

Introduction to Management Accounting and Control

FEATURE STORY

It's Monday morning, 9 o'clock. Pekka Virtanen, general manager at FinnXL, one of the largest furniture companies in the world, calls for a meeting with his chief controller, Linn Petersson.

One of FinnXL's production facilities in Estonia is under discussion for a major restructuring. The profitability of the production site has dropped severely in the last six months. Pekka is responsible for the Eastern European operations, and FinnXL's top management has instructed him to solve the problem.

Pekka: Good morning Linn. Great that you could make it at such short notice. As I told you last week, we need to find a solution for our Estonian production facility.

Linn: Absolutely. I've collected all the numbers from the last six months. It seems that the performance indicators correctly identified the downward trend.

Pekka: Good to hear that our performance measurement system works. But what does this mean for us? What are our options? We need to fix this.

Linn: I have worked out three scenarios for the upcoming six months. All results point towards restructuring the plant. So my recommendation is that you should not wait any longer.

Pekka: Restructuring means laying-off a larger percentage of the employees. Let me have a closer look at your scenarios, please. I'm sure you'll have included all the financials in your model, but have you considered potential employee reaction to the restructuring plans? I remember some five years ago, when I was the plant manager at our production site in Poland, that the financial forecasts, which had been prepared by the central accounting department, were too optimistic. They underestimated the negative effects on employee motivation.

Linn: I have to admit, employee reaction is not explicitly considered in my model, as this is really difficult to quantify. But I have looked up FinnXL's experience with restructurings in the Baltic states. In recent years, the actual performance never departed more than 25 per cent from the forecasts. If you take a look at the three scenarios, you will see that even with a 25 per cent variance from the plan, the performance after restructuring will bounce back to profitability.

Pekka: Ok, thank you Linn. Please provide me with a three-page PowerPoint summary of your analyses which I can present to our CEO. We'll have a final decision by tomorrow, noon.

LEARNING OBJECTIVES

After completing this chapter, you should be able to:

- 1 Understand the concepts of management, accounting, and control
- 2 Define management accounting and management control
- 3 Describe the role of a controller in an organization
- 4 Understand how companies structure the management control function
- 5 Distinguish management accounting from financial accounting
- 6 Describe performance measurement and performance reporting
- 7 Describe major trends in the business environment that shape management accounting and control
- 8 Understand the importance of ethical practice in management accounting and control

The Concepts of Management, Accounting, and Control

A Definition of Management

Imagine you are in the role of Pekka Virtanen, the FinnXL manager in our short story above. What day-to-day activities do you perform as a manager? What functions will you assume in a business to keep operations running? What are your goals? This leads to the general question as to what the term “management” stands for.

A commonly cited definition is that management in all human organizations is the act of getting people together to accomplish desired goals and objectives. According to management guru Henri Fayol, who is considered to be a founder of management theory, management consists of five functions (original French terms in brackets):

- Foresight and planning (prévoir)
- Organizing (organiser)
- Commanding and leading (commander)
- Coordinating (coordonner)
- Monitoring (contrôler)

The **planning function** involves setting up plans and forecasts for the future. In businesses these are often expressed in financial terms and are called budgets. Planning and forecasting are not synonymous in business. Plans deal with events and states that can be influenced, whereas forecasts deal with uncontrollable factors. Thus, you will forecast tomorrow’s weather (because there is nothing you can do to influence it), but you can plan what you want to wear tomorrow (because choice of appropriate clothes is at your discretion).

Planning is important for managing a company. It involves making decisions, such as investment decisions. Most management decisions are based on the future plans of the company. Of course, managers cannot perfectly foresee the future. When managers make decisions they rely on forecasts which involve considerable uncertainty. Nonetheless, planning and forecasting prepares the organization for different potential situations in the future.

Businesses typically have a defined structure. Managers must **organize** the resources of a business, meaning they arrange the different elements of an organization into a purposeful and efficient order or structure. Such elements or resources involve assets, funds, human resources

(workforce), and information. Typically, managers choose a hierarchical structure for managing the resources of a company.

Such a hierarchical structure of an organization facilitates and supports management to execute the function **of commanding and leading**. Commanding and leading is probably the most obvious function a manager must perform. It can be defined as influencing people to reach a desired goal. Such a goal could be to increase revenues, to reach a budgeted profit, or to guarantee specific quality standards in production. Influencing people is done either through communication or through structure. While commanding rather emphasizes the communication of goals and tasks, leading is broader and includes additionally influencing people through a deliberately chosen structure. This could be an organizational chart defining responsibilities or a process in production. Think of an assembly line in a factory, where every task of a worker is strictly defined and timed without a supervisor having to give instructions.

Coordinating implicates that managers must harmonize and integrate the structures, the processes, and the activities performed by the people in a company. Only through coordination can a company ensure that the resources are utilized most efficiently to reach the organization's goals.

Monitoring means checking if an organization's activities are consistent with its targets and goals. Managers want to make sure that things evolve in the intended manner: goals have been set with the intention of achieving them, projects have been started in order to be completed as planned, and rules have been set based on the expectation that they are followed. Deviations from targets have to be detected and reported, so that appropriate corrective actions and initiatives can be taken.

A Definition of Accounting

Now that we have familiarized ourselves with the term management, let's move on to the next important concept: Accounting. Accounting denotes the system that records, analyzes, and reports all business transactions of a company in a systematic and comprehensive manner in order to provide useful information to users. Accounting is a "system" because it comprises various elements that are logically connected with each other: individuals (accountants) use various tools (for instance computers and accounting software) and follow certain procedures in order to produce its main output: information. Accounting systems typically record only quantitative information.

What is the job of an accounting system? It records business transactions. A transaction is any event that affects the stocks and flows of goods and resources such as inventories and machines. An accounting system records these flows and stores the stocks of goods and resources. The information is continuously gathered, processed, and finally reported to the users of accounting information.

Accounting systems by nature record only quantitative data, namely financial data. Accounting is often referred to as the language of business. Accounting is the language used to describe and to report the financial performance of a business organization.

The users of accounting information can be outside or inside a company that is preparing the numbers. In this aspect, we distinguish financial accounting from management accounting. We will come back to the differences between these two types of accounting later in this chapter.

A Definition of Control

Control is a device, a system, or an activity which helps you to influence an object. A controlled object does what you want it to do. Think of a remote control of your TV that you use for zapping through the boring Saturday evening program, or a radio-controlled toy car that you steer through a course. These devices are your controls that you need to reach a defined aim.

Let's take a closer look at the conceptual elements of control. In order to control an object, you need at least the following elements:

1. A detector or sensor – a device that measures what is actually happening
2. An assessor – a device that determines the difference between the planned or expected and the actual situation
3. An effector – a device that influences the process if the assessor indicates the need to do so (also called “feedback”)
4. A communication network – devices that transmit information between the other three elements

Exhibit 1.1 shows the interplay between the four elements of control. The dotted lines represent information flows, delivered by the fourth element, the communication network.

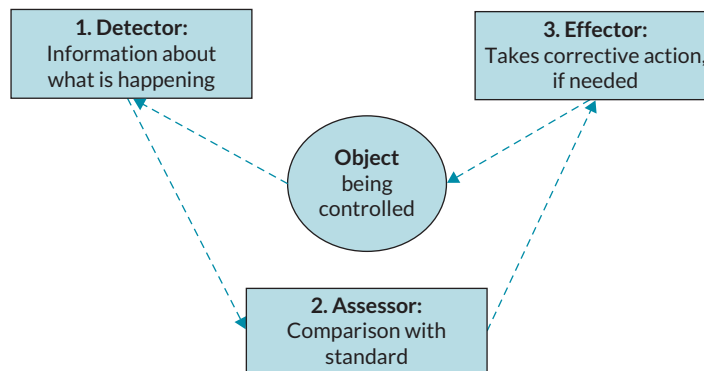


Exhibit 1.1 A control system.

Source: adapted from Anthony/Govindarajan (2007), p. 3.

