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EVALUATION OF THE EFFECTIVENESS OF INTERNAL CONTROL OVER FINANCIAL REPORTING

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INTRODUCTION

Understanding the concept of internal control is essential for developing an understanding of its impact on the performance of an organization.

The internal control system of an entity is strictly interrelated to the structure used by management to oversee the activities of the organisation, or to what is defined as the entity's corporate governance. "Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interest of the company and shareholders and should facilitate effective monitoring, thereby encouraging firms to use resources more efficiently" (OECD Principles of Corporate Governance). The Board of Directors is thus responsible for providing governance, guidance and oversight for senior management and ensuring that an appropriate internal control system is in place and effective, meaning it ensures that expected objectives are attained.

Major recent financial scandals in the United States and Europe highlighted that when those charged with governance do not act in the interests of shareholders and do not identify, evaluate and respond to the company's risks – or, in another way, they do not incentive the set up of internal control system – companies are fated to failure and public confidence in capital markets and companies in general is put at risk.

Financial reporting is the bridge between the company and its external environment. One of the main aspects which contributed to these failures relate to the internal control system developed around the disclosure of information to stakeholders. It appeared that not achieving the objective of effective internal control system over financial reporting undermines the reputation of a company, even at the presence of many other control components, making it difficult or impossible for a company to be reliable on the market, to be able to collect financing resources, to be credible to shareholders and stakeholders in general.

In the United States the response to financial scandals, such as Enron or WorldCom, has resulted in bringing into law the “Public Company Accounting Reform and Investor Protecting Act 2002”, commonly known as the “Sarbaney-Oxley Act”. Sarbaney-Oxley act requires management to take full responsibility for internal control system over financial reporting within the company and provide assessment of its effectiveness. It also requires auditors to provide independent attestation regarding the assessment by management. Sarbaney-Oxley is binding for the listed companies in the US and their subsidiaries, and, as a consequence, indirectly influencing a part of private sector companies in Estonia. In Europe, no regulation can be considered equivalent to Sarbaney-Oxley. In the EU, the European Commission is proposing new requirements for listed companies and other public interest entities; active discussions over the necessity and forms of regulating the management’s responsibility to maintain and report on the effectiveness of internal control system are ongoing.

With regard to Estonia, there is limited research about the changing nature of internal control in organizations and the actual evaluation of the internal control systems in a company. At the University of Tartu and at Tallinn University of Technology, few works have been written concerning the creation and improvement of internal control system in public sector organizations, but research regarding internal control systems in private sector has been limited. Furthermore, in Estonian business environment appears a need for testing the evaluation methods of internal control over financial reporting and benchmarking the results against best practices.

Regarding the latter, the objective of present thesis is to make suggestions to Estonian companies for improving the effectiveness of their internal control over financial reporting, as a result of the assessment and benchmarking.

For achieving this objective, the following research tasks are set up:

- 1) define the concepts of “internal control” and “internal control over financial reporting” in a company;
- 2) determine the components, limits and principles of effective internal control over financial reporting;

- 3) compare different methods for evaluating the internal control over financial reporting and develop the best model for present thesis;
- 4) evaluate the internal control over financial reporting and its components in Estonian medium-sized manufacturing companies;
- 5) make suggestions for improving the internal control over financial reporting in these companies;
- 6) conclude in appropriateness of the framework used in the study for Estonian business environment.

Theoretical background of the thesis is chosen to be wide-ranging, covering the theories of various authors and materials from sources with different academic levels. Theoretical literature relies on the academic articles and books written by leading experts in the field, the differences between the countries are investigated based on the main internal control frameworks from the US, Canada and UK; also legislative sources are used. Due to the novelty of the subject, the original literature regarding internal control in Estonia is limited and therefore the sources are mainly from foreign authors. Even translations and originals of foreign literature on this topic are quite rare in Estonian libraries. The sources for empirical study involve the analysis of the companies' financial statements, examination of internal documents and interviews with key personnel. To create an overall framework for the assessment, but at the same time to take into account the features of each company, both quantitative and qualitative research methodologies are used.

Present thesis consists of two chapters. The first chapter, in its first part, defines what is intended for internal control and brings out the differences with internal control over financial reporting. Furthermore, different frameworks of internal control will be compared and the best to suit Estonian business environment will be chosen as a benchmark for the evaluation of the selected companies' internal control over financial reporting. In developing a framework for the evaluation, one of the core aspects is the regulation over the evaluation and reporting of internal controls, its possible costs and benefits, and need for such regulation in Estonia. The second part of the first chapter examines closely the components of internal control system, possible evaluation methods and problems observed. In this respect, the necessity and possibilities in giving

an overall opinion on the effectiveness of internal control over financial reporting is observed. The emphasis is placed on the evaluation of internal control system applicable to small and medium-sized entities, which can be distinguished with simple product lines, limited number of employees and usually few management/reporting lines, as medium-sized companies will be the subject of the following study.

The second chapter of this thesis describes research methodologies, evaluation approach, results of the study, recommendations to the companies and overall conclusions. The evaluation methodology of internal control over financial reporting will be tested on three medium-sized Estonian manufacturing companies with different ownership and managerial backgrounds. In this respect, each component of the internal control system, as well as the overall effectiveness of internal control over financial reporting will be assessed in each of the three selected companies. In order to ensure a proper evaluation, the present thesis, on the one hand, compares to each other the internal control systems of the selected companies and, on the other hand, benchmarks these systems against the selected model, the COSO internal control framework. As a result of the empirical work, the second chapter contains suggestions for improving the internal control over financial reporting in selected companies, taking into consideration the peculiarities of the Estonian business environment.

The results of the thesis can be used by the companies concerned to improve their internal control systems over financial reporting. The recommendations can also be interesting for other companies and organizations in Estonia, indicating the general weaknesses and specific features that should be developed to achieve an effective internal control over financial reporting. Conclusions of this study can also be used as a basis for further studies in the field of internal control and risk management.

1. THE INTERNAL CONTROL FRAMEWORK

1.1. Evolution of the definition of internal control

This chapter considers the traditional aspects of the concepts of internal control, collates the views of different authors and develops a comprehensive definition of “internal control” and “internal control over financial reporting” in a company, highlighting the differences between the two definitions. In addition, the importance of internal control, its inherent limitations and possible outputs in government-level regulations are discussed.

In the past the concept of “internal control” was limited to that of “internal check”. In 1930, the system of internal check was defined as the coordination of a system of accounts and related office procedures in such a manner that the work of one employee independently performing his own prescribed duties continually checks the work of another as to certain elements involving the possibility of fraud (Sawyer *et al.* 2003: 61). It is knowingly the first definition to indicate the importance of internal control in helping also to detect or prevent fraud.

In 1949, the American Institute of Certified Public Accountants (AICPA) broadened the definition of internal control. Internal control was defined as the plan of organization and all of the coordinate 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 (*Ibid*: 61).

This definition is broader than the meaning usually attributed to the term, because it recognizes that a system of internal control extends beyond matters which relate directly to the accounting and financial functions.

The following factors are contributing to the expanding recognition of the significance of internal control (Boynton *et al.* 2001: 323):

- the scope and size of the business entity has become so complex and widespread that management must rely on numerous reports and analyses to effectively control operations;
- the check and review inherent in a good system of internal control affords protections against human weaknesses and reduces the possibility that errors or irregularities will occur;
- it is impracticable for auditors to make audits of most companies within economic fee limitations without relying on the client's system of internal control.

However, with the aim of minimising litigation risk, the AICPA amendments in 1958 and 1972 focused managements', accountants' and auditors' attention on traditional internal accounting controls, thereby again narrowing the focus of control.

Big audit failures in the 1980s were influential in prompting re-evaluation of internal control. The National Commission on Fraudulent Financial Reporting (Treadway Commission) in the US, the Commission to Study the Public's Expectations of Audits (MacDonald Commission) in Canada, and the Committee on the Financial Aspects of Corporate Governance (Cadbury Report) in the United Kingdom, were established to investigate the reasons behind the large number of company failures, fraud and audit failures. Key findings from these reports highlighted the importance of having an effective internal control system and confirmed the lack of consensus around the definition of internal control.

In the US, the organisations which sponsored Treadway (COSO - Committee of the Sponsoring Organizations) produced a further report in 1992, specifically addressing the role of internal controls in securing improved corporate governance: the COSO framework, which is regarded as the foundation of the modern approach to control (Spira *et al* 2003: 647). COSO 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. (COSO 1994: 13)

The principle of effectiveness is concerned with attaining the specific objectives set and achieving the intended results, whereas the principle of efficiency is concerned with the best relationship between resources employed and results achieved (Council regulation 1605/2002: 12). A subset of the COSO objectives is safeguarding of assets. Internal control should be designed to provide reasonable assurance regarding prevention of or prompt detection of unauthorized acquisition, use, or disposition of assets (Standards for Internal Control... 1999: 5).

The report emphasizes that the internal control system is a tool of management, at the same time not being a substitute for management itself. According to COSO definition, controls should be built into, rather than onto, operating activities (COSO 1994: 14). The incorporation of “effectiveness” was the first radical change to the idea of internal control over four decades. By admitting “effectiveness” – the extent of achievement of objectives – into the ambit of internal control, the statement recognises for the first time the existence of business objectives other than efficiency and probity and goes some way to aligning the definition with business risk approaches to audit (Spira *et al.* 2003: 647-648).

Additional internal control frameworks have been developed in the US, which contain both their own definitions of internal control and different approaches to the system:

1. The Information Systems Audit and Control Foundation’s Control Objectives for Information and Related Technology (COBIT). This framework allows managers to benchmark the security and control practices of IT environments. COBIT has adapted the definition of control from COSO. The policies, procedures, practices and organizational structures are designed to provide reasonable assurance that business objectives will be achieved and that undesired events will be prevented or detected and corrected (CobiT 2000: 10). A brief overview of the CobiT framework can be found in appendix 1.
2. The Institute of Internal Auditors Research Foundation’s Systems Auditability and Control (SAC). The report provides guidance on using, managing, and protecting

information technology resources and discusses the effects of end-user computing, telecommunications and emerging technologies (Colbert *et al.* 2005). The SAC report (Mair 2002: 7) defines a system of internal control as a set of processes, functions, activities, subsystems, and people who are grouped together or consciously segregated to ensure the effective achievement of objectives and goals. See appendix 2 for the description of the SAC framework of internal control.

3. The American Institute of Certified Public Accountants' Consideration of the Internal Control Structure in a Financial Statement Audit (SAS 55), amending SAS 78 and SAS 94. SAS adopts the internal control definition from the COSO report, except that SAS places the reliability of financial reporting objective first, thus emphasizing the importance of the activity.

Although the four definitions contain essentially the same concepts, the emphases are somewhat different. COSO accentuates internal control as a process, i.e. internal control should be an integrated part of ongoing business activities. COBIT views internal control as a process which includes policies, procedures, practices and organizational structures that support business processes and objectives. SAC emphasizes that internal control is a system, i.e. that internal control is a set of functions, subsystems, and people and their interrelationships. Furthermore, only COSO focus on the overall entity where all the other frameworks mostly focus on some of its aspects.

The comparison of the scope, objectives and focus of the aforementioned concepts is described in table 1.1. The basic ideas that all adopt and implement are the responsibility and accountability of managers for establishing, supervising and developing an internal control framework in an entity and a dynamic process-view of internal controls. As results from the table, the audience of internal control information can be different. Subjects having an interest in the effectiveness of a company's internal control system include managers, board of directors, the audit committee, internal and external auditors, regulators, suppliers and customers, investors and lenders. Internal control information provides the users better assurance on (a) the likelihood that the company has addressed significant risks and can address them in the future and (b) the likelihood that interim financial data for decision making will be accurate (Rittenberg *et al* 2005: 146)

Table 1.1. Comparison of Control Concepts in the USA

	COSO	COBIT	SAC	SASs 55/78/94
Primary audience	Management	Management, users, IT auditors	Internal auditors	External auditors
Internal Control viewed as a	Process	Set of processes including policies, procedures, practices	Set of processes, subsystems and people	Process
Internal Control Objectives	(1) Effective & efficient operations (2) Reliable financial reporting (3) Compliance with laws & regulations	(1) Effective & efficient operations (2) Confidentiality (3) Integrity and availability of information (4) Reliable financial reporting (5) Compliance with laws & regulations	(1) Effective & efficient operations (2) Reliable financial reporting (3) Compliance with laws & regulations	(1) Reliable financial reporting (2) Effective & efficient operations (3) Compliance with laws & regulations
Focus	Overall Entity	Information technology	Information Technology	Financial Statement
Responsibility	Management	Management	Management	Management

Source: Colbert *et al.* 2005, modified by author.

The need for more advanced and appropriate internal control models appeared also in other countries. In fact, shortly after COSO, the Canadian Institute of Chartered Accountants developed the Criteria of Control Framework (CoCo) which provides a definition of control and a series of criteria for assessing its effectiveness. CoCo defines control as comprising those elements of an organization (including its resources, systems, processes, culture, structure and tasks) that, taken together, support people in the achievement of the organization's objectives (Luscombe 1995: 3). This reflects a much broader approach to control and risk, directly related to the achievement of organizational objectives (Spira *et al.* 2003: 648). The objectives of CoCo are similar to those of COSO, adding the reliability of internal reporting and compliance with internal policies. CoCo (Luscombe 1995: 3) argues that internal control needs to be understood in a broad context. For example, control is as much a function of people's ethical values and beliefs as it is of standards and compliance mechanisms (tone at the top). The general approach and the specific objectives which CoCo strives to achieve are described in appendix 3.

The broadening aspect of the definition of internal control could also be followed in the UK, where different reports concerning corporate governance were issued, from Cadbury Committee report in 1992 to Turnbull report in 1999. According to the studies implemented by Armour (2000: 77-78) and Spira and Page (2003: 648-652), earlier guidance was related to financial controls rather than all controls (examples of non-financial controls are for example those controls related to development of strategy or recruitment policies), but the importance and scope of internal control has been increased throughout the years. The change of the concept of internal control can be seen on the figure 1.1. CobiT and SAC model are not reported on the graph, as they concern more specific aspects of a company, rather than the whole entity.

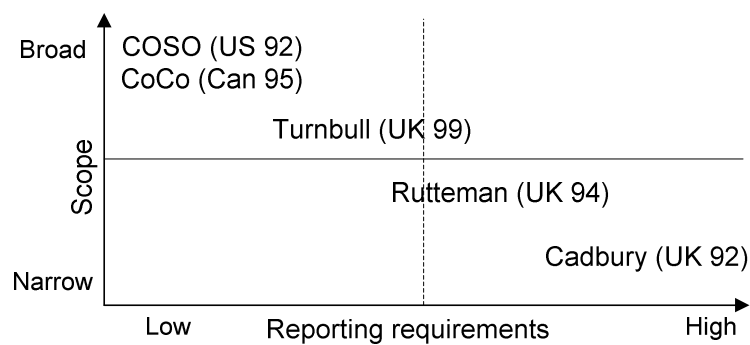


Figure 1.1. The trend away from a narrow internal scope towards a broader scope. Source: Spira *et al.* 2003, p. 651 (modified by author).

With regard to Estonia, there is not an integrated overall approach to the definition of internal control. The Government of the Republic Act, § 92 (Vabariigi Valitsuse seadus) establishes that internal control system is an integral complex of measures implemented under the supervision of the government office or institution, addressed to legitimacy and expediency. The internal control system assures:

- 1) compliance with regulations;
- 2) safeguarding of assets from defalcation, misuse, incompetent management etc;
- 3) expediency of the activities of the institution in performing its duties;
- 4) gathering, retaining and publishing correct, timely and reliable information of the activities of the institution.

Comparing COSO definition with the definition of internal control as provided for by the Estonian Government, it appears that the latter does not include directly the effectiveness and efficiency of operations and its focus is mainly limited to the purposefulness and legitimacy of actions and non-financial information. This definition is not suitable for private sector, where efficiency of operations and financial information have crucial importance. The State Audit Office of Estonia is using in its work the definition of INTOSAI (International Organization of Supreme Audit Institutions), which emphasizes foremost the achievement of objectives in economical, efficient and effective way (Riigikontroll 2000: 101).

In this respect, following the professional literature and developments in internal control definitions, it appears artificial to distinguish between financial and operational controls. The academic literature (Armour 2001: 78, Kinney 2000: 85) is acknowledging the importance of the revised control criteria in achieving effective internal control.

For the purposes of present thesis, also the concept of financial reporting has to be clarified. According to the Chartered Institute of Public Finance and Accountancy (CIPFA), financial reporting comprises (CIPFA 2002: 24):

- Financial statements. These comprise external reports of a general nature that relate to the organisation's financial position. Annual accounts are the most obvious example, but other examples might include the organisation's budget and periodic reports on financial performance.
- Special-purpose financial reports. These include financial reports that are required by regulators, tax authorities and others, where the requisite information and format are specified by an external authorised body.
- Internal financial reports. These are formal reports which are produced for decision-makers within the organisation. Examples include budgets and budget-monitoring reports. Informal reports generated by managers themselves for daily control are not included in this definition.

The focus of the thesis will be on internal control over financial reporting. To take into account, on the one hand, the specific features of Estonia, in particular the fact that the

role of board of directors is replaced with supervisory board, and on the other hand, the focus of the study on companies instead of all organisations, the following definition is adapted in present dissertation. Internal control over financial reporting is a process, designed and effected by the company's management, supervisory board and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Estonian generally accepted accounting principles. This definition encompasses the subset of internal controls addressed in the COSO report that pertains to financial reporting objectives and does not encompass directly the COSO elements that relate to the effectiveness and efficiency of a company's operations and a company's compliance with applicable laws and regulations, with the exception of compliance with the applicable laws and regulations directly related to the preparation of financial statements.

Expressions "internal control", "internal control system", "internal control framework" and "internal control over financial reporting" are used interchangeably to express the internal control system set up for achievement of the company's objectives in financial reporting, even though the author recognizes that they can contain some content differences. When appropriate, the differences between "internal control" and "internal control over financial reporting" will be stated. Furthermore, the terms "internal controls" and "control activities" are used to express the specific activities, which all together constitute one component of the internal control system according to COSO framework.

Under the current operations of business in general, the importance of internal control can be divided into the following (Liu 2005: 93, Rittenberg *et al.* 2005: 146):

1. Detecting error and fraudulence. Through the enhanced structure of internal control, which includes the establishment and improvement of control environment, accounting system and control program, the possibility of error and fraudulence can be diminished to the minimum level.
2. Decreasing illegal conduct. The regulations a business entity needs to comply with can be subtle and complicated. If a reckless conduct leads to the results of law breaking, it might not only damage the public image of the entity (reputation risk),

but also carries the risk of difficulties of operation due to time-consuming law suits and indemnities. The establishment and enhancement of internal control helps in decreasing illegal conducts.

3. Improving the competitiveness of the business entity. A well built-in and efficient internal control system contributes to the success of a business entity. In the highly competitive market, a well-managed internal control system guards the business entity from failure. The small scale of internal control inside the business entity improves employee's understanding of company goals and objectives and builds up the concepts of internal control; employees tend to carry out more exactly on the company policies and programs thus the operating efficiency can be improved as a whole. Good control means that risks are identified and dealt with effectively.
4. Improving the quality of data. Strong internal control processes should lead to more efficient operation and improve the quality of data that management, directors and shareholders can rely on to make decisions.
5. Helping to create the business infrastructure. Many new businesses fail because they do not build a control infrastructure to match the business visions of their founders.
6. Decreasing auditors' fees. Effective internal control system allows auditors to rely on it and by reducing the auditing time and effort, the fee can be decreased.

Many companies continue to exhibit a tendency to rely mostly on external control systems. Jensen and Craswell (Jensen 2003: 54, Craswell *et al.* 1995: 311) have shown that demand for control is linked to the presence of agency costs, which can be reduced by hiring external control mechanisms such as external auditing. However, internal and external control mechanisms are fundamentally different by definition. External control mechanisms such as external audits are intended primarily to enhance the reliability of financial reporting, either directly or indirectly by increasing accountability among information providers (Jensen 2003: 54). On the contrary, as defined before, internal control has a much broader purpose and can not be superseded by external control processes.

According to Caplan (1999: 104) internal controls are assumed to help prevent and detect unintentional errors and employee wrongdoing, but they do not directly deter management fraud. The internal control framework can only help the entity to achieve

its objective but it cannot ensure the success of the company or its future existence. These aspects are influenced by elements such as the quality of managers, changes to the external environment or competitive conditions, elements outside the control of management.

Another essential element that should be considered in examining the benefit of internal control is related to the level of assurance delivered by the framework. In fact, internal control cannot go beyond a reasonable assurance concerning the achievement of objectives. This depends on the intrinsic limits to any control system which have an impact on the probability that objectives are achieved, to the limited resources available, to the risk of collusions to override controls, etc.

COSO and SAS identify the following inherent limitations that explain why internal control, no matter how well designed and operated, can provide only reasonable assurance regarding achievement of an entity's control objectives (Boynton *et al.* 2001: 327):

- Mistakes in judgement. Occasionally, management and other personnel may exercise poor judgement in making business decision or in performing routine duties because of inadequate information, time constraints, or other procedures.
- Breakdowns. Breakdowns in established control may occur when personnel misunderstand instructions or make errors due to carelessness, distractions, or fatigue. Temporary or permanent changes in personnel or in systems or procedures may also contribute to breakdowns.
- Collusion. Individuals acting together, such as an employee who performs important control acting with another employee, customer, or supplier, may be able to perpetrate and conceal fraud so as to prevent its detection by internal control.
- Management override. Management can overrule prescribed policies or procedures for illegitimate purposes such as personal gain or enhanced presentation of an entity's financial condition or compliance status (e.g. inflating reported earnings to increase bonus payout). Overriding practices include making deliberate misrepresentations to auditors and others.

- Cost versus benefits. The cost of an entity's internal control should not exceed the benefits that are expected to ensue. Because precise measurement of both costs and benefits usually is not possible, management must make both quantitative and qualitative estimates and judgements in evaluating the cost-benefit relationship.

Above the approaches to the definition of internal control in different countries were compared. The differences in definitions were subtle, but the extent to which the states have chosen to express the importance of compliance with the principles of internal control varies substantially. Probably the strictest regulation is in the US, where the Sarbaneyx-Oxley Act from 2002, specifically Section 404 require management to publicly state their responsibility for establishing and maintaining adequate controls over financial reporting together with an assessment of their effectiveness at the end of the most recent fiscal year (Sarbaneyx-Oxley 2002: 45). External auditors have to provide an opinion both on the internal control and management's assessment.

As a response to the European Commission's intention to require companies to include within their annual report a description of the company's internal control and risk management systems, the European Federation of Accountants (FEE) conducted a study in 2003-2005 in 25 member states of the European Union to comprise an understanding of current best practices among companies and regulatory requirements on risk management and internal control. The study concluded that in the member states there exist different codes and acts which enforce the implementation of best practices of internal control in companies, but they are mostly voluntary.

The FEE does not make presumptions about a need for increased regulation, but brings out the fact that due to the different legislative framework, the company law in Europe generally gives shareholders power to act which is not available to US shareholders. FEE is supportive of the objectives of board accountability for the preparation of information to shareholders and that companies should establish and maintain effective systems of risk management and internal control to safeguard shareholders' investment (FEE 2005: 6). Nevertheless, FEE is not convinced of the idea of introducing the requirement similar to Section 404 of the SOX, the relation of benefits and costs should be further discussed (Duckworth 2005: 16). At present, the discussions on the subject are still ongoing in the EU.

In the author's opinion, the board's accountability for the preparation of information to shareholders and for effective systems of risk management and internal control should be more emphasised. However, the businesses should not be subjected to regulatory intervention without good cause and a proper consideration of costs and benefits; this consideration and discussion seems to be lacking at present in Estonia. Although from 1.1.2006 the Commercial Code (Äriseadustik: §306, section 7) obliges the management to ensure a proper internal control in the entity to discover circumstances threatening the activities of the company, it is rather complying with the rules already present in the EU than active promotion of the importance of internal control in a business.

1.2. Components of internal control system

1.2.1. Overview of the components

As a result of the long history of publicly traded companies, and consequently of the highly developed regulation on the subject, the US have assisted to the development of many internal control frameworks. Appendices 1 to 3 of the present dissertation contain a description of the aforementioned frameworks originating from the US as well as of the Canadian and UK frameworks.

In Estonia, the lack of specific regulations concerning internal controls and the relatively new concept of internal auditing in private companies imply that there is not always a common and clear understanding of internal control and of the use of framework guidance for the private sector. A brief review of the internal audit chapters of the annual reports of some Estonian companies indicates that the COSO framework is applicable in the Estonian private sector environment. The research conducted in the University of Tartu on internal control in private sector has also relied on COSO internal control framework due to its comprehensibility and elaboration (Jallai 2001: 16). All this supports application of the COSO framework in present dissertation.

Therefore the discussion and evaluation methods of the components of internal control framework in the present dissertation are mostly based on the COSO approach considering its broad concepts, the applicability to most of the organisations and its relatively consolidated history of practice. Nevertheless, when relevant, other

approaches are discussed and compared with COSO. This framework is widely implemented in Western Europe, in the private and public sectors, and is usually used for evaluating and benchmarking the internal control system of companies. The COSO approach to internal control is well described by the figure 1.2 below.



Figure 1.2. The COSO Framework. Source: FEE 2005: 15.

Internal control consists of five interrelated components, which will be further discussed in following sub-chapters:

- control environment;
- risk assessment;
- control activities;
- information and communication;
- monitoring.

