Chapter 2
Basics

2.1 Internal Control

2.1.1 Definition

This chapter introduces both internal control and organizational culture in order to provide a basic understanding for the two topics. Before addressing organizational culture in the second part of this chapter, the focus is set on internal control. A wide range of control concepts exist in the management accounting and control literature: strategic control, management control, internal control, and control systems, to name just a few of the major themes. The variety of concepts, their different purposes in closely related areas, and particularly the different interpretations from the various authors, generate many overlaps between concepts.\(^1\) As a result, differences in terminologies often cause miscommunication and misguided expectations among the parties involved.\(^2\) To understand the reason for the variety of definitions of internal control itself, the term will be embedded in its historical evolution and divided into a focused and a comprehensive view of internal control. In addition, internal control will be discussed and integrated with strategic control, management control and control systems in order to provide a holistic understanding of the fundamental role of internal control for any business. Spending adequate time for defining internal control provides the basis for investigating the role of organizational culture for internal control throughout this study.

\(^1\)Merchant and Otley (2007) provide an overview of different control areas in their review of the literature on control and accountability.

\(^2\)Additional misunderstandings on the term control are more linguistic in nature. For example, while in the English language the term ‘control’ covers proactive (e.g., directive, preventive controls) and reactive controls (e.g., detective and corrective controls), in the German language the term ‘Kontrolle’ is usually understood only as reactive control (Ruud and Jenal, 2005, p. 456).
2.1.1.1 Brief Historical Sketch

During the last 15-20 years, a shift in focus from the accounting and finance orientation of internal control to a much broader governance and business perspective has taken place.\(^3\) The term internal control developed in the accounting and auditing discipline, and was traditionally interpreted as “accounting controls”, limited to the system that auditors test as part of their assurance on the reliability of financial reporting.\(^4\) Therefore, internal control was often discussed in the context of the external auditor’s work. While the detection of fraud as an audit objective has a long history, internal control (as a subject) was not recognized until the twentieth century.\(^5\) According to Brown (1962, p. 696), the difference between no recognition and slight recognition of internal control was found in a 1905 publication entitled *Auditing* by Lawrence Dicksee, an English audit specialist. In his study, originally published in 1892, Dicksee does not mention the term internal control itself, but addresses internal control by explaining that the object and scope of an audit has three parts to it: “the detection of fraud, technical errors, and errors in principle”.\(^6\) From approximately 1905 to 2004, Heier et al. (2005, p. 41) show that the debate and definitions, interpretations and applications of internal control have emerged as a reactive evolution. Often these changes of definitions, interpretations and applications happened as “a reaction to a major change in the economic situation of a country as a whole or to the actions of individual firms within the economy”.\(^7\)

Most recent and prominent examples of such events and their reaction are a series of company failures in the early 2000s associated with the scandals at Enron and WorldCom.\(^8\) As a major legislative reaction, the US Congress introduced the Sarbanes-Oxley Act of 2002 (SOX), which brought about a series of new requirements for domestic and foreign companies that are listed on US stock exchanges.\(^9\)

\(^3\)Maijoor (2000, p. 105). See also Power (1997).
\(^4\)For example, the Securities Act of 1933 addressed internal control and the audit process in the following words: “In determining the scope of the audit necessary, appropriate consideration shall be given to the adequacy of the system of internal check and internal control” (Early Regulation SX Rule 2-02 (b) of the 1933 Act, quoted after Ferald Fernald (1943, p. 228). A later and broader approach by the American Institute of Accountants (AIA) defined that “Internal control comprises the plan of organization and all of the co-ordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies” (AIA 1948, quoted after Heier et al. 2005, p. 48).
\(^6\)Dicksee (1892, p. 6), quoted in Heier et al. (2005, p. 42).
\(^7\)Heier, Dugan, and Sayer discuss internal control in the context of auditing and its impact on audit engagements.
\(^8\)For example, Brickey (2006), Rockness and Rockness (2005), Stewart (2006).
\(^9\)At that time, in the US regulation addressing internal control was limited in scope as the Foreign Corrupt Practices Act of 1977 (FCPA) represented the only regulatory requirement for internal control reporting. The purpose of SOX was to restore public confidence in the capital markets by enhancing the reliability of financial reporting and the effectiveness of corporate governance by addressing management’s responsibility for financial reporting as well as the scope and nature of the audit (Ge and McVay 2005, p. 139).
With regard to internal control, a major and cost-intensive provision from SOX is Section 404, which obliges management to assess and report on the effectiveness of internal control over financial reporting. SOX is just one example of a reaction to significant events. Heier, Dugan, and Sayer explain that the stock market crash of 1929, the economic boom after World War II, the revelation of bribery of several 100 US companies (including well-respected firms such as Exxon) in the aftermath of the Watergate affair in the 1970s, and corporate failures at the beginning of the 1980s, are earlier examples of events that had an impact on internal control regulation and interpretation. These events led either to more regulation and mandatory disclosure of internal control aspects and/or to a broadening of the interpretation of internal control in public policy documents. From these historical developments, a more focused view and a more comprehensive view on internal control can be distinguished. The focused view sets internal control equal to the “checks and balances” in accounting systems, while more recent approaches place more emphasis on a more holistic approach to internal control, emphasizing operational effectiveness and efficiency and compliance with laws, regulation, and internal policies. Internal control is then an integrated part of organizational governance. The focused and comprehensive view of internal control will be discussed subsequently.

2.1.1.2 Focused View of Internal Control

A focused and traditional view of internal control (also referred to as accounting controls) is offered by Simons (1995, p. 84) as the “detailed, procedural checks and balances”. They are designed to safeguard (tangible and intangible) assets from

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10 Coates (2007, p. 96) and Mintz (2005, p. 595). In Europe, the extraterritorial influence of SOX was discussed and debated critically. In the European Union the Eight Directive addresses internal control and risk management as well. As most European countries take a more principles-based approach, the European approach is less detailed. In Switzerland, as a non-EU member, a new regulation requires the auditor to prove the existence of the internal control system.

11 An early example of such a discussion on the broadness of internal control can be given with the question whether administrative controls should be part of the audit or not. The American Institute of Certified Public Accountant (AICPA 1958, pp. 66-67) states that “[administrative controls] ordinarily relate only indirectly to the financial records and thus would not require evaluation”. However, in the event these controls have “an important bearing on the reliability of financial records”, then the auditor should consider including these controls in the assessment. Thus the discussions in the 1950s are still accounting oriented but already were concerned about the breadth of internal control. As will be discussed in this section, the debate about a broadening of the interpretation of internal control will be continued later in the twenty-first century.

12 A similar distinction is taken by Jenal (2006, p. 3) who divides definitions on internal control into a focused view (focusing only on financial reporting) and a comprehensive view (focusing on operations, financial reporting and compliance).

13 Throughout this study the terms internal control, internal controls, and controls are treated as synonyms.
misappropriation and ensure that accounting records and information systems are reliable. According to Simons, these checks and balances concern three categories:

- **Structural safeguards** include an active audit committee of the board, an independent internal audit function, segregation of duties, defined levels of authorization, and restricted access to valuable assets.
- **Staff safeguards** include adequate expertise and training for all accounting, control, and internal audit staff, sufficient resources, and rotation of key jobs.
- **System safeguards** include complete and accurate record keeping, adequate documentation and audit trail, relevant and timely management reporting, and restricted access to information systems and databases.

