

Risk-Based Evaluation of Internal Controls in Case Company's Sales Process - Case Company X

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Abstract

This study can be described as a descriptive single-case study. The aim of the study is to describe and understand the risks and internal controls in the case company's sales process and to suggest improvements to the controls where necessary. The theoretical frame for the study is largely based on risk management and internal auditing literature. Majority of the data collection for the study is performed through theme interviews with different level employees of the case company whom are considered knowledgeable to evaluate the existing risks and controls in the examined sub-processes.

The study first pinpoints and analyses the main risks inherent to the case company's sales process after which internal controls over those perceived risks are discussed: whether they are considered effective at present or whether they should be further strengthened. Based on this discussion, improvement suggestions and actual improvements to internal controls are made.

By the end of this case study, five out of the fourteen internal controls that were considered to respond to medium- or higher level risks were strengthened whereas four of the controls were considered effective enough as they were. Some means of improvement were suggested for the rest of the internal controls. However, due to the highly context-specific nature of internal controls, the findings presented in this study are unlikely to be directly applicable to other settings. Some interesting observations were made during the study. These included the importance of maintaining sound internal control documentation, the ambiguity of the concept of internal control and the convenience of building controls *into* systems where possible.

Keywords internal, controls, internal control evaluation, risk management, sales process, risk assessment, internal auditing, corporate governance

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Tiivistelmä

Tämä tutkielma pyrkii analysoimaan ja kehittämään case-yrityksen myyntiprosessin sisäisiä kontrolleja ammattikirjallisuuden ja ko. yrityksessä toteutettavan riskianalyysin pohjalta. Tutkielman teoriapohja muodostuu pitkälti riskinhallinta- ja sisäisen tarkastuksen kirjallisuudesta. Empiriinen aineisto, eli käsitys case-yrityksen myyntiprosessin riskeistä ja sisäisistä kontrolleista, kerätään pääasiallisesti haastatteleamalla yrityksen myyntiprosessin eri vaiheissa työskenteleviä asiantuntijoita teemahaastattelumetodilla.

Tutkielman ensimmäinen tavoite on luoda käsitys case-yrityksen myyntiprosessin riskitekijöistä, minkä pohjalta tarkastellaan riskitekijöihin vastaavien sisäisten kontrollien nykytilaa ja niiden riittävyttä. Tämän analyysin pohjalta pyritään puolestaan joko kehittämään suoranaisia ratkaisuja kontrollien tehokkuuden parantamiseksi taikka vaihtoehtoisesti tarjoamaan yritysjohdolle työkaluja mahdollisesti havaittujen heikkouksien paikkaamiseksi.

Tutkielman empiirisessä osassa tarkastellaan tarkemmin neljäätoista myyntiprosessin sisäistä kontrolleja, jotka pyrkivät vastaamaan joko medium- tai high-tasoisiksi luokiteltuihin riskeihin. Viittä näistä kontrolleista onnistuttiin subjektiivisesti arvioiden kehittämään eteenpäin tutkielman myötä, kun taas neljää kontrolleista pidettiin tarpeeksi toimivina sellaisenaan. Loppuihin viiteen kontrolliin ehdotettiin erilaisia työkaluja niiden luotettavuuden parantamiseksi. Tutkielman loppupuolella voitiin todeta, että case-yrityksen myyntiprosessin sisäiset kontrollit olivat enimmäkseen yritysjohtoon toivomalla minimitasolla. Sisäisten kontrollien vahvasta kontekstisidonnaisuudesta johtuen tutkielman tuloksia ei voitane sellaisenaan hyödyntää muissa organisaatioissa, vaikka tiettyjä universaaleja yhtymäkohtia myyntiprosessien riskinhallinnasta onkin löydettävissä.

Avainsanat sisäinen valvonta, sisäiset kontrollit, riskinhallinta, corporate governance, kontrollien arviointi, myyntiprosessi, sisäinen tarkastus

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1. Introduction

1.1. Motivation for the study

Internal control has become a highly pertinent and topical business issue at the beginning of the 21st century due to a series of large corporate scandals and failures (IFAC, 2006). It has been acknowledged to a growing extent that failure to set up company's internal controls properly may lead to serious intra-company issues and even business failure. The most well-known accounting scandals over the past decades have probably been the cases of Enron and WorldCom. In the aftermath of the Enron debacle, it turned out that auditors had long neglected several internal control deficiencies which contributed significantly to the downfall of the company in the end (Cunningham & Harris, 2006).

The fact that effective internal controls are in the best interests of the management, shareholders and other stakeholders (KPMG, 2008: 37) is sometimes obscured when new rules and costly compliance programs are imposed on companies as a result of high-profile organizational failures¹. The right kind of internal controls enable an organization to capitalize on opportunities while mitigating the risks, and can actually save time and money as well as promote the creation and preservation of value (IFAC, 2012).

Organization's internal controls consist of policies, procedures and activities that strive to promote operational efficiency, reduce risk of asset loss, and help ensure the reliability of financial statements and compliance with laws and regulations (COSO, 1992: 3). Internal control thus covers a wide range of company's activities and has a crucial role in managing the risks and challenges companies face on a daily basis. Different companies emphasize different aspects of internal control in their operations, in accordance with their specific needs (KPMG, 2008: 36) – a “one size fits all” solution to internal control does not exist (Coyle, 2004: 190).

Nonetheless, there is no denying that the recent uncertainty and volatility in the global economy have amplified the importance of efficient and properly controlled sales process (Mukerji, 2012). Company's sales process includes all the revenue related activities ranging from the creation of a

¹ www.economist.com/node/3984019 (referred to on 10.12.2013)

sales contract to shipping a product, billing the customer, and collecting cash for sale (Ahokas, 2012: 102). It is clear that if internal controls are not in place to ensure proper functionality of these essential activities, fraud and error may pose a significant cost and risk to the business. This can manifest itself in several detrimental ways, such as the impairment of profit margins, a reduction in cash flow and operational inefficiency (FSN & Oracle, 2013).

The case company has undergone a variety of considerable changes over the past years. Changes in key personnel, time and resource constraints and changed operating circumstances may have affected the effectiveness of the company's internal controls in its key processes. The management team felt that under the current operating conditions a project should be initiated to ensure that the sales process doesn't carry any unmitigated risks that might hinder the company's value creation. Hence, this study aims to discover the main risks in the case company's sales process, evaluate whether effective internal controls exist to mitigate these risks and to suggest improvements to internal controls where considered necessary.

1.2. Objectives and scope of the study

This study was commissioned by the case company which also is the employer of the author. The main purpose of this study is to determine the main risks in the case company's sales process and to investigate whether effective internal controls are in place to mitigate those risks. Furthermore, practical improvement ideas with respect to controls were expected to be given where necessary.

Hence, the research questions that the present study tries to answer can be expressed as follows:

1. What are the main risks involved in the Case Company's sales process?
2. What is the current state of the Case Company's internal controls in its sales process?
3. How could the internal controls of the Case Company be further developed to mitigate the identified risks in its sales process?

As the above research questions clearly indicate, this study focuses on the risks and controls of the case company's *sales process*. The scope of the study was limited to sales process due to its importance for the case company and limited availability of time and resources.

COSO internal control framework was selected to function as the main guideline for this study due to the fact that it is widely adopted by both public and private corporations across the US and Europe in their efforts to organize internal control (Jokipii, 2006). However, it should be noted that the “Information and communication” dimension of COSO framework has been left out from the scope of this study due to case company’s request and its indistinctive nature. In addition to COSO framework, a variety of academic and professional literature was reviewed in order to build a theoretical foundation for answering the research questions.

1.3. Research method of the study

This study can be described as a descriptive single-case study. The aim of the study is to describe and understand the risks and the controls in the case company’s sales process and to suggest improvements to internal controls where necessary. Majority of the data collection was performed through theme interviews with different level employees of the case company. These employees were working in the fields under examination and thus considered knowledgeable to evaluate the existing risks and controls in these areas. Conversations with the case company’s finance director also played an important role in developing understanding of the company’s sales process and its risks and controls.

Theme interviews and conversations were not the only methods utilized for data collection, however. One internal control questionnaire was sent out to the Accounts Receivable Manager in Estonia and some specific verbal inquiries that cannot be classified as interviews were conducted when considered necessary. I was also capable of extracting information from the case company’s internal materials and IT systems when these sources were considered to provide valuable data. Moreover, my active participation in the activities of the case company’s financial administration team during the study allowed me to make valuable observations about company’s every day operations.

It was noticed in an early phase of this study that the literature that gives actual recommendations on how to arrange internal controls in a sales process is rather scarce. For this reason, internal control documentation of three Finnish medium-size companies was obtained in the hopes of getting a better picture of how internal controls (in sales process) are set up in other companies of

similar size. This allows the case company to benchmark its internal controls against other companies when literature may not be able to provide sufficient comparison basis.

1.4. Structure of the study

The rest of this study is structured as follows. In the beginning of chapter 2, an introduction to internal control and its different components is provided in accordance with COSO framework after which a more detailed analysis of specific sales process related internal controls is performed. In this latter part the scarce professional and academic literature is supplemented with findings from the above mentioned benchmark companies' control documentation in order to obtain better picture of how other medium-sized companies have arranged internal control in their sales processes. Chapter 3 introduces the research method and data collection and provides a description of the case company. Chapter 4 covers the empirical part of this study and strives to answer the research questions. The first sub-chapter provides a description of the risk assessment process and the recognized risks at the case company whereas the second subchapter introduces the results of the internal control evaluation and presents either suggested or implemented improvements to case company's internal controls. Chapter 5 discusses the observations made throughout the study and chapter 6 ends the study with conclusions and a brief discussion over the limitations of the study.

1.5. Key concepts

Risk

Internal control is about *risk* (Kinney, 2000). Risk can be defined in multiple ways, depending on the context. In the present study, risk is defined as *"an event that will have an impact on the achievement of objectives. Risk can be measured in terms of impact and likelihood."* (The Institute of Internal Auditors, 2009)

Internal control and related terminology

The terminology around internal control is somewhat ambiguous as internal control can have multiple meanings (e.g. Jokipii, 2006; IFAC, 2012). For this reason, the usage of terminology in this study should be clarified. In accordance with IFAC (2012), "internal control" in this study refers to

the entirety of an organization's internal control system, i.e. all the policies, procedures and activities that operate in conjunction to provide reasonable assurance to management and the board regarding achievement of entity's objectives. In other words, internal control is the broadest term that encompasses other terms.

"Internal controls" in plural, "control(s)", and "control activities" refer to the actual means that organizations implement to treat risks and effectuate internal control, i.e. individual controls (IFAC, 2012).

Sales process

Sales process consists of all the activities through which a company markets, delivers, invoices and cashes in its products (Vahtera, 1986: 288). Every organization's sales process is individual, depending on the nature of its business and a variety of other factors, and thus involves somewhat different risks and approaches to internal control. Company's sales process often begins with signing a sales contract and entering customer master data to organization's information system and it reaches its conclusion with a customer payment or reclamation (Ahokas, 2012: 102).

2. Internal control

In this chapter internal control and its role in company's sales process are discussed. First, a general look will be taken into the evolution and expanding scope of internal control and why it has become such an important issue in today's business environment. After that, a description of COSO internal control framework is provided and its different components are discussed along with relevant literature. At the end of this chapter, the foundation for the case study is laid in the sense that company's sales process and its inherent risks and suggested controls are examined.

2.1. Defining Internal control

The importance of internal control was recognized by Dicksee as early as 1905, when he coined the term "internal check" (Heier et al., 2006). The internal check was initially composed of three essential elements: division of work, the use of accounting records, and the rotation of personnel. Dicksee pointed out that a suitable system of internal check should eliminate the need for a

detailed audit (Sawyer, 2003: 61). The internal check approach, based on bookkeeping and division of work, remained prevalent until the end 1940s.

In 1948, the American Institute of Certified Public Accountants (AICPA) broadened the definition of internal control substantially in their special report, stating that “internal control comprises the plan of organization and all of the co-ordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies” (AICPA, 1948).

The scope of the renewed definition was a surprise to many as it was acknowledged for the first time that internal control covers matters beyond its traditional focus, accounting and finance (Heier et al., 2006). The renewed definition caused a lot of objection especially among independent auditors because the definition of internal control largely determined the scope of their legal responsibilities. An auditor who established that company’s internal controls were functioning well needed less evidence from other sources to assess the reliability of company’s financial statements, therefore resulting in more profitable audit (Leitch, 2008).

However, in 1958 the Committee on Auditing Procedure in the U.S published an amendment which formally separated internal controls into accounting controls and administrative controls, in order to clarify the focus of auditing and minimize litigation risk (Stringer & Carey, 2002). This amendment returned auditors’ and accountants’ focus back to the traditional internal accounting controls, thereby narrowing the focus of internal control again (e.g. Mautz & Winjum, 1981; Merchant, 1989).

In the 1980s, a wake of corporate fraud and audit failures initiated a need for re-evaluation of internal control (Spira & Page, 2002). Several commissions in the US (Treadway Commission, 1987), Canada (MacDonald Commission, 1988) and UK (Cadbury Report, 1992) were established to investigate the reasons behind these occurrences. Among the key findings from these reports were the importance of an effective system of internal control and confirmation of the lack of consensus on the definition of internal control (Stringer & Carey, 2002). These reports led to the establishment of the “modern” internal control frameworks, which were hoped to strengthen companies’ internal control and improve the current situation.

Boynton et al. (2001: 323) have listed some factors which have contributed to the expanding recognition of internal control:

- 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 provides protection 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.

In the US, the organizations which sponsored Treadway Commission (COSO² - 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). COSO framework makes recommendations to management on how to evaluate, report, and improve their internal control systems. COSO (1992: 13) defines internal control broadly 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 (operational objectives)
- Reliability of financial information (financial objectives)
- Compliance with the applicable laws and regulations (compliance objectives)

The traditional internal control objective of safeguarding of assets is implicitly included in the category “effectiveness and efficiency of operations”.

The incorporation of “effectiveness” was the first radical change to the idea of internal control in over four decades (Spira et al., 2003). COSO (1992: 20) states that “internal control can be judged

² COSO stands for Committee of Sponsoring Organizations of the Treadway Commission. COSO was a collaborative effort of the Treadway Commission, American Accounting Association (AIA), American Institute of Certified Public Accountants (AICPA), Financial Executive Institute (FEI), The Institute of Internal Auditors (IIA) and Institute of Management Accountants (IMA).

effective in each of the three (abovementioned) categories, if the board of directors and management have reasonable assurance that:

- They understand the extent to which the entity’s operations objectives are being achieved.
- Published financial statements are being prepared reliably.
- Applicable laws and regulations are being complied with.

