinds of cost savings may be possible with a system like a 'virtual engineer'?

References

http://wp.me/pxcli-bl
http://www.economist.com/node/17408466?story_id=E1_TSQDRQGG

fall short of what is desired, alternatives are considered until a budget is produced that is expected to achieve what is desired. The comparison of actual results with budget, in identifying variances and taking remedial action to ensure that future outcomes will conform with budgeted outcomes, is an illustration of a feedback control system. Thus, accounting control systems consist of both feedback and feed-forward controls.

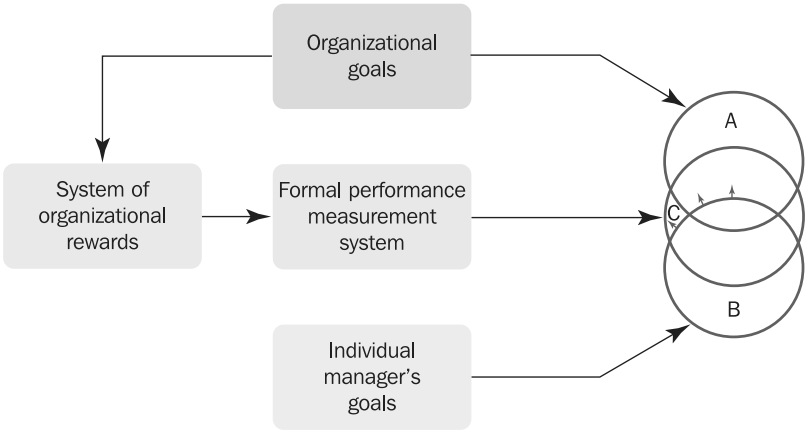
HARMFUL SIDE-EFFECTS OF CONTROLS

Harmful side-effects occur when the controls motivate employees to engage in behaviour that is not organizationally desirable. In this situation the control system leads to a lack of **goal congruence**. Alternatively, when controls motivate behaviour that is organizationally desirable they are described as encouraging goal congruence.

Results controls can lead to a lack of goal congruence if the results that are required can only be partially specified. Here there is a danger that employees will concentrate only on what is monitored by the control system, regardless of whether or not it is organizationally desirable. In other words, they will seek to maximize their individual performance according to the rules of the control system, irrespective of whether their actions contribute to the organization's objectives. In addition, they may ignore other important areas if they are not monitored by the control system. The term 'What you measure is what you get' applies in these circumstances.

Figure 16.1, derived from Emmanual, Otley and Merchant (1990) illustrates the problems that can arise when the required results can only be partially specified. You will see that those aspects of behaviour on which subordinates are likely to concentrate to achieve their personal goals (circle B) do not necessarily correspond with those necessary for achieving the wider organizational goals (circle A). In an ideal system the measured behaviour (represented by circle C) should completely cover the area of

FIGURE 16.1
The measurement and reward process with imperfect measures



A Behaviour necessary to achieve organizational goals
B Behaviour actually engaged in by an individual manager
C Behaviour formally measured by control systems

desired behaviour (represented by circle A). Therefore if a manager maximizes the performance measure, he or she will also maximize his or her contribution to the goals of the organization. In other words, the performance measures encourage goal congruence. In practice, it is unlikely that perfect performance measures can be constructed that measure all desirable organizational behaviour, and so it is unlikely that all of circle C will cover circle A. Assuming that managers desire the rewards offered by circle C, their actual behaviour (represented by circle B) will be altered to include more of circle C and, to the extent that C coincides with A, more of circle A.

However, organizational performance will be improved only to the extent that the performance measure is a good indicator of what is desirable to achieve the firm's goals. Unfortunately, performance measures are not perfect and, as an ideal measure of overall performance, are unlikely to exist. Some measures may encourage goal congruence or organizationally desirable behaviour (the part of circle C that coincides with A), but other measures will not encourage goal congruence (the part of circle C that does not coincide with A). Consequently, there is a danger that subordinates will concentrate only on what is measured, regardless of whether or not it is organizationally desirable. Furthermore, actual behaviour may be modified so that desired results appear to be obtained, although they may have been achieved in an undesirable manner which is detrimental to the firm.

It is clear that flaws in the performance measurement systems used by banks contributed to the financial crisis in the banking sector. Bonuses and performance measures were based on short-term, rather than long-term performance, that did not take risk into account. These performance measures encouraged managers to take actions to increase sales or profits when such actions resulted in providing high risk loans. The performance measures motivated managers to increase the reported sales revenues and profits, and thus their bonus, without considering the adverse long-term implications of their actions. They were not engaging in organizationally desirable behaviour because the performance measurement and reward system strongly encouraged them not to do so. Many would argue that the managers were acting in an unethical manner but clearly the performance measurement and the reward system was also at fault. We shall discuss how such dysfunctional behaviour may be reduced in Chapters 19 and 22.