Standing for the detailed procedures and safeguards for information handling, transaction processing, and record keeping, internal control is critical in ensuring that accounting records and information systems are reliable. Internal control relies on “staff groups”, which design and execute controls, and on internal and external auditors who assess periodically whether controls are reliable. Although the focused view of internal control emphasizes the technical aspects such as databases, record keeping, and segregation of duties, it is clear that these aspects of information handling rely significantly on the effort of staff. That is why organizational culture is important for internal control. Culture influences the common behaviors in an organization and the efforts of each individual. However, this view of internal control is focused because it limits the responsibility for internal control to the finance and auditing area and places little emphasis on the fact that internal control is a part of operations and compliance as well and is of concern to all people within an organization.

### 2.1.1.3 Comprehensive View of Internal Control

Business and accounting scandals in the 1980s challenged the adequacy of financial reporting systems. To investigate the causes of fraudulent financial reporting and make recommendations to reduce its likelihood, in 1985 the US established the National Commission on Fraudulent Financial Reporting, known as the Treadway Commission. The Commission’s recommendations led to a task force, which was

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14 See Kinney (2000a).
19 Ge and McVay (2005, p. 139). In the late 1980s the collapse of Bank of Credit and Commerce International (BCCI) caused a financial panic spanning four continents and involved the Bank of England (see Mintz 2005).
20 The Treadway Commission addressed internal control aspects such as the control environment, code of conduct, audit committees, and internal audit. It also called for additional internal control standards and guidance, and suggested that all listed companies should be required to include a report on internal control in their annual reports (COSO 1992, p. 96).
built under the auspices of the Committee of Sponsoring Organization of the Treadway Commission (COSO). This commission created the 1992 COSO-control framework for the purpose of providing broadly accepted criteria for establishing, monitoring, evaluating and reporting on internal control. COSO (1992, p. 3) takes a comprehensive approach and defines internal control as:

- a process, effected by an entity’s board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:
  - **Effectiveness and efficiency** of operations.
  - **Reliability** of financial reporting.
  - **Compliance** with applicable laws and regulations.

Kinney (2000b, p. 84) remarks that the COSO definition is widely accepted in practice, as can be seen through the application of similar conceptual definitions by other relevant groups around the world. For instance, the definition from the Canadian Guidance on Control Board (CoCo) explains internal control as “all the resources, processes, culture, structure, and tasks that, taken together, support people in achieving those objectives”. Approaching the subject more broadly, the CoCo definition explicitly mentions internal elements such as “internal reporting”, “information within the organization”, and “internal policies” as part of internal control. The Institute of Chartered Accountants in England and Wales (ICAEW) emphasizes the importance of responding to risk and, relevant to the focus of this study, states that internal control has to do with “behaviors”. The European Federation of Accountants (FEE) sets internal control in relation to governance and describes internal control as going “beyond procedures” and includes “elements such as corporate culture, systems, structure, policies and tasks”. Despite minor differences in accentuation, all these definitions support the COSO definition.

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21 COSO (1992, p. 97). The COSO framework is summarized in Sect. 3.2.2.
22 Emphasis added.
23 Pfaff and Ruud (2007, p. 19). A reason for this broad acceptance might be that there is generally more awareness for the fact that internal control is more than finance and accounting, but is pervasive throughout all areas of the organization. The COSO definition has a broad foundation in the US as the Treadway Commission was established as a collaborating sponsorship among the relevant institutions in accounting, control and auditing, including the American Institute of Certified Public Accountants (AICPA), American Accounting Association (AAA), Financial Executives International (FEI), The Institute of Internal Auditors (IIA) and the Institute of Management Accountants (IMA).
24 The Guidance on Control Board is associated with the Canadian Institute of Chartered Accountants (CICA) and issues the CoCo control framework (see CoCo 1995b and Sect. 3.2.3).
25 The internal control definition of the ICAEW is from the Turnbull report, which is part of the Combined Code – A mandatory guideline for listed companies in the UK (see ICAEW 1999 and Sect. 3.2.4).
26 See FEE (2005). A more specialized group such as the Information Systems Audit and Control Association, which provides the IT-governance-framework called COBIT (Control Objectives for Information and Related Technology), offers a more technical interpretation and distinguishes between preventive, detective and corrective control (see ISACA 2007). The Basle Committee on Banking Supervision describes control as something that is “continually” going on at all levels in a bank and also highlights the importance of an “appropriate culture”. BCBS is responsible for the international banking regulation and is associated with the Bank of International Settlements (BIS) and Basel II (see BCBS 1998).
This study applies the comprehensive view of internal control. The broad view includes the focused view. *Internal control* safeguards assets and provides reasonable assurance for information quality so that the organization can achieve its objectives regarding effectiveness and efficiency of operations, reliability of internal and external reporting, and compliance with laws, regulations, and internal policies. Internal control is effected by board, management, and other personnel, “by what they do and what they say”. \(^{27}\) Figure 2.1\(^{28}\) illustrates the three objective categories operations, reporting and compliance of the comprehensive view of internal control.

**2.1.1.4 Specifying the Comprehensive View**

This comprehensive view of internal control is seen as an integrated concept within organizational governance. The OECD (2004, p. 11) defines organizational (corporate) governance\(^ {29}\) as:

> a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and *the means of attaining those objectives and monitoring performance are determined*. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring.\(^ {30}\)

As the definition from the OECD illustrates, compared to internal control, governance puts a stronger emphasis on the discrepancies between the interests of

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\(^{27}\)COSO (1992, p. 14).

\(^{28}\)The figure is based on the COSO categories, complemented with CoCo’s “internal reporting” and “internal policies”.

\(^{29}\)The OECD uses the term *corporate* governance (instead organizational governance). Organizational governance is broader than corporate governance as it can include any type of organization and not only corporations.

\(^{30}\)Emphasis added.
organizational in- and outsiders. The primary interest is on whether board and top management work in alignment with the interests of shareholders and other stakeholders. The OECD definition contains the words: “means of attaining those objectives”, which is in alignment with the definition of internal control. Therefore, one interface between governance and control is the objective setting process. While organizational governance “provides the structure through which the objectives of the company are set”, internal control represents the means to achieve the organization’s objectives.

Pfaff and Ruud (2007, p. 21) clarify that internal control consists of a series of actions that are integrated with business activities and conducted throughout the organizational units and functions. As illustrated in Fig. 2.2, Porter (1985, p. 46) divides business activities into primary activities that generate value, such as inbound logistics, operations, and sales, and secondary activities, such as human resource management, infrastructure and procurement, which support the primary activities. Operations, reporting, and compliance aspects are integrated within all

![Fig. 2.2 The value chain of a manufacturing company. Source: Adapted from Porter (1985, p. 46)](image)

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31 Organizational governance roots in the separation of ownership from control. According to Berle and Means (1932, p. 6), this separation leads to a condition in which the interests of owner and managers “may, and often do, diverge, and where many of the checks which formerly [in the single entrepreneurship] operated to limit the use of power disappear”. In general, the literature analyzes this separation with the agency-theory. The owner (principal) delegates ‘control’ to management (agent). This relationship between principal and agent is characterized through asymmetric information. Management, as organizational insider, has a better understanding and in-depth knowledge than the owners as organizational outsiders (Ruud 2003, p. 82).

32 Because governance explicitly includes external parties such as shareholders and stakeholders but also mentions all means of attaining the organizational objectives (which represents internal control), the argumentation here is that governance is broader defined than internal control. Effective internal control can be understood as contributing to effective organizational governance.

