financial and strategic performance. It shows how these performance control processes can be integrated in order to create and improve internal strategic alignment.

on motivation in the workplace, this book argues that management control systems should autonomous motivation and well-being in order to achieve sustainable performance. Through

The book provides materials that can be used in business and management control courses

Werner Bruggeman is Professor Emeritus of Management Accounting and Control at the expert in teaching management control courses. His research has been on the behavioural integrated performance management systems.

executive courses on cost/management accounting and control. Her research focuses on

a course text or a reference book."

Falconer Mitchell

included case examples from practice. A distinguishing feature of this work is its inclusion of psychological

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Manage ment

Werner Bruggeman

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Management Control

Concepts, Methods and Practices





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Management Control: Concepts, Methods and Practices

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Management Control Systems

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Preface

Management control systems are used by all kinds of organisations. Managers make use of these systems to motivate subordinates as well as to coordinate and align their actions and decisions in line with shared goals and strategies of the organisation in which they work. In view of this broad definition, management control includes a variety of formal and informal systems, preferably to be used in an integrated way to plan, monitor, report, evaluate and reward financial, operational as well as strategic performance of organisations. In addition, management control will interface with various other management disciplines such as accounting, organisational behaviour, operations and strategic management.

This book will provide readers with a systematic and complete overview of management control concepts and techniques as well as their practical implications. It offers a number of concepts and frameworks that will enable students, academics and practising professions to gain a thorough understanding of the complexities of management control problems in organisations.

Besides the traditional **financial performance controls** (such as financial responsibility centres, activity-based cost management, economic value added, budgeting, variance analysis and financial incentive systems), we also put a special emphasis on **strategic performance control systems** (the use of strategy co-creation processes and strategy-aligned performance measures reported in the balanced scorecard framework) and show how **financial and strategic performance control processes can be integrated** in order to create internal strategic alignment (by implementing the concept of the strategy-focused organisation). Regarding the design of management control systems, we promote the idea that managers should use a **holistic 'package' approach** and that the effectiveness of management controls is not only determined by their fit with the strategic context, but also by how they fit with each other.

When describing the effect of management control systems on managerial behaviour and performance, we especially highlight **the role of human motivation**. We import insights from the psychology literature on work motivation and argue that management control systems should not only align goals and interests of internal organisational actors. They should also satisfy their psychological needs in order to enhance their autonomous motivation and well-being and achieve sustainable performance.

This book includes 14 chapters. The first chapter serves as a general introduction into management control essentials. It will emphasise alignment between organisational strategy and goals on the one hand and management control on the other hand. Furthermore, this chapter will stress the importance of arriving at a consensus about performance goals and the role of human motivation.

The second chapter will cover all aspects of deciding on the **management control structure**. Chapter 3 will focus on managing cost centre issues. Chapters 4 and 5 will focus on profit centres and investment centres respectively. These chapters will also review how performance management will affect management behaviours in line with their responsibilities. Chapter 6 will discuss transfer pricing as a mechanism to coordinate responsibility centres.

An important part of this book will revolve around execution of the **management control process**. Planning and budgeting constitute essential ingredients of the management control process and will be discussed in chapter 7. The next chapter (chapter 8) will feature financial reporting and variance analysis. Performance management systems represent the capstone of the management control process. We will discuss various systems such as the balanced scorecard (chapter 9), development of a strategy-focused organisation (chapter 10) as well as reward and compensation systems for managers (chapter 11).

Chapter 12 will explore the use of **company culture for management control**. At present, organisations increasingly tend to rely on informal control systems, e.g. managing employee behaviours by means of shared values and beliefs.

Chapter 13 will give an overview of the most important contingency frameworks that can be used in **designing management control systems**. The final chapter (chapter 14) will highlight the role of controllers within organisations.

Our book provides materials that can be used in business and management control courses at undergraduate as well as graduate level. In addition, various groups of managers, consultants, financial analysts, controllers, information systems designers and executive leaders of organisations may benefit from the wide variety of ideas and methods described in the different chapters. Company managers will recognise the typical familiar issues as numerous real-life examples from European companies are included. The book is directed at readers with a basic level of knowledge of financial and management accounting. All in all, we hope our work will appeal to a wide audience through its conceptual structure as well as its relevance for all management control practitioners.

Finally, we would like to express our gratitude to all company managers as their combined experiences have been very inspiring in enabling us to put together all business case examples for this book. In addition, we would like to thank our families for offering their support during the course of our writing this book.

Werner Bruggeman Sophie Hoozée Regine Slagmulder

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The aim of this chapter is to provide the reader with theoretical notions and practical applications of performance management within organisations by including all relevant management processes that are referred to as 'management control'. In the first section we will start with defining the notion of management control. The primary goal of management control is to motivate managers for making the organisational mission, goals and strategies happen. We will explore these concepts in more detail in the second section of this chapter, whereas the third part will describe the scope of the management control discipline. Subsequently, we will specify the building blocks of a management control system (section 4) as well as how companies may exercise management control (section 5). In section 6, we will elaborate on the Malmi and Brown package framework. Finally, in section 7, we will discuss relevant motivational aspects of performance management.

1 DEFINITION AND GOAL OF MANAGEMENT CONTROL

Management control is:

A process that serves to motivate all organisational members to perform activities that contribute to the achievement of the organisation's goals and to the implementation of its strategies.

In view of this broad definition, management control includes a variety of formal and informal systems, preferably to be used in an integrated way to plan, monitor, report, evaluate and reward financial, operational as well as strategic performance of organisations.

An organisation is considered to be 'in control' if all organisational members execute their activities in accordance with organisational goals and strategies. Management control includes planning future company business, aligning activities of all company units and departments, communicating and evaluating management control information, deciding on necessary steps and influencing people within

organisations to adapt their behaviours in line with organisational goals (Anthony and Govindarajan, 2007).