Picking up on the example above, imagine that you watch TV on a Saturday evening and the current program is not what you had been looking for. You press the remote control and change the channel. However, before this happens, a control process has implicitly taken place. What elements of this system have been in action?

First, your eyes (the detector) have observed the current program. This information is delivered to your brain (your assessor). Your brain compares the actual status with a desired situation. It figures out that the program is too boring. It transmits via your nerves (the communication network) an instruction to your finger (the effector) to push the remote control, which changes the channel. Your eyes will then confirm to your brain that the desired aim has been reached (i.e. switching the channels).

Another example would be eating hot soup, where your tongue is the detector that feels the heat and your brain instructs you to wait until it cools down a bit. These are of course very simplified depictions of control processes, but you should have noted by now that control happens just about everywhere and all the time.

Bringing it Together: Management Accounting and Management Control

Now let's combine the concepts by applying them to business entities. We defined **management** as the act of getting people together to accomplish desired goals and objectives. **Accounting** is a system that records, analyzes, and reports all business transactions of a company. **Control** is a system or activity which helps you influence an object so that it performs in a desired manner.

Management Accounting

Managers are the decision makers within a company. As we defined before, managers must plan, organize, command and lead, coordinate, and monitor the activities of the business. Management is not confined to the company's top management only. In fact, management tasks can be found at different hierarchical levels: project managers, key account managers, product managers, etc. all perform management tasks and have a need for information in order to accomplish their tasks. Since accounting records all activities of the entity, their main information source is **management accounting**. Management accounting is the internal accounting system that supports managers in carrying out management tasks.

How does accounting information support managers? Let's look at some examples. At regular intervals, management will plan for the next period. This process is called budgeting. Such a plan can serve various purposes. For instance, the budget can be used for communicating a target to employees. Management could define sales targets for the upcoming Christmas business. A budget serves as orientation for employees and managers on all levels.

Resources of the company such as plant assets, cash, or inventories, as well as employees, have to be organized, coordinated, and monitored. For an efficient utilization of assets, managers need precise information. Airline managers at Lufthansa need to know the capacity utilization of their aircraft. They need information on the number of flight tickets sold and prepaid. Managers at car manufacturer Daimler will ask for the cost of raw materials used in car production. How many cars have been produced on stock during the last month and have not yet been sold? Managers at Procter & Gamble will monitor the performance of each of their brands sold in a particular country. What are the total marketing expenditures in India or how much is spent on research and development (R&D) of a new shampoo in the US?

These are examples of internal information provided by the management accounting system which will enable managers to make decisions for the future. We will get back to management accounting later in this chapter and further explore its characteristics.

Management Control

When we apply the concept of control to a business environment we come to the concept of management control: An organization must be controlled; that is, devices, systems, processes, and activities must be in place to ensure that its plans and goals are achieved. Management control combines both aspects: While management deals with getting people together for a desired goal, control makes sure that management actually reaches this goal. Thus, management control assists managers in ensuring that a company reaches its strategic goals.

This leads us to briefly turn to another concept: **strategy**. Companies define and communicate strategies. What is a strategy? It is the sum and combination of all intended activities to bring about a desired future. Simply speaking, it is the plan or route to reach the company's goal(s).

Strategies for businesses come in various forms. They are communicated within the firm or printed in glossy brochures. They are discussed in journals and newspapers and debated in business forums. They become visible when we observe how companies do business and compete with others. The most commonly known strategies have been defined by strategy guru Michael Porter: Cost leadership vs. differentiation. According to this theory, companies can be successful by either offering the lowest prices (paired with lower quality) or choosing to offer unique products and high quality at higher prices. In short, either you are the cost leader or you offer the best product. According to Porter you can't do both at the same time (we'll come back to this in Chapter 9). Of course, in practice, these generic strategies are further broken down to more detailed plans or routes to reach company success. The overall strategy of a firm will be a composition of sub-strategies that interplay with each other to reach the overall company goal.

Whatever strategy the management of a business may choose, management control is a set of activities, systems, and processes by which managers influence other members of the organization to implement the company's strategies. Management control is not about formulating these strategies. But management control focuses on the best possible execution of a company's strategies.

Finally, how does management accounting fit into this context? Management accounting is an important tool for management control. We outlined before that management accounting is the main information source for managers. It provides essential information for decision making. It is the language to communicate past performance and future targets.

Management accounting has a broad use. It is the internal information system that supports the management control function, but also strategy formulation and goal setting. Management accounting spreads an "information net" underneath these tasks. Defining and implementing this information net becomes a management accounting task of its own, which is known as **management reporting**. We will deal with management reporting in more detail in Chapter 2 of this book.

Exhibit 1.2 visualizes the interplay between managers, management accounting information, and the management control function. Managers formulate and communicate strategies that are designed to reach a company's goals, such as maximizing profit or increasing shareholder value. Different systems, processes, or individual activities are in place to ensure that the strategies are executed. This is the management control function. Both management and management control make use of the information provided by the management accounting system through a structured management reporting system.

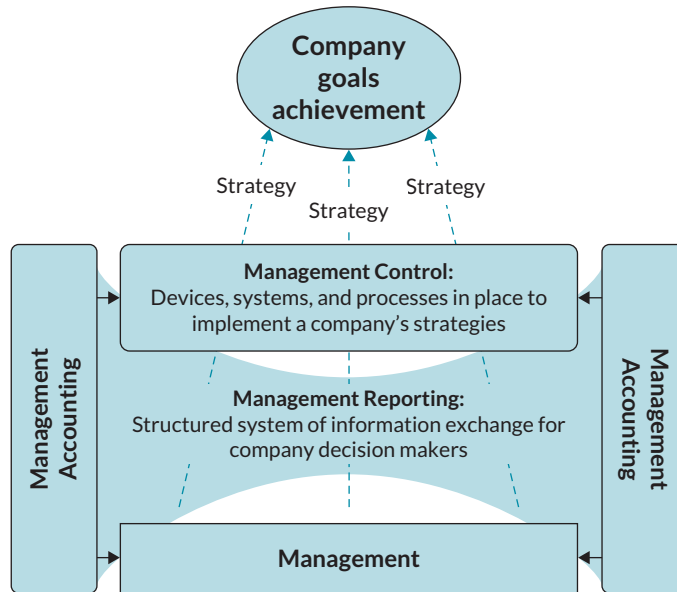


Exhibit 1.2 Interplay between management, management control, and management accounting

Let's dive a bit deeper into the management control function. What exactly does it mean to assist managers in implementing a strategy? What system or procedures do companies have in place to reach a certain goal?

In modern business organizations, management control is implanted literally in all parts of the company. Core elements of management control systems include (see Exhibit 1.3):

1. Operational planning

Management control translates a strategic plan into an operating plan. A strategy is by nature rather general, top-down, and includes few concrete instructions. An operational plan is more detailed and guides what has to be done, when, and by whom. While a strategic plan is for the longer term (5–10 years) an operational plan typically is for the current and the next few accounting cycles (1–5 years). While strategies define the overall framework a business operates in, the operational plan tries to make best use of resources within this framework.

2. Budget preparation

A budget is the financial expression of an operational plan. Budgeting is a process that is carried out at regular intervals with the aim of having a formal document outlining the financial targets for the next period.

3. Resource allocation (capital budgeting)

Doing business means dealing with scarce resources. Assets like cash, machines, or intellectual property rights are limited. Allocating resources means moving the limited funds to those activities and projects of a company that create the highest value. Thus, resource allocation is actually the genuine investment decision.

4. Performance measurement

Planning without ex post control would be useless and a waste of resources. Successful businesses ensure that set targets are achieved and budgets are met. Measuring the performance of the company's operations is essential. It allows a business to monitor its success. Performance measurement includes collecting feedback by comparing own performance with historical figures or with competitors (external benchmarks).

5. Evaluation and employee compensation

Management control systems have to ensure that an organization's strategies are executed. An organization consists of people working together across different functions and hierarchies. There might be a defined goal for the entire organization (such as profit maximization), but the individual human beings will have additional personal goals (like maximizing personal wealth or more free time). Therefore, management control must align company goals with the personal goals of managers and employees. A commonly used concept is to install monetary incentives. Personal performance targets are defined and mutually agreed. When a target is achieved, the employee receives a monetary compensation such as an annual bonus. Most companies have management and employee compensation schemes in place. Thereby, management control involves influencing members of the organization to implement a company's strategy.