33 OECD (2004, p. 11).

34 While the illustrated structure of the value chain of a manufacturing company represents only one possible example, each individual company has its own definition of the value chain. Internal control is pervasive throughout any organization’s primary and secondary activities and is inherently affected by the way management runs the business (Pfaff and Ruud, 2007, p. 21; Ruud, 2003, p. 78).
these primary and secondary activities. Thus, according to the comprehensive view, internal control is not just part of finance and accounting, but of any other activity such as marketing and sales, logistics and technology development. The comprehensive view supports that internal control is not an exclusive function of board, executives, senior finance managers or internal and external auditors, but of all people in the organization.\textsuperscript{35} Depending on the hierarchical level of the person and the size of the organization, the responsibility for internal control varies from function to function.\textsuperscript{36} COSO (1992, p. 89) writes:

\[\ldots\] virtually all employees play some role in effecting control. They may produce information used in the internal control system – for example, inventory records, work-in-process data, sales or expenses reports – or take other actions needed to effect control. These actions may include performing reconciliations, following up on exception reports, performing physical inspections or investigating reasons for cost variances or other performance indicators. The care with which those activities are performed directly affects the effectiveness of the internal control system.

Internal control is more than fulfilling required manuals and forms. Equally as important, it is also about how people conduct internal control – how they design, implement, maintain and monitor control as part of their day-to-day activities. That is why organizational culture is important for internal control. As will be discussed later, organizational culture represents the common understanding among organizational members how controls need to be performed in an organizational setting.

To further clarify the role of internal control and the focus of this study, in the next section the definition will be integrated with strategic control and management control.\textsuperscript{37} These research areas are closely related to internal control and their literatures will be partially included in the further course of the study.

### 2.1.2 Management Decision Processes

While internal control provides information quality for any decision maker in the organization, particularly influential for the achievement of the organizational objectives are management decision processes. Kinney (2000b, p. 83), envisioning himself as the CEO of a multinational corporation, asks:

How would I know whether I was getting the right information for decision making, that my assets were being protected, and that my people were complying with laws, regulations, and company policy – all on a worldwide basis?

\textsuperscript{35}CoCo (1995b, p. 6).

\textsuperscript{36}CoCo (1995a, p. 7).

\textsuperscript{37}Although internal control has a fundamental role for any business, in the literature relatively little attention is spent on integrating internal control with strategic control and management control (exceptions are Kinney 2000a; Merchant and Otley 2007; Simons 2000).
One important contribution to the solution to this question is internal control. Figure 2.3 \(^{38}\) illustrates the relationship between management decision processes and internal control.\(^ {39}\) As the figure demonstrates, internal control (illustrated in the center) has several inputs, such as information from transactions with customers, workers, and suppliers such as sales, payroll, and contracts (on the upper right), other events and conditions such as a new regulation or a natural catastrophe (at the lower right), other internal information (at the bottom) as well as information based on management decisions such as plans and authorizations (at the left).\(^ {40}\) Internal control prepares all this information for management decision processes and impacts the decisions made by management.\(^ {41}\) People’s ability to fulfill their responsibility and make adequate decisions relies significantly on the quality of the information they receive.\(^ {42}\) In contrast, an organization can easily go in the wrong direction if the information people receive is incomplete, incorrect or manipulated.\(^ {43}\) Effective internal control provides people in the organization with appropriate, timely, accurate and accessible information.

Hence, information content is necessary, provided when required, includes the latest information available, and is correct and easily accessible by the appropriate

![Diagram](image)

**Fig. 2.3** Management decision processes and internal control.
*Source: Adopted from Kinney (2000b, p. 85)*

\(^{38}\)Kinney’s figure illustrates ‘workers’ outside the firm, which can be debated from COSO’s perspective. In the COSO definition, ‘personnel’ are the one that effect internal control and are therefore part of the firm. Assuming that the term ‘workers’ represents the private person providing an economic exchange in form of workforce against payroll, this illustration sees workers outside the firm.

\(^{39}\)CoCo (1995b, p. 11).


\(^{41}\)Kinney (2000b, p. 85).

\(^{42}\)COSO (1992, p. 6). Sunder (1997, p. 56) emphasizes that management depends on the information people share within the organization. It is the people’s own decision which information they are willing to share and how accurately and truthfully they share it.

Internal control contributes to decision-making by providing information for both the normal course of business as well as when there are operational issues, noncompliance with standards or other violations of policy and illegal actions.\footnote{COSO (1992, p. 62).}

### 2.1.2.1 Control in General versus Control Systems

While control in general can mean anything from formal to informal control mechanisms, control systems stand usually for the “formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities”.\footnote{COSO (1992, p. 87) and Kinney (2000b, p. 84).}

Thus, when speaking of the internal control system, the formal mechanisms of checks and balances are understood. In contrast, when addressing internal control in general, formal and informal activities are included. For example, while an IT-based restriction of access to organizational assets is part of the internal control system, an informal discussion between a line manager and a hiring manager about the requirements for a job opening is part of internal control, but not part of the internal control system (as long as the discussion does not follow a prescribed formal procedure and will enter in a database). Similar distinctions can be made for strategic control and strategic control systems, and management control and management control systems.

### 2.1.2.2 Integration with Strategic Control and Management Control

Figure 2.4 illustrates the relationship between strategic control, management control and internal control. As the foundation of all other control systems, internal control is illustrated at the bottom of the figure.\footnote{Simons (1995, p. 5).} Internal control provides reasonable assurance that information on which any system in the organization builds is valid.

\footnote{For example, Simons (2000).}

![Fig. 2.4 Interrelation of strategic control, management control and internal control. \textit{Source: Adapted from Simons (1995, p. 128)}]
reliable and that assets are being protected. The information quality provided by internal control enters into strategic and management control systems and builds the foundation for any formal and informal strategic and management control decision. As indicated with the gray arrows in Fig. 2.4, internal control, management control and strategic control interrelate. Aspects of internal control are similarly discussed in strategic and management control, however, the focus differs. While internal control provides reasonable assurance for information quality and safeguarding assets, CoCo (1995b, p. 5) clarifies that internal control “cannot prevent the taking of strategic and operational decisions that are, in retrospect, incorrect”. Whether management decides to act and what actions to take are outside of internal control. Management decision-processes are part of strategic control and management control. Merchant and Van der Stede (2007, p. 7) explain that issues of strategic control:

have a focus primarily external to the organization; they examine the industry and their organization’s place in it. They think about how the organization, with its particular combination of strengths, weaknesses, opportunities, and limitations, can compete with other firms in its industry.

Board and management decide on the mission, vision and value statements, as well as the overall objectives of the organization. Based on evaluations of the organization’s strengths, weaknesses, opportunities and threats, board and management further decide on the overall strategy and performance goals to achieve the overall objectives. In contrast to strategic control which is primarily concerned about strategic decisions, management control takes an internal focus. Of concern is primarily how organizational resources can be used so that people work toward organizational objectives. An often quoted definition is the one from Anthony (1965, p. 17), who defines management control as:

the process by which managers ensure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives.

Management uses tools including “short and long range plans, financial budgets, capital budgets, variance analyses and project reporting systems” in order to decide

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48Similar to the internal control literature, the management control literature traditionally focused on accounting information and often separated from operational and strategic control. However, recent developments in the management control literature recognize that such a focus neglects impacts on management control from strategy and operations. Otley (1999, p. 364) remarks: “Although it may well have been sensible to concentrate initially on the core area of ‘management control’, it is now necessary to pay more attention to the neglected elements of strategy and operations”.

49CoCo (1995b, p. 11). Internal control supports the achievement of organizational objectives. Therefore it is not an end in itself, but a means to an end (Pfaff and Ruud 2007, p. 22).

50Emphasis added.

51Ruud (2003, p. 75).

52An alternative definition provides Otley (1999, p. 364) who states that management control systems “provide information that is intended to be useful to managers in performing their jobs and to assist organizations in developing and maintaining viable patterns of behavior”. This view from Otley on management control integrates internal control and gives little room for making a distinction between internal control and management control.
on objectives. Management control is typically described as “a feedback process of planning, objective setting, monitoring, feedback and corrective action to ensure that outcomes are in accordance with plans”.