There is a direct relationship between objectives, which are what an entity strives to achieve, and the components, which represent what is needed to achieve the objectives. The relationship can be depicted by a three-dimensional matrix:

- The three objective categories – operations, financial reporting and compliance;
- The five components
- The units or activities of an entity, to which internal control relates.

This study focuses specifically on one of the three aforementioned objective categories, financial reporting. This objective is concerned with all five components of the internal control and different units and activities of the entity. The effectiveness and efficiency of operations and compliance with laws and regulations will be assessed only insofar as they concern directly the achievement of reliable financial reporting.

The components and their sequence in US frameworks (COSO, CobiT and SAC) and the Canadian framework (CoCo) are compared in table 1.2. COBIT is concentrated on IT processes; the natural grouping of processes into four components/domains is often confirmed as responsibility domains in an organizational structure and follows the management cycle applicable to IT processes. COBIT presents a framework of control for business process owners. The internal control in SAC framework consists of three components: the control environment, manual and automated systems, and control procedures. This is somewhat narrower approach, as neither risk analysis nor monitoring is mentioned.

Table 1.2. Components of different internal control systems.

	COSO	COBIT	SAC	CoCo
Purpose and Commitment	x	x	x	1,2
Control Environment	1	x	1	x
Planning and organization	x	1	x	x
Risk management	2	x	x	x
Manual and automated systems	x	x	2	x
Acquisition and implementation	x	2	x	x
Control activities/procedures	3	x	3	3
Information and communication	4	x	x	3
Delivery and support	x	3	x	x
Monitoring	5	4	x	4

Source: compiled by author.

Although the systems may appear to differ in their approaches to controls, further study reveals many similarities, which are discussed in the following chapter within the description of every internal control component.

Internal control over financial reporting can be judged effective, if the board of directors and management have reasonable assurance that published financial statements are being prepared reliably (COSO 1994: 20). The assessment of the effectiveness of

internal control system involves the separate assessment of every component. One of the questions in researcher's mind is the significance of every internal control component in internal control over financial reporting. The latter is particularly important in the quantitative assessment. Another question involves the relation of internal control system and other features of the company, e.g. size, ownership structure etc. The academic literature has offered some suggestions on these subjects.

Haskins (1987: 552) has found that client size and complexity are positively correlated with the extent to which formalized control mechanisms are being used in the company. Also COSO considers that organizations of different sizes may implement control environment components differently. For instance, a small company may emphasize the importance of integrity despite not having a written code of conduct since the visibility and direct involvement of senior management may help communicate a commitment to ethical values both orally and through actions (D'Aquila 1998:473).

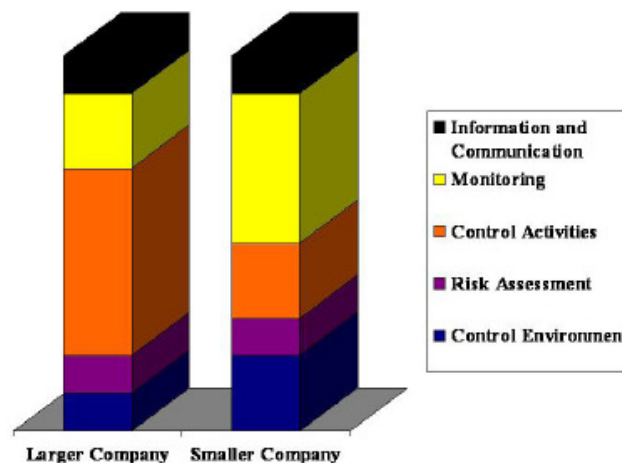


Figure 1.3. The emphasis of five COSO components in different-sized companies. Source: COSO 2005: 19.

Companies, regardless of size, need to have all five COSO components present and functioning, but the relative reliance on each component may be different in small and large companies. According to COSO (2005: 19), control environment and monitoring should have greater emphasis in smaller companies, as illustrated by figure 1.3. The numerical weights are not mentioned, but the figure illustrates quite well the mutual

relations between the components of internal control. The importance of the components, particularly control environment, will be further discussed below.

As the empirical part of present dissertation is developed based on the analysis of Estonian mid-sized manufacturing companies, the discussion concerning the components of the internal control system in an entity and its evaluation concepts is placed on the application of the methodology in small and medium-sized companies. By definition, the category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million. Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million (Commission Recommendation 2003/361/EC).

SAS 55 (§319.15) identifies the following factors to be considered in deciding on how to implement each of the five internal control components (Boynton *et al.* 2001:348):

- the entity's size;
- its organization and ownership characteristics;
- the nature of its business;
- the diversity and complexity of its operation;
- its methods of processing data;
- its applicable legal and regulatory requirements.

In author's opinion, the issues listed in COSO Internal Control Framework should be considered and evaluated both against the country's standards and other companies in the same industry. Considering that in Estonia there is no overall benchmark for evaluating the effectiveness of internal control over financial reporting, companies should assess their internal control systems rather according to the principles of effective internal control, than the methods suggested by different control frameworks. The COSO principles are presented in following chapters within every component. Benchmarking against other companies is essential, but could prove to be highly expensive in competitive environment.

In the following paragraphs, each internal control framework component is separately presented and discussed in the context of the effectiveness of internal control over financial reporting. The effectiveness of internal control over financial reporting can be mainly achieved through the adherence to COSO principles.

1.2.2. Control environment

The literature suggests that at the heart of effective control is the control environment component. The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Weaknesses at the “tone at the top” have been associated with almost all financial failures during the past decade.

While long recognised as important (Haskins 1987: 543, Basu *et al* 1997: 90), the considerable emphasis on the control environment is apparent in COSO. The control environment has a pervasive influence on the risk assessment, establishment of objectives, control activities, information and communication systems, and monitoring activities (COSO 1994: 23). Control environment, as a component, is included also in other control frameworks with, generally, the same concepts. For example, CobiT weaves the implications of the control environment into all applicable control objectives and refers to control environment wherever appropriate (CobiT 2000: 12). As compared to other models, COSO uses a larger number of categories of environment concepts and therefore makes the control environment well-defined.

The implementation of effective control environment has an impact on management and governance set up. As it appears in the professional literature, modern management techniques require a change in the control philosophy towards greater reliance on informal controls that influence the motivation and behaviour of employees. Hooks *et al.* (1994: 88) describe the control environment as, in part, an operationalization of organisational culture. Based on interviews in a small sample of UK companies, Ezzamel *et al* (1997: 453) find control internalised into organisational subjects in the form of self-discipline (or responsible autonomy), thereby diminishing the relevance of obtrusive hierarchical control. Placing greater authority and responsibility in the hands

of fewer employees (i.e. empowerment) can therefore be reconciled with control by placing greater emphasis on the control environment. Cohen (2002: 582) reiterates the importance of the control environment with the findings from a survey of auditors that “tone at the top” and its implication for the behaviour of employees, is the most important ingredient for effective control.

The control environment starts with the board of directors and management, who set the tone of an organization through policies, behaviours and effective governance (Rittenberg *et al.* 2005: 148). If the tone set by management is lax, then fraudulent financial reporting is more likely to occur. Research studies have shown that over 80 percent of financial fraud cases addressed by the SEC between 1987 and 1997 involved top management (*Ibid*: 146).

The main principles to be taken account in assessing the effectiveness of control environment are described in table 1.3.

Table 1.3. The principles of internal control – control environment

Principles – Control Environment
Integrity and ethical values – Sound integrity and ethical values, particularly of top management, are developed and set the standard of conduct for financial reporting.
Importance of board of directors – The board of directors understands and exercises oversight responsibility related to financial reporting and related internal control.
Management’s philosophy and operating style – Management’s philosophy and operating style support achieving effective internal control over financial reporting.
Organizational structure – The company’s organizational structure supports effective internal control over financial reporting
Commitment to financial reporting competencies – The company retains individuals competent in financial reporting and related oversight roles.
Authority and responsibility – Management and employees are assigned appropriate levels of authority and responsibility to facilitate effective internal control over financial reporting.
Human resources – Human resource policies and practices are designed and implemented to facilitate effective internal control over financial reporting.

Source: COSO 2005: 8-9.

COSO emphasises the importance of management’s integrity. The effectiveness of internal controls cannot rise above the integrity and ethical values of the people who create, administer, and monitor them. Integrity and ethical values are essential elements of the control environment, affecting the design, administration and monitoring of other internal control components (COSO 1994: 23).

Small and mid-size entities may implement the control environment factors differently from larger entities. For example, a small entity might not have a written code of conduct, but the management's commitment to integrity and ethical behaviour can be communicated orally in staff meetings, dealings with customers, etc. Similarly, human resources policies may not be formalized, but nevertheless exist and be communicated. However, the COSO Framework argues (COSO 1994: 31) that even small entities generally need a board of directors or comparable body to see that the board raises the tough issues and takes the difficult actions when necessary. The author shares the view that the existence and broad extent of outside review over the management's activities is essential for the effectiveness of internal control to prevent management override of internal controls in the entity; in Estonia, this role should be fulfilled by the supervisory board (*nõukogu*). There is one exception to the general need for such a board. When an entity is owner-managed, and does not go outside for capital, a board, though perhaps still useful, usually is not essential to effective internal control (*Ibid*: 31).

Designing and performing tests at the control environment level is a complex and challenging task – for example, a company may point to its code of conduct as documenting its ethical values. Ultimately though, the mere existence of the documentation of an internal control is not sufficient to support a conclusion about its effectiveness.

COSO report brings out several criteria that should be considered in the evaluation of the effectiveness of control environment. An evaluation of the extent to which an entity's control environment enhances its financial reporting objectives would focus on the following aspects (COSO 1994: 31-32, 128-130):

- management's interactions with internal and external auditors and outside counsel on financial reporting matters, such as the extent to which management provides full disclosure of information on matters that may have an adverse impact on the financial statements;
- pressure to meet unrealistic performance targets and extent to which compensation is based on achieving those performance targets;
- management's attitude toward bypassing established control procedures aimed principally at achieving financial reporting objectives;

- formal or informal job descriptions and the competence of people involved in financial reporting preparation process;
- the independence of the board of directors from management, frequency and timeliness with which meetings are held, sufficiency and timeliness of information provided to board of committee members and appraisal of sensitive information, investigation of improper acts;
- composition of the board of directors and audit committee, involvement of the members in the financial reporting process, including assessing the reasonableness of management's accounting judgments and estimates;
- management's attitude toward financial reporting;
- appropriateness of reporting lines in finance, adequate staffing, clarity of delegation of authority, in particular for making the accounting judgements and estimates that enter into financial reporting.

These criteria should be evaluated against the principles described in table 1.3, by considering the extent to which the fulfilment of criteria helps to achieve the principle. In the author's opinion, these criteria are appropriate for the Estonian companies, although the role of the audit committee may be replaced with that exercised by the supervisory board. The fulfilment of the criteria and principles promoted by COSO helps the company to achieve effective control environment, which creates a good basis for the development of other aspects of internal control.

1.2.3. Risk assessment

Every entity faces a variety of risks from external and internal sources that must be assessed and managed. Risk assessment is the identification and analysis of relevant risks to achievement of the objectives, forming a basis for determining how the risks should be managed. Because economic, industry, regulatory and operating conditions will continue to change, mechanisms are needed to identify and deal with the special risks associated with changes.

COSO (1994: 33-39) emphasizes the importance of objective setting in the entity and relates it to risk assessment as a precondition. Consequently, management has to clearly

establish objectives before identifying risks which may undermine their achievement and take necessary actions to manage these risks. Objective setting is treated as part of the management process, not as of the internal control process; this function depends on every entity management's and owners' objectives and consequently there is no need for further description in the present dissertation. However, it should be emphasised that the company internal control framework should be established in order to have the reasonable assurance to achieve established objectives: as discussed below, risk identification and analysis are the critical component. In evaluating the effectiveness of internal control activities, it is essential to assess them against entity's objectives and related risks.

The objectives concerning financial reporting in the entity are the production of accurate, complete, relevant, timely and reliable financial information to demonstrate and maintain accountability, to meet statutory reporting requirements, to account to an organisation's stakeholders for its financial performance and to support decision-making (CIPFA 2002: 24).

The types of risks can be distinguished in several ways, but for the purposes of present thesis, the risks are divided in three groups (Chong 2003: 10). Strategic risks threaten the achievement of business strategies or enhancement of shareholder value. Business or entity-wide risks are present as a result of the business operation or type of business. Process or activity-level risks are present in actual business processes.

The specific risks at financial reporting level belong to the category of activity-level risks. Within the scope of internal control over financial reporting, risks are associated generally with achievement of objectives related to preparation of fairly presented financial statements and five financial statement assertions (Clikeman 2004: 23):

- Existence or occurrence - whether assets and liabilities exist at a given date and whether recorded transactions occurred during a given period.
- Completeness - whether all transactions and accounts that should be presented in the financial statements are so included.
- Valuation or allocation - whether assets and liabilities are valued properly and whether costs are allocated reasonably among products and time periods.

- Rights and obligations - whether assets and liabilities constitute the rights and liabilities of the entity on a given date.
- Presentation and disclosure - whether transactions are recorded in the proper accounts and whether particular components of the financial statements are accurately classified, described, and disclosed.

In smaller entities the risk assessment process is likely to be informal and unstructured. COSO (2005: 48) argues that risk assessment in a smaller entity can be particularly effective because the in-depth involvement of the CEO and other key managers often means that risks are assessed by people with both access to the appropriate information and a good understanding of its implications. However, the overall lack of formal procedures for risk assessment may lead to certain ignorance and underestimation of risks, particularly in situations complicated by weak corporate governance. Both in big and small companies, the principles of risk assessment should be in place (table 1.4).

Table 1.4. The principles of internal control – risk assessment

Principles – Risk Assessment
Importance of financial reporting objectives – A precondition to risk assessment is the establishment of objectives for reliable financial reporting.
Identification and analysis of financial reporting risks – The company identifies and analyzes risks to the achievement of financial reporting objectives as a basis for determining how the risks should be managed.
Assessment of fraud risk – The potential for material misstatement due to fraud is explicitly considered in assessing risks to the achievement of financial reporting objectives.

Source: COSO 2005: 9.

An evaluation of the risk assessment as a component of internal control framework is rather straightforward, by evaluating the specific risks connected to preparation of fairly presented financial statements. However, as the company's objectives, entity-level risks and activity-level risks are closely interrelated, the evaluation of risk assessment component should also focus on management's process for objective setting, risk analysis and managing change, including its linkages and relevance to business activities. The following criteria might be considered (COSO 1994: 47):

- extent to which the entity-wide objectives provide sufficiently broad statements and guidance on what the entity desires to achieve, yet which are specific enough to relate directly to this entity;

- communication of the objectives to employees;
- thoroughness and relevance of the risk analysis process, including estimating the significance of risks, assessing the likelihood of their occurring and determining needed actions:
- existence of mechanisms to identify and react to changes that can have effect on the entity and the achievement of its objectives.

In 2004, COSO developed an additional framework to address more specifically the risk management issues in an organization, namely Enterprise Risk Management (ERM) Framework. The ERM framework encompasses all five components of the Internal Control Framework, but adds also the components of objective setting, event identification and risk response (Rittenberg 2005: 18). In present dissertation, the additional components of ERM framework are considered a part of the larger management process, but not an element of the internal control over financial reporting and therefore are outside the scope of present study. However, the author acknowledges the need for a wider approach to the risk assessment component and holds an opinion that in the future the assessment of internal control system should be even more closely related to risk management.

1.2.4. Control activities

As control environment and risk assessment are broad entity-level concepts, which are often informal and difficult to evaluate due to lack of appropriate benchmark, control activities relate to already defined objectives and risks, are usually defined by entity's procedures or practice and easily measured. However, as presented below, the importance of the control activities should not be overestimated.

Control activities are the policies and procedures that help ensure management directives are carried out. They help ensure that necessary actions are taken to address risks to the achievement of the entity's objectives. Control activities occur throughout the organization, at all levels and in all functions. They include a range of activities as diverse as approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets and segregation of duties (COSO 1994: 49).

Period-end financial reporting includes the following activities, for which appropriate controls should be in place (AICPA 2006: 33):

- the procedures used to enter transaction totals into the general ledger;
- the procedures used to initiate, authorize, record and process journal entries in the general ledger;
- other procedures used to record recurring and nonrecurring adjustments to the financial statements, such as consolidating adjustments, report combinations and classifications;
- procedures for drafting financial statements and related disclosures.

While the professional guidance continues to emphasise some traditional internal accounting controls (e.g. physical controls, segregation of duties), there is for example no direct reference to authorisation or cross-checking in COSO's illustration of control activities (COSO 1994: 50-51), which suggests these control activities are of diminished importance. This interpretation is consistent with research findings that after the implementation of re-engineering, traditional internal accounting controls were found to be less important (Sia *et al.* 1997: 75).

There are extensive explanations for the reduced emphasis on some traditional internal accounting controls. New management techniques necessitate employee empowerment that requires a change in control philosophy and process (Simons 1995: 82). For example, it is inconsistent to empower staff to make decisions, and require them to obtain prior approval (authorisation). Flatter organisational structures and technological innovation have resulted in fewer middle managers, the traditional "gatekeepers" of control, who were previously responsible for the assembly and distribution of information, checking and authorising transactions, and the supervision of employees (Hooks *et al.* 1994: 110, Simons 1995: 85).

Control activities involve also the controls over information systems, which are more precisely described in CobiT framework. Due to high-speed evaluation of computerized systems, the appropriate evaluation of the internal controls integrated in it becomes often more important than "traditional" internal controls. However, due to the broad concept and specific evaluation methodologies of IT systems, in the present thesis the

evaluation of controls over information systems is covered only to the extent directly related to the appropriateness of manual controls.

The concepts underlying control activities in smaller organizations are not likely to differ significantly from those in larger entities, but the formality with which they operate varies (COSO 1994: 56). Usually certain types of control activities are not always relevant because of direct involvement of the CEO and other key managers in different activities. Appropriate segregation of duties might also present difficulties due to fewer employees in the entity.

Control activities must be evaluated in the context of management directives to address risks associated with established objectives for each significant activity. An evaluator therefore considers whether control activities relate to the risk-assessment process and whether they are appropriate to ensure that management's directives are carried out. This will be done for each significant business activity. An evaluator considers not only whether established control activities are relevant to the risk-assessment process, but also whether they are being applied properly (*Ibid*: 56-57). The main principles which effective control activities should comply with are brought out in table 1.5.

Table 1.5. The principles of internal control – control activities

Principles – Control Activities
Elements of a control activity – Policies and procedures are established and communicated throughout the company, at all levels and across all functions that enable management directives to be carried out.
Control activities linked to risk assessment – Actions are taken to address risks to the achievement of financial reporting objectives.
Selection and development of control activities – Control activities are selected and developed considering their cost and their potential effectiveness in mitigating risks to the achievement of financial reporting objectives.
Information technology – Information technology controls, where applicable, are designed and implemented to support the achievement of financial reporting objectives.

Source: COSO 2005: 9.

As a consequence of the relatively unambiguous nature, the control activities might be easier to assess than other aspects of internal control system due to their clearness and verifiability, but they should always be assessed in relation to risks that the company faces.

1.2.5. Information and communication

Every enterprise must capture pertinent information – financial and non-financial, relating to external and internal events. Relevant information must be delivered to people who need it in a form and timeframe that enables them to carry out their responsibilities and make decisions. Recognising the emerging importance of information and communication, COSO has included it as a separate control component.

The literature brings out following benefits from relevant, timely and effective internal and external communication:

- Improved communication about expectations, responsibilities and objectives of an organisation (Luscombe 1995: 3);
- Enhanced decision making (Stringer *et al.* 2002:65);
- Reduced dependence on individual employees who assist in the prevention and detection of fraud (Hooks *et al.* 1994: 89).

Information systems produce reports, containing operational, financial and compliance-related information, that make it possible to run and control the business. They deal not only with internally generated data, but also information about external events, activities and conditions necessary to inform business decision-making and external reporting (Sawyer 2003: 67). Financial information can also be used for operating decisions (e.g. monitoring performance and allocating resources) and some operating information can be essential for developing financial statements (e.g. routine purchases procedures, information on competitors' product releases).

Communication is inherent in information systems. Communication can be divided into internal and external communication. Internal communication, in the internal control framework, involves receiving relevant data for managing entity's activities and communicating a clear message from top management to all personnel that internal control responsibilities must be taken seriously. Both the clarity of the message and the effectiveness with which it is communicated are important (COSO 1994: 63). Open external communication channels with suppliers, customers, banks, external auditors

and other stakeholders enable a company to address customer demands, highlight control weaknesses in the entity and better understand risks, but also give reverse signs, e.g. that improper acts by vendors will not be tolerated by the company.

Communication can take different forms as policy manuals, bulletin board notices, internal reports, oral communication. Information systems in smaller organizations are likely to be less formal than in large organizations, but their role is just as significant. Effective internal communication between top management and employees may well be easier to achieve in a small or mid-size company than in large enterprise, because of the smaller organization size and its fewer levels, and greater visibility and availability of the CEO (COSO 1994: 66). Table 1.6 describes the main principles to be followed both by large and smaller entities.

Table 1.6. The principles of internal control – information and communication

Principles – Information and Communication
Information needs – Information is identified, captured and used at all levels of a company to support the achievement of financial reporting objectives.
Information control – Information relevant to financial reporting is identified, captured, processed, and distributed within the parameters established by the company's control processes to support the achievement of financial reporting objectives.
Management communication – All personnel, particularly those in roles of affecting financial reporting, receive a clear message from top management that both internal control over financial reporting and individual control responsibilities must be taken seriously.
Upstream communication – Company personnel have an effective and nonretributive method to communicate significant information upstream in a company.
Board communication – Communication exists between management and the board of directors so that both have relevant information to fulfil their roles with respect to governance and financial reporting objectives.
Communication with outside parties – Matters affecting the achievement of financial reporting objectives are communicated with outside parties.

Source: COSO 2005: 9-10.

Many aspects of information and communication systems in internal control framework address operations and compliance objectives, and are generally outside the scope of evaluation of internal control over financial reporting, e.g. process for capturing data about potential product improvements. In these cases, the controls are instituted to achieve operations objectives, not financial reporting objectives and are outside the scope of the present dissertation.

The evaluation of the information and communication involves considering the appropriateness of information and communication systems to the entity's needs. Following criteria might be considered in evaluation of information and communication process over financial reporting (COSO 1994: 67, 131-132):

- obtaining external and internal information, and providing management with necessary reports on the entity's performance relative to established objectives;
- using both operating and financial information as the basis of management decisions;
- formality of procedures;
- downstream communication of standards and ethical conduct;
- establishment of channels of communication for people to report suspected improprieties and the receptivity of management to employee suggestions;
- timely and appropriate follow-up action by management resulting from communications with internal and external parties.

The criteria for achieving the adherence to COSO principles might be different in every entity, but in companies with more and more dependency on information technology, all these aspects should be considered and an effective framework developed to achieve the full effectiveness of information and communication component in internal control.

1.2.6. Monitoring

Internal control system and the application of controls change over time. This can be due to the arrival of new personnel, varying effectiveness of implementing the procedures or supervision, time and resource constraints or changes in the circumstances for which the internal control system originally was designed. Thus the management needs to determine and observe whether the internal control system continues to be relevant and effective in the entity as intended.

Monitoring is defined as a process that assesses the quality of the system's performance over time. This is accomplished through ongoing monitoring activities, separate evaluations or a combination of the two. Ongoing monitoring occurs in the course of operations. It includes regular management and supervisory activities, and other actions

personnel take in performing their duties. The scope and frequency of separate evaluations will depend primarily on an assessment of risks and the effectiveness of ongoing monitoring procedures. Internal control deficiencies should be reported upstream, with serious matter reported to top management and the board. (COSO 1994: 69) The principles of monitoring are summarized in the table below.

Table 1.7. The principles of internal control - monitoring

Principles – Monitoring
Ongoing monitoring – Ongoing monitoring process enable management to determine whether internal control over financial reporting is present and functioning.
Separate evaluation – Separate evaluations of all five internal control components enable management to determine the effectiveness of internal control over financial reporting
Reporting deficiencies – Internal control deficiencies are identified and communicated in a timely manner to those parties responsible for taking corrective action, and to management and the board as appropriate.

Source: COSO 2005: 10.

Because internal controls should and do evolve over time, COSO recognizes the need for management to monitor the entire internal control system through the ongoing activities built into the control system itself and through special evaluations directed at specific activities or areas. CobiT addresses management’s responsibility to monitor all information technology processes and the need to obtain independent assurance on controls (Colbert *et al.* 2005). It classifies monitoring as a domain – in line with the management cycle.

Ongoing monitoring activities of small and mid-sized entities are more likely to be informal and involve the CEO and other key managers and are accomplished through hands-on involvement in most if not all facets of operations. They are less likely to undergo separate evaluations of their internal control system, and the need for separate evaluations may be offset by highly effective ongoing monitoring activities. Central is the requirement that those performing the monitoring function be independent of those being monitored (Cohen *et al.* 2002: 579).

In evaluating the extent to which the effectiveness of internal control is monitored, the following criteria in ongoing monitoring activities, separate evaluations and reporting deficiencies should be considered (COSO 1994: 77).

- Ongoing monitoring

- extent to which personnel, in carrying out their regular activities, obtain evidence as to whether the system of internal control continues to function;
- corroboration of the communications from external parties with internally generated information;
- periodic comparison of amounts recorded by the accounting system with existing assets and liabilities;
- feedback to management whether controls operate effectively;
- effectiveness of internal audit activities.
- Separate evaluations
 - scope and frequency of separate evaluations of the internal control system;
 - appropriateness and logicity of the evaluation process and methodology;
 - appropriateness of the level of documentation.
- Reporting deficiencies
 - existence of the mechanism for capturing and reporting identified internal control deficiencies;
 - appropriateness of reporting protocols and follow-up actions.