In addition to the world-famous COSO framework (1992), several other internal control frameworks with slightly different emphases on internal control have been developed in the US over the past decades. CoBIT (1996) is an internal control framework that provides tools for business process owners to efficiently and effectively discharge their information system control responsibilities. SAC (1991, revised 1994) offers support for internal auditors regarding audit and controls of information systems whereas SASs 55 (1988b) and 78 (1995) focus on providing guidance to external auditors with respect to the impact of internal control on planning and performing an audit of an organization's financial statements. (Colbert et al., 2001)

A comparison of these four internal control frameworks has been conducted in the table 1 below:

	COSO	CoBIT	SAC	SAS 55/78
Primary audience	Management	Management, users, IT auditors	Internal auditors	External auditors
Internal control viewed as	Process	Set of processes including policies, procedures, practice	Set of processes, subsystems and people	Process
Internal control objectives	* Effective & efficient processes * Reliable financial reporting * Compliance with laws and regulations	* Effective & efficient operations * Confidentiality * Integrity and availability of information * Reliable financial reporting * Compliance with laws & regulations	* Effective & efficient operations * Reliable financial reporting * Compliance with laws & regulations	* Reliable financial reporting * Effective & efficient operations * Compliance with laws & regulation
Focus	Overall entity	Information technology	Information technology	Financial statements
Responsibility	Management	Management	Management	Management

Table 1: Comparison of recent internal control frameworks

The frameworks adopt somewhat different emphases on internal control but they still employ essentially the same concepts. For example, all the above frameworks mention effective and efficient processes, reliable financial reporting and compliance with laws and regulations as internal control objectives and adopt a dynamic process-oriented view on internal control. Also, the establishment, supervision and development of internal control system are viewed as a management responsibility.

Even if the primary audience of the above presented internal control frameworks vary according to the frames, the existence of high-quality internal control is in the interests of basically all stakeholder parties who are concerned about company's corporate governance (e.g. Kinney, 2000; Jokipii, 2006; Maijor, 2000). First, management and board members obviously want to assure company's stakeholders that they are properly carrying out their responsibilities with regard to ensuring efficient and effective operations, reliable financial disclosures, compliance with laws and safeguarding of company's assets. Second, suppliers, customers and workers are interested in assurance about the quality of internal control because it affects their future welfare in dealing with the entity. Finally, investors and creditors, prospective investors, and regulators would like such assurance as a means of reducing information surprise and asset loss. (Kinney, 2000)

Obviously, a company can largely benefit from having effective internal control. Several benefits emphasizing the importance of proper internal control are listed in the table 2 below:

Presumed benefit	Explanation
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.
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.
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.
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.
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.
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.

Table 2: Benefits of effective internal control (Liu, 2005; Rittenberg et al., 2005: 146)

In summary, internal control can “help an entity get to where it wants to go, and avoid pitfalls and surprises along the way” (COSO, 1992:5).

An essential concept in modern internal control literature is “reasonable assurance”, which is also present in the COSO definition of internal control. “Reasonable assurance” refers to the fact that even a high-quality internal control system has its limitations, and it can guarantee the achievement of company’s objectives only to certain extent. Boynton et al. (2001: 327) have recognized the following inherent limitations which explain why only reasonable assurance should be expected:

- **Mistakes in judgment.** Occasionally, management and other personnel may exercise poor judgment 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 judgments in evaluating the cost-benefit relationship.

One of the main objectives of the COSO framework was to establish a common definition for internal control that would serve equally the needs of different parties (COSO, 1992: 13). However, it is somewhat questionable whether this objective has been entirely achieved as the broadness of the definition might have actually contributed to certain confusion around the term. Jokipii (2006), for example, points out that the terms internal control, internal control system and internal control structure are sometimes used interchangeably in the earlier literature, which implicates certain lack of clarity regarding the subject.

Several researchers (e.g. Spira, 2011; Maijor, 2000) have suggested that the vagueness of the modern concept of internal control has had some implications to the academic research in the field as well. Maijor (2000) states that the problem with wider definitions (such as the one of COSO) is that it is not anymore clear what the boundaries of internal control are. He goes on to claim that basically all organizational measures contribute to internal control as defined by COSO.

According to Maijor (2000), three separate areas of internal control research, however, can be distinguished in academic accounting literature:

- (1) Internal control from external auditing perspective
- (2) Internal control from management control perspective
- (3) Internal control from economics perspective

External auditing perspective mainly focuses on traditional accounting controls which are studied in the context of auditor's decision-making. The focus is on how accounting controls affect the reliability of financial reporting. This area of research seems to be the most common one, and it has received even more attention after the enactment of the SOX legislation.

Management control perspective uses a broader approach to control as the problems in this area are mainly studied in the context of the organizational effectiveness of departments and divisions. The typical organizational measures distinguished in this area of research are action controls, results controls, and personnel and cultural controls. The economics perspective deals with agency problems, focusing on the control problems between outside capital suppliers and (inside and outside) directors. (Maijor, 2000)

The majority of relevant literature for the purposes of this study falls under the two first categories as the focus of the study lies in identifying sales process related risks and improving the internal controls from the management perspective. The relevant literature will be discussed in the context of specific components of internal control in the following chapters.

2.2. Components of internal control

In this chapter the COSO framework and the components of internal control that are considered relevant in the context of this study are introduced and discussed. Most emphasis is put on the “control activities” component as evaluating and developing this internal control component lies at the heart of this study. The fourth component as presented by COSO, information and communication, is not discussed in the present study as this component is considered as rather self-evident: any social construction requires a flow of communication to be successful.

COSO framework has been selected to function as the internal control guideline in this study due to the fact that it's both recognized by academic literature (e.g. Jokipii, 2006; Stringer & Carey, 2002) and adopted widely by public and private corporations across the US and Europe (Jokipii, 2006). Particularly in the US, the usage of COSO framework has increased significantly after the passage of the SOX Act (2002), because the legislation explicitly declares COSO as an appropriate evaluation platform for public companies' internal controls (Gupta & Thomson, 2006). Furthermore, COSO seems to be commonly acknowledged in the Finnish business setting, where the case company of this study operates. A previous thesis study conducted among Finnish listed companies in 2012 pointed out that half of the 29 studied companies utilized COSO in an effort to organize their internal control (Rautio, 2012).

The main objective of the COSO report is to present a framework which enables common understanding of internal control (COSO, 1992: 13). The report specifies control criteria and suggests tools to assist management in the business sector for evaluating and improving their internal control system. The COSO report emphasizes the importance of management's involvement in understanding internal control functions and establishing adequate and effective controls. (Jokipii, 2006) The necessary oversight and governance for the process should be provided by the board of directors.

COSO perceives internal control as a function of five interrelated components (Jokipii, 2006). The COSO approach to internal control is well illustrated by the figure 1 below, which represents the building blocks of internal control:



Figure 1: Illustration of COSO approach to internal control (COSO, 1992: 19)

- The three objective categories – operations, financial reporting and compliance – are depicted by the vertical columns.
- The five components – Control environment, Risk assessment, Control activities, Information and communication and Monitoring – are represented by the rows. These components are further discussed in the upcoming chapters.
- The units and activities of entity, which are subject to internal control, are depicted by the third dimension of the matrix.

According to COSO (1992: 5), there is a direct relationship between objectives, which are what an entity strives to achieve, and components, which represent what is needed to achieve the objectives.

The concept of effectiveness is an important part of the COSO framework. Effectiveness refers to the state of internal controls on a given moment – whether they are functioning properly or not. In the context of the present study, effectiveness of internal control is relevant when evaluating the current state of controls over sales process. The perceived effectiveness in conjunction with the identified risks determines what kinds of development ideas are suggested.

It has been suggested that even though the five components apply to all entities, small and mid-size companies may implement them differently and still have effective internal control (COSO, 1992: 4). This is an important point to be made in the context of this study, as the case company falls under the categorization of mid-size companies. Obviously, an interesting question is which internal control components generally are the most significant from a view point of this type of company? The figure 2 below presents the relative emphases of the internal control components in “larger” and “smaller” companies as suggested by COSO (2005: 19). Exact percentage values are not given, but the mutual relationships can be observed rather well in the figure. The figure suggests that control activities play the key role in large companies whereas smaller companies should emphasize monitoring component along with control environment and control activities.

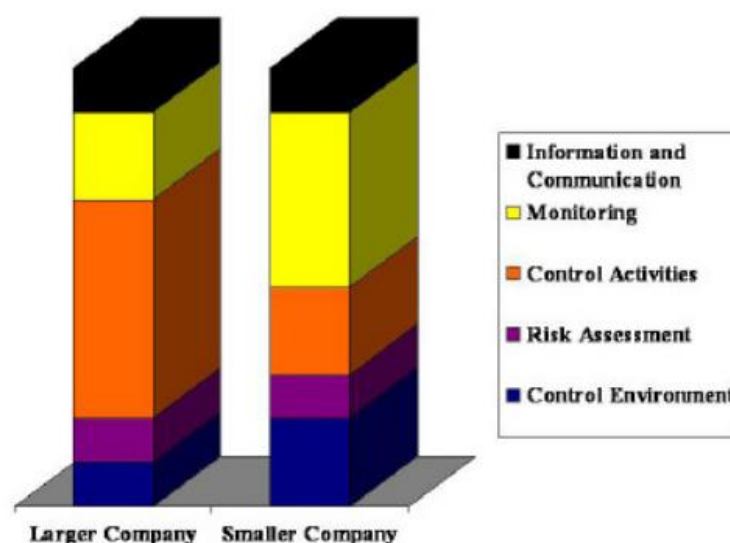


Figure 2: The relative weights of five COSO components in different-sized companies (COSO, 2005: 19)

However, it remains a bit unclear how this conclusion has been reached. The main point to be absorbed here is supposedly that there is no one correct way to arrange organization's internal control – different companies emphasize different aspects of internal control in their own way.

Boynton et al. (2001:348) suggest that the following factors should be considered when deciding how to implement each of the five internal control components:

- Entity's size
- Its organization and ownership characteristics
- The nature of its business
- The diversity and complexity of its operations
- Its methods of processing data
- Its applicable legal and regulatory requirements

Now that the basic idea of COSO framework has been introduced, the most relevant components of internal control in the context of this study are reviewed in more detail: control environment, risk assessment, control activities and monitoring. Specific attention is paid to control activities as this component is the most pertinent in the context of the present study. It should be pointed out that the fourth component of internal control according to COSO, information and communication, is not subjected to further examination in this study due to its indistinctive nature. The significance of communication for successful operations is acknowledged but it is not included in the scope of the present study as explained in the introduction chapter.

2.2.1. Control Environment

Recent accounting literature suggests that at the heart of effective control is an emphasis on organizational controls categorized as the control environment (e.g. Sawyer, 2003: 420; Stringer & Carey, 2002; COSO, 1992; Simmons, 1997), which also comprises the first component of COSO framework. COSO states that control environment sets the tone of an organization ("tone at the top"), influencing the control consciousness of its people (COSO, 1992: 4). It is the foundation for all other components of internal control, providing discipline and structure (IFAC, 2010a: 54) and has a pervasive influence on the more detailed elements of internal control, including detailed

control activities and how controls are monitored. Hooks et al. (1994) describe the control environment as, in part, an operationalization of organizational culture.

The control environment component of internal control covers the following entity-level principles (COSO, 1992: 23-29):

- Integrity and ethical values
- Commitment to competence
- Board of Directors and Audit Committee
- Management's philosophy and operating style
- Organizational structure
- Assignment of authority and responsibility
- Human resource policies and practices

As the above list implies, COSO stresses the importance of management's integrity and example in establishing effective control environment. This makes perfect sense in the light of a recent study which pointed out that CEO and/or CFO were involved in 89 percent of the fraud cases during 1998 – 2007 in the US (COSO, 2010). This indicates that the effectiveness of internal controls cannot rise above the integrity and ethical values of the people who create, administer and monitor them (COSO 1992: 23). Sawyer (2003: 420) describes the role of control environment in the following manner: "Official policies specify what management wants to happen. Corporate culture determines what actually happens, and which rules are obeyed, bent, or ignored".

Merchant (1987) suggested that certain organizational factors may influence the likelihood of fraudulent and questionable financial reporting practices. Those same factors are likely to influence ethical behavior. Incentives for engaging in fraudulent or questionable financial reporting and other forms of unethical behavior recognized by Merchant (1987) involve the following:

- Pressure to meet unrealistic performance targets, particularly for short-term results
- High performance-dependent rewards, and
- Upper and lower cutoffs on bonus plans

Merchant (1987) also cites several “temptations” for employees to engage in improper acts:

- Nonexistent or ineffective controls, such as poor segregation of duties in sensitive areas, which offer temptations to steal or to conceal poor performance.
- High decentralization that leaves top management unaware of actions taken at lower organizational levels and thereby reduces the chances of getting caught.
- A weak internal audit function that does not have the ability to detect and report improper behavior.
- An ineffective board of directors that does not provide objective oversight of top management.
- Penalties for improper behavior that are insignificant or unpublicized and thus lose their value as deterrents.

The increased importance of control environment has also been emphasized by a few academic studies. For example, Stringer and Carey (2002) conducted an exploratory field study in Australian setting among eight organizations that were actively evaluating their system of internal control. Through semi-structured interviews and questionnaires they discovered that a considerable shift from “traditional” accounting controls (e.g. authorization, reconciliation, verification) towards an emphasis on empowerment and accountability was taking place in all of the studied organizations. According to them, interviewees emphasized the importance of creating an environment that fosters employee integrity and performance. Stringer and Carey (2002) rationalize that the change of focus in internal control results from new technologies, modern management techniques, organizational structural changes and competitive pressures of the global economy. As an example of a change driver stemming from organizational structures they mention downsizing. Downsizing has led to fewer layers of middle managers who are considered “gatekeepers” of traditional control activities, therefore resulting in higher reliance on accountability and integrity of the remaining work force.