Exhibit 1.3 Elements of management control

These elements are found across all divisions or parts of a company. Who operates these systems and processes of management control? Who executes management control activities? We will answer this in the next section.

The Role of a Controller in an Organization

Looking at the components of management control as described in the previous section, it's obvious that some of the activities involved are general management functions. Management control activities apparently overlap with the previously defined functions of management: Planning, organizing, coordinating, leading, monitoring. Does this mean that management control is executed by managers alone? In most companies, management is assisted in the management control function by specialists that are called "controllers." What is the job of a controller?

The term controller has its origins in the American controller or comptroller – itself a combination of the French word "compte" (for "account") and the English notion of "counterroller" (somebody who checks scroll copies). In the past, the "comptroller" in its original sense was a function specializing in supervising and inspecting budgets or public accounts. Private enterprises in the US frequently have assigned the title of "controller" to the top financial accountant who is in charge of supervising accounting staff and preparing accounting information for both internal and external decision makers.

In this book, we follow a broader perspective on the role of a controller. Today's controllers have a much more comprehensive set of tasks to accomplish. A controller is no longer confined to supervising his master's treasury or keeping public accounts. The modern controller is more of a business partner to management. We treat the terms "management accountant" and "controller" as synonyms, even though we continue to mainly use the term "controller" in this book.

Controllers occupy themselves with a wide range of tasks that are all focused on providing support to company management. Controllers perform the following activities:

1. Reporting and documenting information about company activities
2. Leading and coordinating planning and budgeting activities
3. Measuring and analyzing the performance of the organization, including variance analyses
4. Consulting managers in decision making and other project work
5. Cost management
6. Performing investment analyses (capital budgeting)
7. Processing data
8. Analyzing the organization's economic environment and the competition
9. Participating in strategic planning
10. Initiating continuous improvement actions

The list contains the most important activities, but further activities may be added. Looking at the list, it becomes clear that the role of a controller is not synonymous with the management control function, as described in the previous section. In fact, management control (as a task or function) is a joint task carried out by managers and controllers. Management control happens right at the interface between managers and controllers.

A controller is considered the critical counterpart to management. While management is responsible for setting goals, making decisions, and enforcing these decisions, the controller is responsible for supporting managers by analyzing options, planning ahead, monitoring past

performance and coordinating activities in order to ensure goal achievement (see Exhibit 1.4). These two roles complement each other and it is the intersection of these two profiles where “true” management control happens. Sometimes controllers are compared with air traffic controllers or harbor pilots. Their main task is to keep an object (a ship, air traffic, a process) under control, i.e. within defined boundaries or limits that have been set by other parties (management).

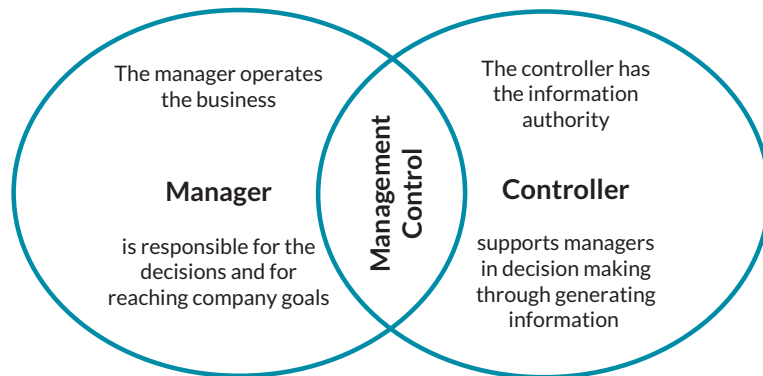


Exhibit 1.4 The roles of managers and controllers

Source: Adapted from the International Controller Association (ICV) and the International Group of Controlling (IGC).

Take a look back at the beginning of this chapter and reflect on the short conversation between Pekka and Linn at FinnXL. Pekka, being the general manager of the Eastern European operations is responsible for the decision to restructure a production site. His counterpart is Linn, who provides Pekka with data and analyses to support Pekka’s decision making. She will make sure that a decision is found on the basis of rational arguments.

Skill Set of a Controller

A controller might act as an internal consultant to the manager and as the economic conscience preventing managers from making inefficient decisions. In short, a good controller is the manager’s right-hand man or woman. However, assuming such a complex role requires a special set of skills and competencies.

Managers set goals and make decisions about measures and resource uses that are best suited to achieving these goals. Decisions made must be enforced; staff must be motivated and guided in order for all organization members to contribute to goal achievement. In order to accomplish this demanding set of tasks, managers rely on the support of controllers. One of a controller’s main responsibilities is to provide transparency to management: transparency on the economic framework the business is operating in, on the alternative routes available to realize set goals, and on possible effects of these alternative routes. Controllers must be able to turn “data” into “information.” Data becomes information only if and when it is goal-relevant and purposeful. Controllers thus must process data in order to derive information that is relevant for managers. In order to do so, they must be familiar with the technical skills and tools needed to collect, analyze, transform, and communicate business information.

Modern controllers do not renounce their accounting origins. Accounting information is a key input for a controller's work, but it is not the only input. Controllers need a more than thorough knowledge of both financial accounting and cost accounting, but in order to fully live up to management's expectations, a controller must be familiar with many more techniques in strategic and operational planning, information processing, and process management.

But being an academic expert is still not enough. While managers predominantly are decision makers and motivators, controllers need to assume the role of coordinators, sparring partners, and economic think tanks. Technical skills alone would not be sufficient. The ideal controller also brings along business acumen. By business acumen we understand business experience in operating activities, outside the field of accounting. An example would be someone who in their working life has been responsible for revenues, profits, and employees for a couple of years.

So far, we have been talking about the ideal controller. In practice, however, we find various profiles that can be categorized. We can observe people with four different skill sets working in the internal accounting and management control functions or departments (see Exhibit 1.5). We would not call all of them ideal controllers.

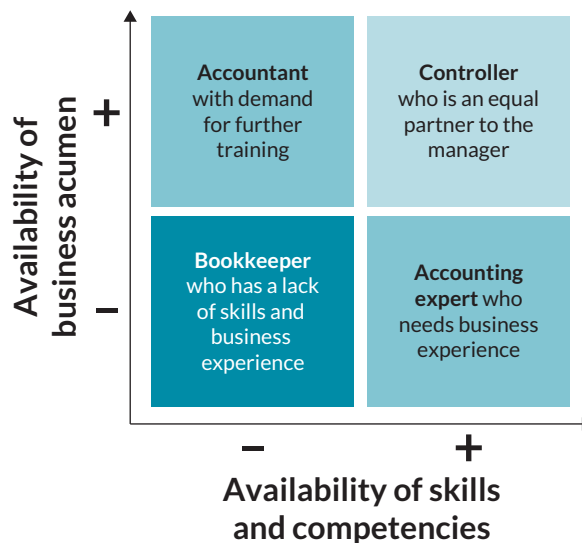


Exhibit 1.5 Skills of controllers

In a frequently cited quote, Harvard emeritus Robert N. Anthony states that “in practice, people with the title controller have functions that are, at one extreme, little more than bookkeeping and, at the other extreme, de facto general management” (Anthony, *Planning and Control Systems: A Framework for Analysis*, 1965, p. 28).

Corresponding with this view, we consider people working in an accounting environment who have only few accounting skills and basically no or little experience in business practice as a bookkeeper or scorekeeper. In Exhibit 1.5, such a person would be located in the bottom left corner.

With a thorough training in management accounting and control tools and techniques, this person can move to the bottom right and become an accounting expert who has state of the art technical skills.

On the other hand, a person who has gathered significant business and market expertise would be located in the upper section of Exhibit 1.5. This could be someone coming from a general management position, maybe even with a technical education background rather than a business education background. If this person lacks the skills required in planning, performance measurement, and reporting, we would consider them an accountant due to their job description. But they will not be able to serve the manager as a coordinator or advisor in management control.