Monitoring includes management's methods for following-up and checking on performance to ensure that controls are complied with. With monitoring component the internal control system has made a circle and monitoring activities help to improve control activities, information systems as well as overall control environment.

1.3. The assessment of internal control over financial reporting

The overall assessment gives a comprehensive opinion of the effectiveness of entity's internal control system across internal control components. The overall opinion is often expressed in qualitative form, taking into account the issues mentioned in previous chapters. However, to facilitate the comparability with other entities and give comprehensive assessment of the effectiveness of an entity's internal control system as such, universal system for evaluations is needed. The possibilities for quantitative evaluation of internal control over financial reporting, its advantages and disadvantages are discussed below.

An organization's internal control is complex, and the evaluation may require some subjectivity. An assessment process for the effectiveness of internal control over financial reporting suggested by COSO is described in the following chart (figure 1.4).

Documentation and assessment of internal control over financial reporting

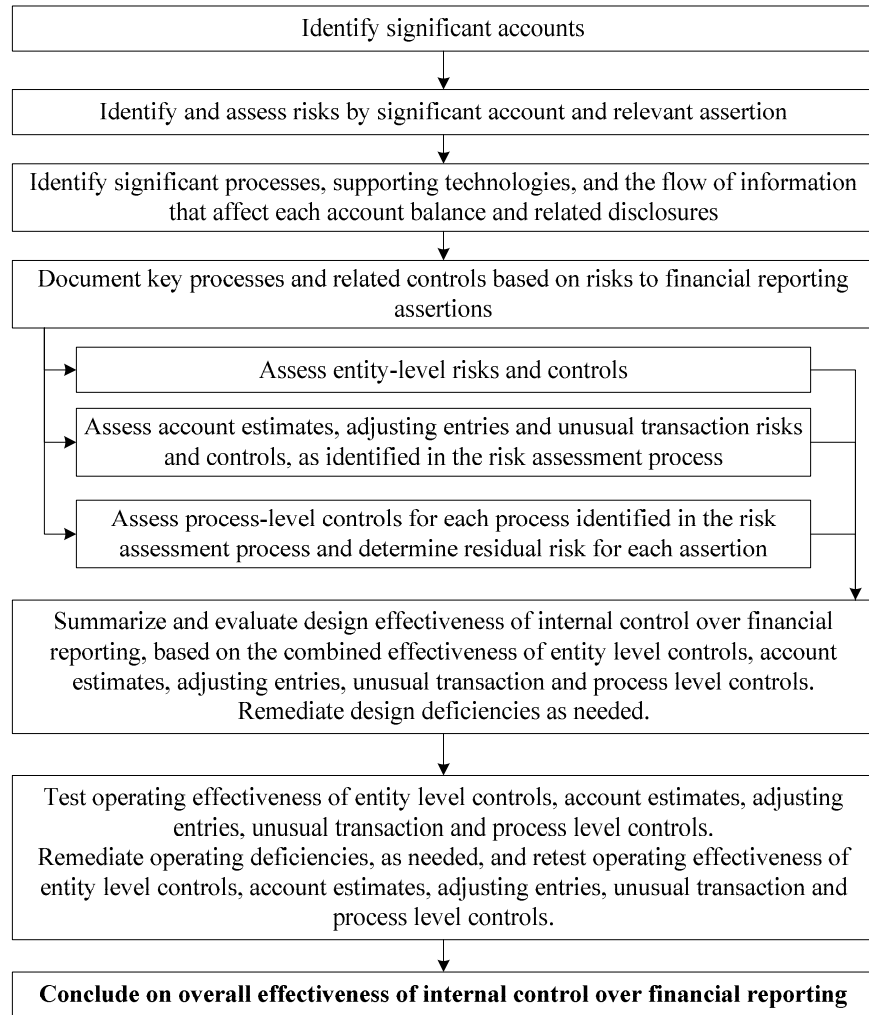


Figure 1.4. Documentation and assessment of internal control over financial reporting.

Source: COSO 2005: 125.

Assessments and audits of internal control system should be tailored to the size, business, operations, risks, and procedures of each company, not directed by standardized checklists (Heuberger *et al.* 2005: 3). This should more precisely identify potential problems, promote more efficient allocation of resources to higher-risk areas, and encourage a focus on outcomes rather than on processes.

As defined in chapter 1.2.1 (page 21), internal control over financial reporting can be judged effective when reasonable assurance exists that financial statements are being prepared reliably. While internal control is a process, its effectiveness is a state or condition of the process at a point in time (COSO 1994: 20). Quantitative assessments are designed to measure the level of confidence that can be placed on the internal control system's ability to perform effectively (Perry *et al.* 2005: 52). There are several models for quantitative assessment of internal controls in the academic and professional literature; the methodologies have been developed quite recently.

Perry and Warner (*Ibid*: 52-55) have proposed a five-step model for quantitative assessment of internal control system, which is described on figure 1.5. The most important aspect to note in this framework is scoring individual control objectives against the chosen model. Using an appropriate framework as a basis of the evaluation helps to achieve a comprehensive and structured assessment without missing important aspects of internal control. Examiners should use the selected model to determine the percentage of the maximum score available for each control objective under review and continue this process until they have scored all of the control objectives and accumulated an overall quantitative score for internal control.

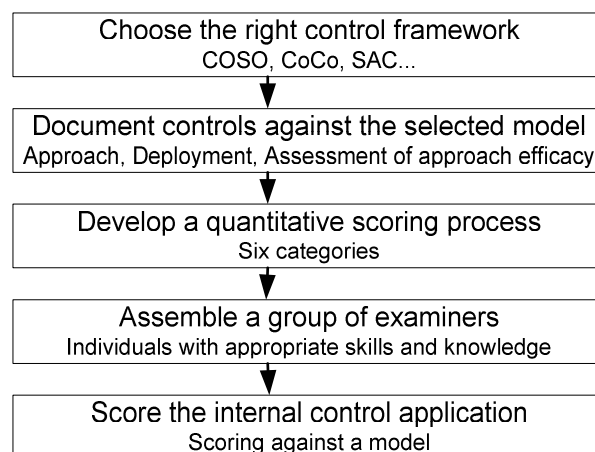


Figure 1.5. Quantitative assessment of internal controls. Compiled by author, based on Perry *et al.* 2005: 52-55.

A framework can be deemed suitable as the basis for evaluation, when it is free from bias; it permits reasonably consistent qualitative and quantitative measurements; it is

sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of a company's internal control over financial reporting are not omitted; and it is relevant to the evaluation (PCAOB 2004: 11).

There are two key elements of quantitative scoring: establishing how the maximum score will be allocated within the model and determining what percentage of the total allocated score to award to each control component. The initial COSO cube provides insight into the importance of the five internal control components in relation to each other, stressing the great importance of control environment and monitoring. However, Perry *et al.* (2005:54) note that those performing the assessment should apply their own experience with and knowledge of internal controls and use this in conjunction with COSO guidance.

COBIT model describes several different levels of reliability or maturity of an internal control system. Levels may range from "initial", the lowest level of reliability, to "optimized", the highest. The overall reliability of the internal control system depends on the characteristics that describe each level described in table 1.8.

Table 1.8. Internal control reliability model

Reliability level	Characteristics of reliability				
	Documentation	Awareness and understanding	Perceived value	Control procedures	Monitoring
Initial	very limited	basic awareness	unformed	ad hoc, unlinked	NA
Informal	sporadic, inconsistent	understanding not communicated beyond management	controls are separate from business operations	intuitive, repeatable	NA
Systematic	comprehensive and consistent	formal communication and some training	controls integral to operations	formal, standardized	NA
Integrated	comprehensive and consistent	comprehensive training on control-related matters	control processes considered part of strategy	formal, standardized	periodic monitoring
Optimized	comprehensive and consistent	comprehensive training on control-related matters	commitment to continuous improvement	formal, standardized	real-time monitoring

Source: Ramos 2004: 75.

In author's opinion, COBIT Internal control reliability model is drawing the evaluator's attention to different characteristics of the effectiveness of internal control, which would otherwise go unnoticed, e.g. documentation and perceived value of controls. At the same time, this model is incomplete with respect to COSO internal control framework, because control environment and risk assessment are not included. Also, difficulties may arise greatly in small and medium-sized enterprises, where documentation concerning internal control system is limited and control procedures informal, but awareness, communication and monitoring functioning might still be at high level. Nevertheless, mentioned model can be useful in evaluating above all the effectiveness of internal control activities.

Table 1.9. Assessed categories of internal control

	Category	Description of the assessment
1	Reactive controls	There is no systematic approach to internal control and little or no general acceptance of how controls should be implemented. When a problem occurs, someone may or may not take action to address it; rather reacting than a consistent approach to problems.
2	An early systematic approach	The approach to internal control is not fully developed, nor is the approach deployed consistently from one work unit to the next.
3	An effective approach been developed but is deployed inconsistently	There is still inconsistency with regard to how internal controls are implemented and enforced.
4	An effective approach is fully deployed and achieving positive results	Although the controls are effective, they are not integrated and aligned with the organization's overall mission. Each work unit attempts to optimize its own controls but does not necessarily optimize them from an organization wide perspective.
5	Functioning, integrated system of internal controls	The approach to internal control is deployed with no significant gaps; there is systematic evaluation and continuous improvement in the system. Individual work units have begun the process of integrating their individual system toward the betterment of the organization.
6	World-class system of internal controls	The approach is fully deployed, without significant weaknesses or gaps in areas or work units. The approach is well aligned with the organization's needs and analysis.

Source: Perry, Warner 2005: 54

The Internal Control Institute in the US features six categories in rating internal control components. Categories range from "reactive controls" to "word-class system" described in table 1.9. Each category is worth a percentage that is commensurate with the achieved level of control (Perry *et al.* 2005: 54). Specifically, category 1 is worth $16\frac{2}{3}$ percent (1/6) and category 6 represents the highest level of maturity and is worth

100 percent. The points for each control principle should be allocated according to the evaluated percentage of proposed maximum score, then summarized and an assessment report prepared. In this system, the evaluators score the internal control over financial reporting according to the fulfilment of the principles of internal control through several criteria, which were summarized in previous chapters. The overall evaluation of internal control is achieved through summarizing the scores across objectives and components.

Perry's model allows giving an overall numerical opinion of the effectiveness of the internal control system, taking into account the distinctive features of every organization by allocating different percentages for different control principles and components according to the entity's size, ownership and business activities. In addition to aforementioned models, the Institute of Internal Auditors (IIA 2005: 7) has suggested to choose between binary (effective – ineffective) or grading system according to company's needs.

The assessment of the effectiveness of internal control over financial reporting in an entity is closely related to the concept of fraud. The Chartered Institute of Public Finance and Accountancy (CIPFA) defines fraud as those intentional distortions of financial statements and other records which are carried out to conceal the misappropriation of assets or otherwise for gain (Pickett 2000: 550). For a person to commit fraud, three factors need to be in place: incentive or pressure, opportunity and rationalization (Rittenberg *et al* 2005: 301; Pickett 2000: 550).

Hörrak (2006: 19-20) divides the symptoms of fraud into three groups:

1) Organizational structure red flags

- red flags within the organizational structure, e.g. lack of management oversight, management override, excessive or inappropriate performance-based compensation;
- the poor quality of communication with external auditors;
- weak control environment or slack attitude towards compliance with established controls.

2) Financial condition red flags

- unrealistic objectives or unusual trends, e.g. unusually rapid growth of financial results, unusually high earnings with cash shortage, unrealistic earnings expectations or budget pressures;
- financial difficulties – heavy investments or losses, lack of adequate working capital, high debt;
- complex and questionable transactions.

3) Business and industry environment red flags

- industry and business environment - industry softness or downturn, unusually heavy competition, decline of product or industry, long business cycle;
- poor quality of audit;
- questionable accounting practices, e.g. unusual and large year-end transactions, liberal accounting practices, inadequate accounting information system.

The existence of abovementioned symptoms will also be assessed in the course of empirical study in chapter 2.

The evaluation methodology to assess the effectiveness of internal control over financial reporting should be developed and implemented by each organization according to their needs, but the basic rules should remain the same – the company should choose an appropriate internal control framework for a benchmark, and assess criteria which are important for the fulfilment of the principles stated by the framework.

The effectiveness of internal control over financial reporting should be considered important by every organization. One of the most important tasks of internal control is to prevent and detect fraud in the organization, both at personnel and management level. The assessment of internal control across all components, objectives and principles helps the company achieve reasonable assurance in long-term achievement of its goals and ensure resistance to internal and external threats.

2. EVALUATION OF THE EFFECTIVENESS OF INTERNAL CONTROL OVER FINANCIAL REPORTING IN ESTONIAN COMPANIES

2.1. Data and methodology of the study

In the present chapter the data collection and evaluation methodology is described, but also the difficulties in research and possibilities for overcoming them are discussed. The methodology described below allows the author to succeed in the objectives initially set up and contribute to the overall research in internal control.

In order to test the evaluation methods and to add value to the entities through suggestions for improving their internal control over financial reporting, the author has chosen three medium-sized Estonian manufacturing companies. Medium-sized companies (see the definition in chapter 1.2.1) were chosen for the following reasons:

- They generate an important input into Estonian economy. In 2004, although the number of medium-sized companies constituted only 3% of the total number of companies, they contributed to 29% of the total revenues and operating profits. Among manufacturing sector companies, the share of companies which employ 50-250 employees is even more significant – the number of companies totalling 10% of the total number, revenues 45% and operating profits 51% of the total (author's calculations, based on Enterprises' income... 2006).
- The extent of the introduction of a proper internal control appears to be more variable, and in this respect more interesting for the study, in medium-sized companies than in big or small companies. In medium-sized companies, the internal control framework appears to be more linked to company's development phase, growth, tone at the top, etc. On the contrary, big companies are recognized for having in most of the cases more stable internal control systems due to the

need of managing more complex processes (Rittenberg *et al* 2005, p. 165). Furthermore, the internal control system in small companies is usually informal and management has direct influence on every aspect of the company, also the less significant, which results of smaller-scale and simpler internal control systems. Thus the study of internal control over financial reporting in medium-sized companies should give appropriate overview of the various aspects of internal control.

- Author's access to companies' data.

Due to the sensitivity of the information concerning internal control systems, the names of the companies are not disclosed and are marked by letters A, B and C. The choice concerned three companies active in the same manufacturing sector; even if they operate on different markets. They are similar for their production lines, structure, management and Supervisory Board sizes. All three companies are producing inputs for construction sector and are therefore affected by last years' vast growth of construction market; Company A, which is exporting more than 80% of its production, has also gained from good market situation abroad. However, although these companies appear similar at a first sight, they have been substantially shaped by different management styles and/or ownership structures.

To assess the control components described in the previous chapter, a questionnaire is developed based on COSO internal control framework for small and medium-sized entities, which allows both quantitative and qualitative approach to research subjects. The companies concerned with the study can benefit mainly from the qualitative analysis, which brings out the main strengths and weaknesses of their internal control over financial reporting in relation to COSO framework. The quantitative analysis allows the author giving an overall estimation of the effectiveness of internal control over financial reporting in every entity. In this manner, companies benefit of the possibility to easily compare the effectiveness of their internal control systems to other entities and to the COSO framework (best practice), and to make efficient follow-up in the improvement of internal control. In this respect, the quantitative grading system facilitates the benchmarking across different situations and reality, and it should help companies and stakeholders better understand the absolute and relative gap with the

most appropriate internal control framework. It can be expected that in the future, sector industries collect data about the level of implementation of the internal control system in their associated companies, and companies above the average or certain levels might see this as an added value to their stakeholders.

The evaluation table (see appendix 5) is structured as follows:

- I INTERNAL CONTROL OVER FINANCIAL REPORTING – the overall estimation of the effectiveness of internal control over financial reporting forms as a weighted average of the components.
- II Component of internal control system – each component in internal control over financial reporting (e.g. control environment) is evaluated, based on the assessment of the principles (unweighted mean).
- III Principle of the component – the evaluation of each principle (e.g. integrity and ethical values) within the components is developed as an unweighted mean of the criteria.
- IV Criterion for fulfilment of the principles – each criterion (e.g. whether the management has communicated its commitment to ethical values), against which the companies are being evaluated, will have an individual score on a 6-point scale.

Under each principle, 3-8 criteria are evaluated on a 6-point scale according to table 2.1. The grading system is developed by the author based on the methodologies described in chapter 1.3. Each level (1 being the lowest and 6 the highest) indicates the effectiveness of the controls applied in the company in comparison to COSO criteria. Considering that the response to the COSO criteria may differ in each company, the assessment of the effectiveness should also consider the level of documentation of the controls, the overall awareness of and approach to the specific issue in the company, the definition of responsibilities and the level of action as described in table 2.1. Furthermore, the numerical grading system allows interpreting the quantitative results on component and system levels.

At the level of principles, the mean of the criteria indicates the level of effectiveness of the particular principle. At the internal control system component level, again the mean of principles indicates the overall effectiveness of the component. Within control

principle and component levels, all criteria/principles have equal weight. In assessing the overall effectiveness of internal control over financial reporting, different emphasis is set on the components, based on academic literature. The specific numerical grades and an overall assessment can be found in appendices 5 and 7, and in chapter 2.4.

Table. 2.1. Evaluation categories for internal control system criteria.

		Documentation	Awareness	Approach	Responsibility/ accountability	Type of action
1	Basic	basic	basic awareness of particular internal control component	no systematic approach to internal control	someone may or may not take action to address the problem	reacting
2	Informal	sporadic, inconsistent	at management level only	intuitive approach	someone may or may not take action to address the problem	rather reacting than a consistent approach to problems
3	Early systematic approach	not fully developed	at different level of middle management without consistency	the approach deployed consistently from one work unit to the next	action taken in different inconsistent manners	depends on the awareness and acceptance
4	Systematic	comprehensive and consistent documentation.	understood at management level and communicated to personnel	there is still inconsistency	piecemeal responsibility	moving to proactive attitude
5	Effective	adequate and maintained	understood throughout the organisation	although the controls are effective, they are not integrated with organization's overall mission	conflicts	each work unit attempts to optimize its own controls, not from organization wide perspective
6	Integrated	complete and maintained	understood throughout the organisation	the approach to internal control is deployed with no significant gaps	clear responsibilities defined	there is systematic evaluation and continuous improvement in the system

Source: Perry, Warner 2005: 54; Ramos 2004: 75. Modified by author.

To take account of the specifics of a company, a column is added in the questionnaire for a short comment and rationale for grading decision. For filling in the questionnaire

and giving a final evaluation for internal control over financial reporting in each company, different research methodologies are being applied:

- Analytical review of the companies' financial statements for the period 2002-2005. Where appropriate, companies' results are benchmarked against the sector's performance indicators.
- Documentary analysis of internal documents (Supervisory Board minutes, Articles of Association, accounting policies and procedures, different managerial accounting outputs, employment contracts)
- One to one unstructured interviews with the key personnel as indicated in table 2.2.

Table 2.2. Interviews carried out with the key personnel in companies A, B and C.

Company A	Company B	Company C
General Manager Financial Director Chief Accountant Accountant	General Manager Chief Accountant Accountant	General Manager Executive Manager Chief Accountant Accountant

Source: compiled by author

The structure of the questionnaire with the results is presented in Appendix 5. The questionnaire covers four components of the internal control system: control environment, risk assessment, information and communication, and monitoring. The criteria of these components are similar for all companies and the assessment methodology can be reasonably and reliably applied. On the basis of the questionnaire, comparative analysis is conducted, which can be found in chapter 2.3.

The qualitative part of the questionnaire was completed by the author on the basis of documentary analysis and interviews. The evaluation of control environment, information and communication, and monitoring components is based on both; evaluation of the risk assessment component is mainly based on the interviews with general managers. The quantitative grading of each criterion reflects the author's judgement on the appropriateness of the criterion in each company for fulfilment of the principles of effective internal control over financial reporting.

Due to the wide range of control activities and the volume and nature of the evaluation procedures, evaluation of the 3rd component of internal control system, namely control

activities, is limited only to the qualitative evaluation of the year-end preparation of the financial reports. The extensive evaluation of control activities would have to involve evaluation of the appropriateness of the control activities according to risk analysis, basically covering the whole range of activities in a company; therefore the quantitative evaluation is not performed. The evaluation of the quality of control activities can be best performed by controllers and internal auditors inside the entity.

As a consequence, only specific procedures performed during the financial reporting process are reviewed. The processes are compared between the companies and with COSO principles, but numerical assessment is not made. The reason for being limited to qualitative assessment is the potential reliability of information. Description of the control procedures gives a good overview of the design of the control, but it has little reliability to evaluate them correctly without examining the real situation – documents, carefulness in procedures performed, assignment of tasks between employees, etc. For the purposes of present study, a checklist was developed to describe potential procedures for preparing financial reports, which was asked to fill in by the companies' chief accountants. In addition, the companies' accounting policies and procedures were examined to assess the level of formality of the procedures. This questionnaire is developed by the author, based on her own experience and models taken from AuditNet (www.auditnet.org), website to which internal auditors around the world contribute with their work and expertise. The checklist is presented in Appendix 6.

The assessment of the effectiveness of internal control over financial reporting in Estonian companies can be affected by some barriers like those highlighted by Kinney (2000, pp. 86-88):

- Lack of adequate criteria for measuring internal control quality;
- Researchers' limited knowledge of internal control alternatives and involvement in business processes;
- Inherent complexity of the internal control process. Internal control is extremely broad by definition and is operationalized in complex, dynamic organizations that differ substantially across time, organizations and cultures;
- Lack of access to data, organizations and personnel;

- Potential generalizability of research results across companies, industries, organization and regulatory structures, and cultures. Internal control likely reflects all of these differences to some degree, and research may likewise reflect these differences rather than generalized behaviour. Thus, the researcher faces the potential prejudice of being a “case study” rather than a large sample study of generalizable behaviour.

The author, considering the abovementioned issues, has taken the following precautions:

- As a criterion for measuring the effectiveness of internal control, the subjects are compared to COSO principles. To increase the level of objectivity, numerical estimates are used. The assessment is performed solely by the author, who has a three-year experience in the evaluation of internal controls in companies and other organizations.
- Access to data was gained through good personal contacts with key personnel of the companies. As these studies can create additional value for the companies, thus the level of interest from the companies’ side was rather high.
- Considering recent developments on the subject and to make it valuable, the study is focused only on financial reporting processes and evaluation of internal control over financial reporting. Other aspects of internal control, e.g. effectiveness and efficiency of production, are not assessed.
- The present study does not aim to the generalization of the results across industries, cultures or for Estonian business environment. However, applying similar methodology to three companies gives a better insight into the specific problems of applying internal control than to make use of an individual case study. It also gives the possibility to compare the results across the three companies and conclude on the appropriateness of COSO methodology in Estonian business environment.

Thus the applied methodology allows the author giving an extensive qualitative and quantitative assessment of the companies’ internal control systems and suggestions for future improvements. The description of the companies, their background and assessment results are presented in following chapters.

2.2. Description of the companies

All three companies are manufacturers in Estonia, more precisely manufacturers of building materials. According to the Statistical Classification of Economic Activities in Estonia (Eesti majandusalade... 2003: 14), all companies belong to the subgroup DI, “manufacture of other non-metallic mineral products”. The increase of manufacturing and building sectors in the last years has not had an impact only on the financial results of these companies but also on their governance, internal control system, future development, etc. Each company is among leading manufacturers in its sub-sector and has not significantly changed their production lines in the last four years. The production process in all entities is order-based.

Company A was established as an Estonian-French joint company in 1989 and was sold entirely to a Scandinavian manufacturing group in 1995. The company is exporting more than 80% of its products. The company has acquired quality certificates ISO 9001 and ISO 14001. The main markets for Company A are Russia, Poland, Belgium, Finland and Sweden. Although approximately 50% of the production is sold through subsidiaries or other group companies, the basis for internal pricing is the same as for external buyers and therefore it can be assumed that sales revenues, profits and other indicators reflect the company’s performance correctly.

The company has four subsidiaries in Estonia, Latvia, Lithuania and Russia both for separate production lines and sales activities. The majority of sales for Estonian market are realized through Estonian subsidiary.

Company B started its activities in Estonia in 1994, as Estonian – Danish joint enterprise. Since 1996, all shares belong to a foreign group. In 2001, a new production and administration construction was built and in 2003-2005 significant investments were made to the expansion and modernisation of production. The main market for Company B is Estonia, but 10-20% of its products are sold in Latvia, Finland and Sweden. Some of the products are sold to group companies, but the revenues from that are not material. The main suppliers are parent company and other group companies, auxiliary materials are bought from Estonian companies.

Company C was established already in 1960s. In the beginning of 1990s the company was privatized by employees and in mid-90s 75% of the shares were sold in equal parts to three Estonian companies. Remaining shares were gradually bought from the employees by the manager and executive manager. By today, the company belongs to three different companies (each 25%) and two individuals (12.5% each). These two individuals are closely connected to the company's activities – the general manager and executive manager. Both managers have a long-time experience in the company.

The company has operated in the same facilities since its establishment. Significant investments have started only in the last years; a bulk of machinery is amortized and does not meet the requirements of modern technology. Company C sells its production mainly to Estonian market, but in the last years it has also exported its products to Latvia. In 2004, a subsidiary was established in Latvia, which implements production and sales activities on-the-spot.