Another study stressing the role of informal controls was conducted by Ezzamel et al. (1997) in the UK setting. Based on interviews in a small sample of local companies, they found that control internalized into organizational subjects in the form of self-discipline diminishes the relevance of

obtrusive hierarchical control. Furthermore, Cohen et al. (2002) found in their survey among auditors that “tone at the top” (i.e., attitude of senior management) is an important part of effective internal control as perceived by auditors. This discovery suggests that control environment is not only regarded important in managerial setting but also among external auditors.

2.2.2. Risk Assessment

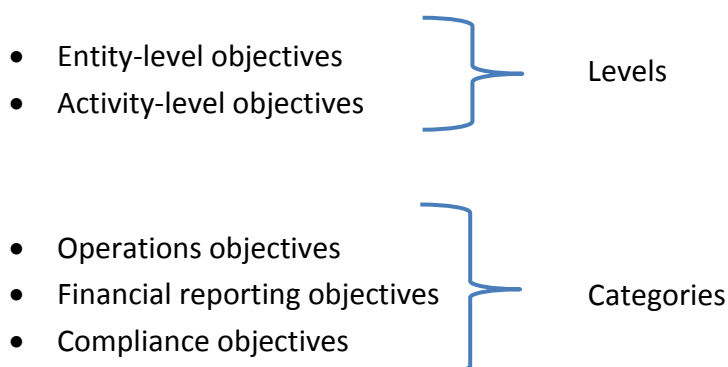
Every entity faces a variety of risks from external and internal sources that must be assessed. Responding to these risks and lowering vulnerabilities enables an organization to sustain itself and thrive amidst the external change it faces (Martin, 2010).

Risk assessment is the second component of internal control as described by COSO, and it provides the foundation for setting up actual control activities. Effective risk assessment calls for (English et al. (2004):

- The predefinition of objectives;
- The identification and prioritization of risks to achieving objectives; and
- The determination of actions to mitigate risks.

COSO puts a lot of emphasis on the importance of objective setting, even though it is not considered an actual part of internal control process but a *precondition* for it, a part of wider management process. Nevertheless, management should clearly establish its objectives before identifying risks which may undermine their achievement.

COSO considers entity’s objectives to exist on two different levels and to fall under three different categories:



Entity-level objectives are of highly pervasive nature (e.g. “Be the market leader in terms of market share”) whereas activity-level objectives relate to more specific business processes. In the context of the present study, the focus obviously lies in activity-level (sales process) objectives and risks as the purpose is not to evaluate the entire internal control system of the case company. For example, the main objective of company’s sales process (an activity) could be “effective cash collection with respect to all the goods/services sold and delivered to customers” (Ahokas, 2012: 101). The various sub-objectives of the sales process in turn can be categorized as either operational, financial reporting or compliance objectives. According to COSO (1992: 108), certain inevitable overlapping exists with regard to these objective categories, but they generally address different needs.

In general, risks concerning internal control over financial reporting in sales process are associated with fair presentation of financial statements and the following financial statement assertions (Rittenberg et al., 2012: 407):

- Occurrence — have the transactions actually occurred, and do they pertain to the entity?
- Completeness — have they all been recorded?
- Accuracy — have they been accurately recorded?
- Valuation — have the transactions been recorded at proper prices?
- Cutoff — have they been recorded in the correct accounting period?
- Classification — have they been recorded in the proper accounts?

After an entity has set its objectives, it must then identify the risks to achieving those objectives and analyze and develop ways to manage them (Ramos, 2004). In general, risk identification is an iterative process, which often is integrated with short- and long-term forecasting and strategic planning (COSO, 1992: 36-37). These activities often include periodic review of economic and industry factors affecting the business, senior management business-planning conferences and meetings with industry analysts (COSO, 1992: 37).

The above is likely to apply mostly to entity-level, strategic risk identification, though. Identification of activity-level risks might require more specific approaches and it may not be that well covered by the top management risk assessment processes. However, a variety of different

risk identification techniques for more specific purposes exists. One possible starting point for determining financial reporting related risks is to identify the key accounts of a process and evaluate their inherent risks (COSO, 2005: 125). In the sales process, the key accounts could be accounts receivable and revenues, for example. Some other common methods utilized for risk identification are flowcharting, internal control questionnaires, matrix analysis, COSO illustrative methodology and the Courtney Method (Sawyer, 2003: 144). However, it is not particularly important which methods an entity selects to identify risks. What is important is that management actually considers carefully the factors that may contribute to or increase risk. (COSO, 1992: 41)

After identification of risks, a risk analysis needs to take place. Methods might vary significantly, as many risks are difficult to express quantitatively (Ahokas, 2012: 32). Questions that are normally answered during risk analysis process are the following (Ahokas, 2012: 32):

- How significant is the risk: low, medium, high?
- How likely is it that the given risk will materialize: low, medium, high?
- What actions, if any, should be taken to mitigate the risk?

Obviously, a risk that does not have a significant effect on the entity and has a low likelihood of occurrence does not warrant serious concern. Such risks obviously do not necessarily require controlling. It is management's responsibility to use its judgment in deciding which risks require attention and to which extent. The costs of addressing risks have to be considered against the expected benefits (Coyle, 2004: 192).

It's argued that risk assessment in a smaller entity can be particularly effective because of 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 (COSO, 2005: 48). Also, the risk assessment process is likely to be less formal and less structured in smaller entities than larger ones, but the basic concepts of this internal control component should be present in every entity, regardless of size (COSO, 1992: 42).

2.2.3. Control Activities

Control activities are the policies, procedures, and practices that help ensure that management objectives are achieved and risk mitigation strategies are carried out (English et al., 2004), and

they form the third component of internal control as defined by COSO. These activities are generally referred to as internal controls, and they can be divided into three separate categories, based on the nature of the entity's objectives they relate to: operations, financial reporting, or compliance. Control activities usually involve two elements: a policy establishing what should be done and a procedure to effect the policy (COSO, 1992: 47).

Traditionally, control activities are seen to involve measures to safeguard the assets of the business, prevent and detect fraud and error, ensure the accuracy and completeness of accounting records and ensure the timely preparation of reliable financial information (Coyle, 2004: 190). COSO groups control activities as follows (COSO 1992: 46):

- **Top-level reviews**

For example, management reviews of actual performance versus budgets, forecasts, prior periods and competitors etc.

- **Functional/activity management**

- **Information processing**

A variety of controls that are performed to check accuracy, completeness and authorization of transactions. For example, a customer's order is accepted only upon reference to an approved customer file and credit limit

- **Physical controls**

Equipment, inventories, securities, cash and other assets are secured physically, and periodically counted and compared with amounts shown on control records.

- **Performance indicators**

Relating different sets of data – operating or financial – to one another, together with analyses of the relationships and investigative and corrective actions, serve as control activities. For example, purchase price variances, the percentage of orders that are “rush orders” and the percentage of returns to total orders.

- **Segregation of duties**

Duties are divided, or segregated, among different people to reduce the risk of error or inappropriate actions. For example, responsibilities for authorizing transactions, recording them and handling the related asset are separated.

While COSO continues to emphasize some traditional internal accounting controls (e.g. physical controls, segregation of duties), others such as authorization and verification (i.e., cross-checking) are only briefly mentioned in COSO's illustration of control activities. According to Stringer & Carey (2002), this suggests that control activities based on hierarchical supervision might be of diminished importance in the modern organizational environment.

However, there are also a few recent studies that stress the importance of control activities in companies' internal control system. To begin with, Gupta & Thomson (2006) found in their survey among 374 American internal auditors and accounting professionals that control activities were the COSO component which was most relied on when evaluating internal control over specific account balances. This finding implies that control activities are actually considered rather important, at least, among accounting professionals in financial reporting environment. Geiger et al. (2004), in turn, studied disclosures of internal control weaknesses among Rhode Island governmental agencies during one fiscal year, and classified each individual control weakness according to SAS 78³'s five internal component categories. The results indicated that 107 (30 %) out of total 349 reported internal control weaknesses were related to control activities component, which might imply that control activities have been overlooked as the modern control environment –centric approach to internal control has gained increasing attention in the professional literature. Geiger et al. (2004), however, note that this finding may reflect the fact that auditors have historically focused on control activities in their internal control assessments, and may be better prepared to identify these types of weaknesses or more apt to search for control activity weaknesses.

Nonetheless, the studies by Gupta & Thomson (2006) and Geiger et al. (2004) suggest that the role of control activities should not be overlooked, even if the importance of control environment has recently been emphasized. In my opinion, both of these two components should be regarded as important and complementary to one another.

Unfortunately, there are few academic studies directly addressing the sales process related risks and controls. One of the few studies that address this area of internal control to some extent has been conducted by Ivancevich (2012). He examined 190 companies that were identified in auditor

³ SAS 78 is a US Auditing Standard, which has adopted its approach to internal control auditing from COSO. It incorporates exactly the same internal control components as COSO: control environment, risk assessment, control activities, information and communication and monitoring.

reports as having material weaknesses in internal controls related to loans and receivables after the enactment of the SOX Act in the U.S. His study lists some of the most common pitfalls in internal controls over receivables and some means to fix the detected issues.

Ivancevich (2012) divided the total 698 weaknesses reported by auditors into six categories: people, basic controls, valuation, technical transactions, accounting, and review. To my surprise, the largest category of commonly cited material weaknesses in controls (243 instances) were related to simply not having enough personnel to perform the work or not having the required expertise to perform the work effectively (Ivancevich, 2012). Material weaknesses related to basic controls were the second largest category with 222 instances. The table 3 below illustrates the underlying reasons for the disclosures in the category of basic controls as listed by Ivancevich (2012):

Type of weakness: Basic controls	No.	Examples
Documented accounting policy	74	Insufficient documentation of accounting policies and procedures and retention of historical accounting portions
Account reconciliations	62	Completeness, accuracy, review and timely recording of account reconciliations. Timely and accurate preparation, review and approval of account analyses and reconciliations did not operate effectively.
Segregation of duties	43	Lack of staff created inherent limitations in achieving proper segregation of duties. Did not adequately design controls to maintain appropriate segregation of duties in its manual and computer-based business processes.
Information access	43	Did not adequately control access to the databases. Lack of accuracy and reconciliation of manual spreadsheets and the related access controls.

Table 3: Material weaknesses related to basic controls in companies' loans and receivables (Ivancevich, 2012)

The companies examined had median revenues of \$ 222 million and median assets of \$ 674 million. This really suggests that basic controls should not be overlooked as one could easily imagine that organizations of this size would have the knowledge and resources to implement such controls. Ivancevich (2012) goes on to point out that the primary remediation method to fix material weaknesses in the area of loans and receivables reported by the companies was to implement these basic control procedures "taught in a typical introductory auditing course": proper documentation, layers of review, separation of duties, securing data, authorizations etc. (Ivancevich, 2012).

2.2.3.1. Types of control activities

One common way to classify control activities is to divide them into preventive/detective controls and automatic/manual controls.

At the level of individual controls, making the distinction between preventive and detective controls can help the evaluator identify missing controls over a given risk (Roth & Espersen, 2004). Preventive control activities aim to deter the instance of errors or fraud from happening in the first place, and they are often built into the system of internal control (Ahokas, 2012: 35). Preventive controls often require a lot of effort in the implementation phase, but maintaining them is often less resource-consuming. Below are listed some examples of preventive control as illustrated by Ahokas (2012: 35) and Brown (1995):

- Segregation of duties
- Proper authorization of payments in accordance with pre-established acceptance limits
- Matching invoices against the (sent/received) bill of lading documents
- Usage of price lists in customer invoicing
- Allowing purchases only from accepted suppliers/vendor
- Physical controls aiming to deter occurrence of theft and improper behavior (locks etc.)
- Restricting access to sensitive data and files (passwords etc.)
- Credit authorization system that checks customer's credit worthiness before goods are shipped
- Hiring qualified personnel

Ahokas (2012: 36) uses an example of company's procurement process to illustrate the advantages of preventive controls. She states that if the company's procurement process is designed in a way that allows utilization of several preventive controls it's more likely that a fraud or an error is detected before the legal obligation of paying an invoice is transferred to the company. In contrast, detective controls would only expose the error after the invoice has been paid.

Detective controls are designed to reveal errors and irregularities that have already taken place and to ensure that appropriate measures are taken to deal with them (Ahokas, 2012: 36).

Detective controls are often expensive or time-consuming to maintain, but they are considered essential for achieving effective internal control. Some examples of detective controls are listed below (Ahokas, 2012: 36; Brown; 1995):

- Reconciliation of balance sheet's cash account against bank's balance statement
- Stock inventories
- Comparing accounts payable against creditors' verifications
- Comparing accounts receivable against debtors' verifications
- Ensuring validity of salary payments through random sampling
- Analytical checkups
- Monitoring controls in general
- Verifying proper use of pre-numbered documents

Reconciliations and inventory checkups are traditional examples of detective controls whereas analytical and monitoring controls have increased their popularity lately. Analytical checkups refer to the analysis of different types of key business ratios (e.g. accounts receivable in relation to total assets). For example, if inexplicable deviations occur in certain key ratios they are analyzed and their causes are investigated. Monitoring controls are normally quarterly or monthly checkups that aim to ensure that certain control targets have been met during the given period, and they are often targeted at ensuring the appropriateness of (specific types of) individual transactions. (Ahokas, 2012: 36)

Another useful categorization is dividing control activities into automatic and manual controls. Identifying controls as automated or manual can help in designing possible control tests (Roth & Espersen, 2004). A control activity is manual when a person participates in the execution. For example, different types of verifications and analytical checkups are manual control activities. Evidently, automatic control is in question when the control activity is executed by computer software. An example of such a control would be setting an automated checkup of customer's credit balance when an order is received (Ahokas, 2012: 37).