In summary, whether strategic control or management control, both types of control rely fundamentally on control systems that are based on reliable information produced by effective internal control. Internal control provides decision makers in the organization with reliable information so they are able to choose among alternatives which are best for the achievement of organizational objectives.

2.1.3 Internal Control Effectiveness

The importance of internal control is most visible and prominent in cases when internal control is ineffective. How much do tools such as a Balanced Scorecard (BSC), Key Performance Indicators (KPI), and Customer Satisfaction Surveys help management in achieving the organizational objectives if those tools are based on inaccurate or manipulated information? How much can external parties rely on financial reports for their investment decisions if these reports do not reflect the real economic conditions of the organization? What use do codes of business conduct have if organizational members confirm its content only as a formality to please regulatory requirements rather than actually act in consistency with these codes? These are questions that reflect the purpose of this study and ask what the role of organizational culture is for internal control. Before turning toward finding answers to these questions later in this study, this section discusses under what conditions internal control is effective and, if so, what benefits it provides.

2.1.3.1 When is Internal Control Effective?

Internal control is inherently complex and consists of many activities across, up and down, and inside and outside the organization. Defining control effectiveness provides the reference that organizations aspire to when they intend to achieve all the benefits of internal control. Contrary to the internal control process itself, which is a means to an end, effectiveness is a state or point in time. Whether internal control is effective depends on a subjective judgment of how the

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54Simons (1990, p. 130).
57COSO (1992, p. 20).
objective categories of internal control are implemented. Broadly defined internal control is effective, when board and management have reasonable assurance that:

- They know if and to what extent operational effectiveness and efficiency are achieved. While operational effectiveness focuses on output of operations, efficiency sets the priority on input, the use of resources and its costs. Aside from when organizations set different priorities on the balance between operational effectiveness and efficiency, what is important is that management has a clear understanding to what extent they are attained. For instance, are streamlined and centralized processes implemented? Do the operational processes work in a cost-efficient manner?
- Published financial statements and internal reporting are prepared reliably. Reliability requires that the measurement methods are carefully applied and that the displayed portrayal in reporting reflects the results correctly. For example, do the numbers reflect the performance of the organization? Does internal reporting provide the right overview of inventory and assortment?
- Applicable laws, regulations, and internal rules are complied with. Compliance is reached when records meet the external regulatory requirements such as production standards, accounting standards, tax requirements and further legal requirements, as well as internal policies. Are the legal requirements of each country that the organization operates in being followed? Is the code of conduct implemented throughout the whole organization?

Merchant (1985, p. 10) writes that “good” internal control is said to be in place when “an informed person can be reasonably confident that no major unpleasant surprises will occur”. Thus, the information provided by internal control supports people in optimizing the trade-off between risk and expected reward in decision-making. It helps people’s decisions in addressing risks and taking appropriate actions so that the remaining (uncontrolled) risks are deemed acceptable. CoCo (1995b, p. 2) explains that control includes the identification and mitigation of risks and includes not only known risks related to the achievement of a specific objective but also that the organization is able to address its opportunities. Knowing that risks are adequately managed and controls are installed, internal control provides confidence. Senior-level people feel more confident when signing off reports and employees in general are more confident in their judgments. Moreover, effective internal control addresses the organization’s risk of fraud. It safeguards assets from theft and prevents distorted results. Effective internal control is important to the
outside as well. The accounting and financial reporting system\textsuperscript{66} represents a critical information source for external decision makers and is the main instrument for shareholders, as the owners of the organization, to have insight into the organization’s earnings and financial conditions.\textsuperscript{67} Effective internal control provides reliable information to external parties from investors to the public at large, and therefore builds confidence in the capital markets based on the information available.\textsuperscript{68}

\subsection*{2.1.3.2 Internal Control and Performance}

A key question discussed in the literature and in practice is whether internal control generates shareholder value.\textsuperscript{69} Because internal control is inherent in the organization’s activities and part of the essence of the business, its inherent nature in business activities already makes clear the direct link to performance. For example, when operations become more effective and efficient because management takes more emphasis on control design, it saves costs and brings about a positive impact on performance. When the organization’s financial numbers are reliable and the organization complies with regulations, it is also less likely to be involved in costly lawsuits that negatively impact its reputation and performance. In contrast, there are many control aspects where the link to performance seems less clear. For instance, setting effective internal control equal to high formalization does not necessarily guarantee a positive impact on performance.\textsuperscript{70} Instead it might bring an unnecessary cost burden. In general, management attention on internal control provides effectiveness and efficiency of operations, reliability of reporting and compliance with laws, regulations and internal policies.\textsuperscript{71} As a consequence of this management attention on more effectiveness, internal control is likely to contribute to performance but is not a performance driver itself.\textsuperscript{72}

In sum, the term effectiveness is understood as an overall term that stands for a well-functioning internal control including efficiency in operations, reliability in

\textsuperscript{66}Information from financial reporting contains, for example, earning and financial condition measures, periodic disclosures of off-balance items, such as certain types of leases, and transactions with parties related to management or the organization itself (Kinney 2000a, p. 37).

\textsuperscript{67}Kinney (2000a, p. 37).

\textsuperscript{68}CoCo (1995b, p. 1). Reliability is understood as central aspect towards the outside. Other aspects, such as giving the organization direction and assurance, which is important for shareholders and other groups, are considered part of reliability here.

\textsuperscript{69}These aspects are discussed in regard to Sarbanes-Oxley requirements (for example, Rittenberg and Miller 2005; Zang 2005), but also in regard to more general organizational design (for example, Burton et al. 2006; Simons 2005).


\textsuperscript{71}See Rittenberg and Miller (2005).

\textsuperscript{72}See Simons (2005).
reporting, and compliance with rules. If organizational culture contributes to internal control, it needs to support the achievements of these three objective categories. Defining effectiveness related to these three categories relies on a subjective judgment by senior-level people. How can senior-level people decide whether these objectives are achieved?

### 2.1.3.3 Inverse Relation to Control Deficiencies

Reasonable assurance is given when internal control is without any material weaknesses. This criterion is adapted from the Sarbanes-Oxley requirements, which address SEC listed companies. While the Sarbanes-Oxley requirements focus internal control over financial reporting and potential misstatements in reporting, this study applies them to the other objectives of internal control as well. Adapted from the SEC (2007) and PCAOB (2007), material weakness is then defined as a deficiency – or a combination of deficiencies – in internal control, such that there is a reasonable possibility that a material ineffectiveness and inefficiency in operations, a misstatement in reporting, or noncompliance with internal or external rules will not be prevented or detected on a timely basis. PCAOB (2007) defines that a material weakness is the most severe type of control deficiencies. A control deficiency can be based either on the design of a control or its operation:

- A **deficiency in design** exists when (a) a control necessary to meet the control objective is missing or (b) an existing control is not properly designed so that, even if the control operates as designed, the control objective would not be met.

- A **deficiency in operation** exists when a properly designed control does not operate as designed, or when the person performing the control does not possess the necessary authority or competence to perform the control effectively.

This interpretation of control effectiveness means that it is inversely related to the amount of deficiencies that exist in the organization: The fewer deficiencies internal control has, the more effective it is. An ideal internal control would have no deficiencies and all control would be optimally designed and executed as intended. Taking this stand means that if organizational culture can contribute to control effectiveness, then it must reduce the likelihood of deficiencies in internal control.

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73The term ‘effective internal control’ can also be used more specifically. For instance, it can stand for operations that are effective (but not necessarily efficient) or the term can be used to explain financial controls are reliable (e.g., in Sarbanes-Oxley context).