Table 2.3. Key data for the entities

Key data for 2005	Company A	Company B	Company C
Activity	Manufacturing	Manufacturing	Manufacturing
Ownership	100% foreign parent company	100% foreign parent company	75% different companies, 25% private persons (Estonian capital)
Employees	193	93	238
Sales revenue (million EEK)	299	174	265
Net profit (million EEK)	124	21	41
Net profit / Sales	41.5%	12.1%	15.5%
Total assets (million EEK)	285	106	166
ROA	43.5%	19.8%	24.7%
ROE	49.2%	34.0%	40.2%
EBIT(million EEK)	68	26	46
EBIT / Sales	22.7%	14.9%	17.4%
Sales per employee (million EEK)	1.5	1.9	1.1
EBIT per employee (million EEK)	0.35	0.28	0.19

Source: compiled by author.

The key data for 2005 is shown in table 2.3 and the development of key data in each company on figures 2.1 and 2.2. The structures of the companies can be found in Appendix 4.

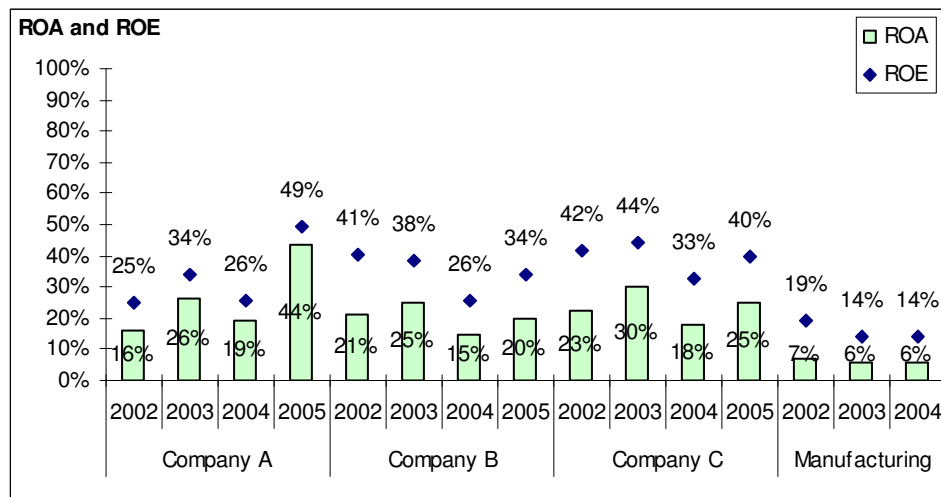


Figure 2.1. ROE and ROA for Companies A, B and C (2002-2005). Author's calculations.

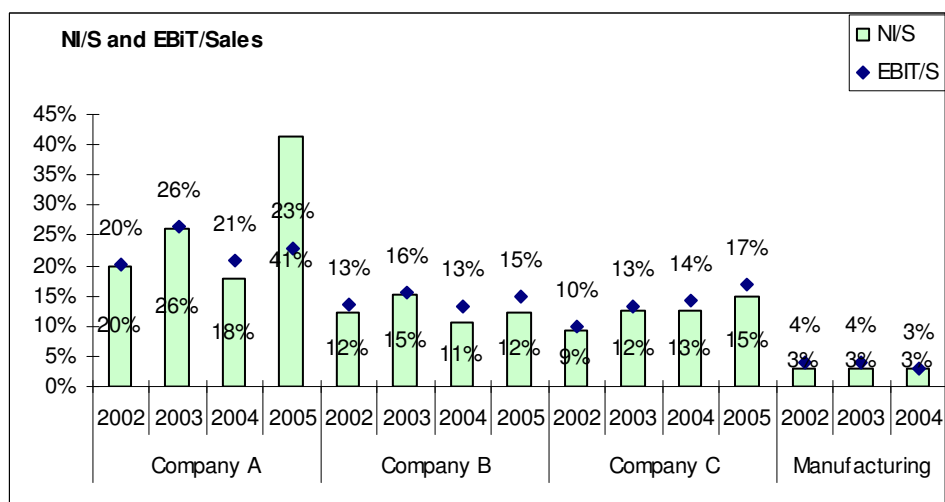


Figure. 2.2. Net sales margin and gross sales margin for Companies A, B and C (2002-2005). Author's calculations.

As it appears from the ratio analysis, the most profitable enterprise (both in ROA and sales margin) is Company A with significantly higher profitability level than other companies. As can be seen from the figure 2.2, there is an exceptional increase in net profit in 2005 for Company A, which results from large-scale financial revenues; therefore EBIT is significantly lower than net profit and indicates better the company's performance. Companies B and C have similar profitability levels in average, but it is clearly visible how Company C has succeeded in increasing gradually its profitability

levels, whereas Company B has maintained its initial level. In comparison with the profit per employee, Company A results the most efficient, generating the highest operating profit per employee (in table 2.2, the exceptional financial revenue is excluded) whereas Company C seems the least efficient. In comparison with the manufacturing sector's ratios, all companies are performing better than average (Ettevõtete asendikeskmised... 2006).

In the past four years, the sales revenues of each company have grown 15-30% per year (see figure 2.3), profitability has been somewhat fluctuating, but the companies show similar patterns. In profit ratios, the least successful year has been 2004, where net income levels compared to sales and assets have decreased in all companies due to significant investment activities.

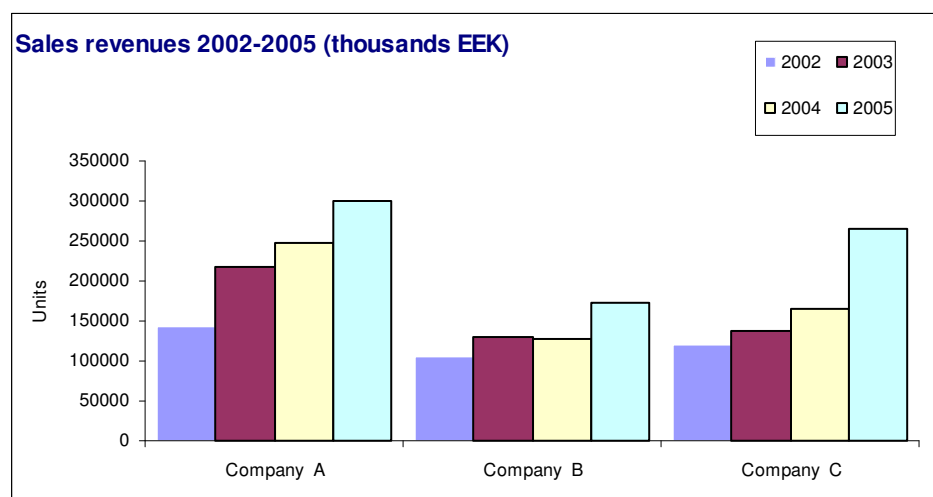


Figure 2.3. Sales revenues growth in 2002-2005 (compiled by author).

As anticipated, no conclusions of the effectiveness of internal control over financial reporting can be made based on financial analysis. The financial analysis and structure gives an overview of the companies' size, growth and financial efficiency. However, the relations between the effectiveness of internal control over financial reporting, financial performance and ownership structure will be discussed in the following chapters, mainly in chapter 2.5.

2.3. The results of the qualitative and quantitative evaluation

2.3.1. Control environment

The assessment of the components of internal control over financial reporting for each company is reported below. This assessment is based on the detailed evaluation contained in the control questionnaire in appendix 5 and summarized in appendix 7. In the present chapter, the qualitative and quantitative aspects of each control component are discussed.

The overall quantified evaluation of the control environment component for each company and the three companies' average are shown on the figure 2.4. On average, the highest grade was attained by Company B: 4.99, following Company A: 4.39 and Company C: 2.81.

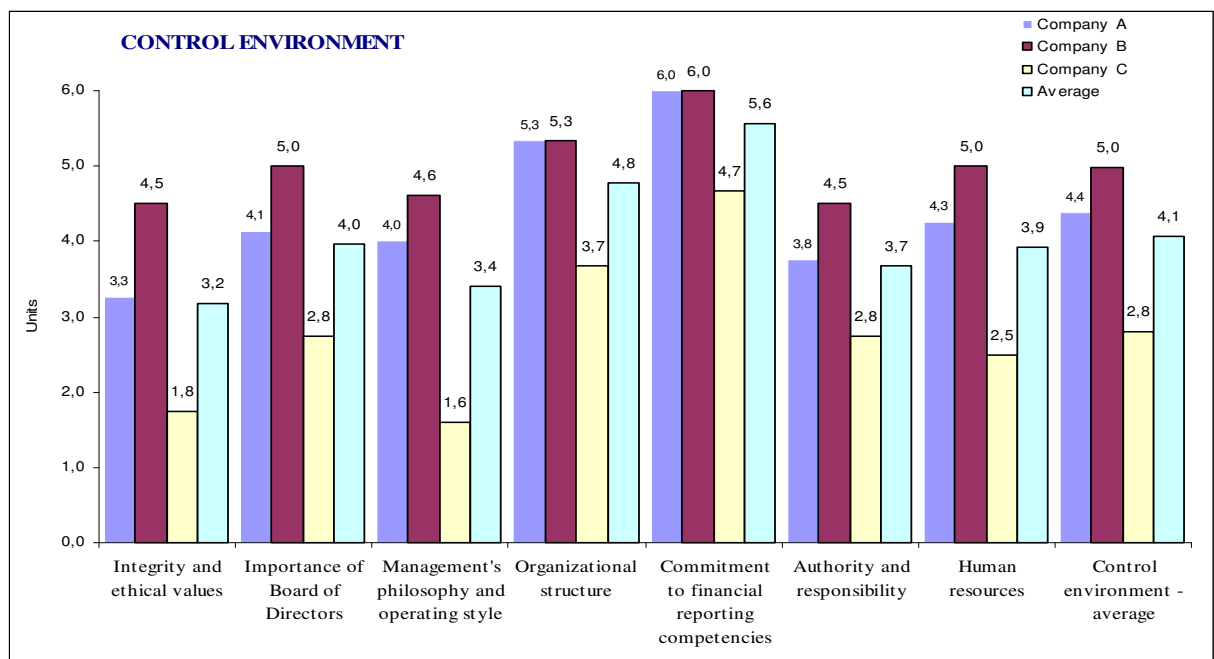


Figure 2.4. The evaluation of the aspects of control environment in observed companies (compiled by author).

Overall, the control environment in Companies A and B is at fairly good level and in line with COSO standards; Company C does not meet the requirements for sound control environment. The weakest areas in the three companies are promotion of

integrity and ethical values and defining authority and responsibility for activities related to financial reporting. On the contrary, the competence of financial departments and the appropriateness of the organizational structure (except in Company C) can be mentioned as the strongest sides of the control environment.

Company A. The current set up of the control environment highlights a vertical structure, mainly under the control of the CEO, with a limited participative environment. In particular the oversight of the Supervisory Board, one of the main elements of the control environment, cannot be considered fully effective. The Supervisory Board meets four times a year and consists of four members – two representatives of the parent company and two from Estonia. Supervisory Board responsibilities include planning the activities, organizing the management and control over the management, taking decisions of loans and other matters outside the core business activities. The minutes of the meetings indicate that general and investment budgets are accepted in the beginning of the year and financial results are noticed, but no corrections for the budgets or additional suggestions for company's investment and financing activities are documented, although the deviations of the budget might be considerable. The external auditor's reports are taken notice. None of the Supervisory Board members have financial background. There is practically no interaction between management and the Supervisory Board apart these meetings. The financial results and fluctuations are followed every month by the parent company, but it is assumed by them that the Supervisory Board has sufficient control over the management and relies on that. Considering the high level of risky investments (subsidiaries) and complexity of activities, more activeness and responsibility should perhaps be taken by the Supervisory Board.

General Manager (CEO) has an authoritative management style, which affects the whole control system, including control environment. The CEO performs many control procedures himself, which on author's opinion indicates some overcontrolling, as minor transactions could be authorized within lower levels. The manager's bonus system depends entirely of company's profitability and thus can create incentives for "inflating" company's financial results. For other finance personnel, the compensation

system includes also indicators of different job elements which staff can influence; therefore the motivation system can be considered more appropriate.

Promotion of integrity and ethical values is informal, like in majority of Estonian entities. The company has adapted some general principles and guidelines for conduct which are posted on company's internal website. The violations of procedures or behaviour are strictly dealt with, normally personally by CEO.

Financial reporting system and organizational structure in the company can be considered accurate, as every cost and profit centre has developed its reporting system which is supported by the information system (replaced in 2005, still under testing). Job descriptions define key areas of authority and responsibility. However, the responsibility for external financial reporting accuracy is entirely delegated to the chief accountant, which does not seem to completely fulfil the company's needs, as the chief accountant has to perform also a bulk of everyday accounting. As there is a financial manager's post in the company who is responsible for internal reporting to the parent company, it would be natural to assume his responsibility also for external reporting. The external financial reporting process is closely supervised by the CEO, but on a rather formal level. All principal accounting problems are solved by the chief accountant, including e.g. estimates for guarantee reserve, and other aspects which should concern directly the management.

Company B. The Supervisory Board meets also four times a year and includes four persons. Compared to Company A, the Supervisory Board has wider professional base, including two acting financial managers, that is probably the reason why financial results, fluctuations, budgets and reports are more thoroughly discussed during the meetings. There are indications of the Supervisory Board's active oversight of company's activities, and financial reporting process by setting deadlines. There is no audit committee, but the company is audited by the parent company's internal auditors once every three years. The external auditor's reports are actively discussed by the Supervisory Board and considered important in evaluating the management's results.

As the previous entity, Company B has also one general manager. However, the level of delegation in the company is more extended and CEO does not overdo every process in

the company. It can naturally create some dilution in existing controls, but it creates more participative environment. During the interview, the CEO brings also out the aspect of responsibility that every middle manager should feel in their job. Another aspect should perhaps be mentioned – the participative management style goes beyond the formal organisational approach to create warm family atmosphere in the company with yearly staff events and continuous support for sporting activities, celebration of birthdays, etc.

There exists a general code of conduct developed by the parent company, which is introduced to newcomers and disclosed on the company's internal website. During interviews with personnel it appeared that higher managers were well aware of the principles probably due to continuous trainings at group level, but middle managers and below had little knowledge of it. Among white collars, integrity and ethical values are also fostered by the yearly bonus system which relies both on the qualitative and quantitative aspects of the company's and individual's performance.

Financial reporting system and organizational structure in the company can be considered accurate. The existing cost accounting system is coupled with continuous internal reporting to the CEO and parent company. Nevertheless, as the company has had some problems with filling vacancies, some financial reports are prepared by unqualified personnel, which may lead to possible mistakes. The responsibility for reporting lies on the chief accountant, who is the highest financial employee in the company; important accounting decisions are made in co-operation with the CEO (e.g. estimate of the guarantee reserve, amortization rates etc.). The educational and professional background of finance personnel is excellent and regular training activities both at group and national level ensures its maintenance and development.

Company C. The control environment appears to be inadequate to foster an ethical culture throughout the company. The following description highlights main aspects of this overall assessment.

According to the Articles of Association, the Supervisory Board should meet four times a year, but in reality only 2-3 meetings per year are held. The minutes for 2005 were not available at all. Supervisory Board consists of four members; one of them is the

executive manager of the company, who owns part of the company's shares (see the company's structure in appendix 4). The Supervisory Board is responsible for choosing the external auditors and for important investment and financing decisions, but as evidenced from the minutes of the meetings, financial aspects of the company are discussed briefly. The external auditor's reports are not usually sent to the Supervisory Board members, although both in 2004 and 2005 they contained significant observations on the application of internal controls. Investment budget for 2005 was not approved by the Supervisory Board (according to the management they are well aware of it, but it is not affirmed by any minutes or signatures). The indifference and apathy of the Supervisory Board can probably be explained with the company's ownership structure – as no company has the majority of the shares, the financial results seem not to be so important to the owners. Although one of the Supervisory Board members is an acting financial manager in another Estonian company, it does not compensate the lack of interest towards entity's performance. It creates a situation where all principal decisions are made by the CEO and executive manager, who have a strong personal interest in the entity. In author's opinion, this structure creates a vast risk of management override in each area of the activities, including financial reporting.

Lack of control and certain haphazard feeling is also visible inside the company. The company has no code of conduct and there are no references to ethical issues in neither employee contracts nor job descriptions. According to the executive manager, there are plenty of violations of procedures among blue collars, but as personnel is valuable (due to deepening structural unemployment problems, which was mentioned as one of the challenges by all three companies), the violations are not always consistently dealt with.

The highest financial position in the company is chief accountant, who has appropriate background for fulfilling her responsibility. The accounting department consists of four persons; the number and background is appropriate. However, as the responsibility is somewhat shared with the executive manager (e.g. in stock accounting) and sales department, the chief accountant has neither overview nor interest toward some important aspects of accounting. Accounting policies and procedures are on development phase and do not reflect correctly the company's accounting activities. Job descriptions are developed only partly and the compensation system depends entirely on

period's profits. In author's opinion, the organizational structure and division of responsibilities do not support the principle of effective control environment.

It may be summarized that Company A's and Company B's control environment is effective or moving towards it, but in Company C, almost all control environment aspects need to be improved, in particular the role and communication with Supervisory Board and management reporting systems.

2.3.2. Risk assessment

Risk analysis component related to internal control over financial reporting was assessed mainly through conversations with the management. The result of the assessment is similar for all companies, in the sense that they do not have any official documented risk analysis/management policy. This implies an obvious weakness in this control component, even though the companies are aware of their main risks; this knowledge remains limited to middle management. However, in the awareness of the risks, connecting them to the company's objectives and assessing fraud risks, companies have some different features.

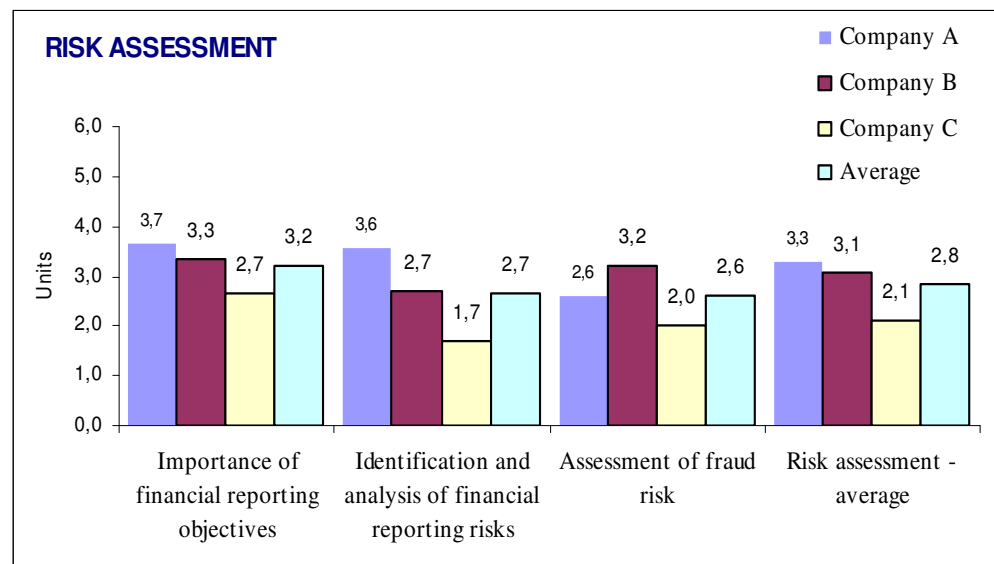


Figure 2.5. Evaluation of the risk assessment component in observed companies (compiled by author).

The risk analysis component was assessed in three categories related to financial reporting: setting the objectives, assessing risks and connecting them to the objectives, and finally assessing fraud risk. Figure 2.5 gives an overview of the numerical assessment results.

As it results from the graph, average score for risk assessment activities is quite low, mainly due to the lack of formal assessment and re-assessment procedures, risk documentation and consideration in everyday activities. In a fast moving environment and in period of high growth, this can lead to conventional decisions, based on past events, ignoring everyday changes. According to Cowan (1999: 271), risk assessment with the objective to minimize and control them helps the organization to reduce possible losses, simultaneously improving the quality of the organization's operations and services. In addition, none of the companies is separately assessing risks concerning the financial reporting environment. The examples of formulating the latter would involve for example existence of incentives to make sales regardless of ability to ultimately collect (in case sales personnel are appraised according to formal sales numbers and not inflows or profitability of the client).

During interviews it appeared that Company A's and Company B's general managers were well aware of the risks they face in their everyday activities, seemingly had discussed them with the parent companies and willing to bring out easily the main risks threatening their enterprise. The budgets and plans are based on estimates for the next year, which are not too optimistic considering potential risks. Entity's objectives are stated on paper and quantified; informally assessed risks are mostly connected to the achievement of these objectives. The main risks brought out below involve both internal and external aspects. The most advanced risk assessment system is in Company A, where general external risks are discussed annually with group directors. However, no periodic or reassessment procedures are obligatory.

Although fraud risk is not actively evaluated in any of the companies, Company B considered it important and is dealing actively with eliminating the opportunity and incentives factors.

Company C has based its objectives and budgets more on market possibilities and risks are considered in budgeting process “subconsciously”. According to the management, the budgets are rather guidelines than strict plans; it is obvious, as the budget for 2005 was not formally accepted by the Supervisory Board. Fraud risk is not considered important in the company.

Table 2.4. The companies’ risk assessment.

Company A	Company B	Company C
<ul style="list-style-type: none"> • Deceleration of international economy can have reverse impact on company’s sales • Lack of labour force due to fast growth and company’s location (in southern Estonia). • Increasing obligations related to disposal of production waste and residuals. • Risks related to the instability of the legal environment and economy in Russia (related to a subsidiary) 	<ul style="list-style-type: none"> • High competition in the market, occasional price wars • High dependence on the building market. In termination of the growth in building market the company could not retain revenues and profits. • Lack of qualified workforce • Risk of defective production. Poor product quality can result in exposure of warranty claims from customers. • Risks related to personnel, including fraud. 	<ul style="list-style-type: none"> • Increase of competition in the market, some newcomers in 2006. Some competitors have aggressive pricing and marketing policies. • Lack of personnel (mainly blue collars). • Changes in regulatory environment, in particular the lack of knowledge in the area of companies’ income tax in Estonia • Development of a new product line from 2006 results of the risk that market response is more modest than expected.

Source: compiled by author, based on interviews with general managers.

In the course of interviews, the managers were asked to mention 4-5 risks which have affected/will affect the results of their companies and financial reporting most in 2005 and 2006. Table 2.4 gives an overview of the risks mentioned. As it results from the table above, Companies A and B consider important both external (market position, competition, economical fluctuations) and internal factors (lack of qualified personnel, risk of defective production, fraud), whereas Company C focuses mainly on external risks. All the risks are entity-level risks and do not concern directly financial reporting; these risks are not separately perceived.

In risk analysis component, the COSO framework does not state specific approaches, but rather principles which should be followed in risk assessment even in small and medium-sized entities; these principles were evaluated above. The emphasis is on the

managers' awareness of risks in general and financial-reporting related risks. Nevertheless, COSO brings out a few additional practices which could be useful also for the companies concerned (COSO 2005: 54-65):

- Mapping financial statement accounts and disclosures to business processes and units and identifying external and internal factors that impact the ability to achieve its financial reporting objectives (provided that the companies have set the financial reporting objectives). This should help analyse and assess the risks.
- Establishing specific risk identification and assessment processes in connection with significant internal and external changes affecting the business.
- The audit committee understands and develops an independent conclusion on the effectiveness of management's fraud and financial reporting risk assessment processes. In Estonia, the function of audit committee could be executed by Supervisory Board, or in case of Company A or B, by the parent company's internal audit function.

In conclusion, all companies seem to be aware of the common risks in the industry, but risks are not documented or formalized, periodical re-assessments are not made, and formal or informal risk policies are lacking. Although the managers appear to be well aware of general threats, risks concerning financial reporting, as listed in chapter 1.2.3, are not separately perceived. Quite surprisingly, two of the companies did not consider fraud risk important or worth separate attention.

2.3.3. Information and communication

The information and communication component was evaluated in five categories:

- information needs –gathering and relevance of information;
- information control – the formality and consistency of information, its communication from the management to other personnel;
- upstream communication – how information reaches the management;
- communication with the Supervisory Board;
- communications with outside parties – customers, consumers, users etc.

The results of the evaluation are presented in figure 2.6.

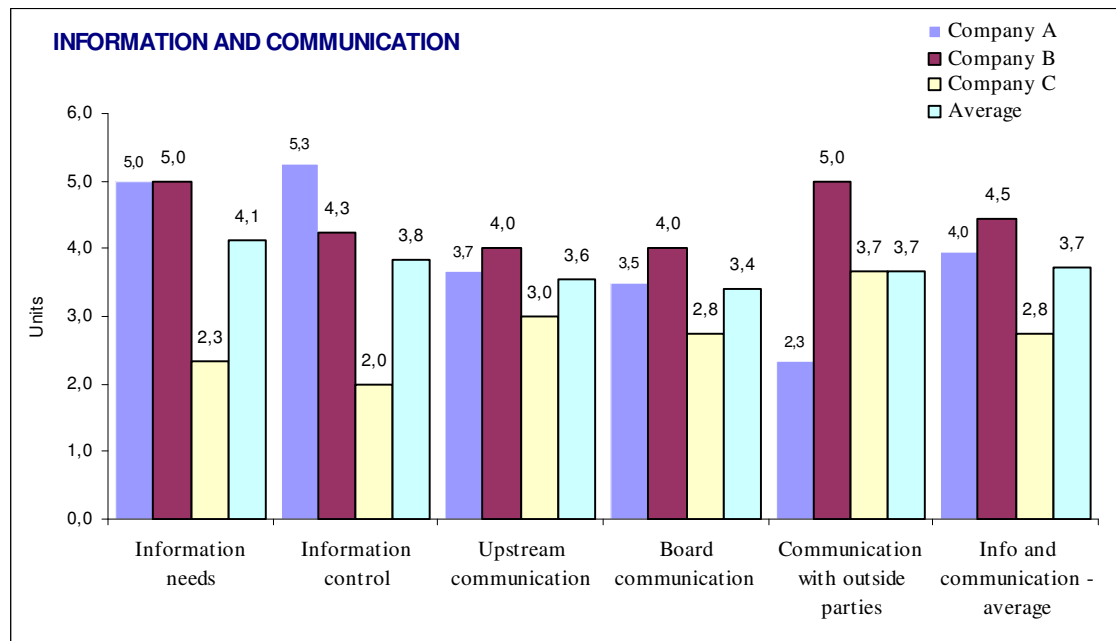


Figure 2.6. Evaluation of the information and communication component in observed companies (compiled by author).