The nature and extent of the internal controls in an organization will depend to a large extent on the size of the organization, what controls it can afford and whether the benefits obtained from any particular measure are sufficient to justify its cost (Coyle, 2004: 191). It is important to

emphasize that control activities are to be put in place as responses to observed risks, i.e. they are derived from company's risk assessment and serve as risk responses. Risks and control activities are inseparable. The figure 3 below illustrates the relationship between these internal control components:

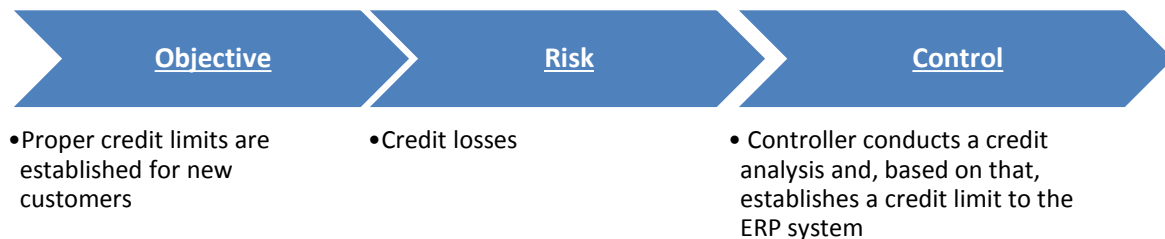


Figure 3: Illustration of the relationships between objectives, risks and controls

Management mitigates risks by designing and implementing internal controls and procedures that will reduce risks to an acceptably low level. The amount of risk left over, after internal controls have been designed and implemented, is referred to as residual risk. In terms of financial reporting, residual risk is the risk of material misstatement realizing in financial statements. (IFAC, 2010b: 130)

2.2.3.2. Evaluation and documentation of control activities

At this point it has been established that control activities enjoy some academic support despite the recent emphasis on control environment, they are derived from entity's risk assessment process and they can be classified in several ways. The next question is how should the effectiveness of control activities be evaluated?

COSO emphasizes that control activities must be evaluated in the context of management directives to address risks associated with established objectives for each significant activity. An evaluator should consider not only whether established controls are relevant to the risk assessment process, but also whether they are being applied properly (COSO, 1992: 52-53). Crouch (2012) points out that internal controls that were cost effective and appropriate when once put in place, may have become unnecessary over time (e.g. due to organizational or business environment changes), and they may cost far more than many organizations realize. Consequently, control activities should be subject to periodical evaluations to ensure that they are

actually supporting the achievement of entity's objectives and mitigating the actual risks recognized by company's risk assessment process. Control activities are not supposed to exist simply for their own sake or because it seems to be the "right or proper" thing to do (COSO, 1992: 48).

Evaluating the effectiveness of company's control activities can be performed in a variety of ways. Different evaluation approaches can be classified based on the person who performs the evaluation and the assumed level of objectivity (Ahokas, 2012: 76). For example, internal control evaluation performed by external or internal auditors as a part of their auditing activities is a formal, detailed process and can be considered to involve high level of objectivity. Evaluations performed by these functions are often referred to as control testing as they often involve in-depth sampling and testing of different control activities (Ahokas, 2012: 76). It should be noted, however, that internal audit function is mostly present in large corporations and external auditors are costly and they emphasize their audit efforts in ways they see necessary. The case company, for example, does not have internal auditors on its payroll.

Another evaluation approach that may provide the management with necessary information on the effectiveness of their company's internal controls is known as control self-assessment. Self-assessment might be performed by the unit controller, for example, and it provides the organization with a tool that allows it to assess its own internal controls and to detect areas where a risk of errors or fraud might exist (Ahokas, 2012: 80). Clearly, the present study adopts a self-assessment approach as I am working in the case company as an assistant controller and I am working in co-operation with the company staff. An advantage of self-assessment is the possibly high cost-benefit ratio and the fact that external auditors are often capable to use the self-assessment documentation to support their annual audit process. Probably the biggest disadvantage to this approach is that self-assessments may lack in objectivity. (Ahokas, 2012: 80)

Ahokas (2012: 69) suggests that a good starting point for evaluating internal controls on activity-level is to recognize organization's internal processes that are linked to financial reporting. Examples of such processes are procurement, manufacturing and sales processes. She states that creation of process descriptions can provide a useful tool for evaluating risks and controls in company's own processes. I believe that this is due to the fact that they allow the evaluators to better perceive linkages between different sub-activities which contributes to more effective risk

observation. For example, a generic procurement process is illustrated by figure 4 below (Ahokas, 2012: 70):

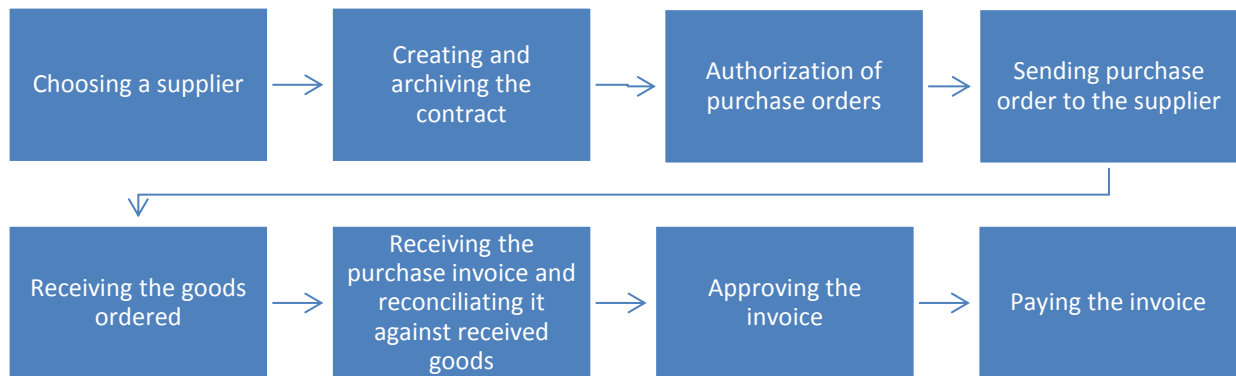


Figure 4: Illustration of a generic procurement process (Ahokas, 2012: 70)

These process illustrations also provide a good basis for mapping and documenting company's controls in a consistent manner. COSO (1992: 73) and Ahokas (2012: 102) state that documenting company's controls is not absolutely necessary in order to have effective internal controls but, in my opinion, this should be definitely done when risks and controls are formally identified. Having internal controls properly documented will make evaluating the control effectiveness much easier in the future, for both auditors and executives themselves. Documentation also allows the management to monitor the internal control system in a consistent manner and auditors' fees may be reduced due to smaller workloads during their assignments.

A common way to perform comprehensive documentation of internal controls is through usage of control matrices. They link controls with control objectives and related risks, and they are designed both to document risks and controls and to facilitate assessment of the design and effectiveness of the control system. By acquiring an initial understanding of the expected controls in a process, gaps between actual controls and specific control objectives and risks can be recognized. (Koutoupis, 2007) Control matrix approach for documenting controls is also proposed by Ahokas (2012, 72) who states that the following questions should be presented with respect to each control activity when constructing a control matrix:

- Who and which departments are responsible for performing the control activity?

- What is the objective of the control activity?
- Which risk does the control activity strive to prevent?
- Is the control activity preventive or detective?
- What is the actual (control) action taken to mitigate the given risk?
- What evidence remains to prove that control activity has been performed?

The table 4 below provides a simple illustration of control matrix logic.

Control	Responsible unit	Objective	Risk	Prevention / detection	Control activity	Evidence
Creating purchase order	Procurement department	Purchase order is created in accordance with procurement policies. Contractual prices and terms are applied.	Faulty prices in purchase documents may lead to flawed valuations and payments, which may lead to misstatements in P&L statement	Control prevents misappropriation of company's assets and inappropriate purchase behavior	Purchase orders are only made in accordance with accepted policies. If deviations occur, an explanation has to be provided and documented.	All purchase documents are automatically archived in the purchase system. The pricing principles used in purchase orders are also archived.

Table 4: Illustration of control matrix logic

When documentation of controls exists, the evaluation of control activities can be rather simple in theory. First, the evaluator considers whether all control objectives are addressed and whether proper controls are put in place to mitigate the identified risks. Thereafter, the evaluator investigates whether the controls are actually doing what they are supposed to. This information can be collected by using the following methods (Koutoupis, 2007):

- Interviews
- Facilitated sessions (focus groups etc.)
- Surveys
- Document examination
- Analytical procedures
- Observation
- Re-performance of activities

Third, evaluator documents and reports the findings, especially the weaknesses found and their linkage to financial reporting (Ahokas, 2012: 87).

Professional auditors use diversely the above listed techniques to obtain evidence on the effectiveness of control activities, even though the lower half of the list is normally preferred. This is due to the fact that these techniques can provide more reliable evidence as there's no employee bias involved. Ahokas (2012: 85) notes that smaller organizations relying on self-assessments, however, may not require equally extensive evaluation methods, and they may utilize the "softer" evaluation methods, such as surveys and interviews. Simmons (1997) notes that "softer" approaches may actually provide invaluable information that might not surface when putting emphasis on the "harder" methods.

COSO (1992: 20) states that the outcome of an internal control evaluation will be a conclusion on whether the internal control system or a specific activity is effective. This view is somewhat simplistic as controls are seen to function either properly or not – no alternatives exist between these two extremes. For example, an informal control may exist in a process and operate properly but it could lack documentation and management monitoring. Should this kind of control be deemed effective or ineffective? In order to overcome the ambiguity of the concept of effectiveness, some models have been developed to enable more analytical assessment of internal control.

The Internal Control Reliability Model by Ramos (2004) was originally established for evaluating the effectiveness of companies' entity-level controls as a whole, but with some modifications it can be utilized in the evaluation of more specific activity-level controls as well. However, it should be pointed out that by no means is this model capable of giving exact quantitative results but it rather provides a means to communicate control assessment findings to the management (Ramos, 2004). This is the purpose of his model in the context of the present study as well. A modified version of the Internal Control Reliability model (Ramos, 2004) is presented in figure 5 below:

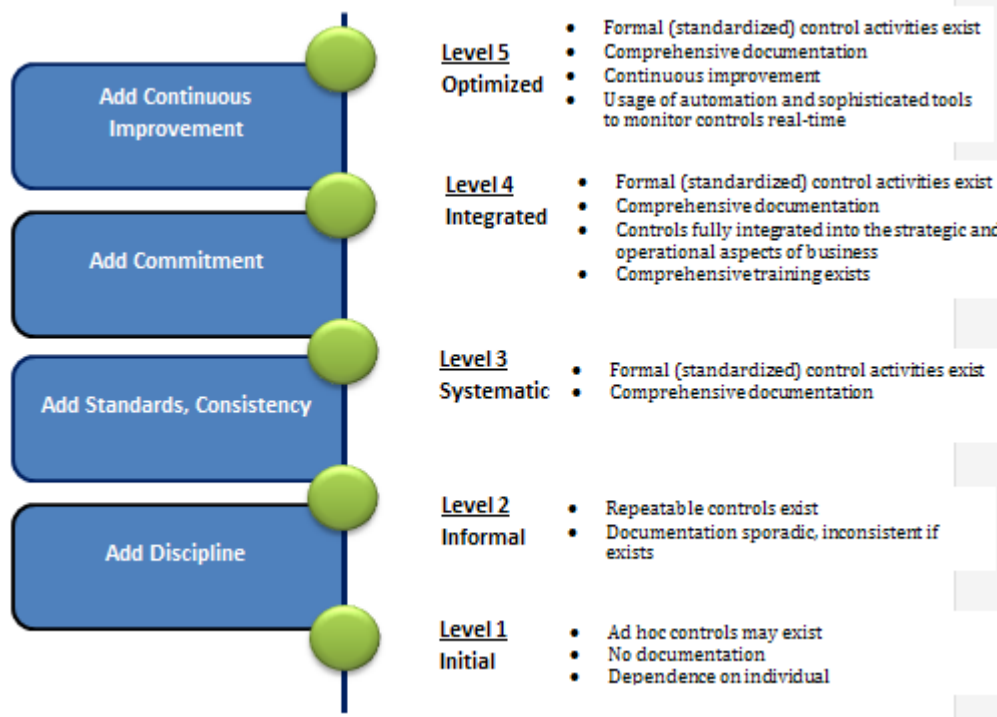


Figure 5: Internal Control Reliability Model (Ramos, 2004) modified for the purposes of this study

The Internal Control Reliability model assumes five different levels of control reliability (numerically from 1 to 5), which are shown on the vertical axis of the figure 5. In this modified version of the model, the level of reliability is determined rather simply by the level of control standardization and documentation until systematic level (3) is reached. Thereafter, other aspects become decisive as standardization and documentation have basically reached their maximum potential. Requirements for reaching a specific level are explained on the right side of the figure 5 whereas the boxes on the left side strive to illustrate the nature of enhancement required to reach the next level of reliability.

This model will be used later on for assessing the current state of case company's internal controls and to illustrate the "level" of the enhancements achieved in the course of this study. For example, at first a control activity may be considered to operate on reliability level 2 and after implementing an enhancement, on level 3.

The original Internal Control Reliability model by Ramos (2004) included also the aspects of awareness & understanding, attitude, and monitoring with regard to the entity-level controls. Unfortunately, evaluation of these aspects on activity- and process-level is basically impossible

due to the haziness of the concepts and trying to apply them to activity-level controls would make the evaluation really difficult without providing any added value. A summary of the original internal control reliability model by Ramos (2004) can be found from the appendices (appendix 1).

2.2.4. Monitoring

Monitoring component is the fifth and the last component of internal control as defined by COSO, and it closes the internal control cycle in a sense. The control environment is the starting point, providing the foundation for internal control process, whereas monitoring aims to keep track of the functionality of the other components and to improve them.

Monitoring is needed because internal control systems change over time, and their application may evolve or deteriorate. This can be due to the arrival of new personnel, varying effectiveness of training and supervision, time and resource constraints or changes in the circumstances for which the controls were originally designed. Consequently, management needs to determine whether the internal control system continues to be relevant and operates as intended. (COSO, 1992: 65)

Monitoring process involves the assessment of the design and operation of controls and taking necessary actions (COSO, 1992: 65). The monitoring component requires that internal control systems are monitored on both an ongoing and periodic basis in order to remain effective (Jokipii, 2006). Ongoing monitoring procedures are built in to the normal, recurring operating activities of an organization. They include regular management and supervisory activities, comparisons and other routine actions (COSO, 1992: 66). In my opinion, ongoing monitoring should be designed as an integral part of as many key control activities as possible when they are first put in place in order to keep track of their effectiveness.

Separate evaluations take a more detailed approach to evaluating possible deficiencies in the internal control system or specific aspects of it. The greater the degree and effectiveness of ongoing monitoring, the less need for separate evaluations (COSO, 1992: 65). The scope and frequency of separate evaluations will depend on the assessment of risks and the effectiveness of ongoing monitoring procedures (Jokipii, 2006), and they often take the form of self-assessments (COSO, 1992: 67-68).

Ongoing monitoring activities of small and mid-sized entities are more likely to be informal and involve the CEO and other key managers and it's accomplished through hands-on involvement in most if not all facets of operations (COSO, 1992: 72).