This definition implies a crucial role for management control when it comes to strategy execution. The role of management control is to make sure management behaviours are in line with 'intended organisational strategy'. Conventional 'diagnostic' control systems measure and evaluate management performance in terms of specified goals that have been derived from company strategy and initiate necessary actions in view of gaps (Simons, 1990). We assume company strategies to be aligned with the stated company mission. Formulating effective strategies is part of strategic management and is accepted as a 'given' by management control.¹

2 MISSION, GOALS AND OBJECTIVES, STRATEGIES, POLICIES AND VALUES

The mission, goals and objectives, strategies and policies are part of the foundation of the management control process. We will examine these concepts in the following paragraphs. Figure 1.1 illustrates how these concepts relate to each other.

Figure 1.1 Mission, goals and objectives, strategies and policies



2.1 DEFINITION

a. Mission

The **mission** of any organisation offers a general description of its purpose and strategic focus. The mission describes the role the organisation wants to play towards the different stakeholders, e.g. shareholders, customers, employees and society. The

¹ We refer to the strategic management literature, e.g. Hax and Majluf (1995) and Heene (1995), for detailed discussions on strategy formulation.

so-called mission statement often serves to express organisational engagement and promises made with respect to stakeholders and supports company management in providing a sense of direction to its employees. It also communicates a shared sense of identity to the outside world. For successful mission execution all members of the same company need to subscribe to the specified mission. Figure 1.2 contains two mission statement examples.

Figure 1.2 Mission statement examples

BMW Benelux 'After Sales Services' mission statement

As a reliable technology competence centre it is our mission to provide our dealer network with direction and value-added support, advice, coaching and logistic service in order to collaborate with our dealers in a win-win business relationship for the purpose of:

- (1) ensuring driving pleasure and satisfaction of our end customers;
- (2) strengthening our brand image in the market place;
- (3) ensuring sustainable and profitable growth;
- (4) creating a stable workplace that fosters trust, transparency and engagement, enabling our employees to make use of development opportunities and be proud of their jobs.

De Lijn mission statement

De Lijn aims to be a smart companion for all travellers within Flanders.

De Lijn provides its customers with a wide range of mobility solutions that are safe, reliable and efficient.

De Lijn acts as a reliable partner of all Flemish authorities on their mobility policy in support of economic, ecological and social development.

De Lijn creates an engaging and respectful workplace that enables our employees to represent our company as competent and customer-friendly ambassadors.

In this way, De Lijn enables citizens of Flanders to move around easily and contributes to a general sense of well-being about living in Flanders.

b. Goals and objectives

Goals refer to all long-term future company ambitions. Goals describe the long-term wished future of the organisation. Goal statements are sometimes labelled as *the vision*. Company goals represent the core and driving force for managing companies. They serve to express deeply felt ambitions and need to be instilled in all company employees by top management. Goals mark the beginning of the strategy formulation process. In identifying the goals, management teams typically ask the question: what do we want to achieve? What do we want to become?

Companies may express goals in three domains: economic, social and/or societal. **Economic goals** specify long-term financial company ambitions in terms of profitability, market share and financial structure. **Social goals** specify what the company wants to achieve for its employees in terms of job satisfaction, development opportunities, internal social relations and/or its business relationship with trade unions.

Societal goals specify how companies intend to serve society as a whole. This includes a view on the intended contribution to the environment, contributions to education, employment, cultural activities and/or sports events.

Different organisations will emphasise different goals. For instance, non-profit institutions will primarily focus on societal goals. Some private companies will stress economic goals as compared to social and societal contributions. Other private companies will opt for less profitability in return for higher employee satisfaction. Although we do not want to comment on what is 'right' or 'wrong', we note that management control depends on specified company goals.

Goals contain an expression of a 'desirable future'. This view need not necessarily be realistic; in fact, it may even be somewhat utopian in nature, even including some imaginative elements. Such images are highly inspirational and make working life fun for entrepreneurs. Thus, start-up entrepreneurs are rightfully allowed to envision their companies as future market leaders. It will strongly motivate both entrepreneurs and their employees to grow revenues and to outperform competitors.

Company goals often refer to **long-term goals**. As a rule, organisations tend to derive **short-term goals** (usually called objectives) from long-term goals in order to manage strategy execution. For this purpose, expected results are quantified along with time windows for attaining results. For instance, a long-term goal of becoming market leader can be translated into an objective as a 20% growth in revenues in the next budget year.

c. Strategies

Strategies specify the way in which companies want to achieve specified goals and objectives. Company goals are the ends, strategies are the means to achieve the goals. Company strategy is formalised in long-term business plans. For example, entering a new business market with existing products as opposed to new product development for current customers exemplifies a selected strategy for growing the business. In addition, generic patterns of action, such as quality, flexibility and customer centricity are usually considered as strategies implemented to attain growth or profitability goals.

d. Policies

Policies include all ways to make strategy happen. Policies are more specific as compared to strategies and include all general rules for executing company activities and processes. These rules may concern required profitability levels for sales opportunity assessments, standards for evaluating investment proposals, guidelines for personnel recruitment, discount policies, agreements on dividend payouts to shareholders or environmental regulations that need to be applied.

2.2 ALIGNMENT OF GOALS, STRATEGIES AND POLICIES

As companies are in the process of formulating strategy, it is not always easy to determine what is to be classified as 'goals', 'strategies' and 'policies'. For instance, as goals express long-term company ambitions and strategies reveal how companies go about making ambitions happen, it is important to understand if 'growth' either refers to a company goal or a company strategy. Some companies continuously strive for long-term 'growth' and consider this to be their number one goal even at the expense of profitability. In this case, profitability represents a goal that is less important. In contrast, other companies may prefer profitability over mere 'growth'. For these companies, 'growth' will be a strategy as it leads to economies of scale and increased profitability.

A similar argument can be raised regarding 'innovation'. A team of young engineers about to start up a new high-tech company will consider innovation ('being inventor') as their most important company goal. In contrast, mature companies may consider profitability to be more relevant and will regard innovation/new product development as a strategy to attain profitability goals.

In general, successful Japanese companies consider 'quality' to be a very important company goal. It is a necessary ingredient for strengthening their brand. These companies value long-term customer satisfaction over short-term profitability. Other companies select quality as a company strategy, for instance to increase revenues, market share and/or profitability. These companies will be less concerned about their brand name in case of quality errors. However, they will be more anxious about any loss of revenues in case customers decide to turn away from their products or even start to generate bad press about their products.