Company A has extensive information systems in place, stock analysis, sales accounting as well as personnel data are integrated into one system, which was implemented in 2005 and is still in testing and development phase. Therefore the company receives and can give constant feedback to the developers of the information systems to create the system according to company's needs. Reporting inside the company as well as to the parent company is highly formalized. However, the design of the reporting is based on group forms, which include some data not relevant to this particular company (e.g. detailed information of R&D and environment costs, calculation of the data in different currencies). Due to that, a significant amount of time is devoted to preparing the group reports leaving uncovered possible more relevant reports from the perspective of the company. As mentioned in chapter 2.3.1, communication with the Supervisory Board takes place only during the meetings, but thorough information is presented and explanations given by the management.

The weakest part of Company A's information and communication system can be considered communication with the outside parties, as the communication is little personalized, the clients do not have a personal contact in the company and the training system for newcomers is very basic. As for the yearly financial report, which is

important source of information to all external stakeholders, the manager's role is limited to writing an activity report and signing the final report.

Company B's information system is also integrated to capture all relevant information in the company. Accounting policies and procedures are well described, but the definitions of information requirements are not as formal as in Company C. However, this gives to the company certain flexibility, as the reporting systems are updated in addition of new product groups. General ledger and automatic accounting entries were mostly developed some years ago and have not been periodically checked; due to the initiative of the parent company, development plan to update all information systems should be in place by mid-2006. CEO participates actively in the preparation of financial statements and accepts all material estimates.

With the Supervisory Board, the communication occurs also between the official meetings, for example in case of passing the limit set in investment budget or accepting other material deviations from plans. The communication with outside parties sees often the involvement of management level. Every customer has a personal contact in the company, the procedures for client satisfaction survey and periodical updates are in place. Sales personnel are well trained.

In Company C, there is minimum level of management reporting inside the entity, and this is not fully supported by the financial information systems. Different programs are used for accounting, stock accounting and sales analysis. These systems were created four years ago and have not been thoroughly reviewed since then. The reports are followed on fairly high level and detailed decisions (e.g. on product level) are made using intuition and experience and based on "rules of thumb". Company C has a high dependency on IT systems without appropriate support and development or disaster recovery plan, which on author's opinion constitutes a significant risk. In fact, the stock accounting and sales analysis systems were developed by one former member of the staff, now acts as an external expert, who has not documented the system properly to pass on the knowledge. The company is trying to solve the problem of high dependency on one person, but as they do not want to give up the present information system, the appropriate solution is still not in place.

Communication with the Supervisory Board is occasional and reports presented to them are based on management's decision, not standardized form; Supervisory Board has not asked for additional reports. Communication with clients is considered important; the manager is involved with the key clients. There is no special training foreseen for sales department, but personnel selection process should compensate it, as only experienced personnel is hired in the sales department.

In comparison to COSO principles, additional aspect that is considered important in information and communication component, is whistleblower process. The term "whistleblower" refers to those who speak out against illegal or unethical practices within the organization they work for (Alford 2001: 403). According to COSO, whistleblowing should involve both employees and external parties, e.g. vendors who may not feel that they are treated fairly (COSO 2005: 105). In author's opinion, as in Estonia the term "whistleblower" has a great negative connotation, too little attention has been paid to the possibilities for employees and external parties to express their discontent, suggestions or suspicions. Thorough analysis and corresponding reactions could improve significantly entities' communication with personnel, customers, suppliers and other external parties.

2.3.4. Monitoring

Monitoring activities were evaluated in three areas mentioned in chapter 1.2.6 – ongoing monitoring process, separate evaluations and reporting deficiencies. The results of numerical assessment are presented in figure 2.7.

As a result of the quantitative analysis, it can be concluded that monitoring component in Company A is at systematic level (score 4.58), in Company B effective (5.08) and in Company C having early systematic approach (3.36). The lack of separate evaluations in companies A and C can be partly offset by effective ongoing monitoring, but the employment of some separate assessment activity should be considered (e.g. controller or internal audit).

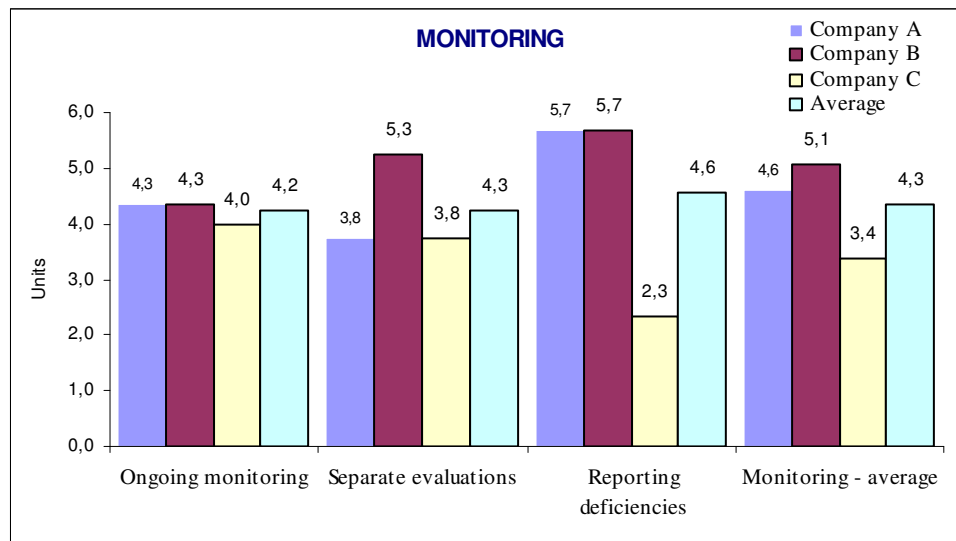


Figure 2.7. Evaluation of the monitoring component in observed companies (compiled by author).

In companies A and B, ongoing monitoring is performed through financial and operating information; deficiencies are in general investigated and reported to the management or parent company. Company B is performing more frequent financial evaluations and operating deficiencies are investigated through that. Company A has in place ISO quality system and although financial monitoring is somewhat less frequent, operating systems in production are followed up daily. Company C has in place different monitoring systems and firm's performance is monitored rather through operating activities than financial reporting.

Separate evaluations in Companies A and C are entirely based on external audits, performed twice a year (interim and year-end review). The management settles with the report provided by auditors. In Company B, external audit takes place three times a year (interim, 11-months and year-end review) and the auditors are encouraged to give feedback of every aspect of the company. In addition, every three years a separate evaluation is performed by the group's audit division and results reported to all necessary management levels.

In reporting deficiencies, Companies A and B were again similar, as the suggestions in auditor's report are implemented promptly and discussed with the Supervisory Board. In Company A, the results of ongoing monitoring are always dealt with by the general

manager and staff is aware of the possible consequences for wrongdoings. In author's opinion, this may create a fear atmosphere in the company and too much burden on the general manager who could delegate the control for minor tasks.

As for Company C, the results of separate evaluations were not presented to the Supervisory Board, although both in 2004 and in 2005 the reports included many references to deficiencies in internal control. Recommendations were implemented only partly; they were delegated mostly to the chief accountant, but fulfilment was not controlled.

From COSO framework, some additional best practices for monitoring activities in small and medium-sized companies can be found (COSO 2005: 107-115):

- Employment of a separate evaluations function, e.g. internal audit. Smaller companies might assign accounting personnel certain job functions that serve to evaluate controls or outsourcing the internal audit function.
- Developing a self-assessment questionnaire for a business process to serve as a diagnostic reference point focusing on the extent to which those responding to the survey believe that controls related to the business process are being applied.
- In the case of separate evaluations and in specific cases of ongoing evaluations, direct reporting to the audit committee (in Estonia: to the Supervisory Board).
- A periodical penetration review of the computer network.

In author's opinion, these practices would be highly useful in the companies concerned, particularly for improving the level of ongoing monitoring, which gives the managers constant assurance for the reliability of financial reporting.

2.3.5. Control activities

As the control activities factor is not quantitatively assessed in present study (see the reasoning in chapter 2.1., p. 49), below only the description and basic questionnaire for the assessment of the period-end financial reporting controls can be found. In addition to the reasons mentioned in chapter 2.1 for not separately assessing the control activities component, additional argument can be added on the basis of the assessment of risk analysis conducted in previous chapters. As the controls in place should be evaluated in

relation to the risks they should mitigate and none of the companies separately assess the risks influencing the financial reporting, the assessment of control activities would not reflect the reality correctly.

In observing the companies' official accounting policies and procedures, it turns out that year-end procedures related to financial reporting are regulated in different levels. In Company A, accounting policies and procedures barely determine the general responsibilities for different reports to the parent company. For year-end reporting, the main responsibility lies on the chief accountant. In Company C, year-end reporting is not covered in the present accounting policies and procedures; a new version is under development. Company B has the most comprehensive description of year-end reporting procedures, including the responsibility, deadlines and references to Estonian Generally Accepted Accounting Principles (GAAP).

The results of the questionnaire are presented in appendix 6 and are quite similar amongst the companies. Each company has some informal process, developed on the basis of past experience. In general, all procedures concerning the comparison of financial reports to the general ledger should be in place, appropriate rights are defined for accountants and other users in access to the information system and it is properly insured that unauthorized adjustments cannot be made to previous year's entries.

However, there are some areas, common to all companies, which create a certain risk of not fulfilling financial reporting objectives, namely no existence of the checklist of year-end procedures, generation of exception reports and access to the reports prepared in other programs. As the year-end reporting procedures are not formally defined, a risk of inconsistency or omission of procedures exists. Exception reports revealing any misuse of the accounting program and access protection for Microsoft Excel and Word programs, where final reports are prepared would give the financial reports additional reliability.

In Companies A and C, there were some additional shortcomings of internal control activities over financial reporting:

- Lack of disclosure checklists which define the main requirements for disclosures for financial statements. The reliance for the completeness of disclosures is put mainly on external auditors.
- Final analytical review of the figures which could reveal inconsistencies and/or material errors, were not performed. Both tools were in place in Company B, probably due to the specific background of the chief accountant.
- Consolidation requires a bulk of manual work, where all accounts are consolidated in Excel table. In addition, as in Company C there is an older and less functional accounting system, the mapping of accounts and generation of reports needs more manual work, which creates extra risks.

The assessment of control activities over period-end financial reporting shows that in this area the three companies are having minimal processes in place to ensure the completeness and accuracy of financial reporting, but specific risks are neither perceived nor mitigated. Some lack of controls in the financial reporting area and reliance on external auditors' work becomes of the fact that management does not pay sufficient attention to setting up the financial reporting objectives and assessing risks threatening these goals.

2.4. Overall assessment and recommendations to the companies

The results of the quantitative evaluation are presented in Table 2.5 and correspond to the evaluation tables in appendix 5, summarized in appendix 7. With regard to the final score, the points for each internal control component were multiplied by the weight. The specific weights are based on the suggestions of academic literature, author's estimation and COSO suggestions for small and medium-sized enterprises, presented in Figure 1.3. As a reminder, the control activities factor was not quantitatively evaluated in present study and thus the estimation of importance for every component is slightly bigger than in COSO framework.

Table 2.5. The assessment of internal control components

	Company A	Company B	Company C	Importance of the component
Control environment	4,39	4,99	2,81	30%
Risk assessment	3,28	3,08	2,13	15%
Information and communication	3,95	4,45	2,75	20%
Monitoring	4,58	5,08	3,36	35%
Overall evaluation	4,20	4,63	2,89	100%

Source: calculated by author.

In the overall estimation of the entities' internal control over financial reporting, Company A obtained the highest and Company C the lowest score, concurrently the difference of the scores for Company A and Company B was significantly smaller than the score for Company C.

It may be concluded that Companies A and B have systematic, comprehensive approach to internal control over financial reporting, which is consistently documented, understood at management level and communicated to personnel. There are still some inconsistencies concerning how internal controls are implemented and enforced and all responsibilities are not clearly defined. Company C is moving toward early systematic approach phase with sporadic and inconsistent documentation and intuitive approach to internal controls, and fairly developed communication systems. Company's risks and related actions are perceived only at management level.

As the grades for different components of internal control over financial reporting were varying, it is even more useful to compare companies' results, divided for the components. The comparison of absolute scores for each internal control component is presented in Figure 2.8. It is distinguishable that Company C had the lowest score in each component of internal control system. This supports the findings of empirical studies of the importance of the control environment and corporate governance in the entity – when this aspect is lacking the quality, also other aspects of internal control system are likely to be ineffective (see chapter 1.2.2).

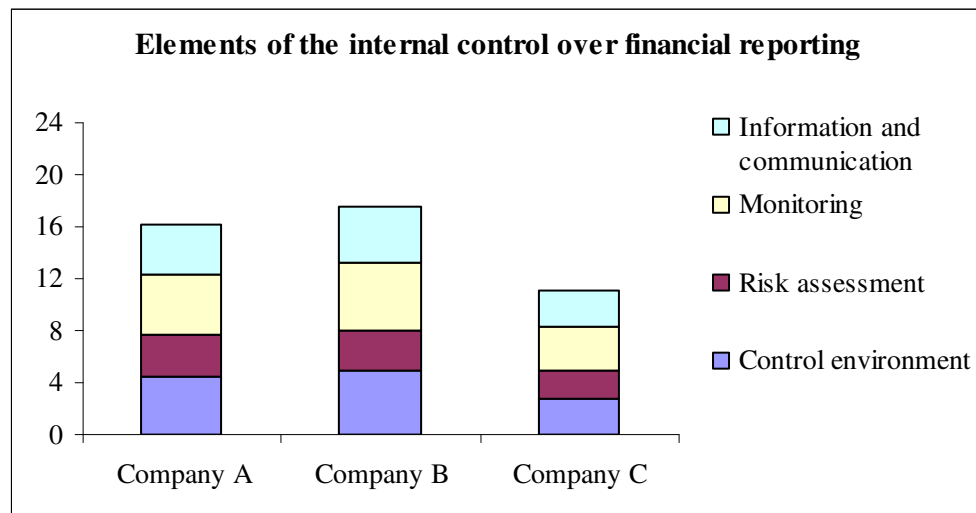


Figure 2.8. Elements of the internal control system (compiled by author).

All in all, the highest grades were awarded to control environment and monitoring components, which indicates that the components perceived as the most important by COSO, are also perceived like this by companies concerned. In author's opinion, the emphasis on control environment and monitoring appeared to be rather subconscious. The information and communication component scored average, implying somewhat inconsistent approach to the communication with the management, the Supervisory Board and external parties. The lack of consistent approach to information and communication may come from the fast growth of the companies, where it appears that the attention has been on investments and sales development, whereas development of communication systems has been minor. The area considered least important by the companies and scoring lowest is risk assessment, where significant improvements are needed in all companies.

The main strengths and weaknesses of companies' internal control systems over financial reporting are summarized in tables 2.6 and 2.7.

Some strength stated in the table may also be perceived as a weakness, when appropriate counter-balancing controls are not in place. In the case of Company B, the CEO's active participation in financial reporting process at the end of the year is positive, because important estimates are having the manager's approval; the CEO is well aware of all the issues raised during the process and can help to solve them. He can also better realize his responsibility for the financial report, knowing the facts behind

the numbers. On the other hand, so close involvement may indicate risk of management overriding problems in the financial reporting area. In fact, due to the management and organizational structure, intrinsic in most of this type of companies, there is a risk for management override of internal controls. This risk should be grounded with the Supervisory Board's and external parties' control over management. As resulted from the study, the participation of the Supervisory Board in Company B is very strong, thus minimizing the risk for management override.

Table 2.6. The strengths of internal control systems in companies A, B and C

Company A	Company B	Company C
Existence of periodic risk analysis, initiated by the parent company.	Intense communication between the management and the Supervisory Board, and the active role of the latter.	Appropriate segregation of duties in accounting department.
Supervisory Board's acceptance is needed for important investment/financing decisions.	Existence of a code of conduct.	Emphasis on the interaction with clients, high-qualified sales personnel.
Budgeting and reporting process to parent company.	Adequate personnel appraisal system, compulsory trainings for finance personnel.	
Well-defined information and financial reporting systems; active update and development.	Management's participation in financial reporting process.	
Compulsory training for finance personnel.	Well-defined information and financial reporting systems.	
Swift application of external auditors' recommendations.	Appropriate segregation of authority and responsibility within the company.	
Well-documented processes within the company (in the course of ISO certificates).	Regular update and reviewing of budgets, Supervisory Board's acceptance of investment and financing decisions.	
	Separate evaluations by group's internal auditors, application of recommendations.	

Source: compiled by author.

Table 2.7. The weaknesses of internal control systems in companies A, B and C

Company A	Company B	Company C
<p>Responsibility for internal control is not defined.</p> <p>Lack of understanding of the objectives and risks on financial reporting level.</p> <p>Authoritarian leadership, extremely high level of direct control by the CEO. Possible overcontrolling by the CEO.</p> <p>Inappropriate segregation of duties in financial department.</p> <p>Fraud risk not perceived.</p> <p>Overlapping of duties in some areas; not adequate sharing of responsibilities in another.</p>	<p>Responsibility for internal control is not defined</p> <p>Lack of understanding of the objectives and risks at financial reporting level.</p> <p>Inappropriate segregation of duties in financial department.</p> <p>Management's participation in financial reporting process.</p>	<p>Lack of the Supervisory Board's involvement.</p> <p>Responsibility for internal control is not defined.</p> <p>Lack of understanding of the objectives and risks on financial reporting level.</p> <p>Personnel appraisal system very basic.</p> <p>Some confusion in authority and responsibility for financial reporting.</p> <p>Accounting policies and procedures and job descriptions only partly finalized.</p> <p>High IT-risk. IT systems do not match fully the company's needs.</p> <p>Fraud risk not perceived.</p>

Source: compiled by author.

Analysis of the strengths and weaknesses gives also an insight into the possibilities of conducting fraud. In comparison to the red flags of fraudulent activities presented in chapter 1.3, many of these are also existent in present study, particularly in Company C. This finding is supported with Hõrrak's study (2006: 78), where she concluded that the control activities of fraud detection and prevention in Estonia are outstanding in large and sufficient in micro-sized companies, but insufficient in medium and small-sized companies. For example in Company C, the lack of management oversight, poor communication with external auditors and overall weak control environment supported with unusually high growth can be considered as indicators of possible fraud. However, for the conclusions of the existence or non-existence of fraud, a more thorough study is needed.

Based on the finalized study, the main recommendations to the companies include, for Company A and C, the elimination or reduction of the influences of the weaknesses, and for all of them further developing their strengths. The specific suggestions

concerning components of internal control were mentioned in chapters 2.3.1 - 2.3.5. The following supplementary recommendations can be brought to the attention of the companies' management and owners:

1. In addition to the management of internal control over financial reporting within the entity, Companies A and C should assess the effectiveness of internal control in their subsidiaries, which create a significant additional risk to the enterprise. As the subsidiaries are more or less independent of the parent company, the emphasis should be on the accentuation of integrity and ethical values and other control environment elements; as the interaction with subsidiaries is not as close as within the company, the values, principles and procedures should be better defined, desirably in writing.
2. Establishment of an internal audit function in all companies. Internal auditing is an independent, objective assurance and consulting activity that is designed to add value to improve an organization's operations. It helps the organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance process (Definition of... 2006). However, the management must still be aware of the fact that primary responsibility for establishing and maintaining internal control rests on them. There is also a possibility for internal audit outsourcing. Internal auditors should mainly concentrate on the subjects which are not covered by external auditors or quality auditors (Rabi 2003).
3. Improvement of the activities related to detection and prevention of fraud. As a start, it should be realized by the management that fraud is an important threat to the capability of company's performance. Management should stop relying mostly on employees' trustworthiness. For detection and prevention of fraud the overall improvement of the internal control system over financial reporting is needed, in particular strengthening the control environment component. The companies should realize that effective internal control can be put in place also with a limited number of staff. Appropriate segregation of duties can already be established with relatively few employees.

The companies should consider COSO principles as guidance and reference in developing their internal control system, adequately assessing the eventual implementation of practices used in other companies. For example, promotion of integrity and ethical values in Company C does not have to mean applying a formal code of conduct as in Company B, simply some transparency and clearness of objectives should be added. It can be done through management's actions, training activities, updating of company's strategy and mission, etc.

Nevertheless, in strengthening the internal control over financial reporting, companies should remember that the cost of implementing and executing control should be in proportion with the benefit resulting from it and no control activities are needed, unless there are risks associated with it. This implies again the inevitable need of risk analysis and management.

2.5. Findings and discussion

From the similar patterns which appeared in companies observed, and from the comparison of the assessment results to the companies' performance and ownership structure, the author draws some conclusions, which are reported below. Although these conclusions cannot be generalized to the whole Estonian business environment, they confirm some of the previous findings in academic literature and can be regarded as a basis for following studies in the field of internal control.

In comparison with the companies' financial results described in chapter 2.2, it appears that Company B which scored the highest grade for the effectiveness of internal control over financial reporting, has the smallest and modest growth, contrary to the other two companies which tend to have higher performances. From this relation, the author draws several conclusions:

- It is easier to develop a good internal control system in smaller companies due to less personnel, more personal contacts and less administration. This observation is also made by COSO as mentioned in chapter 1.2.
- The effectiveness of internal control does not automatically mean the financial success of the company due to the inherent limitations listed in chapter 1.1. In

fact, in the short term, certain level internal control system might even become an obstacle for fast growth, in particular the effective oversight of Supervisory Board, as they tend to be more conservative in taking risks than the management. However, it should be remembered that in present study only the effectiveness of internal control over financial reporting was evaluated, but other aspects, e.g. the efficiency of production or marketing activities might have a bigger influence on the company's financial results. Thus the relationship between the companies' financial results and the effectiveness of internal control over financial reporting is not unambiguous.

- In fast growing companies, the managers' attention has primarily been on the growth and development of figures, and less on the internal development of the company management and control systems, particularly in Company C. The lack of effective internal control system might become an issue in the future.

According to the ownership structure, it may be concluded that in Estonian-owned Company C the effectiveness and formalization of internal control system is at lower level than in the companies based on foreign capital. The reasons include lack of knowledge and experience, outdated procedures and habitual behaviour. As the importance and development of the internal control system is already long-developed by the foreign owner, the knowledge and principles are passed on to a subsidiary, especially in Company B, where the parent company's internal auditors participate actively in developing consistent internal control structure. In contrast, the company based on Estonian capital does not have the knowledge base, many procedures are based on historical habits and as the leaders have a long-term involvement in the company and limited experience with other entities, the level of innovation is probably lower. The fact that neither any entity nor private person has a majority share in the company supports diversification of responsibility and initiative for internal control system.

On the other hand, starting as a *tabula rasa* can be an opportunity for Company C to build a complete internal control structure suitable to its entity, without the burdens and possible overcontrolling elements inherited from the parent company.

To conclude on the appropriateness of COSO framework in assessing the effectiveness of internal control over financial reporting in Estonian companies, the slightly modified

approach used in the present thesis seems appropriate. However, as it appears from the analysis, when the three Estonian companies are benchmarked against COSO guidelines, a number of internal control criteria are missing (e.g. existence of audit committee). Nevertheless it should be remembered that COSO itself suggests taking its principles as the basis of evaluation (see tables 1.3 to 1.7 in chapter 1), but the application of the principles can be different in every company. The conclusion of the appropriateness of this framework in Estonian businesses highlights only the fact that application of the COSO principles in Estonian environment did not bring any difficulties or material discrepancies and the framework was effective in pointing out the main strengths and weaknesses of the companies' internal control over financial reporting. For further conclusions and the development of a universal model for Estonia, also other frameworks should be tested.

The questionnaire developed by the author to assess the effectiveness of internal control over financial reporting can also be used in further studies or by other Estonian companies. The model allows detecting certain weaknesses that in their nature can be considered common to many organizations. It should be further highlighted that the quantitative grading system developed and used by the author can be used by managers, auditors and sector industries to facilitate the benchmarking of the level of implementation of the internal control framework in different companies.

Limitations and further research possibilities

The study has some limitations, which could be improved in the following research projects. The improvement possibilities and ideas for consecutive research possibilities are presented below:

- The study was conducted as a case study on three companies. A study on a representative sample of Estonian companies would allow reaching general conclusions of the overall effectiveness of internal control over financial reporting in Estonian companies. For the complexity and volume of such study, it should involve different phases based on the division of components of internal control.
- The overall assessment of the effectiveness of internal control over financial reporting was performed solely by author. Although she has a certain experience

in conducting the evaluation of internal control, in the following studies the objectivity of results could be increased by using expert groups consisting of students, professors and internal or external auditors.