2.3. Internal controls in sales process

As the research questions indicate, the risks and controls associated with case company's sales process lie at the heart of this study. For this reason, the present chapter will discuss sales process related internal control recommendations and best practices found in the professional literature and strives to obtain further understanding of the more specific issues in this area of internal control. Moreover, the sales process control matrices from three different medium-sized companies were acquired, and one generic sales process control matrix from a person who works as internal audit professional. These control matrices are examined alongside relevant literature in the hopes of absorbing ideas for further development of case company's internal controls and getting an idea of how these issues are addressed in practice in other companies. Brief descriptions of the three benchmark companies can be found in the appendix 2.

According to Vahtera (1986: 288), company's sales process consists of all the activities through which a company markets, delivers, invoices and cashes in its products. The primary aim of the sales process controls is to ensure that a payment is received for all goods and/or services handed over to a customer.

However, it should be noted that every organization's sales process is individual and thus involves somewhat different risks and approaches to control. The following characteristics of companies' sales process impact the types of internal controls a company might employ:

- whether the company is in service or manufacturing business;
- whether the company manufactures its products itself or operates as a retailer;
- whether the company operates in cash or invoice-based business;

For example, if a company operates completely on invoice basis it obviously does not have to consider how to safeguard petty cash.

Nevertheless, there are certain generic control objectives and practices that should be considered in every organization. These generic areas will be reviewed in more detail in this chapter with the purpose of providing ideas for the assessment and improvement of case company's internal controls.

As already previously discussed, a generic process description can be a useful tool for distinguishing the different phases of a given process and identifying associated risks and controls. Rittenberg et al. (2012: 385) describe a sales process that consists of nine different phases, but for the purposes of the present study the below representation by Ahokas (2012: 102) is more suitable since it bears a resemblance to the sales process of the case company:

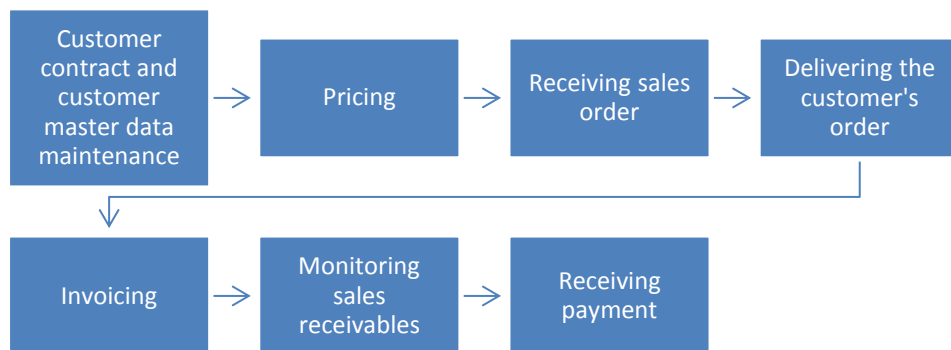


Figure 6: Illustration of a generic sales process (Ahokas, 2012: 102). Modified.

As the above sales process description indicates, sales process generally begins with signing a sales contract and entering customer master data to organization's information system and it reaches its conclusion with a customer payment or reclamation. The most important control objectives along this path are as follows (Ahokas, 2012: 102):

- Ensuring that the customer master data includes valid and approved data
- Prices and other terms used in sales orders/transactions are correct and valid
- Correct and timely revenue recognition

- Ensuring that sales adjustments and sales accruals are reasonable, approved and booked correctly to the correct period
- Ensuring that accounts receivables in balance sheet are valued correctly, receivables are collectible, and bad debt provision has been booked and is reasonable
- Ensuring the cash collection and correct allocation of customer payments
- Ensuring that customer returns are authorized, handled and booked correctly

The rest of this chapter is divided in six sub-chapters in order to have a more profound look into different areas of internal controls in company's sales process and to provide basis for upcoming risk and control assessment. The six sub-chapters were determined in accordance with the themes occurring in professional literature (e.g. Ahokas, 2012) and the benchmark companies' control matrices. The sub-chapters are: sales contracts, master data, credit control, revenue recognition and invoicing, credit notes and monitoring accounts receivable.

2.3.1. Sales contracts

Even if negotiating and closing customer contracts does not fit to the above list by Ahokas (2012: 102), the importance of the starting point for sales process should not be overlooked as sales contracts often determine long-term customer profitability. However, this matter is not that widely covered in professional literature which might imply that the importance of sales contracts is considered somewhat self-evident. Ahokas (2012: 104), for example, simply points out that sales contracts should be negotiated by people with proper authorization and access to them should be physically restricted.

A look into the benchmark companies' internal controls (table 5 below) reveals that all of them have considered the contractual issues to some extent. All three companies state in their control matrices that a profitability calculation based on the preliminary terms must take place before signing a long-term contract. In addition, company A's legal department has developed standardized contract templates that must always be used. The fact that the companies belong to the same group has probably affected the alignment of their control activities. The generic control

matrix obtained from an internal audit professional also states that contracts should be properly reviewed and approved by appropriate personnel before engaging in them.

	Company A	Company B	Company C	Generic control matrix
Objective	Customer contracts' legal validity and profitability of the commercial terms	Long-term commitments are profitable. Contracts are properly reviewed and approved by appropriate personnel	Long-term commitments are profitable.	Contracts are properly reviewed and approved by appropriate personnel as required by Sales Approval Policy
Control(s)	<u>Legal validity:</u> Only the contract templates developed by the legal department are to be used. <u>Profitability:</u> Sales mgmt performs a profitability calculation based on the contractual terms before signing a long-term contract. The calculation is attached to the contract and saved to Intranet.	Sales mgmt performs a profitability calculation based on the contractual terms before signing a long-term contract. The calculation is attached to the contract and saved to Intranet.	Sales mgmt performs a profitability calculation based on the contractual terms before signing a long-term contract. The calculation is attached to the contract and saved to Intranet.	N/A

Table 5: Customer contracts – objectives and controls of the benchmark matrices

2.3.2. Master data

The next step in the sales process after negotiating and signing a customer contract is related to customer- and pricing information which serves as the basis for future transactions. This information is commonly referred to as master data and it is entered to company's IT systems as new customers emerge. Typically the customer master file contains data such as addresses, tax and statutory registrations, credit limits, and contact persons, among others (Ahokas, 2012: 103; Mukerji, 2012). The 'price master data' is often maintained separately and linked to customer data.

Master data plays an important role in the sales process since incorrect master data may lead to unmitigated errors that will only be fixed when the cause is identified (FSN & Oracle, 2013). This view is also emphasized by Mukerji (2012) who states that robust customer master data is the first precondition for an effective sales process, as proper data set up and maintenance can significantly increase the accuracy of billing and reduce disputes.

The white paper by FSN & Oracle (2013) stresses specifically the importance of preventing unauthorized changes to master data as they may give rise to losses of cash flow through disputed

invoices, loss of productivity in the form of unnecessary work and financial losses due to fraudulent manipulation of master data. As an illustration, it's easy to see that an invoice with imperfect data may lead to unnecessary hindrances in the payment process or, in the worst case scenario, it may not reach the customer at all.

Vahtera (1986: 293) points out that these types of continuous failures might come at high cost: undetected overpricing, for example, may result in losing customers whereas underpricing obviously leads to decreased profit margins and customer profitability. Whether the pricing information is correctly entered into systems can be determined, for example, through regular checkups where system data is compared with official price listings or customer contracts (Ahokas, 2012: 104).

Obviously, the simplest way to deter unauthorized changes to master data is to ensure that only predetermined people are capable of making changes to the master data in IT systems in the first place (Ahokas, 2012: 103). Secondly, user access rights should be controlled in a centralized manner and monitored regularly (Ahokas, 2012: 103). Furthermore, the white paper by FSN & Oracle (2013) suggests establishing automated reports that inform the management of changes in master data as they occur.

The user access control is probably the most basic means of controlling master data. Some other controls that can be helpful in achieving high-quality customer data are listed by Mukerji (2012) as follows:

- Avoid setting up duplicate customer records by using a duplicate audit tool at the time of data entry to system.
- Ensure the parent-child relationship mapping for every new customer so that credit checks can be correctly applied.
- Have in-built logic defined to automatically capture inconsistencies in data entry. For example, the PAN number is always a 10-digit alpha numeric entry and anything otherwise is immediately flagged.
- Set up central mailing addresses (email or physical mail) to handle all requests for master changes with clear definitions of what constitutes a priority request and needs accelerated handling.
- Establish robust quality check processes for data-entry accuracy and timeliness of response.

The abovementioned controls illustrate the importance of implementing automated preventive IT controls in this area of internal control. As earlier pointed out in the chapter 2.2.3.1, preventive controls can be laborious to implement but once a company has them in place they might go a long way.

The benchmark companies' and generic control matrix's approaches to internal control over master data are shown in the table 6 below. The control descriptions are highly detailed but in order to maintain their authenticity they were left unchanged (except for translation). In my opinion, the rather specific control objectives of the three companies imply that the significance of high-quality master data and its protection are acknowledged. This notion is further reinforced by the variety of controls established to ensure reliability of customer master data.

	Company A	Company B	Company C	Generic control matrix
Objective	<p>(1) To ensure that flawed customer master data does not result in bad business decisions and cause extra work leading to low operating efficiency.</p> <p>(2) To ensure that delicate customer data cannot be misused by people without proper access rights</p>	<p>(1) To ensure that flawed customer master data does not lead to faulty business decisions. (2) To ensure that sales prices do not deviate systematically from the ones determined in the contracts.</p>	<p>(1) To ensure that flawed customer master data does not lead to faulty business decisions. (2) To ensure that sales prices do not deviate systematically from the ones determined in the contracts.</p>	<p>Master files contain approved and accurate data.</p>
Control(s)	<p>(1) When setting up a new customer a check is performed to ensure that the given customer does not already exist in the customer registers.</p> <p>The system automatically directs staff to record the customer data in correct format. After the customer has been created a check is performed to ensure that the newly recorded data matches with the customer contract data.</p> <p>(2) Master data user rights are strictly tied to correspond to person's job description. The scope of the master data access rights is reviewed annually. Personnel's access rights are followed in a centralized manner by the company Controller (excel).</p>	<p>(1&2) When setting up a new customer a check is performed to ensure that the given customer does not already exist in the customer registers.</p> <p>Customer identification is based on trade register code or person's social security ID. The system automatically directs staff to record the customer data in correct format. After the customer has been created a check is performed to ensure that the newly recorded data matches with the customer contract data. The check is documented on a template that is attached to the contract.</p>	<p>(1&2) When setting up a new customer a check is performed to ensure that the given customer does not already exist in the customer registers.</p> <p>Customer identification is based on trade register code or person's social security ID. The system automatically directs staff to record the customer data in correct format. After the customer has been created a check is performed to ensure that the newly recorded data matches with the customer contract data. The check is documented on a template that is attached to the contract.</p>	<p>Changes to the master files are reviewed by management to ensure that all and only authorized changes were made and recorded correctly.</p> <p>A log list of changes to the master files is extracted and reviewed by for the Sales Manager. The approved and dated log list is kept on file.</p>

Table 6: Master data – objectives and controls of the benchmark matrices

As the chart points out, all three companies utilize an “audit tool” to make sure that a customer being implemented does not already exist in their databases, and their IT systems have in-built controls directing their staff to enter the customer data in correct format. Furthermore, the data entered to systems is checked against the customer contracts by another person after data entries

in order to avoid systematic pricing failures. Companies B and C even save the documentation of the data validity check as an attachment with the customer contract. Company A is the only of the three companies to emphasize the monitoring of access rights. Their control matrix states that user rights must be strictly tied to persons' job description in order to prevent misuse of delicate customer information. Restrictions for making unauthorized changes to customer data are not (at least explicitly) mentioned as a motive.

2.3.3. Credit control

Most companies that do not deal directly with consumers issue credit to their customers because it is simply a more convenient way to transact business (Rittenberg et al., 2012: 386). Nevertheless, a company should carefully evaluate which customers can be trusted to pay their debts. In order to prevent bad debts, companies should have a robust credit approval process in place to (a) evaluate the creditworthiness of new customers; and to (b) update the creditworthiness of existing customers as time passes and conditions change (Rittenberg et al., 2012: 386).

Obviously, a company needs to have a well-established policy defining on which basis and who is authorized to make decisions over customer's creditworthiness and the extent of credit allowed (Ahokas, 2012: 103). This provides the starting point for effective credit control.

In practice, many companies set credit limits for customers and develop controls to their IT systems to ensure that a pending sale will not push the customer over the credit limit. The credit approval process might include a review of sales orders and customer credit information by a computer program that contains current account balance information and credit scoring information to determine whether credit should be extended to the customer (Rittenberg et al., 2012: 387).

Setting credit limits and their continuous automatic monitoring are effective means to avoid excessive risk exposure. However, a customer might be running into financial difficulties that have not yet materialized and cannot be foreseen without meticulous analysis of customer's financials. Consequently, the usage of credit rating agencies' services should be considered to keep an eye on customers' possibly changing creditworthiness (Mukerji, 2012).

Furthermore, as with customer master data, it should be ensured that only certain people are able to make changes to credit limits (Ahokas, 2012: 103). Everyone can see that unauthorized changes to credit limits may allow un-creditworthy customers to buy more goods which, in turn, may lead to bad debt (FSN & Oracle, 2013). FSN & Oracle (2013) note that some advanced Enterprise Resource Planning systems have an option for automatic monitoring of master data which can be used for efficient tracking of unauthorized changes. For example, management could be automatically sent a report whenever a change takes place in customers' credit limit.

Mukerji (2012) has gathered a list of some best practices in credit control. He incorporates several of the previously mentioned recommendations to his list while making some more specific observations:

- Define organization-level credit policies with focus on elements such as (a) maximum exposure limits for customers using segmentation analytics and credit history records, (b) credit limit override exceptions and approvals' policies, and (c) credit limit revisions' process.
- Establish a process for real-time check and update of unpaid invoices and unapplied collections before performing credit checks. Very often the process excludes unapplied collections and hence, incorrectly rejects valid orders.
- There may be a case for setting up a value tolerance limit for credit checks. Depending upon an organization's risk appetite, some orders from trusted customers, up to a value threshold may be allowed to be processed without the credit check; subject to an overall value limit exposure at an Account or Group level. This will help optimize the cost of controls against benefits.
- Establish a process for regular review of credit history of customers based on a cycle of priority. Use of external databases such as Dun & Bradstreet and internal financial records of payments will be a key influencer for the credit history review.