Formulating policies will take matters one step further as policies serve to execute strategies. For example, company policy for innovation may be to stimulate 'intensive internal communication' as companies feel this might benefit their innovation strategy by increasing the effectiveness and productivity of their innovation processes. In theory, however, 'intensive internal communication' may also be a social goal for companies as they want to communicate that their company is the place to be for open communication, which they regard as an essential ingredient for job satisfaction.

2.3 REVISING GOALS AND STRATEGIES

Companies have a need for clearly stated goals. In addition, top management and relevant stakeholders should act in line with these goals in a consistent manner. Goals should remain the same for quite some time. If company goals change too often, top management will not be regarded as being 'in control' with respect to company performance. Communication to middle management on new company goals by top management will lack credibility and not lead to any substantial changes. All too often, frequently changing goals of government institutions result in demotivated

managers. Confronted by numerous changes after each election, some civil servants may come to consider only short-term action plans and lose focus on investing in the long-term future.

However, this does not imply that companies are never allowed to revise their goals during the entire course of their existence. Companies need to formulate new goals if current goals have been achieved or if current goals are no longer sufficient for organisational engagement. Consider a small and medium enterprise (SME). Its management may have aspired to market leadership in particular countries. As this goal has been achieved after years of hard work, new ambitions may start to surface, e.g. becoming market leader in continental Europe. This long-term goal requires a new strategy with focus on international market development. In turn, this strategy will raise questions about current policies, for instance on new employee recruitment in terms of language competencies and nationalities.

In general, revisions of company strategy will outnumber revisions of company goals. For example, companies may aspire to increase market share and profitability by implementing a strategy of flexibility. In case this proves to be too costly, companies may revise their strategy and come to reject customised orders and small production batches.

2.4 GOAL CONGRUENCE

Personal goals will influence how managers respond to management control information. These goals determine how managers value information on safety, money, self-actualisation as well as status and how they are motivated. Effective management control implies knowledge of 'what makes managers tick' as it greatly affects employee behaviour and heavily impacts their organisations.

Essential to management control system design is a strong sense of alignment between personal goals of individual managers and overall company goals. This is referred to as **goal congruence**. Management control systems should be designed in ways that ensure that all management decisions are in line with both personal and organisational goals. In other words, management control systems should make managers aware that they can (only) achieve their personal goals as company goals are achieved as well. Therefore, the way in which companies appraise and financially reward their managers is fundamental in establishing goal congruence.

Goal congruence is crucial for effective and efficient company performance. Let us go into more detail about goal congruence issues. Organisational goals are translated into departmental goals as well as personal goals for employees within these departments. A first issue may revolve around lack of alignment between overall company goals and department goals. For instance, department managers may regard their departments as small and profitable entities ('small is beautiful'), whereas top management envisions a 'double digit growth' future for these departments. Additional meetings and negotiations will be required to align departmental goals and overall

company goals. Unit managers may also oppose top management growth visions for personal reasons as they are not willing to put in the effort to make it happen. In that case, personal goals are in conflict with overall company goals. If unit managers stick to their personal goals and are not willing to face double digit growth challenges, they probably need to be replaced or look for another job.

2.5 CONGRUENCE OF CORE VALUES

Apart from reaching goal consensus at all organisational levels it is also imperative that core values and beliefs of companies are aligned with the company goals and that the values and beliefs of the individual managers are aligned with the company values. This is referred to as core values congruence. Companies that express 'lifetime employment' as one of their social goals should be deeply convinced about this. Hence, beliefs and goals should be aligned. If this is not the case and a 'hire and fire' policy is being practised, companies will lose all credibility as employers. Top management may nurture a goal of 'lifetime employment' by being sincerely interested in employee career plans. As they fail to do so, top management will find it hard to share any future vision with their employees. They will also probably fail to inspire their employees. A similar argument can be put forward regarding core values of middle managers and team leaders. In case their core values conflict with company core values, these managers will tend to make negative comments about company policies. It will also be difficult to motivate these middle managers and team leaders and it will be equally hard for these managers to inspire their direct reports to act in line with company goals and core values.

Top management should work on both goal congruence and core values congruence simultaneously. Paying attention to goal congruence only at the expense of core values congruence may endanger the manageability of companies. For example, a highly profitable management consulting company will get into trouble if managers do not believe in its core values. An exclusive focus of profitability (strong goal congruence) in combination with a scarcely shared management philosophy (weak core values congruence) may suddenly result in high levels of staff turnover. On the other hand, congruence on core values without congruence on goals does not work out either. For example, a Catholic school that tries to recruit as many Catholic teachers as possible will also need to consider sufficient goal congruence in terms of financial rewards and recognition, if the school is to be successful.

3 SCOPE OF MANAGEMENT CONTROL

In addition to management control, companies use a wide variety of other 'planning and control' techniques to achieve their goals. Anthony and Govindarajan (2007) define how management control differs from strategic planning and task control.

Strategic planning is about formulating goals and strategies to achieve stated goals, whereas **management control** serves to support strategy execution. Thus, strategic planning provides the context for management control. **Task control** is about assigning tasks to individual members of the organisation and ensuring that these tasks (such as production planning and control tasks) are carried out effectively and efficiently (figure 1.3).

Management control refers to a set of recurring activities within fixed time intervals supported by specified procedures.² In contrast to strategic planning by the inner circle top management, management control implies engagement from all organisational members. Whereas management control will focus on planning and monitoring specific programmes and short-term activities, strategic planning deals with long-term goals and strategies.

Figure 1.3 How management control, strategic planning and task control are related



Management control systems do not only serve **strategy execution**, but strategy **formulation** as well ('emergent strategies'). Simons (1987, 1990 and 1991) specifies how 'interactive' use of control systems by actively involving top management will stimulate all organisational members to exchange information on relevant strategic issues. Such exchanges will lead to new strategies. We will discuss the practice of interactive control in more detail in paragraph 5.3 of this chapter.