74This definition of material weaknesses in internal control is adapted from the definition of PCAOB Auditing Standard No. 5, which defines a material weakness as “a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company’s annual or interim financial statements will not be prevented or detected on a timely basis” (PCAOB 2007, p. 43).

75PCAOB (2007, p. 41; emphasis added).

76PCAOB (2007, p. 41; emphasis added).
Defining control effectiveness inversely related to the aggregated amount of control deficiencies leads to the question about the roots of control deficiencies.

2.1.4 Inherent Limitations

It is important to note that no matter how well internal control is designed it can only provide reasonable – not absolute – assurance. Two inherent limitations of internal control make it likely that the organization will not achieve its objectives. People in charge:

- Can make errors and omissions, or commit fraud
- Have to consider relative cost and benefit when designing and executing internal control

These two inherent limitations make it clear that even well-designed internal controls will retain some residual risks of the unexpected because outcome is not predictable.\(^77\) Moreover, the limitations build a bridge to culture. For example, if people work lazy, inaccurate, or commit fraud is often founded in the culture. Likewise, whether management places value on detail-orientation and costly controls or takes a more pragmatic approach is similarly rooted in the culture of the organization.\(^78\) Hence, the two inherent limitations of internal control are of importance for this study and are briefly introduced here.

2.1.4.1 Limitation 1: Errors, Omissions, and Fraud

In reality, people can be at fault in their judgment when making decisions and breakdowns can occur simply because of errors and mistakes. For instance, people must make decisions under business pressure, on time and with the information available at hand. These decisions can turn out to be incorrect at a later stage, and may need to be changed or corrected.\(^79\) Risk assessments can be performed improperly by ignoring or miscalculating certain risks that affect the organization’s ability to achieve its objectives. COSO (1992, p. 80) gives many more examples of what can go wrong even if controls are designed well:

Personnel may misunderstand instructions. They may make judgment mistakes. Or they may commit errors due to carelessness, distraction or fatigue. An accounting department supervisor responsible for investigating exceptions might simply forget or fail to pursue the investigation far enough to be able to make appropriate corrections. Temporary personnel executing control duties for vacationing or sick employees might not perform correctly.

\(^{77}\)COSO (1992, p. 15); Pfaff and Ruud (2007, p. 23).

\(^{78}\)For example, CoCo (1995b, 2006b) and COSO (1992, 2004, 2006).

\(^{79}\)COSO (1992, p. 80).
System changes may be implemented before personnel have been trained to react appropriately to signs of incorrect functioning.

Besides intended or unintended failures of personnel, management can override controls and not follow policies and procedures for reasons of personal gain or to hide the real financial condition of the organization. Besides individuals who cause control issues, two or more people can circumvent controls by collusion. An action can be perpetrated or concealed from detection through the collaboration of an employee responsible for an important control function and another employee, customer or supplier. Internal control contributes to minimize all of these human errors and failures but cannot warrant absolute assurance that these types of failures will not occur. These examples illustrate the importance of management integrity, and of employees who work in the best interests of the organization, which are typical cultural aspects.

2.1.4.2 Limitation 2: Cost Benefit Trade-off

The second limitation relies on the inherent complexity of internal control, and the fact that it is not always directly observable and verifiable. When designing control, management must consider the relative costs and benefits of specific controls. Figure 2.5 illustrates that total costs rely on decision errors costs, asset loss, residual risks, and on the amount of resources spent for internal control. The figure illustrates that optimal total costs are achieved when operating costs for internal control are balanced with decision error cost, asset loss, and residual risks. As the “quality optimum” indicates, when designing control, management is challenged to balance costs and quality. The graph demonstrates that high formalization of internal control is cost-intensive, causes inflexibilities, and still incurs some residual risks (see right side of Fig. 2.2). Even within well-designed control

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80CoCo (1995b, p. 3).
81COSO (1992, p. 80) describes many other reasons that cause top management or division managers to override controls. For example, they want “to increase reported revenue, to cover an unanticipated decrease in market share, to enhance reported earnings to meet unrealistic budgets, to boost the market value of the entity prior to a public offering sale, to meet sales or earnings projections to bolster bonus pay-outs tied to performance, to appear to cover violations of debt covenants or debt covenant agreements, or to hide lack of compliance with legal requirements. Override practices include deliberate misrepresentations to bankers, lawyers, accountants, and vendors, and intentionally issuing false documents such as purchase orders and sales invoices”. Management override is a typical aspect which demonstrates the overlap between internal control and management control.
82See Pfaff and Ruud (2007).
83Kinney (2000b, p. 84).
84COSO (1992, p. 79).
85Kinney (2000a, p. 91).
systems, some residual risks will remain because the outcome is not predictable. The ability to invest in adequate internal control requires both financial resources and time, and varies depending on the organization’s financial capacity.\textsuperscript{87} For example, a poorly performing organization may simply be concerned with staying in business and therefore establish a “cost-savings” culture, which will not spend much on controls. Ge and McVay (2005, p. 151) explain: “poor performing firms may be undertaking actions, such as downsizing, which could create holes in their existing internal controls”. On the other hand, an overemphasis on formal controls does not guarantee a much better control quality. This limitation brings into question how much formalism is needed for effective internal control, and also on what role organizational culture plays in these cost-benefit decisions.\textsuperscript{88}

Errors, omissions and fraud, and cost-benefit trade-offs in control design and execution represent major reasons why internal control can only provide reasonable assurance, not absolute. Examples such as Lehman Brothers, Siemens, UBS, Enron and WorldCom demonstrate that the “cultural forces underneath” are part of control as well. In the management control literature, it is a well-accepted fact that management accounting and control systems need to be analyzed in the broader context.\textsuperscript{89}

\textsuperscript{87}Krishnan (2005, p. 652).
\textsuperscript{88}Of particular importance for these cost-benefit discussions are mandatory regulatory requirements. Regulatory requirements for internal control (e.g., Sarbanes-Oxley Section 404) set minimum standards for how an organization must formalize its internal control and therefore impact the cost-benefit trade-off within organizations. The more these formal regulatory requirements are prescribed, the higher the minimum costs for internal control will be. As a consequence, regulation can have an important impact on internal control design and raise competitive disadvantages for organizations that would be able to design and executive effective controls also in a more informal manner than law requires.
\textsuperscript{89}For example, Dent (1991) and Hopwood (1978, 1983).

\textbf{Fig. 2.5} Cost and benefit of internal control.\textit{ Source:} Adapted from Kinney (2000a, p. 91)
Thus, to take an effective approach, control needs to be studied in its broad (informal and formal) context. A specific control might be a formal system in one organization, while in another company the same control might rely on less formalism.\(^{90}\) Important is that the necessary controls are there (formally or informally) and that the whole control approach works effectively together. Culture makes it possible that the informal aspects (e.g., leadership, trust, values, and social norms) become part of the analysis. Taking this stance, culture provides the adequate foundation for analyzing internal control.

### 2.2 Organizational Culture

#### 2.2.1 Definition

Many types of culture exist – national culture such as French culture, ethnic culture such as Islamic culture, regional culture such as Scandinavian culture, and more localized cultures such as the culture of a city, a specific neighborhood, or an institution.\(^{91}\) Just as culture can refer to a nation or a region, it can also refer to an institution such as an organization.\(^{92}\) Organization theory defines “organization” in two ways. In a general sense “organization” is understood as a task or coordination of activities,\(^{93}\) while in a more specific way the term addresses the formal institution as a social entity. The literature describes these social entities as “large bureaucracies”\(^{94}\) and “complex structures-in-motion”\(^{95}\). This formal entity, which reflects the social structures established by organizational members, is the type of organization this study refers to.