- Internal control system is best visible and familiar to the entity's personnel; therefore involving them, in particular the internal auditors or controllers, in the study would possibly highlight different results. However, this approach can raise possible difficulties in the level of confidentiality and reliability
- A different evaluation methodology can be used in quantitative assessment. In present study, the method was evaluating all criteria within the objectives of internal control element and the overall result was achieved by calculating the means. In author's opinion, this method was more appropriate, as there was only one evaluator and this method helps to reduce the amount of subjectivity. Nevertheless, in the case of experts/ evaluators groups, the methodology described in chapter 1.3 could be more appropriate, by evaluating directly the principles within each internal control component, and not separately the criteria.
- Thorough research of the relations between the effectiveness of internal control system and fraud in an enterprise would be interesting, as fraud is perceived as one of the main threats to the companies' success.

The internal control framework should not be considered as a static model but an evolving system following the strategic development of the companies. In fact, the companies should regularly assess the increasing risks related to the growth of the activities and adequately adapt their internal control framework to the new needs. In the long term, even though an effective internal control over financial reporting does not ensure the achievement of financial results, it will contribute to the achievement of the companies' objectives and indirectly also the realization of financial performance can be expected.

SUMMARY

The need for an effective internal control framework to help companies and organisations to achieve their objectives has grown during the last years. This results also from the difficulties experienced in mature economies, such as the United States, where weaknesses, wrongdoings or frauds seriously undermined the capacity of the organisations to reach their objectives.

In this context, the most known and common framework is presented in the COSO report. The COSO report defined 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 and compliance with applicable laws and regulations. Before and after the issuance of the COSO report, other studies and frameworks were developed, and they distinguish themselves for their complexity, for the focus on particular components or on some company activities.

For the purposes of the present dissertation, which focuses on the internal control over financial reporting, an additional definition was developed. Internal control over financial reporting is defined as the process, designed and effected by the company's management, Supervisory Board and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Estonian generally accepted accounting principles. The latter definition is addressed to Estonian business environment, and emphasis lies on the reliability of financial reporting.

Internal control over financial reporting can be judged effective, if the Supervisory Board and management have reasonable assurance that published financial statements are being prepared reliably.

A company can benefit of effective internal control several ways. Through enhanced structure of internal control, the possibility of error and fraudulence and illegal conduct can be diminished to a minimum. In highly competitive market, a well-managed internal control system helps to improve the competitiveness and improve employees' understanding of company's objectives.

However, every internal control system has its inherent limitations that explain why internal control, no matter how well designed and operated, can provide only reasonable assurance regarding the achievement of the company's objectives. Mistakes in judgement, breakdowns, collusions or management override can all contribute to the failure of a control system.

In the present thesis, internal control system is divided into five components following the COSO approach:

- Control environment sets the tone of the company, thus influencing the control consciousness. It is the foundation of all other components of internal control, providing discipline and structure and has become more and more important in the last decades. The control environment starts with the Supervisory Board and management, who set the tone of a company through policies, conduct and effective governance.
- Risk assessment means identification and analysis of relevant risks which can undermine the achievement of the objectives, forming a basis for determining how risks should be managed. As the internal control system established in order to have reasonable assurance to achieve the company's objectives in the broader sense, thus the risk assessment component helps to establish a link between objectives and controls. No control activities are needed, unless management has decided to reduce the risks identified.
- Control activities are the policies and procedures that help ensure management directives are carried out and necessary actions are taken to address risks. Control activities should be built rather into, than onto the company's processes.
- Information and communication involves information systems which produce reports containing operational, financial and compliance-related information that make it possible to run and monitor the business. Internal communication involves

sharing the information throughout the company; external communication includes open channels with important external stakeholders.

- Monitoring is a process that assesses the quality of the system's performance over time, which is accomplished through ongoing monitoring activities and separate evaluations. Effective monitoring would not be possible without adequate reporting of deficiencies and necessary actions.

The overall assessment of the company's internal control over financial reporting should give a comprehensive evaluation of the effectiveness of the internal control components of the entity's internal control system. Among companies and auditors around the world, the qualitative assessment is commonly used. To facilitate comparability with other companies, a universal system is needed. Quantitative assessments are designed to measure the level of confidence that can be placed on the internal control's ability to perform effectively.

To assess the applicability of the COSO framework in Estonia and contribute in helping Estonian companies to improve their internal control systems, an empirical study was conducted. The study involved three medium-sized manufacturing companies - A, B and C - with similar production lines, management and Supervisory Board sizes. However, in addition to intrinsic differences of internal control in these companies, the differences in ownership structures, management styles and financial results contributed to additional contrasts.

The highest average score for the effectiveness of internal control over financial reporting was awarded to Company B, where internal control system can be considered comprehensive and consistent; it is understood both at higher and middle-management level and moving toward proactive attitude in problem-solving. However, there are still inconsistencies concerning the implementation of internal control, definition and enforcement of responsibilities. Company A achieved similar results with somewhat lower quantitative score. The lowest rate was obtained by the Company C with informal, inconsistent documentation and responsibilities, intuitive approach to and little awareness of the importance of internal control.

Each component has a relatively different importance inside the internal control system, control environment and monitoring being with the highest weight. This relation, proposed by the academic literature, was asserted by the results of the study, as all companies reached the highest results in the categories mentioned. This implies that also Estonian companies are, perhaps subconsciously, emphasizing the most important aspects of internal control. The importance of control environment component was also supported with the finding that the companies with more effective control environment gained higher score in the overall assessment.

The similar weaknesses across the companies were low level of risk assessment and lack of definition for the responsibility for internal control in a company. Two of the companies had no risk assessment or re-assessment in place, and although the managers had relatively good overview of general risks influencing their companies, the financial level risks were not perceived in any of the companies. Due to the organizational structure, there exists a risk of management override in each entity. Nevertheless, the risk was well managed in Company B with relatively high level of delegation inside the company and the Supervisory Board's active involvement and supervision. In Company A, the authoritarian leadership style and relatively lower level of the Supervisory Board's involvement implies a higher level of risk, whereas the risk for management override is supreme in Company C where lack of surveillance from the Supervisory Board was combined with minimum level of official policies and procedures and specific ownership structure, where managers own minority shares.

The recommendations for the companies include elimination or reduction of the weaknesses detected during the study, and further developing their strengths. Additional recommendations include establishment of an internal audit function in each company to independently assess and recommend on control system and improvement of the activities. As the companies A and C have several subsidiaries in different countries, the subsidiaries' internal control system should also be evaluated and managed. The latter implies probably higher formality of policies and procedures.

Company B had the smallest growth and profitability level compared to other companies. At the same time, the operating profit per employee was high and the results across the years more stable than in other companies. The highest score for the

effectiveness of internal control over financial reporting gained by Company B indicates the existing inherent limitations in each control system, but also evidences that in companies with bigger growth the managers' attention has been rather on company's financial results than the development of internal control. In addition, as Company B is somewhat smaller than other entities, it has also been easier to develop an effective system. On the other hand, these results can also indicate that the company has been even too conservative in development of internal control. However, it should be remembered that in present study only the effectiveness of internal control over financial reporting was evaluated and other factors, mainly efficiency and effectiveness of company's core operations, were not assessed.

According to the ownership structures, it is evident that in two companies belonging to foreign capital, the internal control system is more effective than in Estonian capital based company. The main reason is probably the better knowledge base and experience of parent companies, which are implemented in subsidiaries. In Company C, being a relatively old company with little changes, it is hard to overcome the habitual behaviour, and as the knowledge and experience with internal control in Estonia is still limited, the incentives to improve the internal control are remote. In addition, the reason for weak control environment in Company C lies in the fact that neither a juridical entity nor private individual has a majority share in the company, thus diversifying the sense of control and interest.

In the decisions concerning internal control, companies should remember that the cost of implementing and executing control should be in proportion with the benefit resulting from it. The internal control system should be considered as an evolving system following the strategic development of the company. The companies should regularly assess the risks related to the competition and growth and adequately adapt their internal control framework to the new needs. In the long term, the adequate internal control system gives reasonable assurance of achieving the companies' objectives in financial reporting, efficiency and effectiveness, and compliance with laws and regulations.

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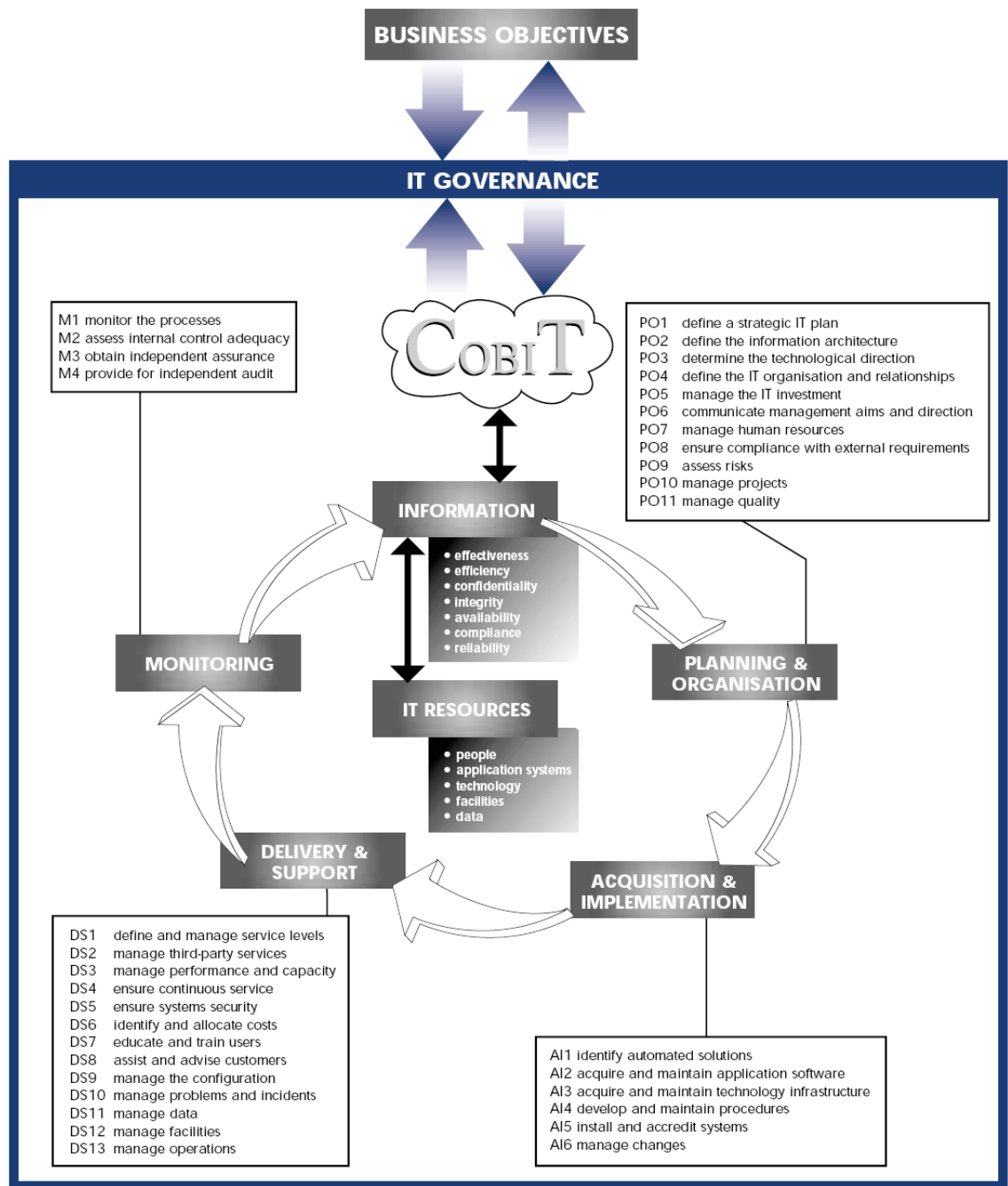
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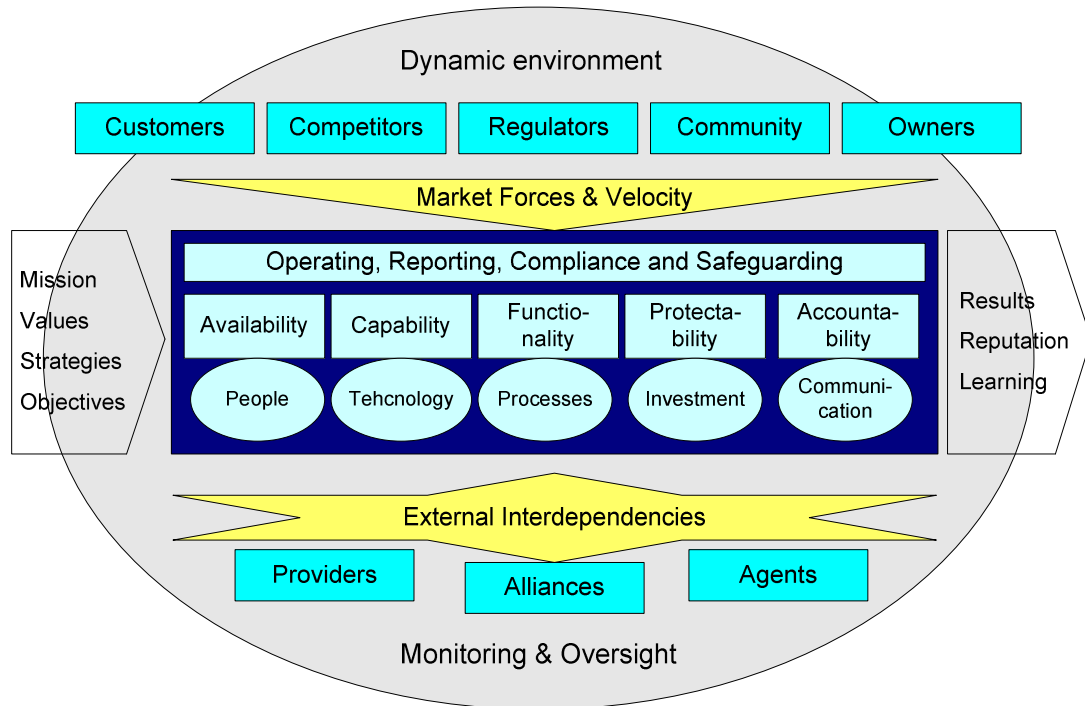
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Appendix 1. COBIT Internal Control Framework



Source: CobiT 2000: 2

Appendix 2. SAC Model



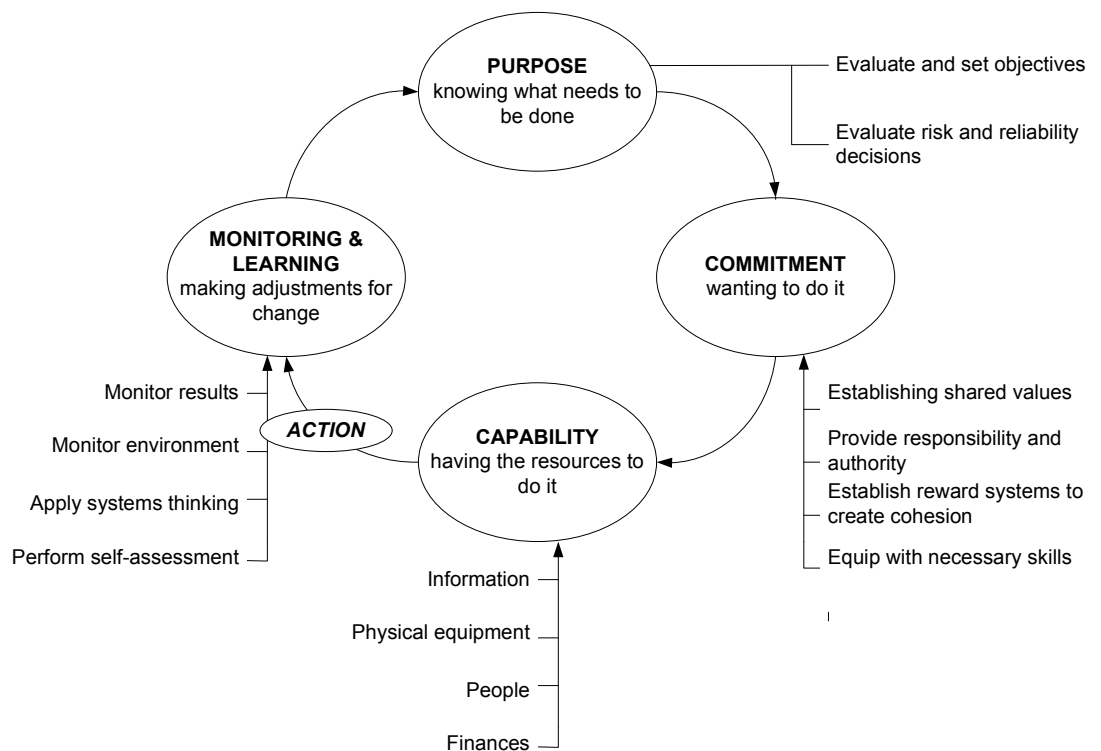
Source: Mair 2002: 5

SAC Model allows discussion of objectives, risks, and mitigation in the context of e-business. Its purpose is to focus on how business risks can be covered in discussion and implementation.

Internal control comprises the activities and organization uses to reduce risks that can affect its mission. Management has direct responsibility for control and must coordinate efforts to achieve objectives.

SAC sets the stage for effective technology risk management by providing a framework for evaluating the e-business control environment. Within the context of an organisation's mission, values, objectives, and strategies, the different SAC modules will assist in gaining an objective perspective on the organisation's technology culture. This knowledge will then aid in providing assurance to customers, regulators, management, and supervisory board that IT risks are understood and managed.

Appendix 3. Assessment Criteria for Risk: Guidance on Control



Purpose

- A1 Objectives should be established and communicated.
- A2 The significant internal and external risks faced by an organization in the achievement of its objectives should be identified and assessed.
- A3 Policies designed to support the achievement of an organization's objectives and the management of its risks should be established, communicated and practiced so that people understand what is expected of them and the scope of their freedom to act.
- A4 Plans to guide efforts in achieving the organization's objectives should be established and communicated.
- A5 Objectives and related plans should include measurable performance targets and indicators.

Commitment

- B1 Shared ethical values, including integrity, should be established, communicated and practiced throughout the organization.
- B2 Human resource policies and practices should be consistent with an organization's ethical values and with the achievement of its objectives.
- B3 Authority/responsibility and accountability should be clearly defined and consistent with an organization's objectives so that decisions and actions are taken by the appropriate people.
- B4 An atmosphere of mutual trust should be fostered to support the flow of information between people and their effective performance toward achieving the organization's objectives.

Capability

- C1 People should have the necessary knowledge, skills and tools to support the achievement of the organization's objectives.
- C2 Communication processes should support the organization's values and the achievement of its objectives.
- C3 Sufficient and relevant information should be identified and communicated in a timely manner to enable people to perform their assigned responsibilities.
- C4 The decisions and actions of different parts of the organization should be coordinated.
- C5 Control activities should be designed as an integral part of the organization, taking into consideration its objectives, the risks to their achievement, and the inter-relatedness of control elements.

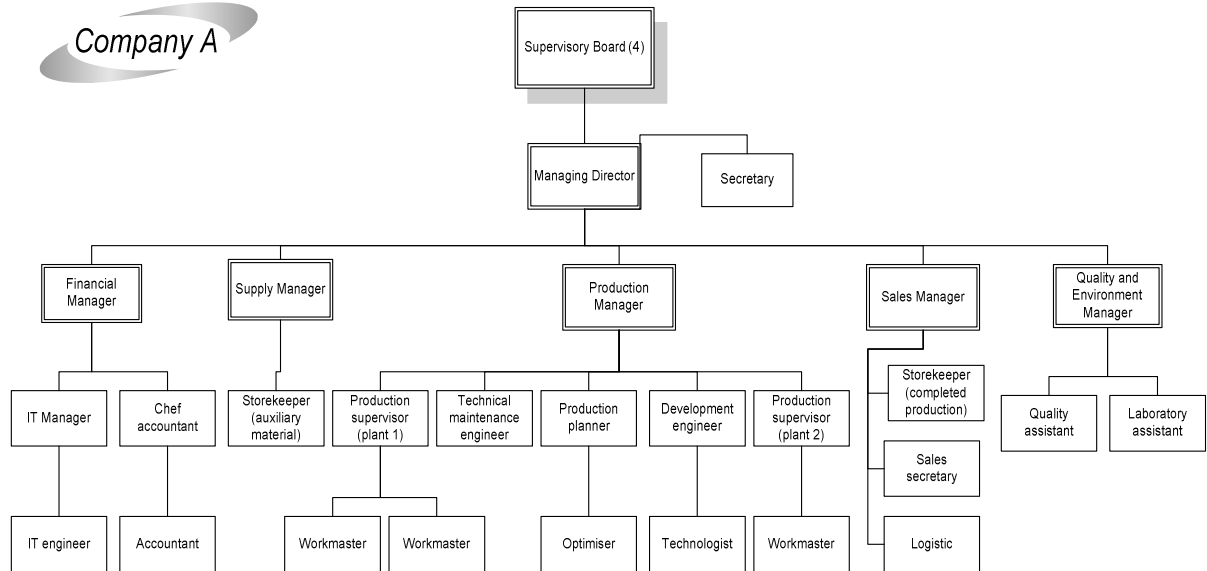
Monitoring and Learning

- D1 External and internal environments should be monitored to obtain information that may signal a need to re-evaluate the organization's objectives or control.
- D2 Performance should be monitored against the targets and indicators identified in the organization's objectives and plans.
- D3 The assumptions behind an organization's objectives should be periodically challenged.
- D4 Information needs and related information systems should be reassessed as objectives change or as reporting deficiencies are identified.
- D5 Follow-up procedures should be established and performed to ensure appropriate change or action occurs.
- D6 Management should periodically assess the effectiveness of control in its organization and communicate the results to those to whom it is accountable.

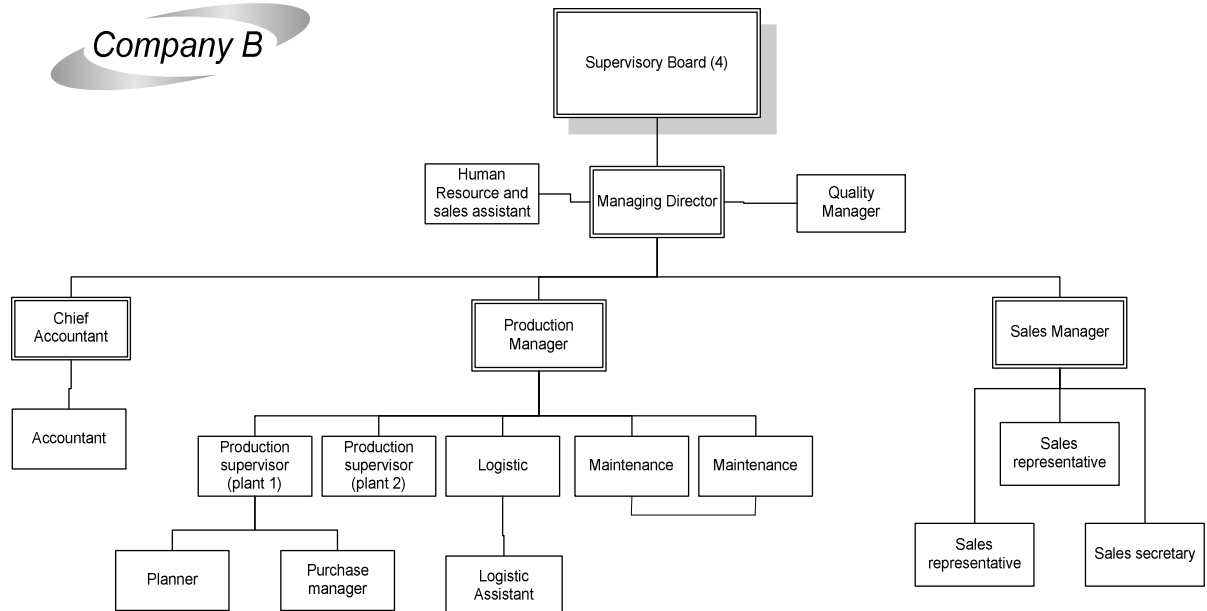
Source: Assessment Criteria for Risk... 2005

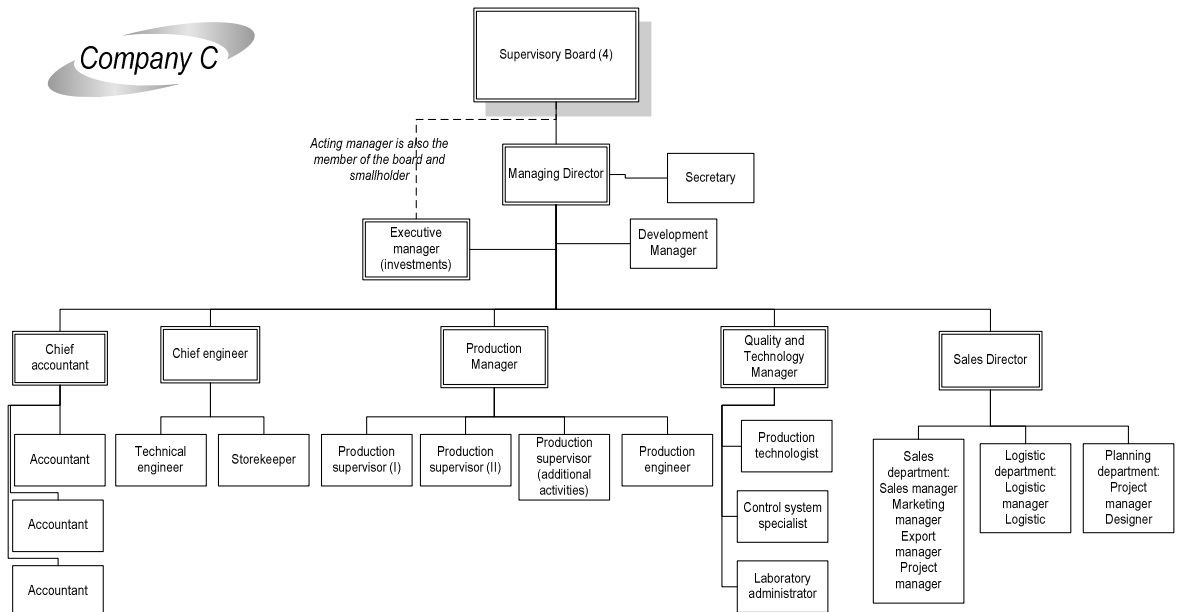
Appendix 4. Companies' structures

Company A



Company B





Appendix 5. Evaluation of elements of internal control in the companies.