In our view, a controller in the true sense of the word would be someone who combines business acumen with the technical and analytical competencies in accounting, planning, information processing, and process management. This person would be located in the upper right box of Exhibit 1.5. With such a profile, a person will be able to support managers in achieving the goals of an organization. They will be an equal partner to the manager, being able to coordinate and lead the planning process, to guide decision making, and to consult in unexpected situations that require judgment. This would be the perfect controller that is wanted by most organizations.

Stepping out of university with a degree certificate in your hands will not make you a perfect controller from day one. Having studied management control (e.g. by reading this book) alone will not be sufficient to become a complete controller. It will lay a good foundation, though.

The Management Control Function in a Corporation

Where do we find controllers in an organization? Simply speaking, controllers are found where managers are. While there are different management hierarchies in a business, there are also different hierarchies in management control. Management control departments employ accountants and controllers with different skill sets. They are typically headed by a chief controller who often directly reports to the Chief Financial Officer (CFO) of the company.

Management control departments are often incorporated in an overall accounting department. Within such an accounting department, further subdivisions for bookkeeping, tax accounting, and financial reporting may exist. A typical organizational chart of a larger corporation is shown in Exhibit 1.6.

Specialized departments for different accounting and management control functions are typical for larger companies. Large corporations, for example, may have a separate unit which only deals with managing payables and receivables. The smaller a company is, however, the less likely are such subdivisions. In fact, in small firms, the accounting department itself might even be integrated with the corporate finance function and performed by only one financial manager.

But controllers are not only found at a company's headquarters. Since controllers support managers in strategy implementation and decision making, they are found at all levels and in all divisions of an organization. Controllers work in central headquarters as well as in decentralized operating divisions.

Look at the example of Bayer AG, the life science company, well-known for its pharmaceutical products such as Aspirin. Bayer has grouped different management functions in its corporate

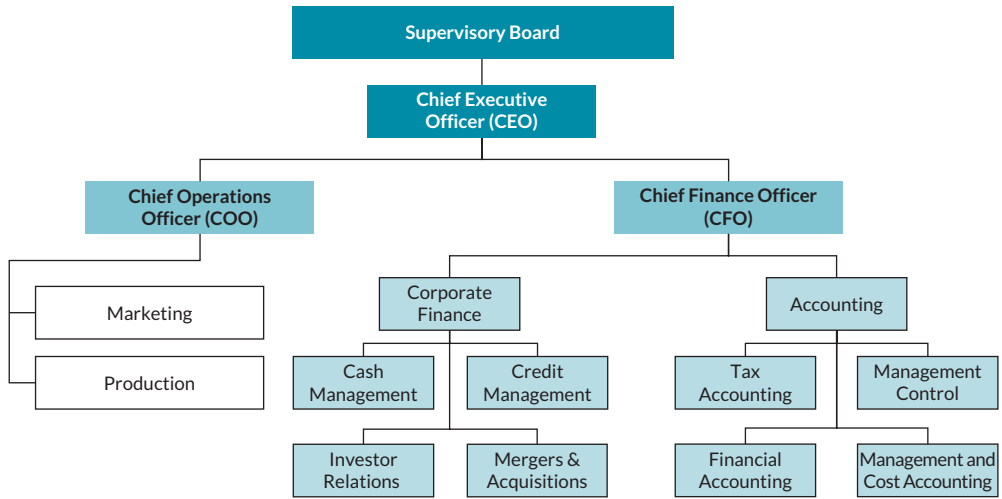


Exhibit 1.6 Exemplary organizational chart of a corporation

center. Among marketing communication, legal services, and finance functions, you find the management control function circled in Exhibit 1.7.

At Bayer, however, controllers are not only found in the corporate center. Also in the business areas of pharmaceuticals, consumer health, and crop sciences, controllers do their job. They support operating managers in the day-to-day business activities of manufacturing and selling products and services.

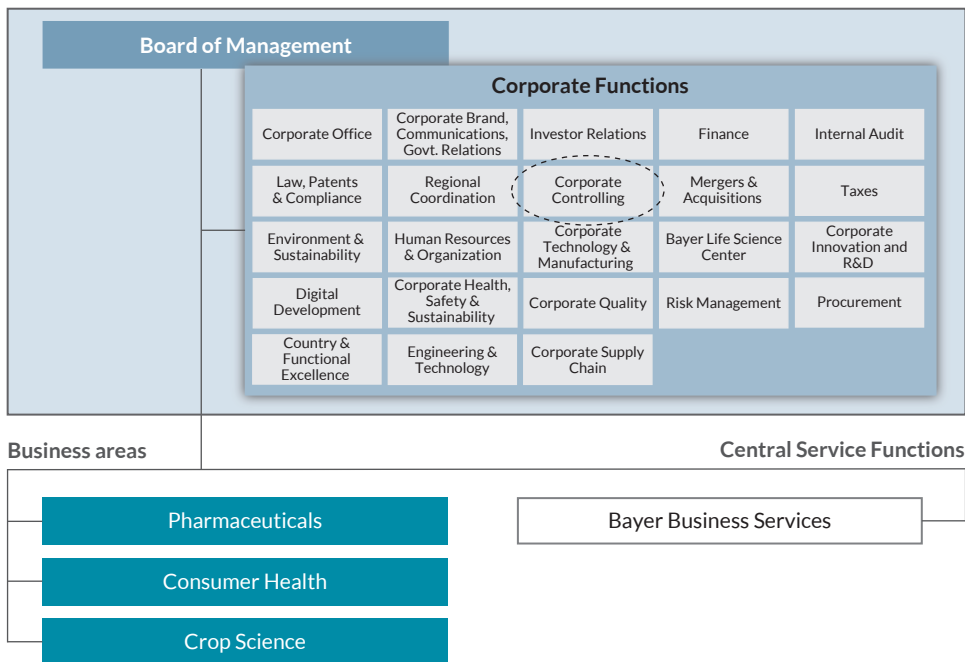


Exhibit 1.7 Corporate Structure of Bayer AG.

Source: own illustration, information taken from Bayer AG, organization chart July 5 2016, retrieved from <http://www.bayer.com/en/profile-and-organization.aspx>.

Management Accounting vs. Financial Accounting

Earlier in this chapter, we defined management accounting. We described it as the internal accounting system which provides information to managers and controllers to support analysis, planning, and decision making. But management accounting is just one part of the “accounting family.”

Quite often, the accounting system of a company is divided into two specialized subsystems. The most important link between all accounting subsystems is their common information base. We will explore these individual accounting subsystems in this section. The basic accounting system serves as the foundation for its other accounting siblings, namely financial accounting on the one hand and management accounting on the other (see Exhibit 1.8).

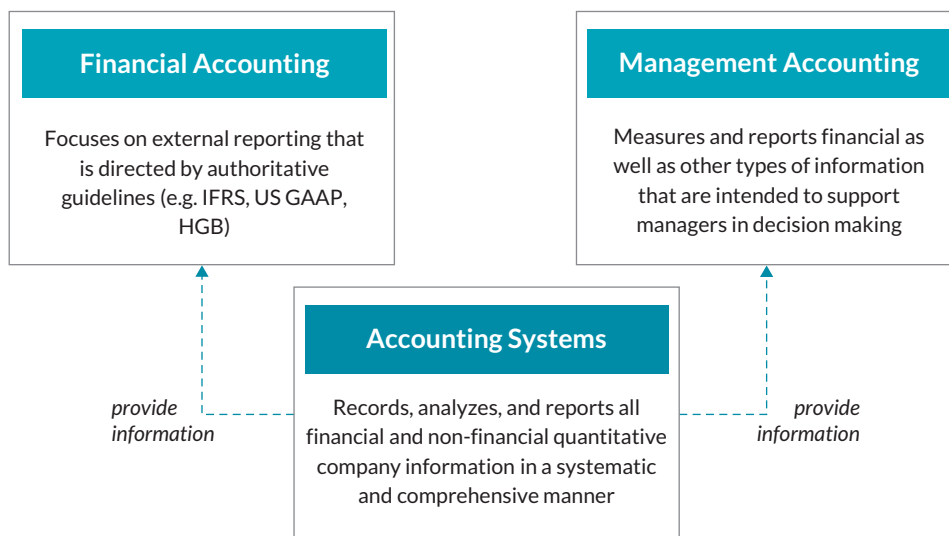


Exhibit 1.8 Accounting systems

Accounting information serves different purposes and its users have different needs. This information variety can be generated only if the company’s accounting system is further differentiated. The “accounting family” comprises several “relatives.” And just as in a family of humans, family members share certain common traits, but differ from each other in some other characteristics.