Professionals and academics often talk about establishing the “right” culture – a culture that promotes “effectiveness”, an “ethical culture”, or a culture with the “right values”. Organizational culture, then – assuming it is the right one – contributes to organizational performance because it is aligned with the organizational objectives and purpose.\(^{96}\) For example, Microsoft emphasizes in its value statement a “passion for technology”. Charles Schwab, a financial institution, sets “ethical financial services” and “earning customers’ trust” as their priorities.\(^{97}\)

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\(^{90}\)See Collier (2005) and Simons (2005).

\(^{91}\)Keyton (2005, p. 18).

\(^{92}\)Harris (1990, p. 741).

\(^{93}\)See Mintzberg (1979) and Thompson (1967).


\(^{95}\)Clegg (1981, p. 545).

\(^{96}\)For studies investigating culture and performance see Kotter and Heskett (1992), Siehl and Martin (1990), and Sørensen (2002).

These different cultural emphases make sense because the two organizations have different purposes and operate in different industries. Microsoft needs to have a culture in which people are passionate for technology in order to survive in a dynamic market, whereas Charles Schwab’s success depends on people that enhance stability and the trust of its clients. Thus, not just any culture, but the “right” culture, supports the organizational objectives and purpose, and contributes to organizational performance.98

Before linking control and culture in the literature review in Chap. 3, this subchapter provides a holistic interpretation of organizational culture. Because culture is not always directly observable,99 defining it is challenging. This challenge has led researchers to produce a variety of different interpretations. This subchapter will showcase the range of definitions, will develop a two-layered interpretation of culture in order to provide the setup for the further course of study, and will discuss discrepancies among approaches. This is necessary in order to understand the main part in which a framework is provided that captures how culture can be influenced so that controls are effective.100

2.2.1.1 Variety of Interpretations for Culture

Organizational culture has awakened the interest of many researchers from different areas, producing many ways of explaining the topic.101 To name a few, Schein (2004) explains organizational culture through leadership; Deal and Kennedy (1982) focus on the amount of risk employed; and Harrison (1972) considers the extent of formalization and centralization within the organization. Besides these alternate ways of treating organizational culture, another discussion in the literature is the status organizational culture holds and how it relates to other organizational forms. For instance, Weik (2001, p. 354) writes that organizational culture and strategy partially overlap, while Hofstede et al. (1990, p. 286) gives culture a status similar to structure, strategy, and control.102 This study adds to this discussion by linking internal control and organizational culture.

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99 See Keyton (2005).
100 In order to meet the focus of this study, this subchapter focuses on defining organizational culture and does not discuss specific aspects such as the influence of leadership on culture or the relation between culture and climate.
101 Hofstede et al. (1990, p. 286).
102 If not more clearly specified, in the proceeding of this study, the terms ‘culture’, ‘corporate culture’ and ‘organizational culture’ are all used to explain the cultural phenomena related to an organization.
Table 2.1 provides a collection of interpretations which illustrate ways that culture is defined, interpreted and analyzed. Due to the fact that culture is not entirely observable and describable, the overview shows that many different interpretations have been developed. Each of these definitions referenced in the figure can be applied to culture. Synthesizing the various definitions from the figure, four characteristics of culture can be identified. Culture is:

- About shared understandings among group members
- About group member’s interactions
- Implicit (and explicit)
- Is based on history and tradition.

Table 2.1 Categories used to explain culture

<table>
<thead>
<tr>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed behavioral regularities when people interact</td>
<td>The language they use, the customs and traditions that evolve, and the rituals they employ in a wide variety of situations</td>
</tr>
<tr>
<td>Group norms</td>
<td>The implicit standards and values that evolve in working groups, such as the particular norm of “a fair day’s work for a fair day’s pay” that evolved among workers in the Bank Wiring Room in the Hawthorne studies</td>
</tr>
<tr>
<td>Espoused values</td>
<td>The articulated, publicly announced principles and values that the group claims to be trying to achieve, such as product quality or price leadership</td>
</tr>
<tr>
<td>Formal philosophy</td>
<td>The broad policies and ideological principles that guide a group’s actions toward stockholders, employees, customers, and other stakeholders, such as the highly publicized “HP Way” of Hewlett-Packard</td>
</tr>
<tr>
<td>Rules of the game</td>
<td>The implicit, unwritten rules for getting along in the organization; “the ropes” that a newcomer must learn in order to become an accepted member; “the way we do things around here.”</td>
</tr>
<tr>
<td>Embedded skills</td>
<td>The special competencies displayed by group members in accomplishing certain tasks, the ability to make certain things that gets passed on from generation to generation without necessarily being articulated in writing</td>
</tr>
<tr>
<td>Habits of thinking, mental models, and linguistic paradigms</td>
<td>The shared cognitive frames that guide the perceptions, thought, and language used by the members of a group and taught to new members in the early socialization process</td>
</tr>
</tbody>
</table>

103Schein’s original figure was shortened. Also, authors that refer to the specific definitions were removed here.

104Although the focus here is on the organization, the concept of culture of any other instance is true for the specific culture of an organization as well. Therefore any definition of culture (whether referring to the organization or another reference) is included in this overview.

105See Keyton (2005).
First, culture is defined as “behavioral regularities”, “ideological principles” or “the way we do things around here”, which all reflect that culture is about shared understandings. Culture is about a shared understanding of the principles that are important for a group and the way actions should be performed. Thus, with regard to internal control, organizational culture stands for the common understandings within an organization how controls must be designed and executed. Second, culture is defined as “the way in which members of the organization interact with each other”. Hence, culture has to do with group members’ communications, which is another link to internal control. Third, culture is “embedded” and “implicit”, and relates to intangibles such as meanings, understandings and beliefs. In the context of controls, this means that the existence of culture makes it possible to analyze social controls and its relation to explicit formal control mechanisms. Fourth, culture is based on history and tradition as it is “passed on from generation to generation” and reflects “the customs and traditions that evolve”. History links culture and control because both evolve over time. Together, these four aspects of culture offer criteria to be met when developing a holistic definition of culture.

2.2.1.2 Defining Organizational Culture

Combining the definitions from Schein (1990) and O’Reilly and Chatman (1996), in this study organizational culture is defined as a pattern of basic assumptions that a group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, which is represented in a system of shared values defining what is important, and norms, defining appropriate attitudes and behaviors, that guide each individual’s attitudes and behaviors. This definition combines two common types of definitions on culture and emphasizes that an organization establishes its values and norms as a result of how the

106See Sect. 3.2.2.


108Bromann and Piwinger (1992) view culture in a timeframe and divide into what the cultural reality is, and what the desired status of the culture should be. They also argue that older organizations do not necessarily have “more culture”. Often in young companies team spirit and entrepreneurial thinking can bring culture more clearly to the forefront than in an established company.

109Taking a dynamic view, Schein (1990, p. 111) defines organizational culture as “a pattern of basic assumptions that a group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”.