Next, let us clarify how management control relates to **management accounting**. Although these activities may appear to be similar, they refer to different sets of activities. Management control is a motivational process to have employees act in accordance to company strategy. On the other hand, management accounting is about identification, measurement, data collection, data analysis, preparation, interpretation and communication of information to management for planning and control

We like to emphasise that systematic management control does not imply some pure and mechanistic execution of the management control process. On the contrary, this process requires organisational engagement as well as frequent exchanges between members of organisations. This has profound implications for organisational behaviour.

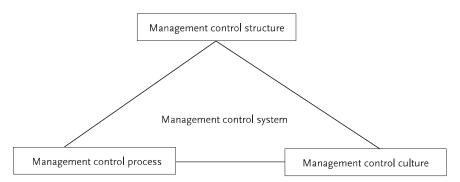
purposes (Kaplan and Atkinson, 1998). In short, management accounting information serves to support the management control process.

Finally, it should be noted that management control is different from **corporate governance**. Whereas the former takes the perspective of top management and asks what can be done to align the behaviour of lower-level managers and employees, the latter takes the perspective of shareholders and other stakeholders and focuses on controlling the behaviours of top management.

4 BUILDING BLOCKS OF A MANAGEMENT CONTROL SYSTEM

Three building blocks need to be in place for any management control system (figure 1.4). The first element of a management control system, the **management control structure**, refers to how roles and responsibilities regarding management control are assigned within organisations. Roles and responsibilities may range from revenue centres to cost centres, profit centres and investment centres. Establishing the most effective structure is part of management control.

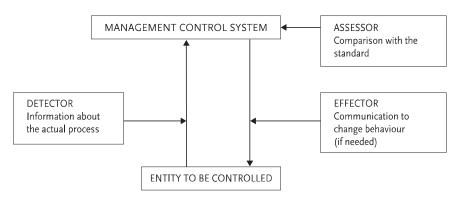
Figure 1.4 The three building blocks of a management control system



The second element of management control, the management control process, covers planning expected inputs and outputs, measuring actual results, comparing expected to actual results and making any necessary corrective actions. This management control process is a **cybernetic process**, characterised by a feedback loop that includes performance standards specification, actual system performance measurement, comparisons between actuals and standards, feedback on substantial deviations between actuals and standards as well as necessary system adjustments (Green and Welsh, 1988). Management control as a cybernetic control process is a series of iterations aimed at managing activities towards expected outcomes. Anthony and Govindarajan (2007) characterise the management control process as: a 'detector' instrument to measure the system that is to be controlled; an 'assessor' instrument for

making comparisons between both expected and actual system realities; an 'effector' instrument to change system behaviour as indicated by the assessor instrument and a 'communication network' for enabling the flow of information between detectors, assessors and effectors (figure 1.5).

Figure 1.5 Management control as a cybernetic control process



A cybernetic control process implies clearly stated goals, the availability of methods to measure whether goals have been achieved, the occurrence of a signal in case of deviations between 'plans' and 'actuals', a network for enabling communication on such deviations and the use of such information to adjust the process as well as to prevent any undesired future deviations. Although we strongly support this cybernetic view of the management control process, we will also pay attention to how cybernetic processes are embedded in the management control structure as well as the larger management control system, including organisational culture. We assume an open systems approach, i.e. we regard organisations and control systems as entities that interact with their environments.

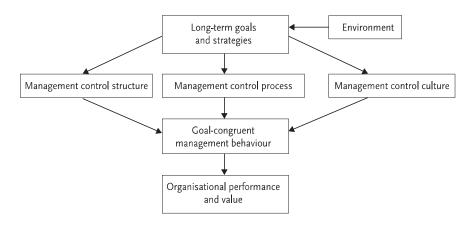
The third element of the management control system, the management control culture, includes all shared norms, values and beliefs of managers and employees. Apart from goals, strategies and policies, many companies tend to formulate their core values and beliefs. Values specify how companies regard the essence (sometimes referred to as 'their DNA') of their organisation. Values serve to guide individual behaviours of all organisational members. Beliefs are fundamental convictions and opinions that are shared by all members of the organisation.

Core values and beliefs may relate to specified goals. In their belief that employees are their most relevant resources, companies will often express clear social goals and develop meaningful relations with their employees. Core values and beliefs may also relate to company strategies, policies as well as codes of conduct. For example, companies may embrace 'customer centricity' as a shared belief to substantiate their notion of quality. In companies competing on flexibility, employees may strongly believe that addressing customer needs in a flexible way is highly exciting.

In short, management control acts as a tool for motivating and empowering employees to act in line with organisational goals and strategies. This motivation 'drives' performance as well as organisational value (figure 1.6). Building blocks of management control need to be aligned to goals and strategies and carefully calibrated to be effective.

Many companies combine formal and informal control mechanisms to ensure company goals are achieved. Formal control mechanisms enable a systematic application of explicit rules, standard documents and procedures that specify expected behaviours and results. For instance, planning procedures, reporting systems and budget committees are formal control mechanisms. Informal control mechanisms tend to work in more implicit ways. For example, management control culture, temporary structures, individual contacts and gestures like patting on the back to express appreciation are informal control mechanisms.

Figure 1.6 Management control and strategy execution



5 TYPES OF MANAGEMENT CONTROL

This section provides an overview of management control types. Controls may differ in time focus (feedback versus feedforward), can have a different object of control (output, behaviour or clan) and may have different levels of active management involvement (diagnostic versus interactive control).

5.1 FEEDBACK AND FEEDFORWARD CONTROL

Feedback control is about fact checking. These facts relate to past results. Information is used to adjust current and future activities in order to achieve formulated company goals. Control reports focus on variances between plans and actuals and serve to provide feedback. In contrast to automatic measurement and control systems, such as

heating systems that automatically react to temperature data, control reports do not initiate actions to adjust for observed variances. Companies will only take action if management decides to act on such information. The disadvantage of feedback-based management control systems is that they take time to be effective. First, variances need to be identified. Next, reports on variances have to be prepared. Finally, initiated actions have to be in place for some time in order to remove the gap between plans and actuals.