Financial Accounting

Many different stakeholders want to learn more about a company’s business. Creditors might want to know whether the company stands a good chance of paying back loans. Investors might want to assess whether the company has a successful business model that promises high returns in the future. Tax authorities have to determine a base for the company’s tax payments. Suppliers and customers need to know whether the company will be a reliable business partner to deal with. All these parties have one thing in common. They are outsiders to the business.

The internal system collecting and preparing information for external parties is called “financial accounting.” Financial accounting is responsible for processing the basic accounting data further in order to prepare reports that are useful to external decision makers.

Financial accounting exhibits some important characteristics differentiating it from management accounting. We will describe and explain these in the following section.

Contrasting Management Accounting and Financial Accounting

If companies could decide on their own what information they publish to outsiders and what not, the reports would be very different in the best case, if not complete chaos. At least we could say that they would not be comparable across companies. However, comparing is what outside decision makers like investors and creditors normally do. They compare businesses to decide what the best investment is or what interest rate to charge for a loan.

This is why in financial accounting there are clear rules on what kind of information companies must make available to the public and how this information is to be structured in order to be of use for external parties. Financial accounting is subject to extensive regulation – both at a national and international level. Statutory provisions and international guidelines like IFRS (International Financial Reporting Standards) determine which financial information must be disclosed, when and how often this has to happen, and how the information is to be generated and presented in order to serve external decision makers' needs. The compliance with those regulations has to be confirmed by an external auditor.

Not so in management accounting. Management accounting is free to process and to structure the information as needed. Management accounting is hardly regulated at all (with the exception of some industries that are subject to a higher degree of regulation). In fact, management accounting is not mandatory at all – companies implement a management accounting system only because they have a need for the information. Management accounting can then process basic accounting data as needed, can compile individual reports and analyses, and can choose the level of detail and frequency that is most appropriate for the management task in question.

Management accounting serves as the basis for planning, analyzing, and decision making. Since managers are primarily concerned with the performance of their own company, comparability and standardization of accounting information is of lower relevance. Instead, the information must fit to the specific management question that has to be tackled in a given situation: The decision to accept an order at the price demanded by the customer will require different information than the plan to extend company operations to a new country. The annual review of customer satisfaction will be based on a different set of information than the weekly quality report. Apple Inc. needs to know exactly how much profit they earn on one single iPhone produced and sold to a customer in a particular country. Many more examples could be given for the extremely high information variety demanded by managers. The key success factors for management accounting consequently are “focus” (information must be targeted towards the specific management task) and “relevance” (information must fit managers' needs).

Also, external parties like investors and creditors would be happy to receive such detailed information. But managers will be reluctant to provide too many details about their operations and individual business transactions. After all, public information is accessible to everybody – including competitors! This is why the information provided in financial accounting is not as detailed and rather for the company as a whole. Financial accounting information need not go into each and every detail. Instead, it provides a sufficiently clear picture of the company's financial performance. Financial accounting therefore provides very limited information only on the company's individual products, customers, or projects. For instance, a financial

accounting report of Apple Inc. would disclose the yearly profit for the whole company, but it would not provide the profit margin made on its latest iPhone model.

A final distinction between management accounting and financial accounting is made by the time focus. Management accounting often includes numbers for the future – plans, budgets, forecasts. Managers want to know about the past performance but even more important is information about the future. What will be the research and development expenditures in the next quarter, how will cost for raw materials develop next year, what consumer trends will affect the company's product sales next season?

In contrast, financial accounting information is predominantly dealing with the past – for at least two reasons. First, companies would be very reluctant to provide information on their future plans and goals to the general public. It would simply be unrealistic, unfair, and probably unfeasible to ask them to publish this information. Second, external decision makers rely on the information providing a faithful picture of the company's performance. Information about the future is uncertain and subjective by nature. Nobody knows for sure what will happen – not even the company itself. Therefore, the reports prepared by financial accounting are supposed to provide a complete, objective, and well-structured overview of the company's past and present financial performance. It is then up to external decision makers themselves to draw conclusions about the future from the information provided.

Exhibit 1.9 summarizes the major differences between financial accounting and management accounting.

	Financial Accounting	Management Accounting
Information users	External – investors, creditors, suppliers, government, and tax authorities	Internal – all management functions within the company
Purpose of information	Help investors, creditors, and others make investment, credit, and other decisions	Help managers plan and control business operations
Focus and time dimension	Reliability, objectivity, and focus on the past	Relevance and focus on the future
Obligation for preparation	Mandatory	Not mandatory
Type of report, regulation	Financial statements restricted by accounting standards (IFRS, US GAAP, HGB, etc.)	Internal reports not restricted by accounting standards – tailored to specific decisions
Presentation of accounting information	Content and format highly standardized across companies	Not standardized, individual contents and formats
Verification	Annual independent audit by certified public accountants	No independent audit
Level of detail	Summary reports primarily on the company as a whole	Detailed reports on parts of the company (products, customers, market segments, etc.)
Frequency	At least on an annual basis, sometimes quarterly	Varying, often on a weekly, or monthly basis

Exhibit 1.9 Differences between financial accounting and management accounting

Performance Measurement and Performance Reporting

A large part of this book deals with performance measurement of businesses. Performance measurement is one of the core elements of management control and controllers spend a lot of their time measuring, analyzing, and reporting the performance of a business organization. In a general sense, **performance** is about goal achievement, and performance can be expressed as the extent to which an entity (a business, an individual) achieves set goals. In business practice, the most important goals are of a financial nature and performance therefore is often expressed by financial indicators. But as we will outline later in this section, business performance is not about financials only.

Performance measurement is a process or activity that aims at collecting, analyzing, and evaluating data on the economic success of a business organization, a division, or even individuals within an organization. Having transparency about the performance of a business is vital for managers and controllers. Without transparency, you have no control over the organization. How would you know whether you have exceeded a speed limit without a speedometer in your car? The next radar trap would probably get you. It's the same in a business organization. You need to know whether you are making a loss or a profit, whether there is enough liquidity available to pay the outstanding invoices, and whether the customers value the quality of your products. An often cited quote is "what gets measured gets done," or "if you can't measure it, you can't control it." Only with a clear picture of the company's performance will you be able to make sound decisions.

Once you have measured the performance of a business it has to be reported, ideally in a comprehensive and understandable form. **Performance reporting** can be divided into these categories:

1. **Internal routine reporting:** This is the most frequent and most widely spread form of performance reporting. Information about the success of the operations is provided with a defined regularity, e.g. in daily, weekly, or monthly reports.
2. **Internal non-routine reporting:** Sometimes, information is required ad hoc. Managers need information for decisions that occur irregularly or even without precedent, e.g. outsourcing decisions, unexpected incidents like a machine breakdown, or the bankruptcy of a supplier. Such singular events require tailored information rather than the information items contained in standard reports.

There is a third type of reporting that we should add just for the sake of completeness:

3. **External reporting:** This is information provided to external parties such as investors, creditors, and other outside company stakeholders. External reporting refers to what we have defined above as financial accounting. This type of reporting is guided by laws and regulations set by governments or standard setters. However, external reporting is not a focus of this book.

An Example of Performance Reporting

Let's take a closer look at the first type of performance reporting, the internal routine reporting. Consider Wagner's Deal Market, a local grocery store. The performance is prepared and reported on a weekly basis to the store manager. In Exhibit 1.10, you see the report for calendar week 4.