ADVANTAGES AND DISADVANTAGES OF DIFFERENT TYPES OF CONTROLS

Merchant and Van der Stede suggest that when deciding on the control alternatives managers should start by considering whether *personnel* or *cultural controls* will be sufficient on their own because they have relatively few harmful side-effects. Also in small organizations they may be completely effective

REAL WORLD VIEWS 16.2

Crime-fighting targets lead to 'dysfunctional' policing says police chief

Government crime-fighting targets are a shambles and should be scrapped, claims Chief Superintendent Ian Johnston. Mr Johnston was speaking ahead of the Police Superintendents' Association's 2007 annual conference, when he will ask the police minister to scrap the current targets regime.

'I believe we should abolish the performance framework in its entirety,' Mr Johnston said. 'It sounds radical, but it would be very warmly welcomed by the police service and would allow us, the professionals, to make judgements. We want to reclaim policing for the police.' He added: 'Centrally imposed targets are preventing senior police officers from delivering the policing that the public wants and deserves. We need to restore discretion to senior police officers enabling them to make decisions that relate to local policing issues, ensuring that we deliver a high standard of quality policing.'

In May 2007, the leaders of rank-and-file police officers made a similar demand to reverse the target-driven culture that has forced them to make 'ludicrous' decisions such as a case in Kent where a child was arrested for throwing cream buns at a bus. The Police Federation said judging officers purely on how many arrests, cautions or on-the-spot fines they can deliver was making a mockery of the criminal justice system. The drive to meet Whitehall performance targets was compelling officers to criminalize middle England, they added.

The organization published a dossier of ridiculous cases they claimed resulted from Home Office targets placed on beat bobbies. The cases included a Cheshire man who was cautioned by police for being found in possession of an egg with intent to throw, and a West Midlands woman arrested on her wedding day for criminal damage to a car park barrier when her foot slipped on her accelerator.

Today, Mr Johnston said, 'current Home Office targets have made some senior officers seriously ill from the stress of managing a wide range of competing demands. More than 70 per cent of basic command unit commanders believe national targets have had a negative impact on service delivery. We are obliged to count everything and in order to account for our performance we are not addressing a lot of the issues that the public see as far more important.' He added: 'The time has come for someone to say that the performance framework and the red tape and the bureaucracy have got to go. The government's focus on volume crime targets is skewing all police activity in a way that our members see as increasingly dysfunctional.'

Question

1 How might the dysfunctional effects of the performance system in the police force be minimized?

References

www.dailymail.co.uk/news 7th September 2007

without the need to supplement them with other forms of controls. If personnel/cultural controls are not sufficient on their own it will be necessary to supplement them with other forms of control.

Action controls are the most effective form of control because there is a direct link between the control mechanism and the action and also a high probability that desirable outcomes will occur. They dispense with the need to measure the results but their major limitation is that they are dependent on cause-and-effect work relationships that are well understood and this does not apply in many situations.

The major attraction of *results controls* is that they can be applied where knowledge of what actions are desirable is lacking. This situation applies in most organizations. A second attraction of results controls is that their application does not restrict individual autonomy. The focus is on the outcomes thus giving individuals the freedom to determine how they can best achieve the outcomes. Individuals are not burdened with having to follow prescribed rules and procedures. The major disadvantages of results controls are that in many cases the results required can only be partially specified and there can be difficulties in separating controllable and uncontrollable factors.

MANAGEMENT ACCOUNTING CONTROL SYSTEMS

Up to this point in the chapter we have been looking at the broad context of management control systems. We shall now concentrate on management accounting control systems which represent the predominant controls in most organizations.

Why are accounting controls the predominant controls? There are several reasons. First, all organizations need to express and aggregate the results of a wide range of dissimilar activities using a common measure. The monetary measure meets this requirement. Second, profitability and liquidity are essential to the success of all organizations and financial measures relating to these and other areas are closely monitored by stakeholders. It is therefore natural that managers will wish to monitor performance in monetary terms. Third, financial measures also enable a common decision rule to be applied by all managers when considering alternative courses of action. That is, a course of action will normally benefit a firm only if it results in an improvement in its financial performance. Fourth, measuring results in financial terms enables managers to be given more autonomy. Focusing on the outcomes of managerial actions, summarized in financial terms, gives managers the freedom to take whatever actions they consider to be appropriate to achieve the desired results. Finally, outputs expressed in financial terms continue to be effective in uncertain environments even when it is unclear what course of action should be taken. Financial results provide a mechanism to indicate whether the actions benefited the organization.