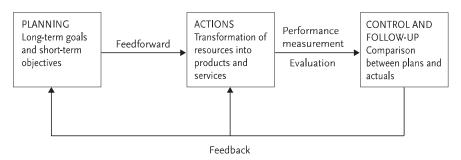
In contrast, **feedforward control** systems do not require signals on variances between plans and actuals for initiating corrective actions. Instead, such systems predict outcomes of future actions to anticipate potential variances between plans and actuals. This preventive kind of management control constitutes a major advantage of feedforward-based management control systems. IT may be used for cash control by anticipating potential cash variances to prevent potential problems from occurring. Feedforward control tends to be informal. It is based on management observations of business environment changes. For instance, as sales are perceived to go up, effective production managers will initiate extensions of their manufacturing capacity to prevent their units from becoming overwhelmed owing to a lack of production capacity.

The most important advantage of feedforward control consists of having more time to reflect on various strategic alternatives in view of anticipated changes. This advantage is exemplified in the use of target costing techniques for launching new products by Japanese companies (see chapter 3 for more details on target costing). Additional planning costs and the risk of erroneous predictions are the downside of feedforward control.

Feedback and feedforward control are two complementary approaches. Although feedforward control allows for early adjustments in view of variances, it will never be able to eliminate all variances as it is only possible to make educated guesses about potential results of alternative actions.

Therefore, feedback control remains necessary to make more accurate adjustments with hindsight. The preparation and monitoring of budgets shows how feedforward and feedback control may be effectively combined (figure 1.7).

Figure 1.7 Feedback and feedforward control in the planning and control process



At the start of the budget year, budgets serve as tools for feedforward control as they include expected revenues and costs. Companies will use these budgets to plan their activities. At the end of the budget year, feedback control will take place. Budgets and actual results will be compared and adjustment actions, e.g. increasing production efficiency, will be initiated in case of substantial variances. We will discuss budgeting and variance analysis in chapters 7 and 8.

5.2 OUTPUT, BEHAVIOUR AND CLAN CONTROL

Ouchi (1979) and Merchant (1982) as well as Merchant and Van der Stede (2017) distinguish between output/results and behaviour/action and clan/cultural controls as three different management control objects.³

a. Output control

The focus of **output or results control** is on results by holding people accountable and rewarding them for achieving specified results. Although financial measures as Return on Investment (ROI) are often used to measure outputs, results may also be expressed in terms of market share, customer satisfaction or on-time project completion. Output control is very effective. In addition, it is very efficient to exercise management control in decentralised companies with a business unit structure. Top management will only track unit performance in terms of a limited set of key performance indicators (KPIs) and leave operations to local management.

According to Merchant (1982) and Merchant and Van der Stede (2017), output control will only be effective under three conditions. Results need to be clearly specified. Managers with responsibilities regarding these results should be able to influence results (the controllability principle). Finally, results should be measured effectively. If these conditions do not apply, companies may revert to behaviour control.

b. Behaviour control

Behaviour or action control ensures that all members of the organisation will do 'the right things' and prevents them from engaging in wrong activities.⁴ Companies may exercise behaviour control in various ways. First of all, they may restrain access to confidential data or by strict divisions of labour. For instance, nuclear power plants require employees to carry out their activities in accordance with very detailed procedures.

³ Ouchi (1979) makes use of concepts like 'output control' and 'behaviour control', whereas Merchant (1982) and Merchant and Van der Stede (2017) refer to 'results control' and 'action control'.

⁴ Note that behaviour control, like all other methods of control, serves to influence employee behaviour. However, the present discussion is primarily focused on the object of control, i.e. controlling activities (behaviour control) or controlling results by measurement and monitoring (output control).

Increased centralisation of decision-making processes may limit the autonomy of employees even more. In such a case, there is no need for performance control at all.

Behaviour control may also consist of having top management approve planned activities before local management and employees undertake actions. For example, top management needs to approve specific investments in case the investment amount exceeds specified budget levels. Behaviour control may also be informally exerted, for instance as part of a discussion between managers and employees on projects proposed by the latter.

Behaviour control may also be effectuated by holding managers and employees accountable for their activities. Companies may apply formulated policies, codes of conduct regarding acceptable behaviour and formal and informal rule enforcement regarding (in)correct behaviours.

Ouchi (1977, 1979) proposes a conceptual framework for classifying various ways of control in view of context (figure 1.8). In his framework, the choice of the type of control depends on two critical elements: 1) the possibility of measuring results; and 2) knowledge about the process of transforming resources into results, i.e. how decisions and actions result in specified outcomes. According to Ouchi, output control can be effectively used in cases where results can be measured, even in the absence of knowledge about how such results are generated in the first place. For instance, it is quite difficult for university deans to monitor research productivity of faculty professors and their staff by directing their activities and behaviour. However, this dean may very well measure the results of such research in terms of the number of accepted publications in academic journals.

Behaviour control will be appropriate if management has detailed knowledge of the transformation process or if it proves to be too difficult to measure results in a reliable and objective manner. In such cases, management needs to track activities and determine whether activities are in line with expectations and forthcoming results. For instance, one may guide and direct behaviours of soccer players in ways that will benefit their teams, although there will never be a guarantee about how individual behaviours will eventually contribute to total team performance.

c. Clan control

Sometimes output or behaviour control may be too difficult. This will be the case if results can hardly be measured or if management does not have sufficient clues as to how results are achieved with given resources. Top management may exercise control in such cases by means of clan control. **Clan control** is a **culture**-based kind of management control. It works through a set of shared values. There is no need to measure performance or to exercise direct control of organisational behaviour, because all organisational members are intrinsically motivated to do 'the right thing'.

⁵ According to Merchant and Van der Stede (2017), an organisational culture may be also be promoted through selection and training.