Principle and criteria		Entity level control					
CONTROL ENVIRONMENT		Company A	Grade	Company B	Grade	Company C	Grade
1	<i>Integrity and ethical values</i>		3,25		4,5		1,75
1.1	<i>Has top management developed a clearly articulated statement of values or ethical concepts that are understood by key executives and the board?</i>	The company does not have a formal code of conduct, but company's general values are posted on the company's internal website	3	There is a general code of conduct, developed by parent company. Key executives are familiar with this document	4	The company does not have a formal code of conduct nor defined values	1
1.2	<i>Has top management communicated its commitment to ethical values and reliable financial reporting through words and actions?</i>	The ban of working for a competitor is included in employee contracts. Commitment to ethical values promoted through authoritarian management	4	The ban of working for a competitor is included in employee contracts. Key executives promote ethical behaviour	5	The ban of working for a competitor included in key contracts.	2
1.3	<i>Are processes in place to monitor the company's compliance with principles of sound integrity and ethical values?</i>	No monitoring process	1	No monitoring process; employee assessments cover it to certain extent	3	No monitoring process	1
1.4	<i>Are deviations from sound integrity and ethical values identified in a timely manner and addressed and remedied by appropriate levels of the organization?</i>	Violations of procedures or behavior are dealt with, normally personally by CEO.	5	Management supports the code of conduct and there is no evidence of attempts to bypass or override the controls. Violations of procedures are dealt with (by direct manager)	6	Repetitive violations are dealt with, as the company sees the attraction of employees a problem and does not want too easily dismiss personnel.	3
2	<i>Importance of the Supervisory Board</i>		4,125		5		2,75
2.1	<i>The general approach of the Supervisory Board. Is the board of directors actively involved in evaluating and monitoring risk of management override of internal control?</i>	Supervisory Board meets 4 times a year, discusses financial results and investments, but without contribution. No separate risk analysis	3	Supervisory Board meets 4 times a year, discusses actively financial results and investments. No separate risk analysis	4	Supervisory Board meets as needed, 2-3 times a year. For 2005, there are no minutes available. No separate risk analysis	1

	CONTROL ENVIRONMENT	Company A	Grade	Company B	Grade	Company C	Grade
2.2	<i>Does the Supervisory Board monitor and evaluate the risks affecting the reliability of financial reporting?</i>	The risks concerning financial reporting are not separately discussed	1	The risks concerning financial reporting are not separately discussed	1	The risks concerning financial reporting are not separately discussed	1
2.3	<i>Does the Supervisory Board provide effective board-level oversight of the effectiveness of internal control over financial reporting and the preparation of financial statements?</i>	Financial results are followed quarterly, but no actions or separate controls are made. Board is more active in financing and investment decisions	4	The results of the company are closely followed by the parent company and the Supervisory Board, deviations have to be explained.	6	The financial statements are approved by the general assembly. Budgets and financial reports are being looked at, but no actions or separate controls are made.	2
2.4	<i>Does the Supervisory Board have the exclusive authority to hire, fire and determine the compensation of outside audit firm?</i>	The responsibility for hiring the audit firm lies on the general assembly (parent company).	6	The responsibility for hiring the audit firm lies on the general assembly (parent company).	6	Management chooses the audit firm and presents their choice for the Board to approve.	5
2.5	<i>Does the Supervisory Board have majority of members who are independent?</i>	2 representatives of parent company; 2 professionals from Estonia, but not directly related to the company.	6	2 representatives of group companies; 2 professionals from Estonia, but not directly related to the company.	6	3 representatives of parent companies; 1 representative of the company (executive manager)	4
2.6	<i>Does the Supervisory Board have a critical mass of members who are independent of management?</i>	Yes	6	Yes	6	Yes, but according to the frequency and content of the meetings, the subjects and decisions are dictated by general and executive manager	4
2.7	<i>Does the Supervisory Board have one or more members who have financial expertise?</i>	No. The board consists of general managers and lawyers.	2	Yes. There are two acting financial managers from the group companies.	5	Yes. There is one acting financial manager in the board	4
2.8	<i>Does the Supervisory Board meet frequently enough and sufficient time to address important oversight responsibilities?</i>	Meetings are held once in a quarter, which can be deemed sufficient. The matters discussed could be more principal, especially in mid-year meetings.	5	Meetings are held at least once in a quarter, which can be deemed sufficient. The Board oversees financial results, budgets and investments, also discusses other matters of the company's activities	6	No. Meetings are held irregularly and they are too brief for the Board to have a good overview of the activities of the company and management.	1

	CONTROL ENVIRONMENT	Company A	Grade	Company B	Grade	Company C	Grade
3	<i>Management's philosophy and operating style</i>		4		4,6		1,6
3.1	<i>Are the CEO and senior management responsible for sound internal control over financial reporting, including both initiating and maintaining the effective internal controls?</i>	The responsibility for internal control is not defined	1	The responsibility for internal control is not defined	1	The responsibility for internal control is not defined	1
3.2	<i>Does management's philosophy and operating style set the tone that high-quality and transparent financial reporting are expected?</i>	Authoritative leadership style and great level of manual controls performed personally by CEO	4	Yes. CEO personally delegates and overviews the reporting process both to parent company and to external parties	5	There is minimum level of management reporting inside the entity. Management does not rely on financial reports in everyday decisions	2
3.3	<i>Does management establish and clearly articulate financial reporting objectives, including goals related to internal control over financial reporting?</i>	The management has set the principles and deadlines for financial reporting, follows them periodically and investigates fluctuations.	5	The management has set the principles and deadlines for financial reporting, follows them periodically and investigates fluctuations. Financial reporting process in the end of the year is under close attention of the general manager	5	Financial reporting is entirely in the authority of chief accountant. Some inconsistencies in areas of accounting responsibility between chief accountant and executive manager.	2
3.4	<i>Does management follow a disciplined, objective process in selecting accounting principles and developing accounting estimates?</i>	Accounting principles have been prepared by chief accountant in accordance with the company's and EE GAAP's rules, accepted by management. The accounting policies and procedures document rather formal and implementation not controlled.	4	Accounting principles have been prepared by chief accountant in accordance with the company's and EE GAAP's rules, accepted by management. Important accounting estimates, such as guarantee provisions, are under direct supervision of the general manager	6	Accounting principles and estimates are under preparation by chief accountant and should be accepted by management. This process has taken already 1.5 years and existing procedures are not formally accepted by management.	2
3.5	<i>Does management communicate the results of external controls (e.g. external auditors, tax office etc)</i>	Auditor's report communicated to the board with management's comments	6	Auditor's report demanded by the Supervisory Board and communicated with management's comments	6	In 2005, the auditor's report was commented by chief auditor and observations were not communicated to Supervisory Board	1

	CONTROL ENVIRONMENT	Company A	Grade	Company B	Grade	Company C	Grade
4	Organizational structure		5,333		5,333		3,667
4.1	<i>Does management establish accurate internal reporting responsibilities for each functional area and business unit in the organization?</i>	Internal reporting responsibilities defined for the middle-managers, under supervision of the general manager. Job descriptions define key areas of authority and responsibility. Monthly report to the parent company.	6	Internal reporting responsibilities defined, but some reports are not being prepared due to vacancies. Key responsibilities are defined in job descriptions. Monthly report is prepared for the parent company.	5	Internal reporting responsibilities are not defined in official documents nor job descriptions. However, each unit has certain internal reporting system and responsibility based on historical experience	4
4.2	<i>Does management maintain an organizational structure that facilitates effective reporting and other communications about internal control over financial reporting?</i>	Every cost and profit centre has reporting responsibilities, supported by financial information system.	6	Every cost and profit centre has reporting responsibilities, supported by financial information system.	6	Every cost and profit centre has reporting responsibilities, but often not supported by the financial information system.	4
4.3	<i>Are the responsibilities and reporting lines in organizational chart clearly defined?</i>	Clearly developed reporting lines. IT personnel are part of financial department, which does not reflect reality: much of the work is done for administration or production.	4	Simpler organizational scheme than other companies, which is appropriate because of smaller volume. Clear reporting lines. Organizational structure is constantly reviewed for accuracy	5	Some conflicts of accounting/ reporting responsibilities between accounting and sales department and executive manager. Complicated organizational scheme.	3
5	Commitment to financial reporting competencies		6		6		4,667
5.1	<i>Are competencies that support accurate and reliable financial reporting identified?</i>	Yes. There are thorough job descriptions for the accountants and CFO	6	Yes. There are thorough job descriptions for the accountants. Necessary qualifications are disclosed also on head hunt	6	There is a general job description, which covers all accountants. Separate job description for chief accountant, but some tasks are in fact covered by executive manager (cost and stock accounting)	4
5.2	<i>Does the company retain or otherwise utilize individuals who possess the required competencies related to financial reporting?</i>	The personnel match the needs of the company.	6	The personnel match the needs of the company.	6	The personnel match the needs of the company	6

	CONTROL ENVIRONMENT	Company A	Grade	Company B	Grade	Company C	Grade
5.3	<i>Are needed competencies regularly evaluated and maintained?</i>	There is regular compulsory training for financial personnel by the group. Personnel can participate in other necessary trainings	6	There is regular compulsory training for financial personnel by the group. Personnel can participate in other necessary trainings	6	Personnel can participate in necessary trainings, but it is not compulsory. Majority of accountants have worked in the entity more than 10 years, but do not participate regularly in trainings.	4
6	Authority and responsibility		3,75		4,5		2,75
6.1	<i>Does the Supervisory Board provide effective oversight of management's process for defining responsibilities for key financial reporting lines</i>	Financial reporting lines and reports were developed by the management and have not been reviewed in the past years. Supervisory Board has not shown particular interest toward reporting accuracy.	4	Financial reporting system was initially developed by experienced specialist from parent company, board reviews reporting and accepts all significant changes.	5	The existence/nonexistence of financial reporting is entirely in management's hands. The Supervisory Board not involved in reporting process	1
6.2	<i>Are the assignment of responsibility and delegation of authority clearly defined for all employees involved in the financial reporting process?</i>	In the Articles of Association, the manager is responsible for arranging accounting and reporting to the Supervisory Board. Accountant's and financial director's responsibilities defined, but overlap partly.	4	In the Articles of Association, the manager is responsible for arranging accounting and reporting to the Supervisory Board. Responsibilities for reporting clearly defined in accounting policies and procedures	5	In the Articles of Association, the manager is responsible for arranging accounting and reporting to the Supervisory Board. Responsibilities for reporting are not formally defined	2
6.3	<i>Does the assignment of authority and responsibility include appropriate limitations?</i>	The general manager checks all the transactions made by middle managers without considering materiality (overcontrolling). Authority for significant investment and financing decisions lies on the Supervisory Board.	4	Middle managers have set limits, over which the transaction has to be checked by the general manager. Authority for significant investment and financing decisions lies on the Supervisory Board. IT system supports control over limitations.	5	Limitations set for accountants in transaction level, not in volume. For purchase and sales department, limits are not defined, but manager is personally involved in big sums. Important investment/ financing decisions should be made by board, but in 2005 informal. The IT system supports limitations only partly.	3

	CONTROL ENVIRONMENT	Company A	Grade	Company B	Grade	Company C	Grade
6.4	<i>Is there appropriate segregation of duties in the accounting department?</i>	Appropriate segregation between accounting dept. and other dept-s. Some lack of segregation of duties within the department (only 2 accountants).	3	Appropriate segregation between accounting dept. and other dept-s. Some lack of segregation of duties within the department (only 2 accountants).	3	Appropriate segregation between accounting dept. and other dept-s. Appropriate segregation of duties within accounting department, except bank transactions and investments, which are entirely controlled by chief accountant.	5
7	Human resources		4,25		5		2,5
7.1	<i>Does management establish human resource policies and procedures that demonstrate its commitment to integrity, ethical behavior and competence?</i>	Company has in place policies and procedures for employee hire and conduct, they are available in intranet system. Sophisticated bonus system document defined by company's policies document, available for personnel.	5	There are comprehensive HR policies implemented and signed by every employee. Integrity and ethics are criteria in performance appraisals for white collars. Bonus system defined by consistent document, disclosed to all personnel.	5	There is no general document for employee conduct and appraisal. Bonus system is enforced every half a year with manager's decree. Bonus system very basic.	2
7.2	<i>Are employee recruitment and retention for key financial positions guided by the principles of integrity and by the necessary competencies associated with the positions?</i>	The financial director has necessary competencies and experience. Chief accountant was chosen three years ago on an open competition. Responsibilities are defined in job descriptions.	5	A new chief accountant was chosen last year with direct offer. Chief accountant has necessary experience with big production companies and as an auditor. Responsibilities are defined in job descriptions.	5	No new financial employees recruited in past 5 years. Chief accountant has experience with small companies, but seem not to be entirely up-to-date with recent changes in accounting. Job descriptions for white collars are still unfinished.	3
7.3	<i>Does management support employees by providing access to the tools and training needed to perform their financial reporting roles?</i>	Compulsory training in group level.	4	Compulsory training in group and EE legislation. Training hours are evaluated in employee evaluation system.	5	There is no compulsory training; trainings are organized when needed. Some accountants have not participated in any training for past 2 years.	3
7.4	<i>Do employee performance evaluations and the company's compensation practices support the achievement of financial reporting objectives?</i>	Accounting division's bonus criteria different financial indicators; qualitative aspects not evaluated.	3	Accounting division's bonuses are based both on qualitative and quantitative criteria, including timely financial reporting	5	Employee bonus system is solely based on period profits, incl. accounting department. Therefore most of the employees do not have any influence over their bonuses.	2

	RISK ASSESSMENT	Company A	Grade	Company B	Grade	Company C	Grade
8	<i>Importance of financial reporting objectives</i>		3,667		3,333		2,667
8.1	<i>Do financial reporting objectives set in budgeting align with the requirements of generally accepted accounting principles?</i>	Supervisory Board approves yearly budget.	4	Supervisory Board approves yearly budget and quaterly modifications.	4	Supervisory Board approves yearly budget (? - for 2005).	3
8.2	<i>Has management established entity-wide objectives, and are those objectives periodically reviewed and updated?</i>	In planning process, CFO builds the budget based on entity's objectives in sales, costs and investments. Entity's long-term objectives are updated and published in internal website.	5	The company has established long- and short- term objectives; budgets are based on them and reviewed quarterly.	4	Entity's objectives are established at high level without numerical aspects. Mainly based on CEO's vision and not communicated to personnel. Not very detailed budgets.	3
8.3	<i>With respect to financial statement accounts and disclosures, is significance based on materiality and risk?</i>	The level of significance is not defined. CEO reviews all documents from smallest to biggest	2	The level of significance is not defined.	2	The level of significance is not defined.	2
9	<i>Identification and analysis of financial reporting risks</i>		3,571		2,714		1,714
9.1	<i>Has the organization put into place effective risk assessment mechanisms that involve appropriate levels of management?</i>	No official process, but risks are discussed on executive staff meetings (every 3 weeks)	4	No official process. Risks are defined at parent company's level. Management has his vision of risks.	2	No official process. Management is aware of risks, but there is no periodical assessment or manual.	2
9.2	<i>Are identified risks analyzed through a process that includes estimating the potential impact of the risk and an assessment of the likelihood of the risk occurring?</i>	Risks, including the estimation of their likelihood and impact, are communicated and discussed in annual group meetings.	4	Informal risk assessment	1	Informal risk assessment	1
9.3	<i>Are identified risks and bugets aligned with company's objectives, strategic plans and current conditions?</i>	Budgets are prepared according to company's objectives and estimates for the next year/ 3 years.	4	Budgets are prepared according to internal and external factors affecting the company and reviewed quarterly.	5	Budgets are treated rather as guidelines than real objectives for the financial year.	2
							Grade

	RISK ASSESSMENT	Company A	Grade	Company B	Grade	Company C	Grade
9.4	<i>Are risks potentially impacting the achievement of financial reporting objectives identified?</i>	Risks related to financial reporting are not separately defined.	1	Risks related to financial reporting are not separately defined.	1	Risks related to financial reporting are not separately defined.	1
9.5	<i>Are IT infrastructure and processes supporting the financial reporting objectives included in the financial reporting risk assessment?</i>	Management is well aware of risks related to IT, constant improvement process	5	IT infrastructure supports well financial reporting, management aware of risks	4	IT infrastructure do not support fully reporting process; high dependency of IT firm, but not fully perceived	2
9.6	<i>Does risk identification consider both internal and external factors and their impact on the achievement of financial reporting objectives?</i>	In risk analysis and types of risks mentioned by the management, both internal and external factors are taken into consideration.	5	In risk analysis and types of risks mentioned by the management, both internal and external factors are taken into consideration.	5	In risk analysis and types of risks mentioned by the management, the emphasis seems to be on external risks.	3
9.7	<i>Has management established triggers for reassessment of risks as changes occur that may impact financial reporting objectives?</i>	Reassessment is performed informally, during executive staff meetings.	2	Reassessment performed informally, according to needs.	1	Reassessment performed informally, according to needs.	1
10	Assessment of fraud risk		2,6		3,2		2
10.1	<i>Are fraud assessments an integral part of the risk identification and analysis process?</i>	No	1	No	1	No	1
10.2	<i>Does the company's assessment of fraud risk consider incentives and pressures, attitudes and rationalizations, as well as opportunity to commit fraud?</i>	Fraud risk and elements have been discussed with parent company.	2	Management is well aware of fraud risk and is concentrating on eliminating the possibilities.	4	The management does not consider fraud risk very likely in the company. The principle is that people can be trusted	1
10.3	<i>Does the company consider risk factors relevant to its industry and to the geographic region where it does business?</i>	By management, regional risks are mentioned	5	By management, regional risks are mentioned	5	By management, regional risks are mentioned	5
10.4	<i>Does the company consider the potential for fraud in high-risk areas in accounting (e.g. revenue recognition, important estimates)?</i>	Oversight process delegated to CFO, but no separate controls are made, big trust on IT systems	2	Manager performs oversight over important estimates; everyday transactions are on chief accountant's responsibility	3	Management leaves the financial responsibility entirely on chief accountant	2
10.5	<i>Does the Supervisory Board actively evaluate and monitor risk factors affecting the reliability of financial reporting, including the risk of management override?</i>	General risks briefly discussed on the approval of budgets, separate financial or fraud risks are not considered.	3	General risks discussed on the approval of budgets; separate financial or fraud risks are not considered.	3	No evidence of risk communication to Supervisory Board	1

	INFORMATION AND COMMUNICATION	Company A	Grade	Company B	Grade	Company C	Grade
11	Information needs		5		5		2,333
11.1	<i>Is information used in controlling activities, processes and functions, all of which lead to reliable financial reporting?</i>	Information in the company is quite formal, almost all documents are signed by the CEO and orders/procedures are highly formalized.	5	Information and communication in the company goes informally, orally or by e-mail; procedures are formalized, but the emphasis is on face-to-face interaction.	4	Information and communication informal, oral, by e-mail, procedures not formalized. As people have worked in the company for 15-20 years, they know them anyway	2
11.2	<i>Does operating information used to develop accounting and financial information serve as a basis for reliable financial reporting and is operating information also used as the source of accounting estimates?</i>	Yes, the communication works both ways. All systems are integrated to financial reporting program, it is used both for reports to management and to parent company.	6	Yes, the communication works both ways. All systems are integrated to financial reporting program, it is used both for reports to management and to parent company.	6	The company has different systems for sales, stock and accounting, which should integrate, but the system does not really work. Systems are old and haven't been updated; so much of the information is not correct and usable.	3
11.3	<i>Is there evidence that company uses relevant information, including data from business processes, state of the economy and other relevant data?</i>	Reporting is based on standardized forms according to the group norms.	4	Reporting systems are updated at least annually or in addition of new product groups	5	Reporting systems are basic, many decisions are intuition-based	2
12	Information control		5,25		4,25		2
12.1	<i>Are the procedures sufficiently formal such that management can determine whether the control objectives are met, documentation is in place and personnel routinely know the procedures that need to be performed?</i>	Yes. Formal documentation and circle of documents has been established in production; in administration, procedures have developed gradually.	5	Yes. The main documentation and staff performing the duties have been mapped and are part of accounting policies and procedures.	5	No. Procedures are to great extent informal, relying on staff's experience.	2
12.2	<i>Are data underlying financial statement captured completely, accurately and timely, in accordance with the company's policies and procedures and in compliance with laws and regulations?</i>	IT systems cover all aspects of the company and constant developments to the system are made in co-operation with the IT support company.	5	IT development plan has been worked out in co-operation with the parent company, they are considered in budget planning	4	The company is in great dependence on IT company. They plan to change it, but until now have not had time. IT-questions are not regulated by any document	2

	INFO and COMMUNICATION	Company A	Grade	Company B	Grade	Company C	Grade
12.3	<i>Is the quality of system-generated information reviewed periodically to assess its reliability and timeliness in meeting the company's internal control objectives related to financial reporting?</i>	System-generated information is tested after every innovation.	5	No formal procedures for information testing; it was partly tested by new chief accountant last year, plus during every audit.	3	Testing the accuracy of information in accounting system is not tested after implementation of the accounting program (2000). To some extent, tests are performed by ext. auditors.	2
12.4	<i>Are information systems updated to support the identification and management of risk to reliable financial reporting?</i>	Constant updates	6	Updates according to new reporting needs	5	No regular update; IT company performs mainly maintenance of the program.	2
13	Upstream communication		3,6667		4		3
13.1	<i>Is upstream communication used by management to improve performance and enhance internal control?</i>	Procedures are in place for upstream communication both lower and higher levels.	5	Procedures are in place for upstream communication both lower and higher levels.	5	Upstream communication well defined between middle-management and general management, but from lower levels the reports are rather verbal.	3
13.2	<i>Are separate lines of communication in place and do they serve as a "fail-safe" mechanism in case normal channels are inoperative or ineffective?</i>	For IT systems, backups are made regularly.	5	For IT systems, backups are made regularly.	5	For IT systems, backups are made regularly.	5
13.3	<i>Does the company have an effective "whistleblower" process that meets regulatory compliance requirements and promotes internal control?</i>	No whistleblower process	1	No direct whistleblower process. Twice a year, conversations are performed with employees which can replace it to certain extent	2	No whistleblower process	1
14	Supervisory Board communication		3,5		4		2,75
14.1	<i>Does an open communications channel exist between management and the Supervisory Board?</i>	There is a possibility for management to be in contact with the board between meetings, but it is not used frequently	3	It is normal for the management to be in contact with board members also between the official meetings.	5	The channel exists, but remains unused. Basically all decisions are taken by general and executive manager.	2
14.2	<i>Is the effectiveness of the Supervisory Board supported by timely communications?</i>	Timely reports are prepared for the board for every meeting. Questions are normally answered orally and documented properly.	6	Timely reports and other necessary information prepared for every meeting, questions answered orally by the management	6	Reports are prepared for the board when meetings are held.	5
14.3	<i>Does management consider Board information needs in developing reporting?</i>	Reporting is based on group's standards	4	Reporting is based on group's standards	4	Reporting is based on management's decisions.	3

	INFO and COMMUNICATION	Company A	Grade	Company B	Grade	Company C	Grade
14.4	<i>Does the Board have access to information sources outside of management, on a regular basis and as needed?</i>	No	1	No	1	No	1
15	<i>Communication with outside parties</i>		2,333		5		3,667
15.1	<i>Do open external communication channels exist to and from customers, consumers, end users and suppliers, and other external stakeholders?</i>	Communication channels are mainly salespeople, purchase director etc.	3	Communication through salespeople, manager deals personally with bigger clients. Every client has a personal contact in the company.	5	Communication through salespeople, manager deals personally with bigger clients. Every client has a personal contact in the company.	5
15.2	<i>Are ethics and values routinely shared with employees and do they include expectations about interactions with external parties?</i>	No obligatory training for salespeople; trainings are provided on their request.	2	All salespeople have international training plus national trainings if necessary, which include client relationship.	5	No obligatory training for salespeople; trainings are provided on their request. Professional salespeople are hired.	4
15.3	<i>Are financial reports reviewed and evaluated for reliability and transparency by management prior to release?</i>	The role of the manager in external financial reporting is limited to writing activities report and signing.	2	General manager takes actively part in financial reporting process and is well aware of any possible issue.	5	The role of the manager in external financial reporting is limited to writing activities report and signing.	2