With regard to the benchmark companies, their control descriptions are unfortunately not too informative (table 7 below). For company A's purposes, a single credit check before sales contract is considered sufficient, probably due to the nature of its business⁴. Company B's credit control process involves an initial creditworthiness check when new customers emerge but after that creditworthiness is only monitored through receivables, which induces a slight risk of bad debt. Company C's credit policy supposedly involves an initial credit check before a customer is granted

⁴ One customer normally makes one purchase (car retail)

credit, and they also have defined a fixed credit limit for their customers. However, the credit limit cannot be monitored in real-time due to certain inherent limitations in their ERP system which obviously obstructs the effectiveness of the credit limit.

The generic control matrix acknowledges the importance of basic credit control as well, stating that there should be procedures in place “to ensure adequate credit checks and approved credits/extensions”.

	Company A	Company B	Company C	Generic control matrix
Objective	To ensure that the company does not face credit losses	To ensure that the company does not face credit losses	To ensure that the company does not face credit losses	To ensure adequate credit checks and approved credits/extensions
Control(s)	Customer's credit-worthiness is checked before signing the sales contract (single-sale business).	A policy for implementing new customers, which includes the check of creditworthiness. <u>At present</u> customers' credit limits have not been determined. Accounts receivable are monitored continuously	Company's credit policy defines the procedures and rules for giving credit. Individual persons are not accepted as credit customers. Companies that have been accepted as credit customers have a fixed credit limit of 3,5 t€. At present the credit limit cannot be automatically monitored in the Operative System.	Credit checks performed for new customers prior to order entry. Semiannual credit limit review performed. Credit limits are authorized and adhere to policy

Table 7: Credit control – objectives and controls of the benchmark matrices

2.3.4. Revenue recognition & invoicing

Correct and timely revenue recognition has lately been the most discussed internal control objective of the sales process. The discussion over proper revenue recognition practices has stemmed from the fraudulent earnings management schemes that have surfaced over the past decades (Yoo, 2003). However, the objective of correct and timely revenue recognition is not only about deterring fraud. Under normal conditions, consistent revenue recognition and reliable sales figures are of high importance to the management team itself as reliable sales reporting provides a solid foundation for informed decision-making with regard to future.

Failures in revenue recognition are generally one of the main causes for major P&L misstatements stemming from the sales process (Vahtera, 1986, 289). Consequently, internal controls should provide specific guidance regarding how to, and how not to, record transactions (Stallworth &

DiGregorio, 2005). Vahtera (1986, 289-293) states that the most important control objectives with respect to revenue recognition are:

- Sales and delivery are entered in the same period
- Sales and the respective costs are entered in the same period
- Completeness of sales (i.e. all sales are recorded)

In general, revenue can be recognized when all the following conditions are met: (1) persuasive evidence of a (sales) arrangement exists, (2) delivery has occurred or services have been rendered, (3) the seller's price to the buyer is fixed or determinable and (4) collectability is reasonably assured (Yoo, 2003).

The financial impact of the sales process commences with the generation of an invoice (Mukerji, 2012). Invoices are normally prepared when notice is received that goods are shipped (Rittenberg et al., 2012: 387). Thus, invoicing obviously comprises an essential part of revenue recognition process.

With regard to invoices, it is important that the goods invoiced correspond to the ones listed on the bill of lading (Ahokas, 2012: 105). Ahokas also points out that specific attention should be paid to deliveries which have not been invoiced for some reason (2012: 105). According to her, this report is normally available in every ERP system.

Mukerji (2012) has listed some more advanced best practices regarding invoicing that might be considered when developing company's internal controls:

- Automation of billing process based on order entry and credit check in a fully integrated ERP system – many telecom companies have deployed customized billing platforms to make this process fully automated. Electronic billing using customized or ready-to-use billing software is a step change in the process expediting the time and lowering costs.
- Wherever invoices need to be sent to customers, many companies have come out of the manual process of physical mailing to (a) email, (b) e-fax, or (c) electronic invoicing presentation and payment (EIPP). Globally many organizations are realizing the potential for invoice exchange which cuts down processing costs and payment cycles many times.
- Billing process often interfaces with multiple sub-processes such as order entry, delivery, and customer master. This needs the process to be well monitored and with rigid quality control

checks focusing on accuracy, first pass yield, timeliness, and rejects analysis.

The table 8 below illustrates the benchmark companies’ objectives and control descriptions with respect to revenue recognition and invoicing. All of them have set up their own types of controls which are somewhat challenging to analyze any further without knowing their IT systems and business models in more detail. Controllers seem to have an important role in ensuring that invoicing and revenue recognition are done properly.

However, all three companies express basically the same control objectives as the generic control matrix and literature, which implies that they are addressing the right things. This case well demonstrates the difficulty of creating generic lists of “best controls”. All companies have somewhat different procedures, IT systems and resources, all of which have a great impact on the controls utilized.

	Company A	Company B	Company C	Generic control matrix
Objective	Products are correctly and timely invoiced and proper entries are made to bookkeeping.	Ensuring that all deliveries are invoiced and recognized during correct period. Costs and profits are recognized in the same period.	Ensuring that all deliveries are invoiced and recognized during correct period. Costs and profits are recognized during the same period.	<ol style="list-style-type: none"> 1. To ensure that all delivered goods are invoiced. 2. To ensure that all sales are recorded and in the correct period. 3. To ensure that fictitious or duplicate sales are not recorded.
Control(s)	<ol style="list-style-type: none"> 1. Controllers perform monthly follow-ups on contribution margins, which allows detection of any abnormal deviations (resulting from incomplete or faulty entries) 2. Individual account balances in balance sheet are reviewed thoroughly in order to ensure that sub-ledgers match with GL and faulty entries have been resolved. 	<p><u>Invoicing:</u> When an order has been marked as "ready to invoice", the order is automatically transferred to an invoicing batch. The batch has to be timely executed by the A/R clerk. At the end of the month, controller reviews all non-invoiced orders and makes sure that they are resolved before the book closing.</p> <p><u>Timely revenue recognition:</u> A/R clerk follows-up on non-invoiced orders and initiates the invoicing batch before the period-end book closing. In addition, controller reviews any unexpected contribution margins that might indicate that profits and costs are entered to different periods.</p>	<p>Invoicing requests are delivered via e-mail to A/R clerks who enter the data to the System manually.</p> <p>Controller compares the sales on sum- and rental contract levels to the invoiced sales in the System and figures out the reasons behind possible differences.</p> <p>Revenue is automatically recognized when customer's contract comes to an end.</p>	<ol style="list-style-type: none"> 1. A list from the System is extracted and reviewed by the A/R accountant. The list is screened for deliveries that should have been invoiced. The list is signed, dated and filed. 2. The System timely updates sub ledger and general ledger upon shipment. 3. The System is configured to post an invoice number only once and to ensure that no shipments can be made without a valid sales order.

Table 8: Revenue recognition and invoicing – objectives and controls of the benchmark matrices

2.3.5. Credit notes

Credit notes are firmly related to the previously discussed invoicing process, and they can be seen as “negative invoices”. Normally they are a result of customer discontent, which has led to a refund claim. Credit notes which are not monitored for recurring or systemic problems can lead to

perpetual losses and abuse of the system until the reasons behind the credit notes (e.g., pricing errors, poor quality goods, etc.) are remedied (FSN & Oracle, 2013).

The manipulation of credit notes and refunds are especially popular methods of defrauding the business (FSN & Oracle, 2013). The risk lies in the fact that, when not properly monitored, credit notes may result in undetected and unauthorized outflows of cash from the company.

In order to be able to control the use of credit notes, Ahokas (2012: 105) states that management should have clearly communicated policies in place for determining which employees in the company are allowed to assign credit notes and on which basis.

Rittenberg et al. (2012: 420) note in their book that external auditors should perform analytical reviews of credit notes in order to ensure that they are not being used for fraudulent purposes. The analyses should be conducted by comparing the amount of credit memos in the current period to prior periods, while looking for unusual trends or patterns such as large numbers of credit memos pertaining to one customer or salesperson, or those processed shortly after the close of the accounting period (Rittenberg et al., 2012: 420). These methods can be easily utilized by the company controllers as well and can provide a useful tool for monitoring credit notes.

As usually, Mukerji (2012) also offers a list of best practices that are applicable to refunds process. Some of the best practices according to him are as follows:

- Centralised function for handling all refunds' claims. Very often refunds do not get attention from collection agents and hence having a central function often helps in expediting claims' processing.
- Having a workflow solution integrated with collections and billing is an automation investment that goes a long way in easing the process-related approvals for refunds.
- Handling a refunds process requires a specialised skill set to front-end customer claims with professionalism. Thus many organisations provide training to staff to help them cope with customer interactions with financial responsibility.

The table 9 below describes the measures taken by the three benchmark companies with regard to credit notes. All three companies clearly recognize the risks related to credit notes, which is reflected to the controls imposed on the organizations.

	Company A	Company B	Company C	Generic control matrix
Objective	Fraud risk is minimized in company's sales process and system.	Only properly authorized credit notes with correct values are sent to customers.	Only properly authorized credit notes with correct values are sent to customers.	Credit notes are properly approved.
Control(s)	<p>Centralized report which follows-up on exceptional occurrences in the sales process (credit notes, returned goods).</p> <p>A benchmark report comparing the issuance of credit notes and amount of returned goods between different sales units is reviewed monthly by controller.</p>	Credit notes must be approved by the unit controller or the unit manager. Credit notes that don't have approvals attached to them will not be processed by the payment team.	Credit notes are printed out after creation and assigned written explanations. Controller approval is obtained after which credit notes are archived in a specific folder.	<p>Credit notes for price discrepancies and prices that differ from the list price over the percentage and amount threshold must be approved according to authorization instructions .</p> <p>The credit note and the request for price change form/document are signed, dated and filed together after approval.</p>

Table 9: Credit notes – objectives and controls of the benchmark matrices

Company A has established a detective control, a rather similar report to the one described by Rittenberg et al. (2012: 420) previously, which is used to monitor the issuance of credit notes. Company A hasn't mentioned any preventive policies in its control matrix, but the reason might be that its existence is considered so self-evident. Companies B and C rely on the approval by accounting department in preventing unauthorized credit notes. The generic control matrix does not offer insights in this case, as it simply suggests that credit notes should be authorized and documented.

2.3.6. Monitoring accounts receivable

The final step of the sales process is the collection of customer's debts which is preceded by monitoring of the customer's account balance through accounts receivable system. Obviously, the previously discussed credit control process plays an important role in establishing favorable conditions for successful collections as it allows the detection of financially challenged customers before they are granted credit in the first place.

Ahokas (2012: 105-106) lists a variety of basic procedures that should be put in place to ensure proper control over accounts receivable. To begin with, specific attention should be paid to overdue accounts and the effectiveness of debt collection (Ahokas, 2012: 105). One of the most basic and important procedures is to frequently review an age-distributed list of company's accounts receivable and to identify customers with overdue payments. If reminders prove ineffective, a collection agency should be involved (Ahokas, 2012: 105). Furthermore, if a customer is having difficulties with paying bills it's recommended that its credit limit is re-evaluated and

possibly lowered. Further deliveries should also be denied until overdue payments are received. (Ahokas, 2012: 105) Some relevant KPIs that can help companies assess the riskiness of their receivables include increases in the number of days past due and unusually high concentration in a few key customers whose financial prospect are declining (Rittenberg et al., 2012: 401).

Accounts receivable that are unlikely to be collected should be written-off at latest in the year-end closing of the books. Companies should have an established process for these write-offs, and they should be approved on proper level (e.g. Chief Accounting Executive) (Ahokas, 2012: 106). A classical fraud committed by an accountant is to pocket the cash received from a customer and cover up the theft by writing off the customer's balance. For this reason, FSN & Oracle (2013) suggest that management establishes a report to monitor users with high number of write-offs or high value write-offs.

It is also important to ensure that received collections are applied against specific invoices to wipe out customers' outstanding debts and to make sure that payments are of correct amount. Any non-matching payments should obviously be investigated (Ahokas, 2012: 105). Mukerji (2012) points out that cash applications are nowadays often handled by IT systems which are capable of automatically matching the payments with a specific invoice (through reference numbers). However, he still recommends a few cash application best practices to be considered:

- Perform regular reconciliations of bank statements with the customer ledger to ensure that book-keeping controls are not compromised.
- Focusing on unapplied cash as a key metric and having finite targets (for example, unapplied cash as a per cent of collections) often helps to improve process efficiencies.

The below table 10 indicates the types of accounts receivable and write-off controls utilized by the benchmark companies and the generic control matrix. A look into the benchmark controls does not reveal any specific insights with regard to controlling accounts receivable. All three companies are monitoring their receivables and sending dunning letters when overdue payments occur, followed by the involvement of a collection agency if necessary. With regard to the generic control matrix, exactly the same controls are recommended. However, the generic matrix also considers write-offs and payment allocations which for some reason were not found in the companies' benchmark matrices.

	Company A	Company B	Company C	Generic matrix
Objective	To ensure that the company does not face credit losses	Fast circulation of accounts receivable; minimization of credit losses	Fast circulation of accounts receivable; minimization of credit losses	To ensure that non-paid receivables are monitored, followed up and resolved in a timely manner; to avoid financial losses/bad debt write-offs due to lack of control.
Control(s)	<p>Dunning letters are sent weekly in order to collect payments due.</p> <p>Receivables' age distribution is analyzed monthly in the management team meeting.</p> <p>Credit losses are recognized according to the following policy: 180 days due -> 50 % write-off and 360 days due 100 %</p>	<p>Accounts receivable are continuously monitored and possible deviations are immediately addressed.</p> <p>Dunning letters are sent from the finance department at least once a month.</p> <p>Suggestions for transferring unpaid receivables to collection agency are sent monthly to controllers who evaluate whether it's necessary.</p>	<p>Dunning letters are sent from the finance department at least once a month.</p> <p>Suggestions for transferring unpaid receivables to collection agency are sent monthly to controllers who evaluate whether it's necessary.</p>	<p>The A/R accountant reviews an age distributed sub ledger and identifies customers who have overdue invoices.</p> <p>Reminders are sent or customers are telephone calls are made. If payment is not received after two reminders, lawyers are contacted (if necessary) and a collection agency is engaged to collect the receivable.</p> <p>The dunning procedures are monitored by the accounting manager. The age distributed sub ledger is signed, dated and filed.</p> <p>The A/R accountant prepares proposal for bad debts write off. The write off is approved according to the authorization instruction. A signed and dated copy of the list is kept on file</p> <p>An open payment list is reviewed periodically to ensure that all payments are matched with an invoice. Payments, which are received electronically, are automatically matched with the correct invoice by the system. Other payments, which require manual matching, are manually matched with the correct invoice by an accountant. Signed and dated supporting documentation is kept on file.</p>

Table 10: Monitoring receivables, collections & write-offs – objectives and controls of the benchmark matrices

3. Research method and data

In this chapter the methodological foundations for this study are presented. First, the chosen research method and data collection process are introduced, after which the case company and the factors that led to commissioning this study are presented.