110Taking a static view, O’Reilly and Chatman’s (1996, p. 166) organizational culture is “a system of shared values defining what is important, and norms, defining appropriate attitudes and behaviors, that guide members’ attitudes and behaviors.”
organization has been reacting to important influences from the environment and incidents in the present and past.\textsuperscript{111}

Figure 2.6 illustrates how the two views of culture interrelate.\textsuperscript{112} The two arrows indicating external adaptation and internal integration illustrate how culture refers to the environment. Thus, starting with the environment, it is shown that culture externally adapts and internally integrates as a continuous and interrelated process.\textsuperscript{113} Toward the outside, the organizational culture must adapt continuously to the external environment such as market, regulation and other factors that influence the organization. At the same time, the organizational culture needs to integrate internally and establish a common understanding of how things are going to be done in the culture. While these processes build the intermediate elements within the organization’s environment, the common understanding of how to adapt and integrate is defined in the shared values and social norms among the organization’s members. Representing the core and the more stable part, values and norms can be seen as the social and normative glue that holds an organization together.\textsuperscript{114}

Meeting the four requirements identified earlier in the chapter (shared understandings, interactions, implicitness, and history), the approach taken in this study

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig26.png}
\caption{Combined view}
\end{figure}

\textsuperscript{111}Lim (1995, p. 17) and Schein (1990, p. 111).
\textsuperscript{112}Traditionally, the concept of culture has been analyzed in anthropology. According to Kroeber and Kluckhohn (1952, p.181), culture “consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constitute the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values” (emphasis added).
\textsuperscript{113}Dent (1991, p. 709) writes that cultures “in organizations are not independent of their social context. They are interpenetrated by wider systems of thought, interacting with other organizations and social institutions, both importing and exporting values, beliefs and knowledge”.
\textsuperscript{114}See Collins and Porras (1996) and Tichy (1982).
represents a holistic definition of organizational culture. Following a two-layered definition of organizational culture, the next two sections discuss the components of the definition:

1. External adaptation and internal integration\(^{115}\)
2. Shared values and social norms\(^{116}\)

### 2.2.2 External Adaptation and Internal Integration

External adaptation and internal integration sees culture as the way an organization deals with its changing environment.\(^{117}\) A culture can only be “effective” when it addresses its environment in a way that supports the organizational long-term performance. For instance, an international organization that operates in a short-lived and competitive market will need a culture that can deal with innovation and rapid change, while a small and locally operating organization in a more traditional industry might be more successful with a conservative culture that builds on stable products and customers. Hence, depending on the environmental characteristics, an organization faces different factors and speeds of change which it must adapt to. Organizational culture determines how organizational members build consensus on how to face their environment. Adaptation and integration occur in parallel and are of equal importance. The next two paragraphs discuss adaptation and integration in more detail.

External adaptation concerns the way an organization, as a group of people, deals with change – how it addresses risk and uncertainty, explores new possibilities, and approaches new and challenging situations. It represents *how* organizational members *reach consensus* on mission, strategy, objectives, means to achieve the objectives, their measurement, and corrections if necessary. Thus organizational culture (as external adaptation) is about obtaining a shared understanding among organizational members of the core mission, strategy and objectives. It is about how consensus is reached regarding the means of attaining objectives such as organizational structure, responsibilities, rewards, and sanctions. Moreover, consensus needs to be reached on the criteria to be applied in measuring how well the group is doing in fulfilling its objectives. Schein (2004, p. 88) writes: “This step [of external adaptation] also involves the cycle of obtaining information, getting that information to the right place within the organization, and digesting it so that appropriate corrective action can be taken”.\(^{118}\) Finally, consensus needs to be reached on the correction to be used if objectives are not being achieved. In contrast

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\(^{115}\)Schein (1990, p. 111).


\(^{117}\)Schein (2004, p. 8).

\(^{118}\)Schein’s quote shows how close organizational culture and internal control are. The quote contains typical internal control matters such as discussed in the section on the benefits of internal control.
to internal control, which is about the means to achieve organizational objectives in
general, external adaptation emphasizes reaching consensus about the means
among group members.\textsuperscript{119}

Although the two processes are discussed in sequential order here, internal
integration occurs parallel to external adaptation.\textsuperscript{120} Internal integration deals
with how people form a group. Groups must develop clear assumptions about
what is and what is not accepted in the culture. They also need to establish a
common understanding of justice, regulation, norms and rules. To avoid false
expectations, they need to find a common means of communicating and giving
feedback. These integrative processes lead to solidarity among the group mem-
ers.\textsuperscript{121} Schein (2004, p. 133) describes that every group:

must learn how to become a group. The process is not automatic; in fact it is complex and
multifaceted. Humans, being what they are, must deal with a finite and describable set of
issues in any new group situation. At the most basic level they must develop a common
language and category system that clearly define what things mean. Formal languages do
not specify with enough precision what work, teamwork, respect, quality, and so on mean.
Groups must reach consensus on the boundaries of the group, who is in and who is not in.
They must develop consensus on how to distribute influence and power so that aggression
can be constructively channeled and formal status accurately determined.\textsuperscript{122}

Internal integration means everything from defining what the group is and how the
group works to coordinating activities so that specialized contributions complement
each other and form the group as a whole.\textsuperscript{123} Schein’s quote demonstrates that
internal integration is about how a group of people organizes itself, what social
structures, hierarchies and relationships it creates, and also what behavior is
accepted in the group and what is not. In addition, groups need to find explanations
to deal with unpredictable and unexplainable events. In this sense, Schein (2004,
p. 133) compares a group’s culture as a functional equivalent to religion, mythology,
and ideology, which are all used to explain the unexplainable.

While external adaptation concerns the external environment, members develop
a common understanding of principles and behaviors inside the organization
through internal integration.

In sum, organizational culture, as discussed in this section, deals with how
organizational members reach consensus on adapting to the external environment
and how the organization internally integrates. In contrast to the values and norms,
which will be discussed shortly and take a more static view, the focus for adaptation
and integration is dynamic – dealing with how people form a social system that has
adequate internal stability to survive under changing conditions.

\textsuperscript{119}Denison et al. (2006, p. 7).
\textsuperscript{120}Schein (2004, p. 109).
\textsuperscript{121}Meglino and Ravlin (1998, p. 357).
\textsuperscript{122}Emphasis added.
\textsuperscript{123}See Denison et al. (2006) and Meglino and Ravlin (1998, p. 7)
2.2.3 Shared Values and Social Norms

The core variables of culture are often described as shared values among members of a group. In alignment with Schwartz and Bilsky (1990), Wiener (1988), O’Reilly and Chatman (1996), and Van Rekom et al. (2006) this study takes the position that values guide behavior. Rokeach (1973, p. 5) defines a value as an “enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence”. This definition emphasizes that values can relate to both the action leading to an objective as well as the objective as end-state itself. The definition from Rokeach corresponds to Schwartz and Bilsky’s observation (1987, p. 551) who find that most of the value definitions have in common that “values are concepts or beliefs, about desirable end states or behaviors, that transcend specific situations, guide selection or evaluation of behavior and events, and are ordered by relative importance”. Thus, values are ordered in a value system, which reflects the relative priority of the importance of a value for a specific situation. Hence, what reflect the culture are the values that are instilled in people’s day-to-day actions as a result of the underlying value system. Michela and Burke (2000, p. 229) explain that values are intertwined with norms:

> With values, the desired behavior is expected to follow if the predisposing values are instilled. With norms, getting the desired behaviors, by whatever means, creates conditions in which people infer they are the right ones or, at least, the socially approved ones (including when people are explicitly socialized to conform to the norms).

As this quote shows, while values lead to behavior when they are “instilled”, social norms address what people in a group perceive as expected behavior (a conversion from “is” to “ought”) and therefore sets expectations for behavioral standards in the group. Values are a fundamental concept (having a “transcendental quality”), and are deep-rooted and pervasive in nature. In contrast, social norms are about social expectations. These social expectations are based on underlying values. Therefore, as values interrelate with social norms, and the distinction between values and norms may be fluent, this study focuses primarily on values, but also

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125 There are some scholars that deny this influence of values on behavior and say that values only rarely influence behavior (for example, Kristiansen and Hotte 1989; McClelland 1985).
126 D’Andrade (1984, p. 229) and Michela and Burke (2000).
127 Values must be distinguished from other concepts such as opinions and attitudes. A value is more general and less bound to any specific object as opposed to many attitudes and opinions, which are situation-bound. Therefore a value can underlie numerous opinions and attitudes (Akaah and Lund 1994, p. 418; England 1967, p. 54).
discusses them implicitly in their function as social norms. Social norms represent what people within a group typically do, and shared understandings among the group members represent what people from the group are supposed to do. Fehr and Fischbacher (2004, p. 63) interpret social norms as “normative standards of behavior that are enforced by informal social sanctions” and explain social norms as one of the distinguishing facets of human species. Thus, social norms define what people ought to do as part of a common understanding in the group. In contrast to the value which is instilled, social norms reflect the social expectations of behavior in a group that is typically enforced by social sanctions.