RESPONSIBILITY CENTRES

The complex environment in which most businesses operate today makes it virtually impossible for most firms to be controlled centrally. This is because it is not possible for central management to have all the relevant information and time to determine the detailed plans for all the organization. Some degree of decentralization is essential for all but the smallest firms. Organizations decentralize by creating responsibility centres. A **responsibility centre** may be defined as a unit of a firm where an individual manager is held responsible for the unit's performance. There are four types of responsibility centres. They are:

1. cost or expense centres;
2. revenue centres;
3. profit centres;
4. investment centres.

The creation of responsibility centres is a fundamental part of management accounting control systems. It is therefore important that you can distinguish between the various forms of responsibility centres.

Cost or expense centres

Cost or **expense centres** are responsibility centres whose managers are normally accountable for only those costs that are under their control. We can distinguish between two types of cost centres – standard cost centres and discretionary cost centres. The main features of **standard cost centres** are that output can be measured and the input required to produce each unit of output can be specified. Control is exercised by comparing the standard cost (that is, the cost of the inputs that *should* have been consumed in producing the output) with the cost that was *actually* incurred. The difference between the actual cost and the standard cost is described as the **variance**. Standard cost centres and variance analysis will be discussed extensively in the next chapter.

Standard cost centres are best suited to units within manufacturing firms but they can also be established in service industries such as units within banks, where output can be measured in terms of the number of cheques or the number of loan applications processed, and there are also well defined input–output relationships. Although cost centre managers are not accountable for sales revenues they can affect the amount of sales revenue generated if quality standards are not met and outputs are not produced according to schedule. Therefore quality and timeliness non-financial performance measures are also required besides financial measures.

REAL WORLD VIEWS 16.3

Responsibility centres – cost centre accounting in SAP

SAP is the global leader in the provision of enterprise resource planning (ERP) systems. While SAP is designed to process many business transactions, it also acts as a key source of information for management control. At the centre of its management control functions is a 'cost centre accounting' (CCA) subsystem, that, according to the SAP website 'enables you to check the profitability of individual functional areas and provide decision-making data for management.' CCA needs to have cost, profit and investment centres defined by the user organization, and is one of the earlier items to be configured in the system. This is because the CCA links other component of SAP, such as product cost controlling and profitability analysis. According to SAP, using CCA offers several advantages:

- Assigning costs to cost centres lets you determine where costs are incurred within the organization.
- If you plan costs at cost centre level, you can check cost efficiency at the point where costs are incurred.
- If you want to assign overhead costs accurately to individual products, services or market segments, you need to further allocate the costs to those cost centres directly involved in the creation of the products or services. From these cost centres you can then use different methods to assign the activities and costs to the relevant products, services and market segments. The 'activities' of cost centres represent 'internal resources' for business processes in activity-based costing.

Questions

1 Can you give an example of how a cost would be captured/recorded and allocated to a cost centre?

2 Do you think cost centre accounting data is useful for budgeting/planning?

References

http://help.sap.com/saphelp_46c/helpdata/en/5b/d2200743c611d182b30000e829fbfe/frameset.htm

Discretionary expense centres are those responsibility cost centres where output cannot be measured in financial terms and there are no clearly observable relationships between inputs (the resources consumed) and the outputs (the results achieved). Control normally takes the form of ensuring that actual expenditure adheres to budgeted expenditure for each expense category and also ensuring that the tasks assigned to each centre have been successfully accomplished. Examples of discretionary centres include advertising and publicity and research and development departments. One of the major problems arising in discretionary expense centres is measuring the effectiveness of expenditures. For example, the marketing support department may not have exceeded an advertising budget but this does not mean that the advertising expenditure has been effective. The advertising may have been incorrectly timed, it may have been directed to the wrong audience, or it may have contained the wrong message. Determining the effectiveness and efficiency of discretionary expense centres is one of the most difficult areas of management control.

Revenue centres

Revenue centres are responsibility centres where managers are mainly accountable for financial outputs in the form of generating sales revenues. Typical examples of revenue centres are where regional sales managers are accountable for sales within their regions. Revenue centre managers may also be held accountable for selling expenses, such as salesperson salaries, commissions and order-getting costs. They are not, however, made accountable for the cost of the goods and services that they sell.

Profit centres

Both cost and revenue centre managers have limited decision-making authority. Cost centre managers are accountable only for managing inputs of their centres, and decisions relating to outputs are made by other units within the firm. Revenue centres are accountable for selling the products or services but they have

no control over their manufacture. A significant increase in managerial autonomy occurs when unit managers are given responsibility for both production and sales. In this situation managers are normally free to set selling prices, choose which markets to sell in, make product-mix and output decisions and select suppliers. Units within an organization whose managers are accountable for both revenues and costs are called **profit centres**.