3.1. Research method and data collection

This study can be described as a descriptive single-case study which is based on qualitative methods. Case studies allow researchers to observe how different management accounting methods are utilized in practice (Scapens, 1990) and they can be particularly suitable when the studied phenomenon involves complex and context-specific characteristics (Lukka, 1999). In the

context of the present study, case study approach is deemed relevant due to the highly entity-specific nature of internal controls.

Scapens (1990) defines descriptive case studies as “studies which describe accounting systems, techniques and procedures currently used in practice”. This study can be deemed descriptive in the sense that it strives to describe and understand the risks and the controls in the case company’s sales process but it should be noted that there’s also another aspect involved in this study – the intention of providing improvements to the case company’s internal controls. In this sense, the present study isn’t plain descriptive in traditional terms.

The data collection in the case company was performed through different qualitative methods, as suggested by Koutoupis (2007). He states that auditors can gather risk and control information through interviews, facilitated sessions, surveys, document examination, analytical procedures and observation. As the objectives of this study bear a certain resemblance to an audit assignment, it is found suitable to take advantage of these data collection methods.

First, the initial understanding of the case company and its points of interest for the present study were acquired through conversations with the case company’s finance director. After that, most of the data collection was performed through theme interviews with different level employees of the case company. The interviewed employees were working in the fields under examination and were thus considered to be knowledgeable to evaluate the existing risks and controls in these areas. The topics to be discussed were sent to the interviewees beforehand in order to obtain more coherent responses during the interview.

The logic behind theme interviews is that the topics of interest are established before the interview takes place but the exact form and structure of questions are not predetermined (Hirsjärvi et al., 2001: 195). Theme interviews are convenient in the sense that they allow both flexibility and control with regard to the progress of an interview. Clearly, all interviews were tape recorded with the permission of the interviewees and transcribed afterwards.

It should also be pointed out that one internal control questionnaire was sent out to the Accounts Receivable Manager in Estonia and, on some occasions, more specific inquiries were made which may not be regarded as either interviews or surveys, but rather short discussions or e-mail conversations. These sorts of inquiries are likely to be present in any constructive case study as

new questions often arise, for example, after an interview has taken place and it does not make sense to book another interview just to make one or two extra questions. All inquiries were also immediately documented after they took place.

Furthermore, internal control documentation of three Finnish medium-size companies was obtained in the hopes of getting a better picture of how internal controls (in sales process) are set up in other companies of similar size. This allowed the case company to benchmark its internal controls against other companies when literature may not have been able to provide sufficient comparison basis. Thus, simple benchmarking against similar-sized peer companies was also employed as a research method in the present study.

The topics, methods and the persons involved in the data collection process have been listed in the appendix 3 in order to provide an accurate overview of the data collection process.

3.2. Description of the Case Company

This constructive case study takes place in a medium-size⁵ Finnish company which operates in agency service industry. The company provides services to its customers over phone and through an internet portal and it has two separate business areas which the case company did not want to have disclosed in the study. Both the case company and the given service industry have gone through major changes over the past years. This agency service industry is nowadays characterized by thin profit margins, aggressive competition and fixed cost structure. These factors in conjunction with evolving industry practices have forced the case company to engage in cost cutting programs and streamlining their operations.

As a part of the streamlining initiatives, the case company has outsourced its routine book-keeping procedures to Estonia in order to achieve cost cuts and to be better able to focus on its core competencies. The main responsibility over the company's accounting and financial reporting is still, however, in the hands of the company's finance director who is located in Finland. The outsourcing partnership was considered to function rather well for most parts, but there were

⁵ ~90 employees, annual turnover ~10 m€ (2013)

processes and responsibilities which were not completely clear and remained undocumented. This had made maintaining effective controls a challenging task in the case company.

Another considerable change the case company had faced recently was related to the turnover of key personnel. Changes in important positions are bound to have an impact on an organization as important silent information might be lost and the new employees inevitably take some time to adapt to new circumstances and organizational practices.

Furthermore, as a result of the restructuring programs, some redundancies had taken place and various employees were assigned new tasks, which in some cases may have led to blurred responsibilities over some sub-processes. The case company had also been faced by an instance of fraudulent behavior at the company's accounting department some years before the outsourcing took place.

Considering the history of fraud, wide-ranging organizational changes and the challenging operating environment, it was easy to understand why the case company was interested in evaluating the risks and the current state of internal controls in its sales process – the case company could not afford any unpleasant surprises or revenue leakage under the current circumstances.

4. Case Study – Case Company X

The empirical part of this study is divided in two main parts, according to the research objectives defined in the chapter 1.2. In the first part, the risk assessment process is described and a list of risks to be considered in the control evaluation phase is established. In the second part, I strive to figure out whether the perceived risks are addressed with relevant controls and whether the controls are being applied properly (i.e. control existence & effectiveness). Simultaneously, the current state of case company's controls is evaluated against the benchmark companies' controls and the best practices suggested by the literature. Based on the findings, means for improving controls are suggested if seen necessary. A control matrix approach is utilized to illustrate the linkages between control objectives, risks and controls throughout the process.

4.1. Assessment of sales process risks

The first research objective of this study was to establish awareness of the main risks in the case company's sales process for the control evaluation phase. According to professional literature (e.g. English et al., 2004; COSO, 1992: 4), defining the objectives for internal control should be the first step when a risk assessment is being initiated. This is due to the fact that clearly determined objectives enable an entity to focus its risk identification efforts appropriately. As previously discussed in chapter 2.3, the main objectives of company's sales process can generally be listed as follows (Ahokas, 2012: 102):

- Ensuring that the customer master data includes valid and approved data
- Prices and other terms used in sales orders/transactions are correct and valid
- Correct and timely revenue recognition
- Ensuring that sales adjustments and sales accruals are reasonable, approved and booked correctly to the correct period
- Ensuring that accounts receivables in balance sheet are valued correctly, receivables are collectible, and bad debt provision has been booked and is reasonable
- Ensuring the cash collection and correct allocation of customer payments
- Ensuring that customer returns are authorized, handled and booked correctly

These internal control objectives of sales process were considered to provide the foundation for the risk identification purposes in this study. In my opinion, the above list covers the objectives of company's sales process well and can therefore be deemed appropriate in the context of the present study. However, it should be emphasized that these objectives only served as a guideline for risk identification as narrowing down the scope too strictly might have resulted in missing out relevant risk factors that were not directly derivable from the above listed objectives. Most of the above presented revenue cycle objectives have implications for both operational efficiency and reliability of financial reporting.

The next phase in the risk assessment process was to identify the risks threatening the achievement of the determined objectives, as suggested by English et al. (2004). According to COSO (1992: 41), it is not particularly important which methods an entity selects for identifying

risks but rather that the factors that may contribute to risk are carefully considered. Professional literature implies that recognizing the key accounts of an activity that are most susceptible for error or fraud can be a good starting point for the actual risk identification (e.g. Ahokas, 2012: 33; COSO, 2005: 125). The above list already clearly indicates that the revenue accounts and accounts receivable play an important role in the sales process. Obviously, failure to recognize revenue timely and correctly may lead to impaired decision-making and unreliable financial reporting whereas careless monitoring of accounts receivable is a major source of credit loss risk. In addition to these two generic account types, more specific sources of risk from case company's perspective were identified through discussions with finance director where the financial statements and chart of accounts of the case company were examined. As a result, the following sales process related accounts were identified as possibly risky ones:

- **Commission revenues (revenue recognition)**

The commission revenues are related to the payments that the case company receives frequently from its partners. When this study started, there was slight obscurity with respect to the timeliness of the commission payments and necessity of accruals.

- **A particular receivables account (private customers)**

The "receivables from private customers" account was considered a risk due to the fact the company had not been in business with private customers in several years but still there was an account which balance was growing and shrinking monthly

- **Gift card accounts**

The gift card accounts were acknowledged during the risk identification conversations since the finance director had been informed about a possibility of their double usage by the service center staff. Also, it seemed that the gift card accounts had surprisingly sizeable balances in the balance sheet considering their perceived popularity.

- **Error account**

The error account allowed the company staff to write-off customer purchases so that the resulting loss was absorbed by the case company. In practice, it was used for revising erroneous billings, for example, when a customer was sold too expensive products in the first place. In theory, the error account, however, could have been used for writing-off personal purchases.

After the initial evaluation of risky accounts had been performed, the next step in the risk identification process was to go through the control objectives and risks listed in the case company's old sales process control matrix. The old control matrix was a remnant from an audit performed in 2009, and it had been untouched ever since according to the finance director. However, the outdated old matrix still gave a useful overview to the risks the case company had faced back then. The table 11 below illustrates the division of perceived risks along six different categories in the case company's old sales process control matrix:

Risk / Control Category	Objectives listed
Sales contracts	1
Master data maintenance	4
Sales order processing, revenue recognition, invoicing	11
Accounts receivable and collections	1
Cash applications	4
Accounting adjustments	4

Table 11: Risk/control categories per case company's old control matrix

The old control matrix was reviewed in cooperation with the case company's finance director as well and the relevance and existence of the listed risks were evaluated category by category. After careful consideration, five out of the total twenty-five risks in the matrix were ruled completely out from the control evaluation phase due to their obsolescence in today's operating environment (for reasons such as sold operations, changes in IT systems etc.).

After the irrelevant risks had been ruled out from the control evaluation, the remaining ones were subjected to a simple risk analysis together with the newly identified risks. According to Coyle (2004: 192), risk analysis should be performed as a part of the overall risk assessment process since the costs of addressing risks (i.e. controls) have to be considered against the expected benefits. In order to avoid unnecessary complexity, the analysis is often kept rather simple. One common method to analyze risks is to classify their likelihood and potential impact as low,

medium or high (Ahokas, 2012: 32; Sawyer, 2003: 157). This level of analysis in conjunction with the context-specific knowledge is likely to provide the managers sufficient information for deciding whether a given risk should be mitigated through a control activity and, if so, to which extent. In this study, the risks were analyzed using the above presented low – medium – high –method as more sophisticated tools were considered unlikely to provide any added value.

The risk analyses together with their justifications can be observed in the table 12 below, which summarizes the results of the risk assessment phase of this study and lists the risks to be considered in the control evaluation phase in the next chapter. It should be pointed out that the table 12 below only covers the risks that were considered to involve at least medium level of risk in the analysis phase. In other words, the risks that were considered to have only low likelihood and potential impact were ruled out since the scope of this study only covers the *main risks* of the case company’s sales process.

Control objective(s)	Identified risks	Risk Analysis (Medium to High importance)
<p>Sales contracts are properly reviewed and approved by appropriate personnel. Long-term commitments are profitable. Contracts are legally valid.</p>	<p>Sales contracts are done without proper authorization. Company is bound to unprofitable sales arrangements. Legally invalid contracts may not protect company in case of disputes.</p>	<p>Medium In the presence of clear approval policies the likelihood of faulty sales contracts is rather low. Unfavourable contract terms may endanger the entire existence of a company.</p>
<p>Customer master data is entered into systems accurately and correctly. Prices do not systematically deviate from the ones specified in the sales contracts. Only authorized people can make changes to customer master data.</p>	<p>Invoices don’t reach customers, disputed invoices, longer collection process, misstated revenues, incorrect valuation of receivables</p>	<p>Medium Inaccurate billing data slows down the collection process and may lead to customer dissatisfaction and unproductive extra work. Price discrepancies result in misstatements of revenue and faulty valuation of receivables.</p>
<p>Creditworthiness of new customers is always properly assessed. Only financially sound customers are accepted as credit customers.</p>	<p>Credit losses</p>	<p>High Likelihood to face credit losses is high if proper credit controls are not in place. Impact of materializing credit losses varies from tiny to substantial, depending on the case.</p>
<p>Creditworthiness of credit customers is monitored actively. If changes in credit ratings take place, necessary actions are taken.</p>	<p>Credit losses</p>	<p>High During financially unstable times companies are likely to face difficulties even if they’ve been doing well in the past. Impact of materializing credit losses varies from tiny to substantial, depending on the case.</p>

<u>Correct and timely revenue recognition</u> (service fees and commissions)	Impaired decision-making due to incorrect sales figures, unreliable financial statements	Medium Material misstatements of revenue may have rather significant impacts, especially if observed by auditors and published. For example, financing may become more difficult due to reputational damages. Faulty business decisions may also take place as a result. Likelihood depends on the complexity of the business, IT systems and the competence of personnel.
<u>All services rendered are invoiced.</u>	Failure to invoice all services rendered results in lost cash flows	Medium Impact of incomplete invoicing obviously varies on the amount of non-invoiced services/products. Likelihood in turn depends on the extent of invoicing automation and company procedures.
<u>Credit notes</u> are properly approved.	Unauthorized credit notes comprise a fraud risk (uncontrolled outflows of cash from the company)	Medium A fraud risk was considered significant enough to be addressed.
<u>Receivables are monitored and collected frequently</u> ; customers are not allowed to gather excessive credit balances The receivables account named "private customers" is investigated.	Credit losses	High If receivables are not monitored actively, the likelihood of credit losses becomes high due to large amount of customers and current economic conditions. Customer purchases vary from a few hundred euros to several thousands. The impact of materializing credit risk can become rather big if a customer with lots of accumulated purchases suddenly ends up insolvent.
<u>Write-offs of receivables</u> are properly approved.	Unauthorized write-offs are a fraud risk	Medium Continuous frauds may have a significant impact on company's financial position.
<u>Payments are timely allocated to correct receivables</u> to keep track of cash flows and customer balances.	Failure to keep track of customer balances may result in unjustified collection procedures and other issues	Medium Having incorrect accounts receivable information was considered a medium risk due to its direct linkage to financial reporting.
<u>Error account</u> is only used for appropriate purposes and its usage is monitored.	Making purchases for oneself and writing them off with error account	Medium Financial impact is likely to be medium at most due to the nature of company's products, even if someone was misusing the account. The likelihood of misuse is difficult to estimate, but the heavy organizational changes might encourage bitter employees to engage in fraud.
<u>The riskiness of gift card accounts is further evaluated</u>	Gift cards may involve a risk of double usage, the company may have outdated gift card debts in its balance sheet	Medium The likelihood of double usage was considered a significant risk as gift cards can be rather valuable.