In retrospect, two important points need to be mentioned here. First, to become a driver for organizational effectiveness, values, and norms need to support organizational goals and strategies. Thus, the mere fact that shared values exist does not necessarily result in organizational success and task productivity. Values must enhance behavior that is appropriate for task performance and survival of the organization. Second, in the terminology of Schein’s dynamic definition, values and norms must be adequate for both external adaptation and internal integration. Values for internal integration may be different from those values required for external adaptation. An organization can have high internal standards and apply these effectively. For adapting to the outside, however, those values could bring competitive disadvantage. Consequently, values and norms need to be appropriate for the organization’s objectives both within the organization and toward the outside.

### 2.2.4 Specifications

The broad definition of culture provides a holistic setup for analysis. As preparation for the further analysis in Part III, two important discrepancies are discussed in this section. First, the definition of organizational culture contains a dynamic and a static perspective, which offer different insights. Second, culture can be addressed from the perspective of different disciplines such as psychology, sociology or anthropology. Each produces different insights into the topic as well. Thus, including more than one viewpoint in this study is likely to bring different insights and as a consequence a more comprehensive view of culture. Because variations in viewpoints provide a breadth adequate to internal control, they are relevant for the premise of this study.

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130 In accounting and control research social norms are often discussed in regard to incentive systems (for example, Kunz and Pfaff 2002).
131 Michela and Burke (2000, p. 229).
133 Wiener (1988, p. 536).
2.2.4.1 Dynamic versus Static View

As the prior discussion on culture demonstrates, the conceptual spectrum of research on organizational culture can be interpreted as operating along a continuum, extending from dynamic to static approaches. On the one hand, culture is interpreted dynamically because it is seen as something “historically derived and selected”. Culture is seen as a process, evolving with time, dynamic, and changing in nature. On the other hand, research often interprets culture as more static, based on values and norms (or similar variables). Culture is then viewed as static, focusing on a specific point in time, relying on the idea that it is classifiable based on two or more variables such as a set of values and norms. Because this static view looks at culture as a variable that can be distinguished through one or two variables, Alvesson (1989) uses the term “classification-oriented”. In contrast, he uses “process-oriented” for the dynamic view because it portrays culture as a process that adapts to the environment and integrates internally. In this study, both views will be discussed similarly and referred to as the “dynamic” and the “static” views on culture. Table 2.2 gives a summary of the two views.

Schein (2001, p. xxiv) describes the fact that culture can be conceptualized dynamically as well as statically as a “chronic issue”. Obviously, different interpretations can cause misunderstandings. They are not only different concepts but also imply different methods of dealing with culture. Nevertheless, he concludes that both meanings of culture have utility for theory building. Social phenomena cannot really be understood “without understanding both the historical events and the cultural meanings attributed to those events”. Supporting Schein’s argumentation, the variety of definitions on culture is seen as an opportunity to investigate different aspects of culture rather than as a conceptual dilemma. As will be discussed in more detail later, this study applies both the static and the dynamic view in order to produce a comprehensive understanding of culture.

<table>
<thead>
<tr>
<th>Table 2.2 Dynamic versus static view on culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic view</td>
</tr>
<tr>
<td>Based on adaptation and integration</td>
</tr>
<tr>
<td>Evolving and changing</td>
</tr>
<tr>
<td>Process-oriented</td>
</tr>
<tr>
<td>Static view</td>
</tr>
<tr>
<td>Based on shared values and norms</td>
</tr>
<tr>
<td>Stable</td>
</tr>
<tr>
<td>Classification-oriented</td>
</tr>
</tbody>
</table>

Source: Adapted from Schein (2004, pp. 12-13)

137While process-oriented approaches are often combined with theory-building and qualitative studies (see Alvesson 2002; Schein 2004), classification approaches often relate to quantitative studies in which culture is measured and related to specific organizational outcomes (see O’Reilly et al. 1991; Sarros et al. 2005; Sørensen 2002).
2.2.4.2 Organizational versus Individual Level

In the same way as the dynamic and static views reflect interests from varying origins, different disciplines also address culture in different ways and, as a result, produce different insights. This study divides these insights into two levels: the organizational (sociological) and personal (psychological) levels. For instance, how culture impacts the actions of an individual can be investigated based on a psychological point of view. In contrast, how culture affects the interrelations of people in a group or an organization is a possible sociological study.

Keyton (2005, p. 18), taking a sociological stance, points out that through people’s interactions, a unique culture in the form of a social structure is formed and is “continually reproduced by its members”. Keyton explains culture as something that is produced through a group of people (e.g., an organization) and emphasizes that this group of people establishes autonomy based on social structures (e.g., a typical question of this type of research would be: what group dynamics take place in performing controls?). In contrast, Hofstede (2001, p. 9), defines culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another”. Hofstede considers what is going on within people and explains culture as something that “programs the mind”. The last definition makes clear that organizational culture affects each individual participating in a cultural setting (e.g., what do people think when they perform controls?).

As these two examples demonstrate, different levels such as organization and individual turn out to deliver a different viewpoint and emphasis on culture, and also promise to bring different qualities to their results. As a consequence, any study of culture needs to clarify which level it addresses so that it can produce valuable results. This study considers on the organizational and individual level as well as on the dynamic and static view in order to link internal control and organizational culture more holistically.

2.3 Summary

This chapter has discussed the basics of internal control and organizational culture to provide a common understanding of the two topics.

Internal control is a process, effected by all people within the organization, and designed to provide reasonable assurance for the achievement of the objectives in regard to effectiveness and efficiency of operations, reliability of internal and external reporting, and compliance with applicable laws, regulations and internal policies. Internal control primarily supports the achievement of these objectives by providing decision-makers with information quality and by the safeguarding of

139 These are common differentiations in interdisciplinary research.
140 See Chaps. 5–7.
organizational assets. Hence, internal control provides integrity for any control system within the organization. Internal control is effective if senior-level people have reasonable assurance that the three objective categories are achieved and that internal control is free of any material weakness. Because within any control design rests the risk of errors, omissions, and fraud, and relies always on a cost-benefit trade-off, internal control can only provide a reasonable assurance for the achievement of objectives, not absolute.

As with internal control, many interpretations for organizational culture have been developed. Extracting common patterns of definitions, culture is about shared understandings of a group’s principles and actions, builds on members’ interaction, and is implicit and historically derived. Based on these variations in interpretation, the study developed a two-layered definition of organizational culture. Organizational culture is defined as the way in which members of a group cope with external adaptation and internal integration, and how these processes of adaptation and integration are reflected in shared values and social norms. This definition is broad and covers a dynamic as well as a static view of culture. Moreover, this broad definition makes it possible that culture can be analyzed on a more organizational (sociological) level and on a more individual (psychological) level in the further course of study.

After having developed an understanding for internal control and organizational culture here, the next chapter proceeds with a literature review to examine how the two topics are related to each other in management accounting and control research.
Managing Organizational Culture for Effective Internal Control
From Practice to Theory
Pfister, J.A.
2009, XX, 245 p. 32 illus., Hardcover
ISBN: 978-3-7908-2339-4
A product of Physica-Verlag Heidelberg