	Budget	Actual	Variance
Revenues	€57,000	€60,000	€3,000 F
Cost of goods sold	€40,000	€43,400	€3,400 U
Wages	€6,700	€7,000	€300 U
General & admin	€1,300	€900	€400 F
Other fixed costs	€5,000	€5,000	-
Operating income	€4,000	€3,700	€300 U

Exhibit 1.10 Weekly performance report (CW 4) for Wagner's Deal Market

The report shows three columns. The first one contains the budget, i.e. the plan that the store manager had developed. The store planned to have revenues of €57,000. After deducting the cost of goods sold, wages, administration expenses, and other fixed costs, an operating profit of €4,000 was supposed to remain. However, the actual performance shows a slightly different picture. The profit is only € 3,700, which is €300 or roughly 8 per cent lower than planned. The manager wants to know what caused the profit shortfall and asks their controller to find out what went wrong.

The controller could perform a simple variance analysis. On the right-hand side, they add a column in which they outline the variances (see Exhibit 1.10). The letter “F” indicates “favorable” variances and the letter “U” indicates “unfavorable” deviations from the plan.

Interestingly, the store sold more than planned, so that the revenues exceeded the budget by €3,000. An increase in cost of goods sold would be logical and not worrisome. Additionally, there is an unfavorable variance in wages. This could be explained by extra employee hours due to the increased sales. General administration even shows a positive variance and the other fixed costs are in plan. So where is the problem?

Let's focus on the parts of the business that are not performing as expected, an approach called “Management by Exception.” The underperforming items are obviously cost of goods sold and wages. The store sold more inventory, explaining higher revenues and higher cost of goods sold. But was the increase in cost of goods sold in line with the increase in revenues? The same question applies to wages. Extra hours would be reasonable, but is the increase matching with higher revenues?

An easy analysis will reveal the problem. Exhibit 1.11 shows all numbers as percentages of revenues. In addition, the report now also shows a gross profit line. Thereby, you can easily see any unproportional escalations in costs.

We suspected cost of goods sold and wages to be the cause for the decline in profits. Are these two items really responsible for the lower profitability in calendar week 4? No, wages are not a problem. Despite the increase in absolute numbers (we had an unfavorable increase of €300); in fact, wages kept in line with revenue growth. They even dropped slightly by 0.1 per cent.

The problem is the cost of goods sold. Expressed in percentages, cost of goods sold increased by 2.1 percentage points, thus lowering the gross profit from a budgeted 29.8 per cent to only 27.7 per cent. The increase in sales obviously came at a price.

	Budget	Percentage	Actual	Percentage	Variance %
Revenues	€57,000	100%	€60,000	100%	-
Cost of goods sold	€40,000	70.2%	€43,400	72.3%	2.1% U
Gross profit	€17,000	29.8%	€16,600	27.7%	2.1% U
Wages	€6,700	11.8%	€7,000	11.7%	0.1% F
General & admin	€1,300	2.3%	€900	1.5%	0.8% F
Other fixed costs	€5,000	8.8%	€5,000	8.3%	0.5% F
Operating income	€4,000	7.9%	€3,700	6.2%	0.8% U

Exhibit 1.11 Weekly performance report of Wagner's Deal Market (CW 4) as percentage of revenues

Of course, further investigation would be required to fully explore why there was an unproportional increase in cost of goods sold. Maybe the store unexpectedly ran out of stock and had to re-order inventory at unfavorable terms from another supplier. However, this would be speculation as the performance report in Exhibit 1.11 does not provide such details.

Performance Measurement beyond Financials

The case of Wagner's Deal Market was a very simple example of a performance report. You have probably noticed that this performance report took the structure of an ordinary profit and loss statement, starting with revenues and ending with operating income. However, it is important to recall that in management accounting and control, there are no regulations like in financial accounting. The reports are not prescribed or dictated by any external authority. A performance report is not a predefined management control instrument. It is rather the result of a consciously selected set of data that characterizes a specific performance or situation. The selection is made individually by the management of a company – and it will be different in other companies. Every company will design its own performance report.

Revenues, costs, and profits show up in most performance reports in practice. These are **financial performance measures**. Traditionally, the internal accounting system has been the basis of performance measurement. It provides data about financial metrics, such as revenues and costs, income and expenses, cash inflows and cash outflows. A widespread practice of financial measures is to calculate ratios, based on financial statements. A simple example would be an operating profit margin, calculated by dividing the operating profit by sales revenues. In the above example this would be $\text{€}3,700 / \text{€}60,000 = 6.2\%$, i.e. indicating that Wagner's will keep €6.20 on every €100 revenues made.

However, most companies do not look at financial measures only. Also, a single metric often has only limited relevance. Companies need a broader perspective on their performance. Apart from financials, performance measurement can include dimensions such as time, quality, innovation, employees, customers, and other stakeholders. Deutsche Bahn, for example, not only measure and internally report revenues and cash flows, but also customer complaints, punctuality, and employee qualifications.

When combining different performance measures, potentially from different dimensions, companies create a **performance measurement system**. When we say combining measures,

we do not mean to form a simple list of metrics without context. In fact, performance measurement systems take a holistic view on the organization. They must put measures into a logical (and in some cases even mathematical) relationship, order, or framework to generate a benefit. A performance measurement system can be defined as a set of metrics, brought into a logical or mathematical relationship, used to quantify the success of a business organization. A valid performance measurement system is a very powerful management control instrument. In theory and practice, several performance measurement systems have been developed, including:

- The DuPont system
- The Balanced Scorecard
- The Tableau de bord
- The EFQM-Model
- Value-based measurement

We will discuss these issues in more detail in Chapters 7, 8, and 9.

Trends in Management Accounting and Control

The business world is constantly changing. Managers, controllers, and accounting systems have to keep pace with these developments. We want to quickly outline some of the developments of the last 30 years that have shaped and will further shape management accounting and control practices. A closer look at some of these trends will be made in Chapter 10.

Digitization, the Internet, big data, and a focus on intangible assets: From today's perspective, computer technology is not really new. In the business world we are used to working with IT equipment. Computers, the Internet, mobile phones, texting, social networking, etc. – we are permanently online, we can be reached at any time, and information is free. First applications of artificial intelligence are in the market.

Many people forget that this is possible only because of digitization. Digitization means the expression of information by digits. This makes data easily transformable and transportable at almost zero cost. To give you an idea of the dimension: the “digital universe” is doubling in size approximately every two years. By 2020, we will reach 44 zettabytes (44 trillion gigabytes of data that we create and copy), which is nearly as many bits as there are stars in the physical universe. Sometimes it is said that the greatest invention of mankind has been the wheel. Digitization can easily compete with it. The speed and extent to which our environment is changing in a digitized world is breathtaking. So called “disruptive innovations” have fundamental impact on product life and industry cycles. Whole business models and jobs are evaporating. Well-known examples are the music and film business or the newspaper industry.

In a digitized business world, tangible assets like property and equipment become less relevant, while intangible assets like intellectual property rights gain importance. The market capitalization of Google by far exceeds that of the biggest car makers of the world like Toyota and Volkswagen. While a car manufacturer has factories, machines, and inventories, what assets does Google have? Some servers, office buildings? They make up only a minor part of Google's

value. The biggest part comes from intangibles like know-how, patents, its brand name, and Google's huge collection of data. The use of big data is still in its infancy. We have only begun to harvest the fruits of big data analytics. Managers and controllers need to adapt to these changes. Procedures of planning, performance measurement, reporting, evaluation, and rewarding of people in companies have to be re-thought.

Shift from focus on profit to focus on value creation: Towards the end of the last century, there was a growing dissatisfaction among company owners with the performance of managers that have been employed to run the businesses. Traditionally, the main goal and job of a manager was to maximize the profits of a business. But then, managers and controllers had to learn that maximizing the success of a company does not necessarily mean to maximize profits. Rather than profits, value creation was the new goal. A new paradigm was born: shareholder value. Focusing on shareholder value means maximizing the market value of a company's equity. We will discuss this in great detail in Chapter 8.