	MONITORING	Company A	Grade	Company B	Grade	Company C	Grade
16	<i>Ongoing monitoring</i>		4,333		4,333		4
16.1	<i>Is ongoing monitoring built into operations throughout the company, and does it include explicit identification of what constitutes a deviation from expected control performance and thereby signal a need to investigate both potential control problems and changes in risk profiles?</i>	Ongoing monitoring is performed mainly through plans and monthly financial report, their comparison to last month and plan. Deviations from plan are considered normal and are investigated only in big cases	5	Budgets are updated regularly, monthly financial report is sent to the parent company and explanations are needed for all fluctuations above 5%	6	General Managers monitors the financial performance through bank accounts, sales reports and stock levels; financial reports are studied occasionally	4
16.2	<i>Does ongoing monitoring provide feedback on the effective operation of controls integrated into processes, and on the processes themselves?</i>	The processes are in place mainly for production (ISO system) and reports are followed daily. For other activities, monitoring is based more on financial aspects	4	Monitoring is based more on financial aspects - if there are no important deviations, it is assumed that processes are effective.	3	As management relies more on operational than financial reports, all changes in effectiveness of operations should be visible.	4

	MONITORING	Company A	Grade	Company B	Grade	Company C	Grade
16.3	<i>Does ongoing monitoring serve as a primary indicator of both control operating effectiveness and of risk conditions?</i>	Yes. No direct relation with risk assessment.	4	Yes. No direct relation with risk assessment.	4	Operating effectiveness is controlled by observing employees' work; process monitoring secondary	4
17	Separate evaluations		3,75		5,25		3,75
17.1	<i>Do separate evaluations provide an objective look at the overall internal control over financial reporting and are separate evaluations of internal control for external reporting performed by someone who can provide an objective review?</i>	Separate evaluation is performed by independent, acknowledged auditor.	4	Group's internal audit division performs checks every three years. Independent and acknowledged auditors make three checks per year.	6	Separate evaluation is performed by independent, acknowledged auditor.	4
17.2	<i>Is the evaluator knowledgeable and understand the components being evaluated and how they relate to the activities supporting the reliability of financial reporting?</i>	Professional evaluators	6	Professional evaluators	6	Professional evaluators	6
17.3	<i>Are separate evaluations used to provide feedback on the effectiveness of ongoing monitoring procedures?</i>	Internal controls are tested in the course of the audit, but if they are not relevant to audit or do not create material mistakes, they are not reported	3	Internal audit reports give comprehensive overview of deficiencies in processes, incl. monitoring. External auditors are asked to give feedback of every aspect of the company, even if immaterial.	5	Internal controls are tested in the course of the audit, but if they are not relevant to audit or do not create material mistakes, they are not reported	3
	<i>Does management vary the scope and frequency of separate evaluations depending on the significance of risks being controlled and importance of the controls in mitigating these risks?</i>	Separate evaluation methodology and frequency is entirely based on auditors' work.	2	Group's internal audit controls based on risks, but not management's initiated. Frequency of external audit defined by parent company's needs	4	Separate evaluation methodology and frequency is entirely based on auditors' work.	2
18	Reporting deficiencies		5,667		5,667		2,333
18.1	<i>Are reports from external sources considered for their internal control implications, and timely corrective actions are identified and taken?</i>	Auditors' recommendations are put into practice swiftly and accurately	6	Auditors' recommendations are put into practice swiftly and accurately	6	In 2004 and 2005, auditors' recommendations were implemented partly.	3

	MONITORING	Company A	Grade	Company B	Grade	Company C	Grade
18.2	<i>Are findings of an internal control deficiency reported to the individual who owns the process and control involved and who is in position to take corrective actions, and are the findings also reported to at least one level of management above the process owner?</i>	The findings from separate evaluations are communicated to management who arranges the solution of the problem. All findings of deficiencies in ongoing monitoring are also reported to general manager, deficiencies are punished.	5	Findings from separate evaluations are communicated to management who delegates the arrangement of the problem. Small deficiencies are mostly dealt with by the middle-management.	5	Findings from separate evaluations are communicated to the management. The solution of the problem is delegated, but not controlled its fulfilment.	3
18.3	<i>Are deficiencies that affect internal control over financial reporting communicated to top management and the Supervisory Board regularly and as necessary?</i>	Auditors' reports are communicated to the board of directors.	6	Auditors' reports are communicated to the board of directors.	6	Auditors' reports are not communicated to the board of directors.	1

Appendix 6. Internal control procedures over financial reporting process – questionnaire and results

	Company A	Company B	Company C
Objective: comparative information is appropriately reported			
Existence and usage of a checklist of procedures to ensure that the process is complete regarding the period-end opening and closing of sub-ledgers and general ledger	No	No	No
Comparison of prior year comparative numbers to the prior year issued financial statements for consistency	Yes	Yes	Yes
Changes to closed period balances require approval by the highest financial position in the company	Yes	Yes	Yes
Only authorized individuals have access to open prior period account balances	Yes	Yes	Yes
Once the financial reporting process is completed, the IT system is locked to ensure that adjustments cannot be posted to previous periods	Yes	Yes	Yes
Reporting packages have pre-defined mapping and are automatically uploaded by the chief accountant/ financial manager	Yes	Yes	No
Objective: overall financial statement presentation is accumulated, processed, summarized and presented fairly			
Prior to issuance of the financial statements, the Supervisory Board gives their authorization	Yes	Yes	Yes
An analytical review of the financial statements is prepared by financial manager/ chief accountant, summary is provided to the management and Supervisory Board	No	Yes	No
Drafts of the financial statements are reviewed by financial manager/chief accountant and CEO	Yes	Yes	Yes
Existence and usage of disclosure checklist to ensure completeness of disclosures	No	Yes	No
Reconciliation of the final financial statements to the reporting system for accuracy	Yes	Yes	Yes
Objective: completeness, existence and accuracy of journal entries are not significantly misstated			
A list of automatic entries is maintained and reviewed in the end of the period for validity and accuracy	Yes	Yes	Yes
Non-routine journal entries are reviewed and approved by the chief accountant/ financial manager	Yes	Yes	Yes
All recurring journal entries are preformatted with account numbers and mapped by the IT system	Yes	Yes	No

	Company A	Company B	Company C
Exception reports are generating highlighting violations of access restrictions that are reviewed by the IT manager	No	No	No
The preparation, posting and authorization of consolidation journal entries are performed by separate individuals	Yes	NA	No
All entries posted after a certain date into last year's general ledger are reviewed and approved by chief accountant/ financial manager	Yes	Yes	No
Subsidiary reporting packages are being reviewed and signed off by the financial manager/ chief accountant	Yes	NA	Yes
The IT system automatically eliminates intercompany accounts based on a pre-defined mapping	No	NA	No
Only certain authorized individuals have access to post consolidation entries	Yes	NA	Yes
Objective: cash flows and movements in equity have been accumulated, recorded, processed, summarized and reported appropriately			
The chief accountant/ financial manager reviews the preparation of the statement of cash flows/ movements in equity and signs it off	Yes	Yes	Yes
For end-used computer programs (e.g. Microsoft Excel) used to prepare the cash flows statement/ changes in equity, access to make changes is limited to authorized individuals, changes must be approved by management	No	No	No
An analytical review of the statement of cash flows/ changes in equity is prepared by the chief accountant/ financial manager	Yes	Yes	Yes
Statement of cash flows and movements in equity are reconciled to the general ledger	Yes	Yes	Yes

Appendix 7. Summary of the evaluation results

	Company A	Company B	Company C	Average
CONTROL ENVIRONMENT				
<i>Integrity and ethical values</i>	3,25	4,50	1,75	3,17
<i>Importance of Board of Directors</i>	4,13	5,00	2,75	3,96
<i>Management's philosophy and operating style</i>	4,00	4,60	1,60	3,40
<i>Organizational structure</i>	5,33	5,33	3,67	4,78
<i>Commitment to financial reporting competencies</i>	6,00	6,00	4,67	5,56
<i>Authority and responsibility</i>	3,75	4,50	2,75	3,67
<i>Human resources</i>	4,25	5,00	2,50	3,92
CONTROL ENVIRONMENT*	4,39	4,99	2,81	4,06

RISK ASSESSMENT				
<i>Importance of financial reporting objectives</i>	3,67	3,33	2,67	3,22
<i>Identification and analysis of financial reporting risks</i>	3,57	2,71	1,71	2,67
<i>Assessment of fraud risk</i>	2,60	3,20	2,00	2,60
RISK ASSESSMENT*	3,28	3,08	2,13	2,83

INFORMATION AND COMMUNICATION				
<i>Information needs</i>	5,00	5,00	2,33	4,11
<i>Information control</i>	5,25	4,25	2,00	3,83
<i>Upstream communication</i>	3,67	4,00	3,00	3,56
<i>Board communication</i>	3,50	4,00	2,75	3,42
<i>Communication with outside parties</i>	2,33	5,00	3,67	3,67
INFORMATION AND COMMUNICATION*	3,95	4,45	2,75	3,72

MONITORING				
<i>Ongoing monitoring</i>	4,33	4,33	4,00	4,22
<i>Separate evaluations</i>	3,75	5,25	3,75	4,25
<i>Reporting deficiencies</i>	5,67	5,67	2,33	4,56
MONITORING*	4,58	5,08	3,36	4,34

* All the principles within the component of internal control over financial reporting have the same weight.

RESÜMEE

SISEKONTROLLISÜSTEEMI EFEKTIIVSUSE HINDAMINE FINANTSARUANDLUSE KOOSTAMISE PROTSESSIS

Lembi Noorvee

Sisekontrollisüsteemist ülevaate omamine on oluline selle mõju ja tähtsuse mõistmiseks organisatsiooni tegevusele. Sisekontrollisüsteem ettevõttes on lähedalt seotud ettevõtte valitsemisega (*corporate governance*), mis peaks kindlustama sobivad stiimulid ettevõtte nõukogule ja juhtkonnale püüdlmaks ettevõtte ja selle omanike huvidele vastavate eesmärkide täitmise poole, ning kaasa aitama efektiivsele järelevalvele ettevõttes, soodustades ressursside tõhusamat kasutamist.

Suuremad finantsskandaalid USAs ja Euroopas tõstsid esile fakti, et juhul kui need, kelle ülesandeks on valitsemine, ei käitu omanike huvidele vastavalt ja/või ei identifitseeri, hinda ega juhi ettevõtte riske – seega ei loo stiimuleid efektiivse sisekontrollisüsteemi loomiseks – on ettevõtted määratud läbikukkumisele ning avalikkuse usaldus kapitaliturgude ja ettevõtete suhtes üldiselt satub ohtu. Efektiivse sisekontrolli puudumine finantsaruandluse koostamise protsessis kahjustab ettevõtte mainet, tehes raskemaks finantsressursside hankimise turult ning aktsionäride ja teiste huvirühmade usalduse võitmise.

Ameerika Ühendriikides vastati suurematele finantsskandaalidele seaduse rakendamisega (nn. „Sarbaneys-Oxley seadus“ ehk SOX), mis nõuab ettevõtte juhtkonnalt vastutuse võtmist finantsaruandluse alaste sisekontrollide üle ning nendele hinnangu andmist. Antud seadus nõuab ka audiitoritelt erapooletu kinnituse andmist juhtkonna hinnangule. SOX on siduv USA börsil noteeritud ettevõtetele ja nende

tütarettevõtetele ning seetõttu mõjutab kaudselt ka Eesti erasektorit. Euroopas ei ole hetkel ühtki SOXiga võrdväärset seadust jõustunud, kuid ka Euroopa Liidus arutletakse aktiivselt sarnaste regulatsioonide kehtestamise vajalikkuse üle börsil noteeritud ja muude avaliku huviga ettevõtete suhtes.

Käesoleva magistritöö eesmärgiks on anda soovitusi Eesti ettevõtetele sisekontrolli täiustamiseks finantsaruandluse koostamise protsessis, tuginedes nende sisekontrollisüsteemide hindamisele ja võrdlusele parima praktikaga. Eesmärk saavutatakse uurimisülesannete täitmise kaudu, milleks on sisekontrollisüsteemi mõiste defineerimine, efektiivse sisekontrollisüsteemi komponentide, piirangute ja eesmärkide määratlemine, sisekontrollisüsteemi hindamismeetodite võrdlemine ja testimine Eesti ettevõtetes ning järelduste tegemine sisekontrollisüsteemi hindamise metoodika sobivuse kohta Eesti kontekstis.

Tuntuim ja enamkasutatavaim raamistik finantsaruandluse sisekontrollisüsteemi hindamiseks on esitletud Treadway komisjoni toetanud organisatsioonide (COSO – *Committee of the Sponsoring Organizations*) raportis. COSO defineerib sisekontrolli kui organisatsiooni juhtkonna ja personali poolt sisseviidud ja kujundatud protsessi organisatsiooni eesmärkide saavutamise suhtes piisava kinnituse saamiseks järgmistes lõikudes: tegevuse tulemuslikkus ja efektiivsus, finantsaruandluse usaldusväärsus ning vajalikele seadustele ja regulatsioonidele vastavus. Enne ja pärast COSO raporti avaldamist 1992. aastal on läbi viidud täiendavaid uurimusi ning arendatud süsteeme, mis erinevad oma keerukuselt, lähenemiselt sisekontrollisüsteemi komponentidele ning fokuseerituselt teatud ettevõtte tegevuse aspektidele.

Magistritöö eesmärgist lähtuvalt on sisekontrolli mõistet mõnevõrra kitsendatud ning defineeritud sisekontroll finantsaruandluse koostamise protsessis kui ettevõtte juhtkonna, nõukogu ja personali poolt sisseviidud ja kujundatud protsess piisava kinnituse saamiseks finantsaruandluse usaldusväärsuse ning selle vastavuse osas Eesti raamatupidamise heale tavale. Antud definitsioon on orienteeritud just Eesti ärikeskkonnale, rõhutades finantsaruandluse usaldusväärsuse tähtsust. Sisekontroll finantsaruandluse koostamise protsessis on efektiivne, kui nõukogul ja juhtkonnal on piisav kindlustunne, et avaldatud finantsaruanded on usaldusväärselt koostatud.

Ettevõtte saab efektiivsest sisekontrollist kasu mitmeti. Kvaliteetsema sisekontrolli- struktuuri abil vähendatakse vigade, pettuste ja ebaseadusliku tegevuse oht miinimumini. Suure konkurentsiga turul aitab hästi juhitud sisekontrollisüsteem tõsta ettevõtte konkurentsivõimet ning aidata kaasa personali arusaamisele ettevõtte eesmärkidest.

Siiski on igal sisekontrollisüsteemil oma sisemised piirangud, mis seletavad, miks mistahes sisekontrollisüsteem, kuitahes hästi kujundatud ja toimiv, saab tagada ainult mõistliku, mitte täieliku, kindlustunde ettevõtte eesmärkide saavutamiseks. Vead otsustustes, süsteemivead, pettus või juhtkonna volituste ületamine võivad põhjustada sisekontrollisüsteemi läbikukkumise.

Sisekontrollisüsteem on jaotatud viieks komponendiks vastavalt COSO raamistikule. Samade komponentidega tuleb arvestada ka sisekontrollisüsteemi efektiivsuse hindamisel finantsaruandluse koostamise protsessis, võttes iga komponendi puhul arvesse eelkõige just finantsaruandlusega seotud kriteeriume:

- Kontrollikeskkond määratleb ettevõtte üldise häälestuse sisekontrolli suhtes, mõjutades nõnda kontrolliteadlikkust. Kontrollikeskkond on kõigi teiste sisekontrollisüsteemi komponentide aluseks, määratledes distsipliini ja struktuuri ning selle tähtsus viimastel dekaadidel on aina kasvanud. Kontrollikeskkond saab alguse ettevõtte nõukogust ja juhtkonnast, kes määratlevad ettevõtte suhtumise sisekontrollisüsteemi eeskirjade, tegutsemise ja efektiivse valitsemise teel.
- Riskide hindamine tähendab ettevõtte eesmärkide täitmist ohustavate oluliste riskide identifitseerimist ja analüüsimist, formuleerides baasi riskide juhtimisele. Kuna sisekontrollisüsteem on loodud selleks, et luua piisav kindlustunne ettevõtte eesmärkide täitmiseks, aitab riskihindamise komponent luua ühenduslüli eesmärkide ja kontrollide vahele. Ükski kontrolltegevus ei ole vajalik, kui see ei ole loodud mingi riski vähendamiseks või juhtimiseks.
- Kontrolltegevused on eeskirjad, mis kindlustavad juhtkonna juhiste täitmise ning selle, et vajalikud meetmed rakendataks riskide maandamiseks. Kontrolltegevused peaksid olema ehitatud pigem ettevõtte põhiprotsesside sisse kui peale.
- Informatsioon ja kommunikatsioon sisaldab informatsioonisüsteeme, mis produtseerivad tegevus-, finants- ja vastavusinformatsiooni sisaldavaid raporteid,

mis aitavad ettevõtte tegevust juhtida ja jälgida. Sisemine kommunikatsioon hõlmab informatsiooni kogumist ja jagamist ettevõttesiseselt, väline kommunikatsioon keskendub avatud kanalite olemasolule ettevõtte ja oluliste huvigruppide vahel.

- Järelvalve (monitooring) on protsess, mis hindab süsteemi toimimise kvaliteeti ajas. Efektiivne järelvalve saavutatakse pidevate monitooringutegevuste ning eraldi hindamiste tulemusena. Efektiivne järelevalve ei ole võimalik ilma adekvaatse raporteerimise ja vajalike vastumeetmete rakendamiseta.

Ettevõtte üldhinnang sisekontrollisüsteemile finantsaruandluse koostamise protsessis peaks andma kompleksse hinnangu selle süsteemi komponentide efektiivsusele. Ettevõtete ja audiitorite hulgas kasutatakse tavaliselt kvalitatiivset hindamist; et lihtsustada võrdlust teiste ettevõtetega, on siiski vajalik universaalne hindamissüsteem. Kvantitatiivne hindamine on kujundatud mõõtmaks kindlustunnet, mida võib panna sisekontrolli võimele efektiivselt toimida. Kvantitatiivne hindamine võimaldab ettevõtetel kergemini võrrelda oma sisekontrollisüsteemi efektiivsust teiste samalaadsete ettevõtetega ning anda üldhinnang sisekontrollisüsteemi efektiivsusele tervikuna.

Et hinnata COSO raamistiku sobivust Eesti ärikeskkonda ning aidata Eesti ettevõtetel täiustada oma sisekontrollisüsteeme finantsaruandluse koostamise protsessis, viidi käesoleva magistritöö raames läbi empiiriline uurimus. Uurimus hõlmas kolme keskmise suurusega tootmisettevõtet – A, B ja C – sarnaste tootmistegevustega, juhtkonna ja nõukogu suurusega. Lisaks sisemistele erinevustele sisekontrolli osas löid täiendava kontrasti aga erinev omandistruktuur, juhtimisstiil ning majandustulemused. Uurimuse tulemusena anti ettevõtete sisekontrollisüsteemi efektiivsusele finantsaruandluse koostamise protsessis kvalitatiivne ja kvantitatiivne hinnang.

Kõrgeima keskmise hinde sai ettevõtte B, kus sisekontrollisüsteem finantsaruandluse koostamise protsessis oli kõikehõlmav ja järjekindel, mõistetud nii kõrgema kui ka keskmise taseme juhtkonna poolt ning liikumas proaktiivse suhtumise poole probleemide lahendamise osas. Vasturääkivused esinesid siiski sisekontrollisüsteemi defineerimise ja vastutuse jaotamise osas. Ettevõtte A saavutas sarnase tulemuse veidi väiksema kvantitatiivse hindega. Madalaim hinne anti ettevõttele C, mille sisekontrolli-

süsteemi finantsaruandluse koostamise protsessis iseloomustab mitteformaalne ja vastuoluline dokumentatsioon ja vastutuse jaotus, intuiitiivne lähenemine ning vähene sisekontrolli tähtsuse teadvustamine.

Igal sisekontrolli komponendil on suhteliselt erinev tähtsus süsteemis; väikestes ja keskmistes ettevõtetes loetakse olulisimateks kontrollikeskkonda ja järelvalvet. See akadeemilise kirjanduse poolt väljapakutud suhe leidis kinnitust ka läbiviidud uuringus, kus just nendes kategooriates said kõik ettevõtted kõrgema skoori. See viitab, et ka Eesti ettevõtted peavad kontrollikeskkonna ja järelvalve arendamist oluliseks ning (alateadlikult) arendavad just neid aspekte. Kontrollikeskkonna komponendi tähtsust toetas ka tulemus, mille kohaselt efektiivsema kontrollikeskkonnaga ettevõtted saavutasid kõrgema tulemuse ka sisekontrolli efektiivsuse üldhinnangus.

Kõigi ettevõtete lõikes sarnased sisekontrollisüsteemi nõrgad küljed olid riskide ning konkreetsemalt finantsaruandluse koostamisega seotud eesmärkide ja riskide hindamise madal tase, ning vastutuse defineerimatus sisekontrollisüsteemi üle. Kahel ettevõttel ei olnud paigas mingisugust riskide hindamise ega juhtimise poliitikat, ning kuigi tegevjuhtidel oli küllaltki hea ülevaade ettevõtet ohustavatest üldistest riskidest, siis üheski ettevõttes finantsaruandluse tasandi riske ei teadvustatud. Ettevõtete organisatsioonilised skeemid aitavad kaasa juhtkonna võimalikele volituste ületamisele. Siiski oli viimane ettevõttes B hästi maandatud läbi suhteliselt laiaulatusliku ülesannete delegeerimise ning nõukogu aktiivse järelevalvetegevuse. Ettevõttes A oli mõnevõrra suurem risk tänu autoritaarsele juhtimisstiilile ning mõnevõrra nõrgemale nõukogu osalusele, samas kui juhtkonnapoolsete volituste ületamise risk oli suurim ettevõttes C, kus piiratud nõukogupoolne järelevalve oli kombineeritud ametlike eeskirjade puudumise ja juhtkonna osalusega ettevõttes.

Soovitused sisekontrollisüsteemi täiustamiseks ettevõtetes on seotud peamiselt puuduste vähendamise või kõrvaldamisega ning tugevuste arendamisega. Lisaks võib ettevõtetele soovitada siseauditi koha loomist, mis iseseisvalt hindaks ja annaks soovitusi kontrollisüsteemi ja tegevuste arendamisel. Kuna ettevõtetel A ja C on mitmed tütarettevõtted erinevates riikides, tuleks seal hinnata ja juhtida ka tütarettevõtete sisekontrollisüsteeme, mis tähendab eeskirjade ja protseduuride suuremat formaalsust.

Ettevõtte B oli väikseima kasvuga ning mõnevõrra väiksema kasumlikkuse tasemega kui teised ettevõtted, samas aga oli ettevõtte stabiilsem tõhusaim. Ettevõtte B poolt saavutatud kõrgeim hinne finantsaruandluse sisekontrollisüsteemi osas viitab sisekontrollisüsteemi sisemistele piirangutele, kuid ka sellele, et suurema kasvuga ettevõtetes oli juhtkonna tähelepanu suunatud pigem ettevõtete finantstulemuste suurendamisele kui sisekontrolli arendamisele. Lisaks oli ettevõtte B mõnevõrra väiksem kui teised ettevõtted, tehes efektiivse sisekontrollisüsteemi arendamise lihtsamaks. Teisalt võivad ettevõtte B tagasihoidlikumad tulemused viidata ka mõningasele ülekontrollimisele või nõukogu liigsele konservatiivsele sekkumisele. Käesolevas uuringus hinnati siiski vaid sisekontrolli finantsaruandluse koostamise protsessis, kuid ettevõtte eesmärkide saavutamisele avaldavad mõju ka teised sisekontrolli aspektid, mida töös ei käsitletud.

Võrreldes hindamistulemusi ettevõtete omandistruktuuriga, selgus, et väliskapitalile kuuluvates ettevõtetes on sisekontrollisüsteem finantsaruandluse koostamise protsessis efektiivsem kui Eesti kapitalil põhinevas ettevõttes. Peamiseks põhjuseks toob autor parema teadmistebaasi ja kogemuse ematähelepanust, mida on rakendatud tüüpettevõtetes. Ettevõttes C, mis on küllaltki pika ajalooga ning ei ole oma eksistentsi jooksul suuri muutusi tootmis- ja juhtimissüsteemides läbi teinud, on motivatsioon sisekontrollisüsteemi täiustamiseks ilmselt mõnevõrra väiksem tänu harjumuslikule käitumismallile. Lisaks peitub nõrga sisekontrollisüsteemi põhjus kontrolli ja huvi hajumises tänu diversifitseeritud omandistruktuurile – ükski ettevõtte ega eraisik ei oma ettevõtte aktsiates enamusosalust.

Sisekontrolli alaste otsuste langetamisel peaksid ettevõtted meeles pidama, et kontrolli väljatöötamiseks ja täiendamiseks tehtud kulud oleksid proportsioonis sellest saadavate kasudega. Sisekontrollisüsteemi peaks suhtuma kui arenevasse süsteemi, mis tuleneb ettevõtte strateegilisest muutusest. Ettevõtted peaksid regulaarselt hindama konkurentsi ja kasvuga kaasnevat riski ning vastavalt kohandama oma sisekontrollisüsteemi uute vajadustega. Pikas perspektiivis tagab efektiivne sisekontrollisüsteem piisava kindlustunde ettevõtte eesmärkide saavutamiseks finantsaruandluse, tegevuse efektiivsuse ja tulemuslikkuse ning seadustele ja regulatsioonidele vastavuse osas.