Investment centres

Investment centres are responsibility centres whose managers are responsible for both sales revenues and costs and, in addition, have responsibility and authority to make capital investment decisions. Typical investment centre performance measures include return on investment and economic value added. These measures are influenced by revenues, costs and assets employed and thus reflect the responsibility that managers have for both generating profits and managing the investment base.

Investment centres represent the highest level of managerial autonomy. They include the company as a whole, operating subsidiaries, operating groups and divisions. You will find that many firms are not precise in their terminology and call their investment centres profit centres. Profit and investment centres will be discussed extensively in Chapter 19.

THE NATURE OF MANAGEMENT ACCOUNTING CONTROL SYSTEMS

Management accounting control systems have two core elements. The first is the formal planning processes such as budgeting and long-term planning that were described in the previous chapter. These processes are used for establishing performance expectations for evaluating performance. The second is responsibility accounting which involves the creation of responsibility centres. Responsibility centres enable accountability for financial results and outcomes to be allocated to individuals throughout the organization. The objective of **responsibility accounting** is to accumulate costs and revenues for each individual responsibility centre so that the deviations from a performance target (typically the budget) can be attributed to the individual who is accountable for the responsibility centre. For each responsibility centre the process involves setting a performance target, measuring performance, comparing performance against the target, analyzing the variances and taking action where significant variances exist between actual and target performance. Financial performance targets for profit or investment centres are typically in terms of profits, return on investment or economic value added, whereas performance targets for cost centres are defined in terms of costs.

Responsibility accounting is implemented by issuing performance reports at frequent intervals (normally monthly) that inform responsibility centre managers of the deviations from budgets for which they are accountable and are required to take action. An example of a performance report issued to a cost centre manager is presented in the lower section of Exhibit 16.1. You should note that at successively higher levels of management less detailed information is reported. You can see from the upper sections of Exhibit 16.1 that the information is condensed and summarized as the results relating to the responsibility centre are reported at higher levels. Exhibit 16.1 only includes financial information. In addition, non-financial measures such as those relating to quality and timeliness may be reported. We shall look at non-financial measures in more detail in Chapter 22.

Responsibility accounting involves:

- distinguishing between those items which managers can control and for which they should be held accountable and those items over which they have no control and for which they are not held accountable (i.e. applying the controllability principle);
- setting financial performance targets and determining how challenging the financial targets should be;
- determining how much influence managers should have in the setting of financial targets.

We shall now examine each of these items in detail.

EXHIBIT 16.1 Responsibility accounting monthly performance reports

Performance report to managing director

		Budget		Variance[a] F (A)	
		Current month (£)	*Year to date (£)*	*This month (£)*	*Year to date (£)*
Managing director	Factory A	453 900	6 386 640	80 000(A)	98 000(A)
	Factory B	X	X	X	X
	Factory C	X	X	X	X
	Administration costs	X	X	X	X
	Selling costs	X	X	X	X
	Distribution costs	X	X	X	X
		2 500 000	30 000 000	400 000(A)	600 000(A)

Performance report to production manager of factory A

Production manager	Works manager's office	X	X	X	X
	Machining department 1	165 600	717 600	32 760(A)	89 180(A)
	Machining department 2	X	X	X	X
	Assembly department	X	X	X	X
	Finishing department	X	X	X	X
		453 900	6 386 640	80 000(A)	98 000(A)

Performance report to head of responsibility centre

Head of responsibility centre	Direct materials	X	X	X	X
	Direct labour	X	X	X	X
	Indirect labour	X	X	X	X
	Indirect materials	X	X	X	X
	Power	X	X	X	X
	Maintenance	X	X	X	X
	Idle time	X	X	X	X
	Other	X	X	X	X
		165 600	717 600	32 760(A)	89 180(A)

[a] F indicates a favourable variance (actual cost less than budgeted cost) and (A) indicates an adverse budget (actual cost greater than budget cost). Note that, at the lowest level of reporting, the responsibility centre head's performance report contains detailed information on operating costs. At successively higher levels of management less detail is reported. For example, the managing director's information on the control of activities consists of examining those variances that represent significant departures from the budget for each factory and functional area of the business and requesting explanations from the appropriate managers.

THE CONTROLLABILITY PRINCIPLE

Responsibility accounting is based on the application of the **controllability principle** which means that it is appropriate to charge to an area of responsibility only those costs that are significantly influenced by the manager of that responsibility centre. The controllability principle can be implemented by either eliminating the uncontrollable items from the areas for which managers are held accountable or calculating their effects so that the reports distinguish between controllable and uncontrollable items.

Applying the controllability principle is difficult in practice because many areas do not fit neatly into either controllable and uncontrollable categories. Instead, they are partially controllable. For example, even when outcomes may be affected by occurrences outside a manager's control, such as competitors' actions, price changes and supply shortages, managers can take action to reduce their adverse effects.