Shift from mere focus on financials to additional focus on non-financial metrics: Almost in parallel with the new focus on value creation, managers and controllers realized in the 1990s that the long practice of measuring an organization's performance by financial metrics alone is not the most effective way. They learned that financials show only the consequences of actions and incidents that have already happened. Thus, financials are by nature rather lagging indicators of earlier trends and developments inside and outside a company. Controlling a company with merely financial measures was discovered to be one-dimensional and it needed to be enriched by non-financial measures. Measuring customer satisfaction or a company's innovation activity, for instance, is nowadays seen as equally important. These new performance measures posed a challenge to traditional performance measurement systems.

Shortening product life cycles, increasing product variety: As a result of the ever growing competition and the expansion into global markets, companies have massively diversified their product offerings. According to a study by German consulting firm Roland Berger, product variety has more than doubled between 1997 and 2012, thus driving the complexity of products and all company processes related to them. At the same time, product life cycles have shortened by approximately 25 per cent. Drivers of this trend have been the automotive and the consumer goods industry.

Take a look at the product history of Volkswagen's most successful car model, the VW Golf, which has been produced since 1974 as the successor of the VW Beetle. Exhibit 1.12 shows the life cycles of each generation. While the first two generations of the Golf were in the market for almost 20 years, the sixth generation was produced for only 4 years until it was replaced by a new model generation. In other words, the pace of product replacement has more than doubled.

Another example is the market for mobile phones. Do you still remember your first cell phone? How long was it in the market before a successor product had been launched? In the past, product life cycles of cell phones had been two years or longer. With the rise of smart phones, we observe an increasingly rapid pace of product innovation. Consider South Korean's electronics giant Samsung. Its Galaxy S model has been successful in the market for years. Currently, Samsung issues a successor phone virtually every 10 months.

VW Golf Generation	I	II	III	IV	V	VI	VII
Production years	1974–1983	1983–1992	1992–1997	1997–2003	2003–2008	2008–2012	2012–2017
Duration until launch of next generation	9 years	9 years	5 years	6 years	5 years	4 years	5 years

Exhibit 1.12 Product life cycles of Volkswagen Golf

Trends in Supply Chain Management Accounting and Reporting: Globalization and increasing competition have forced many companies to team up with their suppliers and customers. Nowadays, it is no longer individual companies competing against each other, but rather entire networks of companies along the value chain. Such networks are commonly referred to as “supply chains.” Managing a supply chain poses new challenges to both managers and controllers. Information must be shared across partners, processes and strategies must be aligned, plans and budgets are interrelated, etc. Management control in a supply chain is of disproportionately higher complexity than within a single business entity alone. With supply chains becoming ever more international and spanning more and more partners, management control must find answers to how the performance of individual supply chain partners can be measured and how partners’ contributions to overall supply chain success can adequately be assessed (SC performance measurement). The supply chain complexity puts management control under increasing pressure to implement standardized IT solutions for planning, reporting, and performance tracking (SC coordination). Such “supply chain control towers” are still in their infancy, though, and promise to remain an exciting field in the years to come.

Corporate governance and an increasing regulatory activity: Since the turn of the millennium, managers and accountants have been challenged by a rapidly increasing amount of regulations and reporting requirements. As a reaction to various accounting scandals in the US, new regulations, such as the Sarbanes–Oxley Act (“SOX”) in 2002, were created. Among other things, SOX included stipulations about directors’ accountability and enhanced financial disclosures. For example, one section requires that a company’s CEO and CFO have to personally certify the integrity of their company financial reports.

SOX was harshly criticized, as it pushed existing internal and external reporting systems to their limits. Studies found that firms had to spend on average approximately five million US dollars on compliance expenses per year. It’s obvious that SOX scared away foreign firms from seeking a US stock listing. Additionally, SOX triggered a race for the highest standards of corporate governance and compliance. Even though SOX is a US specific directive, it also put other countries under pressure to stiffen regulatory standards.

Increasing financial reporting requirements: US accounting principles (US GAAP) have become more and more extensive in recent years. In Europe and many other parts of the world, a competing accounting framework became dominant: International Financial Reporting Standards (IFRS). Compared to many national accounting standards, however, IFRS is more

complex, more extensive, and – as a result – more costly. Since in more and more companies, financial accounting and management accounting are not fully separated, IFRS also has an impact on management accounting and control tasks.

Integration of financial accounting and management accounting: Earlier in this chapter we described differences between financial accounting and management accounting. They differ especially with respect to their addressees. While in some countries (mainly continental Europe), financial accounting and management accounting had traditionally been clearly separated from each other, in other countries (mainly Anglo-Saxon influenced countries) this division had never been very strict. As a result, in countries like Germany, performance measurement was based on a purely internal accounting system. Financial performance measures in management accounting could not be directly reconciled to the revenues and expenses of the income statement prepared under financial accounting.

In the recent past, however, practice and academia proposed a convergence between the two accounting siblings. Many companies used the mandatory switch to IFRS to initiate a unification of external and internal accounting. Companies like Siemens have meanwhile integrated their accounting systems and have partly abandoned a separate internal performance measurement. Performance measurement for the purpose of management control is then based on the same numbers and metrics used for external reporting under IFRS. Financial accounting and management accounting use a unified data base.

Focus on ethics, corporate social responsibility (CSR), and sustainability: While in the past, companies have been seen as vehicles to earn money in a capitalistic world, in the new millennium, an alternative perspective became more and more popular. Research and media have drawn the attention to the role of companies in society. The purpose was to make managers and employees aware of their social responsibilities regarding human rights, labor standards, and ecological and ethical business conduct. A closely related concept is sustainability, which, if understood in a broader sense, also captures environmental, labor, and ethical standards. Companies should act in a more sustainable manner, which might be a contradiction to (short-term) profit maximization. It is believed, however, that in the long-run only sustainable business behavior leads to prosperity.

Sustainable and ethical behavior is especially important in accounting. We will discuss this in the following, final section of this chapter.

Ethical Aspects of Management Accounting and Control

At the end of this first chapter we should not forget to briefly discuss ethical challenges in accounting and control. After numerous accounting scandals in the recent past, ethical behavior is more important than ever. We would go even further and state that, in accounting, ethical conduct is probably even more important than in any other business function. When doing business, sooner or later you will have to make decisions. The problem is that you will be confronted with a choice of several options. The solution to a problem will not always be clear and obvious. Instead, finding a solution will require your judgment.

Management decisions are often related to the distribution of resources among stakeholders in the firm. By choosing one alternative, managers will benefit one party while others have to go away empty-handed. There is no universal recipe for these dilemmas.

Business ethics deals with basic concepts and fundamental principles of decent human conduct in business activities. In other words, it deals with the question of what is morally good and bad, right and wrong. Many firms have a code of ethics that might help in situations that require judgment. A code of ethical business conduct is a written set of guidelines to help managers and employees to conduct their actions in accordance with the primary values and ethical standards of the company.

An example is Siemens' Business Conduct Guidelines, in which CEO Joe Kaeser writes, "The Business Conduct Guidelines are of central importance to Siemens. They contain the fundamental principles and rules governing the way we act within our company and in relation to our partners and the general public." (Siemens AG (2009): Siemens Business Conduct Guidelines, p. 3).

The document can be partly seen as a reaction to the Siemens' corruption scandal in 2007–2008, which revealed extensive practices of bribing over a decade. With respect to this, we find the following guidelines in the document:

"We compete fairly for orders with the quality and the price of our innovative products and services, not by offering improper benefits to others. As a result, no employee may directly or indirectly offer, promise, grant or authorize the giving of money or anything else of value to a government official to influence official action or obtain an improper advantage."