		KNOWLEDGE OF THE TRANSFORMATION PRO						
		Perfect	Imperfect					
Y TO OUTPUT	High	Behaviour or output control	Output control					
ABILIT AEASURE	Low	Behaviour control	Clan control					

Figure 1.8 Classification of control types according to Ouchi (1979)

5.3 DIAGNOSTIC VERSUS INTERACTIVE USE OF CONTROLS

Simons (1987, 1990, 1995, 2005) proposed the concept of interactive control usage as an alternative to programmed or diagnostic control usage. These two kinds of control usage differ in terms of the extent to which top management is involved in decisions and activities of their direct reports. Management control systems are used in a **diagnostic or programmed** way if top management pays little attention to such systems or if they are only used in exceptional cases. In essence, top management considers monitoring and maintenance of the management control system to be the province of their direct reports. Thus, diagnostic use of controls is characterised by:

- the crucial role of staff members in preparing and interpreting control information;
- incidental involvement of managers regarding the management control process;
- formal report procedures to relay data and information; and
- the assumption that this process will lead to expected performance outcomes.

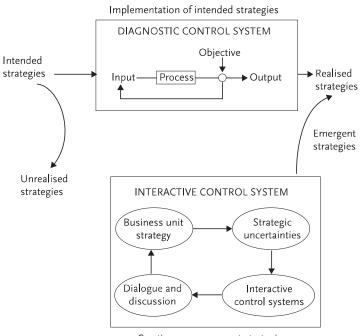
Top management will apply more **interactive** control usage as it decides to become more involved in control activities such as budget monitoring. According to Simons, interactive use of controls is characterised by:

- frequent attention paid to management control by all management levels of the organisation;
- interpretation and exploration of data and information during meetings between managers and direct reports; and
- continuous discussions on underlying assumptions and action plans.

Meetings and discussions allow top management to participate in decision-making processes of direct reports and to influence process outcomes in line with strategy without taking away autonomous decision-making by direct reports. Top management will engage in interactive control usage to trigger middle managers and employees to gather information about uncertainties and to reflect on new strategies.

Figure 1.9 contains a graphic expression of how programmed and interactive ways of control usage interact.

Figure 1.9 The role of diagnostic and interactive use of controls in the strategic management process



Creating new, emergent strategies

In addition to diagnostic and interactive control systems, Simons (1995) also defined beliefs systems and boundary systems. A **beliefs system** communicates core values in order to inspire and motivate employees to search, explore, create and expend effort engaging in appropriate actions (*cf.* clan/cultural control). However, in dynamic environments there must be some restraint placed on employees to stop them from engaging in high-risk behaviours. This restraint is the boundary system, which acts in opposition to the beliefs system. A **boundary system** 'delineates the acceptable domain of strategic activity for organizational participants' (Simons, 1995). The boundary system communicates the actions that employees should avoid. Its purpose is to allow employees freedom to innovate and achieve within certain pre-defined areas (*cf.* behaviour/action control). In his **levers of control framework**, Simons (1995) suggests that the four levers create tension in that two of the levers – the beliefs and interactive control system – create positive energy, while the remaining two levers – the boundary and diagnostic control system – create negative energy. To provide an effective control environment, all four control systems, working together, are necessary.

6 THE MALMI AND BROWN PACKAGE FRAMEWORK

In line with Malmi and Brown (2008), we broadly view management controls as 'systems, rules, practices, values and other activities management put in place in order to direct employee behaviour'. As such, the three building blocks of the management control system that we described above (structure, process and culture) are closely connected to Malmi and Brown's (2008) framework of management control systems as a package. Their framework encompasses five types of controls: administrative, planning, cybernetic, reward and compensation, and cultural controls (figure 1.10). Administrative controls direct employee behaviour through organisational design and structure (e.g. Otley and Berry, 1980), governance structures (e.g. Abernethy and Chua, 1996) and rules and policies (Simons, 1987). Planning can be a form of control when the planning process involves building employees' commitment to long-range and action plans. In particular, by allowing employees to participate in the formation of long- and short-term goals, planning may be used to guide and direct behaviour. Cybernetic controls direct employee behaviour through predetermined objectives, measurement of the achievement of the objectives, feedback information about the deviations and corrective actions. Reward and compensation controls focus on increasing effort to enhance the performance of individuals and groups within organisations. Finally, while Malmi and Brown (2008) acknowledge that organisational culture may at times be beyond deliberate design, they argue that it is nonetheless a control system when it is used to regulate behaviour. We will explore the use of company culture as a tool for management control in chapter 12.

The lower part of Malmi and Brown's framework depicted in figure 1.10 relates to the management control structure (administrative controls; see chapters 2–6), while the middle part (planning, cybernetic and reward and compensation controls) corresponds to the management control process (see chapters 7–11) and the upper part refers to the management control culture (see chapter 12).

Figure 1.10 Management control systems as a package (Malmi and Brown, 2008)

Cultural controls								
Clans			Values			Symbols		
Planning				Cybernetic controls				
Long range planning	Action planning	Ві	udgets	Financial measurement systems	Non-financial measurement systems	Hybrid measurement systems	Reward and compensation	
Administrative controls								
Governan	ce structures		0	rganisation stru	ıcture	Policies ar	nd procedures	

7 UNDERSTANDING MANAGERIAL BEHAVIOUR

As already mentioned, the purpose of management control is to motivate all organisational members to align their activities with the overall strategy and to have them achieve organisational goals both effectively and efficiently. Control is about influencing the behaviour of managers and other organisational members. This raises an important question: how to effectively motivate people and influence their behaviour?

Motivating and influencing people is a challenge experienced by managers in reporting relationships at different levels in the organisation. Boards look for the best controls to motivate the CEO to maximise corporate performance and shareholder value. CEOs have a challenge to motivate business unit and functional managers to improve performance and middle managers are faced with boosting the motivation of supervisors, employees and shop floor workers.

In their attempt to motivate subordinates, superiors may look at their control problem through different lenses and may implicitly use different underlying theories explaining human behaviour in organisations. In this section, we describe two important theoretical models underpinning management control system design choices: agency theory and self-determination theory.⁶

7.1 AGENCY THEORY

Agency theory models the **economic behaviour** of subordinates (called **agents**) in relationship to their superior (called **the principal**). Agency theory posits that principals and agents have their own and different interests. In a control situation, the principal expects that the agent will act in his interest (e.g. create shareholder value, increase profits, lower costs), but the problem is that the agent has divergent preferences and goals and only acts in his own self-interest.