(Siemens AG (2009): Siemens Business Conduct Guidelines, p. 9)

Ethics is important in business, especially in accounting. Why? For two reasons. First, look at what happened to firms that committed accounting fraud. Enron is probably the most shocking example. The company was one of the big players in energy and commodities trading in the US. In 2001, the company employed 22,000 people. Business magazine *Fortune* awarded the company six times as "America's Most Innovative Company." Enron Corporation claimed annual revenues of over 100 billion USD in peak times. In late 2001, a systematic accounting fraud was revealed. Enron admitted that profits had been overstated by 1.2 billion USD and liabilities understated by 30 billion USD. What was the consequence? On December 2, 2001, Enron filed for bankruptcy. The employees lost their jobs and their retirement savings. Enron's shareholders lost everything. CEO Jeffrey Skilling was jailed for accounting fraud for 24 years. Arthur Andersen, Enron's audit firm and one of the by then "Big Five" went out of business only little later. To sum it up: accounting fraud often has extremely severe consequences, unfortunately not only for the perpetrators.

A second reason for the importance of ethical behavior in accounting is that the quality of accounting reports is difficult to evaluate for readers. In this aspect, accounting differs substantially from some other business functions.

Imagine you enter a car dealership to buy a car. The car dealer has two cars to offer. One is an old, rusty Fiat while the other is a brand new Porsche. The car dealer walks over to the Fiat and tells you that this is the best car he ever had for sale. It is of the finest quality, will go 250 km/h fast, and despite being 15 years old you won't have to bother about repairs in the future. Would you believe this? Probably not. Why? Because you can observe the quality of the product. You can touch it, you can listen to the sound of the engine and you can take it for a test drive. Eventually, you will buy the Porsche (if you can afford it), or buy somewhere else.

In accounting you don't have this choice. The product of accounting is a report. The financial statements will come on shiny paper, bound into a colorful, expensive-looking book called an annual report. Often, over more than 200 pages, the firm will tell you how great the company has been doing and how prosperous its future will be. It is signed and stamped by an audit firm. Will you believe it this time? Probably yes, because you have no visible indication to doubt the correctness of the numbers.

In the above mentioned example of Siemens' code of business conduct, we can read:

"All Siemens employees are required to make sure that the Siemens books and records they create or are otherwise responsible for are:

- *complete,*
- *accurate,*
- *honestly reflect each transaction or expenditure, and*
- *are timely and in accordance with applicable accounting rules and standards."*

(Siemens AG (2009): Siemens Business Conduct Guidelines, p. 18).

The above examples refer mainly to financial accounting, but the same applies to internal accounting and reporting processes. Remember that managers and controllers should be equal partners with clearly defined roles. Controllers are supporting the decision-making process and they are responsible for the quality of the data. Managers have to rely on the analyses and recommendations provided by controllers. Obviously, controllers can easily influence the decision making. Hence, controllers have considerable power in management accounting and management control.

For these reasons, ethical conduct in accounting and management control is even more important than in any other business discipline. The examples of unethical behavior have shown that no regulation or internal guidelines can completely ensure that information is free from error and fraud. The only thing which can guarantee that data, analyses, and reports are reliable is the high ethical standards of accountants and controllers.

CHAPTER SUMMARY

- Management is the act of getting people together to accomplish desired goals and objectives. In order to perform their job, managers need information about what is going on in the company. Accounting identifies, records, and communicates quantitative information about economic events of an organization. In doing so, it is the main source of information for management. Accounting information is an important control device in business. It helps management influence the business so that it performs in a desired manner.
- Accounting comprises financial accounting and management accounting. Management accounting is the internal accounting system that supports managers in carrying out management tasks. Management accounting is an important tool for management control, as it supports management in making sure that the company's plans and goals are achieved.
- A management accountant or "controller" is a business partner to management. He is responsible for supporting managers by analyzing options, planning ahead, monitoring past performance, and coordinating activities in order to ensure goal achievement. Together, managers and controllers perform the management control function.

- Companies typically structure the management control function along the overall business organization. Both management and controlling functions can be found at different hierarchical levels and in different functional areas. Bigger companies often differentiate between different accounting roles and controllers are one of them. Controllers, therefore, often work in finance and accounting departments.
- While financial accounting focuses on information that is provided to company outsiders and must meet strict external rules and guidelines, management accounting focuses on providing information that helps company management in planning and decision making.
- Company performance is typically expressed by the extent of its goal achievement. Measuring and reporting company performance (i.e. its ability to achieve set goals) therefore is an essential task in management control. Since many company goals are financial in nature, performance measurement has a particular focus on financial company performance.
- Management accounting is a dynamic discipline that must continuously adapt and deal with new challenges and trends in the business environment. Digitization, the increasing importance of non-financial performance measures, and growing company networks along the supply chain are just a few of the challenges management accounting faces today.
- Showing ethical behavior by following general ethical principles as well as the particular ethical standards of the company is of utmost importance in management accounting and control. Fraudulent management accounting behavior can have severe consequences not only for the company itself, but also for external parties such as investors or suppliers.

GLOSSARY

Accounting The information system that identifies, records, and communicates quantitative information about economic events of an organization that occurred within a given time period.

Budget The financial expression of an operational plan.

Business ethics Deals with basic concepts and fundamental principles of decent human conduct in business activities. In other words, it deals with the question of what is morally good and bad, right and wrong.

Control A device, a system, or an activity that helps you to influence an object.

Controller Person who works in the field of management control. In a modern understanding, a controller is an equal partner to managers. Activities of controllers include: reporting and documenting information, coordinating planning and budgeting, measuring performance, and consulting managers in decision making.

Controlling The German management accounting discipline.

Corporate governance Corporate governance denotes the regulatory framework for directing, monitoring, and controlling a corporation.

Digitization Digitization means the expression of information by digits. This makes data easily transformable and transportable at almost zero cost. It is a principle prerequisite for the existence of the Internet.

Financial accounting The subsystem of accounting that deals with providing information to external decision makers such as investors, creditors, or the general public.

Management accounting The subsystem of accounting that deals with providing information to internal decision makers, i.e. mostly managers of the company.

Management control The systems, processes, or individual activities that are in place to ensure that the strategies are executed in a business entity.

Management reporting The structured system that deals with conveying information to internal decision makers who perform management tasks in the company. Management reporting is a sub-task of management accounting.

Performance The extent to which an entity (a business, a division, or an individual) achieves set goals. In business practice, the most important goals are of a financial nature, and performance therefore is often expressed by (but not limited to) financial measures.

Performance measurement A process or activity that aims at collecting, analyzing, and evaluating data about the economic success of a business entity.

REVIEW QUESTIONS

- R1. What is management? List and explain the five functions of management.
- R2. What is accounting?
- R3. What is the job of an accounting system?
- R4. What is control? List and explain the conceptual elements of control.
- R5. Define management control.
- R6. What is strategy?
- R7. Define management accounting.
- R8. What are the core elements of management control?
- R9. Explain the role of a controller within an organization.
- R10. What skill set does a controller need?
- R11. What is financial accounting?
- R12. Distinguish between management accounting and financial accounting with regards to the following factors:
 - a. Information users
 - b. Purpose of information
 - c. Focus and time dimension
 - d. Obligation for preparation
 - e. Type of report, regulation
 - f. Presentation of accounting information
 - g. Verification
 - h. Level of detail
 - i. Frequency
- R13. List and describe the different forms of performance reporting.
- R14. Define the concept of a performance measurement system.
- R15. Name the major trends in the environment of management accounting and control.
- R16. Explain why ethical conduct in accounting and management control is of great importance.

EXERCISES**E1. Variance Analysis**

It is Friday afternoon and you are about to leave the office, when suddenly you receive a call from the CFO of your company. To his surprise, last month's sales figures were significantly lower than expected, even though he recently increased the budget for marketing activities. Also, he is aware of the increase in salaries due to the higher wage demands from labor unions, but does not believe this to be the reason for missing the targeted operating profit. He asks you to investigate this issue and provide him with a variance analysis by the end of the day.

Perform a simple variance analysis and identify possible causes for the shortfall in profits.

Tom's Supermarket, October	Budget	Actual
Revenues	€367,000	€317,000
Cost of goods sold	€227,000	€196,400
Gross profit	€140,000	€120,600
Wages	€50,500	€51,000
Marketing & advertising	€35,000	€18,900
General & admin	€10,300	€10,200
Other fixed costs	€30,000	€30,000
Operating income	€14,200	€10,500