Furthermore, the agent does not want to work hard (he is assumed to be work-averse), wants to have a high financial compensation, an attractive working environment, generous amounts of leisure time and flexible working hours, which most of the time is in conflict with the goals of the principal, who wants the agent to spend full effort in contributing to the company goals and strategies. In their day-to-day activities, agents tend to withhold effort (called **shirking**), especially when the principal does not monitor the agents' actions sufficiently (a situation referred to as a work environment with high **information asymmetry**). Shirking behaviour conflicts with the company's goal of productive use of resources.

⁶ Many more theories can be used to describe managerial behaviour and underpin expected effectiveness of proposed control approaches (e.g. Maslow's need hierarchy theory, goal-setting theory and organisational commitment theory), but their taxonomies usually contain elements that also play a role in agency theory and self-determination theory.

Finally, agents are also assumed to be **risk-averse**. They tend to be afraid to take risks because they do not believe that others will help them to solve possible work overload problems caused by their own risky decisions. The agent's risk aversion is a root cause of his propensity to demand slack resources and easy performance targets.

As tools to reduce the likelihood of shirking and unproductive use of resources, managers and control system designers may opt for **detailed monitoring and reporting** (e.g. tight behaviour control, use of a comprehensive performance measurement system, detailed and frequent analysis of costs and profits). Monitoring helps the principal to detect inefficient resource usage and spending such that corrective actions can be undertaken. In addition, **incentives** may be used to align the interests of agents with the goals of the principal and to create **goal congruence**. From an agency viewpoint, goal congruence may typically be achieved by linking bonuses to strategy-aligned performance measures. For example, when the company's strategy is sales growth through new customer acquisition and sales representatives have a strong interest in their own personal income, one may make their bonus a function of the number of new customers acquired. Under this compensation contract the agent will try to maximise his personal income by increasing the number of new customers, which is a behaviour fully aligned with the interest of the principal.

In day-to-day management practice, much observed managerial behaviour can be explained by agency theoretical principles, e.g. 'silo behaviour' of profit centre managers, dysfunctional behaviours in transfer pricing, managers putting effort only in activities that are rewarded in the yearly appraisal system, professors only willing to teach more hours when their additional effort is compensated (e.g. by increasing the assigned support staff), managers not allowing their subordinates to work at home because they fear shirking behaviour, managers imposing extremely difficult performance targets on subordinates to make sure that they will not have any time left for unproductive activities, etc. Such behaviours are experienced as myopic and mechanistic, do not provoke trust and require frequent negotiation between managers and subordinates to define new win-win collaboration agreements. These types of behaviours are symptomatic for organisations where managers and control system designers only have a narrow understanding of human motivation.

Agency theory only describes the economic behaviour of organisational actors. Motivating subordinates cannot be limited to monitoring people and negotiating contracts. Motivation of people also depends on the social conditions in which they work and requires an organisational context where superiors fully understand the intrinsic motivation and the innate psychological needs of their subordinates. Self-determination theory provides a broader and richer perspective of the regulatory processes of self-motivation and healthy psychological development.

7.2 SELF-DETERMINATION THEORY

Self-determination theory (SDT) posits that superiors in a control situation can adopt a more positive and **psychological view** on subordinates' willingness to perform and that people's engagement and self-motivation largely depends on the social context in which they work (Ryan and Deci, 2000). SDT sheds light on the different sources of work motivation. According to SDT, all human beings have an innate drive to spontaneously assimilate, explore, learn and master. So, work motivation partly resides in people. All managers and subordinates are endowed with what is referred to as **intrinsic motivation**. People are intrinsically motivated when they execute an activity, because of the activity itself and because of the satisfaction they experience by doing it: for example, teachers who like to teach children, engineers who enjoy developing new products, IT specialists who happily engage in process automation. This means that management control systems should be supportive to people's spontaneous actions and should facilitate and not undermine intrinsic motivation.

However, in managing and controlling corporate performance, intrinsic motivation of managers and employees is not enough. In most cases, people have to engage not only in activities that they enjoy, but also in activities that are experienced as less interesting. For example, in an IT consulting company, IT specialists may be intrinsically motivated to implement advanced IT solutions, but they also have to increase sales, manage the billability of their subordinates, write proposals, assure effective and efficient project management, deliver projects on time and show sufficient flexibility to changes of the customer needs. So people also have to engage in extrinsically initiated behaviours. This type of engagement is called **extrinsic motivation**. Under extrinsic motivation, people do not execute an activity because of the satisfaction it will give them or happiness it will bring them, but to achieve a mandatory result. Whereas intrinsic motivation resides in people, extrinsic motivation is directed by external sources (e.g. the company strategy, customer expectations, etc.).

The key challenge in management control is: **how to motivate managers for extrinsically initiated behaviours?** For example: how to motivate IT specialists to improve the billability of subordinates, to deliver projects on time and to act flexibly?

In an attempt to motivate managers for extrinsically initiated behaviours, superiors may choose to measure performance related to these behaviours (e.g. measuring billability, on-time delivery of projects etc.), periodically evaluate managers' performance and link their bonus to the performance. Such control systems will stimulate subordinates to deliver the expected performance but when subordinates are asked: 'Why do you spend so much effort on these performance dimensions?', the answer usually is: 'I have to, because otherwise I may miss my bonus.' Such type of behaviour is called **controlled motivation**. Under controlled motivation, managers' actions are mainly or only the result of 'pressure from above' and are not self-determined. This means: the choice of engaging in the activity is not their free choice.

A further question in control is: how can we motivate managers for extrinsically initiated behaviours not because they *have* to but because they *want* to? SDT differentiates between autonomous and controlled motivation (Deci and Ryan, 1985; Deci, 1975). Under autonomous motivation, people do the things they do 'because they *want* to'. **Autonomous motivation** involves the regulation of behaviour with the experience of volition, psychological freedom and reflective self-endorsement. Autonomous motivation is about exercising free will by managers and direct reports.

Intrinsic motivation is a form of autonomous motivation, but also **extrinsically initiated behaviours can be transformed into autonomous motivation**. SDT posits that externally initiated actions and behaviours may become internalised causing people to act and behave in ways as if they had been intrinsically motivated to initiate these actions and behaviours. In this way, extrinsic motivation becomes autonomous or self-determined extrinsic motivation (Deci and Ryan, 2000). This can be done by creating an organisational context (and management control processes) in which managers are highly involved and internalise (say: become owner of) the values, strategies, attitudes and regulatory structures.

SDT also offers more details on various forms of autonomous and controlled motivation. Figure 1.11 provides a complete overview.

a. Types of autonomous motivation

As already mentioned, a first type of autonomous motivation is **intrinsic motivation**. People freely choose to engage in the activity, because of the activity itself and because of the satisfaction they experience from doing it.

The second type of autonomous motivation is referred to as **motivation through identified regulation**. This is the lightest version of autonomous extrinsic motivation. This kind of motivation causes managers and direct reports to consciously adopt extrinsically initiated behaviours because they consider these goals to be personally relevant and important. For instance, IT professionals with an intrinsic motivation for process automation projects engage in sales and business development activities because, during an internal strategy workshop, they identified the need for enhanced business development to preserve continuity of their consulting unit. In this way, these IT professionals will have acquired identified motivation to reach out for more new prospects.

A third type of autonomous motivation is referred to as **motivation through integrated regulation**. This is the most autonomous form of extrinsic motivation. In this case, extrinsically initiated behaviours are completely internalised and are brought in congruence with people's personal values and needs. For example, integrated motivation triggers IT professionals to engage in business development activities not only because these professionals consider this to be important for their company, but also because they feel part of the company, feel the ambition to grow and like to contribute to the goal of becoming the market leader. For example, integrated regulation is likely to happen when managers are invited to co-create strategies, processes and

control systems in active collaboration with top management. Participation of middle managers in design and implementation processes motivates managers to take full ownership, because 'people embrace what they have created'.

b. Types of controlled motivation

Controlled motivation can be determined by external (external regulation) or internal (introjected regulation) controlling imperatives.

A first type of controlled motivation is **motivation induced by external pressure** and is referred to as **external regulation**. Managers and direct reports will take action to comply with rules and procedures or because of bonus schemes and sanctions. In such a case, our IT professionals will engage in business development activities because part of their payment scheme relates to the achievement of revenue targets.

A second type of controlled motivation is **motivation induced by internal pressure** and is referred to as **introjected regulation**. Managers and direct reports may carry out activities and achieve results out of feelings of guilt, pride or fear of losing their reputation. For instance, our IT professionals may engage in business development activities purely because their colleagues engage in such activities or because they fear to be seen as a non-loyal staff member.

Figure 1.11 The different types of motivation according to self-determination theory (Ryan and Deci, 2000)

	Extrin	sic motivation		Intrinsic motivation
External regulation	Internal regulation	Identified regulation	Integrated regulation	Intrinsic regulation
Controlled motivation 'having to'		Д	Autonomous motivati 'wanting to'	on

Least self-determined

Most self-determined

c. The positive consequences of autonomous motivation

Research (Gagné and Deci, 2005; Vallerand, 1997) provides evidence for positive consequences being associated with autonomous types of motivation and negative consequences being associated with controlled types of motivation. In particular, autonomous motivation types are associated with 'greater persistence, more effective performance, higher quality relationships, and better social adjustment and well-being' (Vansteenkiste et al., 2008). Excess controlled motivation gives rise to increased stress and burnout (Deci and Ryan, 2004).

Similarly, Bono and Judge (2003) found that autonomously motivated employees have greater affective organisational commitment and greater job satisfaction. Managers with strong affective commitment will act in the interests of the organisation just as they would in their own because they have come to perceive the interests as identical (Buchanan, 1975; Kim and Mauborgne, 1998). These managers align with the organisational goals and feel positive about them. Conversely, managers with low organisational commitment are primarily driven by satisfying their individual goals and ambitions.

Using questionnaire data obtained from 186 managers from different Belgian companies, Van der Hauwaert (2014) showed that in a performance measurement context enhanced autonomous motivation had a significant positive effect on managerial performance. Her findings also revealed that in this context, controlled motivation did not significantly influence managerial performance.

In summary, controlled types of motivation are more likely to produce negative effects, while autonomous types of motivation will more likely foster positive outcomes, especially for relatively complex tasks (Gagné and Deci, 2005; Vallerand, 1997).

d. The role of need satisfaction

SDT proposes that control systems will lead to autonomous or controlled types of motivation, depending on a differential degree of basic psychological need satisfaction. In particular, SDT posits **three basic psychological needs** innate to all humans: the need for autonomy, the need for competence and the need for relatedness. The need for **autonomy** refers to the need to feel strong-willed and fully endorsing one's actions (Deci and Ryan, 2004; Deci, 1975). The need for **competence** implies that people want to experience opportunities to exercise and express their capacities and hence feel a sense of confidence (Vansteenkiste et al., 2008). The third basic psychological need, the need for **relatedness**, denotes caring for and feeling cared for by others (Ryan, 1995). If those three basic needs are satisfied by the management control system, managers will experience an autonomous type of motivation. Satisfaction of basic psychological needs provides the nutriments for intrinsic motivation and internalisation (Gagné and Deci, 2005). If the three basic psychological needs are frustrated by the control systems, managers will experience a controlled type of motivation.

In summary, SDT suggests that in the design of management control systems, companies should try to stimulate managers' autonomous motivation as much as possible. This can be achieved by satisfying their basic psychological needs. By addressing autonomous sources of motivation, managers will achieve results without compromising on satisfaction and well-being. Autonomy-supportive control systems contribute to create a high-performance organisation where 'managers work hard and also have fun'. However, management control systems that trigger controlled motivation and negatively affect competence feelings, perceived autonomy and relatedness are expected to create frustration and stress.

Examples of controls enhancing autonomous motivation are:

- delegation of profit responsibility to profit centre managers (chapter 4);
- participative budgeting (chapter 7);
- 'bottom-up' establishment of performance indicators (use of enabling performance measurement systems, chapter 9)
- interactive use of performance reports (chapter 9);
- participative team processes for strategy development and implementation (development of a strategy-focused organisation, chapter 10); and
- constructive feedback on performance data (chapter 11).