Table 12: Summary of risk assessment phase – control objectives, identified risks and risk analysis.

In summary, recognizing the sales process objectives, going through the case company's financial statement accounts and reviewing the case company's old control matrix in co-operation with the finance director comprised the initial risk identification phase of the study. After this, the perceived risks were analyzed and the main risks were listed as seen in the table 12 above. These

steps together with the professional literature provided the necessary understanding of the company's sales process risks for the control assessment part of the study.

The table 12 above indicates the main risks of the case company's sales process, hence answering the first research question: "What are the main risks involved in the Case Company's sales process?" This risk assessment provides the foundation for the next phase of the case study: evaluating the current state of case company's sales controls and recognizing and addressing possible improvement needs.

4.2. Current state of internal controls and means of improvement

In this chapter I strive to figure out whether the main risks identified in the previous chapter are being addressed with relevant controls and whether the controls are being applied properly. Simultaneously, the current state of case company's controls is evaluated against the benchmark companies' controls and the best practices suggested by the professional literature. Based on this assessment, possible improvements are either suggested or implemented when considered necessary. A simplified control matrix approach is utilized to illustrate the linkages between objectives, risks and controls as well as the current state of controls and achieved or suggested improvements. The table 13 below illustrates this matrix:

Objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author's comments	Development (Performed? Suggested?)	Reliability level after the study
XXX	XXX – Medium/High	XXX	1 – 5 – XXX	Performed: XXX Suggested: XXX	1 - 5

Table 13: Illustration of the simplified control matrix approach used in this study

The two leftmost columns illustrate the specific control objective and the related risk assessment. The two columns in the middle describe how the risks were initially controlled and my perception of the initial effectiveness of those control activities. The two rightmost columns describe the

suggested means of improvement and the reliability level after those improvements have taken place. It should be pointed out, though, that the suggested improvements were not implemented during the project in every case but in some occasions they were rather listed as potential development ideas for the future.

The numerical evaluations of the case company's controls in the above matrix are approximated using the modified version of Ramos' (2004) internal control reliability model (as originally presented in chapter 2.2.3.2). It is important to emphasize the fact that the model is only capable of providing limited evaluation standards, these being mainly the formality and documentation of the control activities. However, exact numerical evaluation is not the main point here but it is rather a means of communicating the state of controls to the case company management. The visualization of the modified internal control reliability model can be found in the figure 5 on page 36.

From this point forward, this chapter is organized similarly to chapter 2.3 which discussed the internal controls in sales process and presented the benchmark companies' internal control practices and a generic sales process control matrix. Hence, the following sub-chapters are: sales contracts, master data, credit control, revenue recognition & invoicing, credit notes and accounts receivable. The last sub-chapter is reserved for a brief discussion over the case company-specific risky accounts that were recognized in the previous chapter.

4.2.1. Sales contracts

Only tiny portion of the case company's revenues comes from sales that take place outside the continuous customer relationships. Consequently, the establishment of sales contracts is the starting point for the majority of the case company's business. These contracts define the terms and prices that will be used in the upcoming transactions, and thus have long-term implications for the case company's cash flows and profitability.

The risks and objectives of sales contracts were briefly discussed in the risk assessment chart (table 12) in the previous chapter. The objectives were stated as follows: "Sales contracts are properly reviewed and approved by authorized personnel; long-term commitments are profitable; contracts are legally valid." Failure to meet these objectives was considered as a medium level

risk, mainly due to the fact that a large amount of contracts with unfavorable terms may basically endanger company's long-term profitability.

Two theme interviews were conducted in order to find out whether there were effective controls in place to achieve reasonable assurance over the previously mentioned objectives. Both interviews took place at the company head office and lasted around 25 minutes. The interviewed persons were working as Head of Sales and Sales Manager at the time. The full list of the questions presented in the interviews can be found in the Appendix 4.

Obviously, the primary concern with regard to sales contracts was the profitability of long-term commitments. For this reason, this was one of the first topics that were brought up in the interviews.

Head of Sales commented: *"Recently a new pricing tool was introduced through which the sales managers can calculate prices to the offers they are sending out. This new tool considers our cost structure, the workload caused by the potential customer and our EBIT targets which our previous profitability calculation template wasn't capable of. Some adjustments to the new tool were required in the beginning but they have now been addressed... Completed calculations are documented on the sales department's network drive where they can be later found if need be."*

When asked the same question, Sales Manager's comments were as follows: *"Until recently we (sales managers) have been using an "old" profitability calculation template, from 2008 or so, to calculate prices for our offers. An improved pricing tool was introduced a while ago but there were a few matters which I didn't quite grasp immediately, and I think a few other sales managers felt the same way, so it might be a good idea to go through the logic of the new pricing tool with the finance team once more. For this reason, I have still used the old tool for now... The calculations are saved into customer folders at our network drive."*

These comments indicated that the case company had been putting considerable effort into ensuring profitable pricing terms. However, it was rather clear that at the time of the interviews there was slight confusion with regard to which pricing tool was to be used. On the other hand, these tools were not the only means for determining prices, as Head of Sales reminded. Market prices had to be considered as well. Nonetheless, the obscurity related to pricing tools must have

had an impact on the achievement of this objective as the old pricing tool did not consider all the necessary customer profitability variables.

Another relevant objective in this category was proper approval of customer contracts. When asked about the authorization policies, the Head of Sales responded as follows:

“It’s been agreed that the sales managers can send offers to their own customers, that’s fine from my point of view, but there’s a policy that the actual contracts are signed either by me or the CEO... In practice there is a standardized process but it just hasn’t been mapped.”

Less surprisingly, his statement was backed by the comments of the Sales Manager:

“All sales managers are entitled to send out offers to potential clients but the sales contracts are signed by the Head of Sales or CEO.”

Judging by the above comments and the interviews in general, it was acknowledged that the sales department had an established contract approval policy in place and the sales contract process was monitored by the department head. The sales team consists of the Head of Sales and five Sales Managers, which makes it extremely unlikely that any of the Sales Managers would engage in any activities disapproved by the department head as such acts would not go unnoticed.

Legal validity was also listed as an objective with respect to customer contracts, the perceived risk being that improper contracts may not provide legal protection for the case company in case of disputes. When asked about this, both interviewees stated that there is a standard contract template available in the company intranet which is to be used. However, Head of Sales pointed out that he was not completely satisfied with the current state of legal terms as there had been a few cases where the customers had demanded rather significant changes to the case company’s contract drafts. Unfortunately, I don’t have the expertise to evaluate the quality of the legal terms and thus I cannot take a stand with regard to the perceived issue.

To summarize the two interviews, I felt that the necessary controls with regard to customer contracts existed. Profitability calculations were being done and documented, clear contract approval policies were in place and a lawyer-approved contract template was being utilized. The issues were more associated with the factors contributing to the effectiveness of these control activities: functionality of the pricing tool and the perceived quality of legal terms.

The case company did pretty well in comparison with the three benchmark companies. Company A mentions contract templates and profitability calculations as means to achieve their control objectives in this category whereas companies B and C only refer to profitability calculations in their control matrices. However, standardized contract templates and sales contract approval policies are rather likely to be in place in companies B and C as well since these are quite basic controls. As noted earlier, companies often have controls in place even if they are not explicitly documented.

The table 14 below summarizes the evaluation of the case company’s sales contract controls and the suggested steps for improvement. No actual changes took place during this study.

Objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author’s comments	Development (Performed? Suggested?)	Reliability level after the study
Profitable long-term commitments	MEDIUM Company is bound to unprofitable sales arrangements	Calculations are done to ensure profitable pricing and they are archived.	Reliability level 2 Comprehensive documentation and repeatable controls exist. However, lack of consistency was observed with regard to prof. calculations	Suggested: A work shop should be arranged with sales dept. with regard to pricing tool: which to use, status of the new tool?	Reliability level 2 No changes during the project
Sales contracts are approved by authorized personnel	MEDIUM Sales contracts are done without proper authorization	Approval policy exists – contracts signed only by Head of Sales or CEO	Reliability level 4 Comprehensive documentation of approval in the form of archived contracts. Control integrated into operations. Standardized process.	Not necessary	Reliability level 4 No changes during the project
Contracts are legally valid	MEDIUM Legally invalid contracts may not protect company in case of disputes; potential customers may choose a competitor instead of the case company	Legal dep. approved contract template is being used	Reliability level 3 Comprehensive documentation of usage exists in the form of archived contracts. Control integrated into operations. Standard process. Implied lack of quality with respect to legal terms.	Suggested: It might be good to discuss and address the problematic contract points with the company lawyer	Reliability level 3 No changes during the project

Table 14: Evaluation of case company’s sales contract related controls

4.2.2. Master data

Robust customer master data is the first precondition for an effective sales process as proper data set up and maintenance can significantly increase the accuracy of billing and reduce disputes (Mukerji, 2012). In the context of the case company, this is well true since a great portion of its customers are charged through invoices.

The following objectives were recognized with regard to master data during the risk assessment: “Customer master data is entered into systems accurately and correctly; Only authorized people make changes to customer master data.”

Failure to meet these objectives was considered to pose a medium-level risk for the case company. This judgment was justified by pointing out that inaccurate billing data significantly slows down the customer payments and is likely to result in customer dissatisfaction and unproductive extra work. Furthermore, price discrepancies lead to misstatements of revenue and incorrect valuation of receivables.

Primary means of data collection regarding master data controls was a theme interview with the case company’s Sales Support Specialist who is responsible for implementing new customers into company’s operative systems. Her responsibilities also cover making changes to the existing master data. The full list of questions can be found in the Appendix 5.

After the initial small talk, the actual interview was started by asking the Sales Support Specialist how the data of a new customer is entered into the case company’s billing system and what information is involved.

“The basic customer data is derived from the sales contracts (Business ID, payment method, address, contacts etc.) and entered into the billing system as a new customer profile. After this, a pricing template is created (if the customer prices differ from the standard price list) and linked to the customer profile. Creation of the price template is probably the riskiest phase of the customer data set-up since a lot of high detail data is manually entered into the system. Also, the system view is pretty “heavy”, making it easy to accidentally misplace data.”

These comments indicate that price discrepancies were considered an actual risk from her point of view as well. Obviously, a natural follow-up question was whether the correctness of the

implemented customer data was being verified somehow afterwards. The response to this question was:

“At present, the data is not reviewed after the initial input unless a specific reason occurs... Going through all the data would probably be irrational in terms of cost – benefit ratio.”

Inquiries were also made about the responsibilities and documentation of the customer set-up process. According to the interviewee, the set-up process is centralized to her and a few other staff members, no others are authorized to create new customer profiles. She also pointed out that a detailed description of the responsibilities and phases of the process had been recently created. This document was reviewed by me and it was considered informative and useful.

The second objective with regard to master data was that only authorized people make changes to existing records. In professional literature this was specifically stressed by FSN & Oracle (2013). According to their white paper, failure to protect the customer records from unauthorized changes may give rise to losses of cash flow through disputed invoices, loss of productivity and even financial losses due to fraudulent manipulation of master data. With this in mind, the Sales Support Specialist was asked about changes to master data and average users' access rights, especially with respect to modification of price lists. Her response was as follows:

“I think that basically everyone with an access to the ERP system is capable of changing the basic information, such as billing address, contact information etc. However, I believe that the access rights are restricted so that only selected people can alter the price lists and reference structures... There is an official policy with respect to changes to customer data, and it's been communicated to everyone. Whenever a person recognizes a need to update master data, they inform us through email and we make the changes... Emails are not archived in a specific manner.”

However, as she wasn't sure about the access rights, another person responsible for creating price lists (Application Manager) was inquired about the matter. She was able to inform that only Sales Support team and Development team (her team) had the access rights to modify price lists. In order to acquire some further evidence, I personally tested the functionality of the restrictions with his extensive access rights to the system (finance team, administrator). It turned out that he was not able to modify the price lists, which implies that the restrictions would be effective. Furthermore, the manager responsible for the entire ERP system was inquired about the billing

system access rights in general. She stated that access rights are managed by her and assigned in accordance with people's job descriptions as they are hired. Additionally, she provided a list of users showing their access levels in the system.

As a final point, the Sales Support Specialist was asked whether the billing system was utilizing any automatic data quality tools which were recommended by Mukerji (2012) as a means to ensure high-quality master data (see chapter 2.3.2.). Her comments were:

"There is a standard format in which the customer data is entered into system, but not all active fields are relevant. The person entering the data has to be aware of the irrelevant fields as the system really doesn't provide any guidance for the user... An automatic audit tool exists to prevent duplicate customer entries."

In conclusion, an established and well-documented process with clear responsibilities exists regarding master data but the process is still somewhat prone to error due to large amount of manual work and lack of after-implementation check-ups. However, this mostly applies to prices and not that much to billing information (address, e-mail, e-invoicing data). The implication of this is that invoices are likely to be sent to correct addresses but there is a minor risk that the pricing is systematically wrong.

This risk is extensively considered in the benchmark companies' control matrices and professional literature. All benchmark companies report that they perform a check-up every time a new customer is created to ensure that the data entered to system matches with the contract data. Ahokas (2012: 102) and Mukerji (2012) emphasize the importance of master data check-ups as well. Undoubtedly, the frustration and extra work induced by a systematic pricing error that has gone unnoticed can be enormous. For this reason, the case company should obviously consider assigning an employee to review the newly created customer data records, with emphasis on the price lists.

Also, the IT controls of the customer creation phase could be more extensive. The system has an audit tool for duplicate customer records but it doesn't provide any guidance for filling out the correct fields. On the other hand, the process has been centralized to a few professionals which makes this less of a threat.

With respect to the second objective (“only authorized people can make changes to customer master data”), both negative and positive matters were found. To begin on a positive note, a central e-mail address has been established to handle all requests for master data changes, as previously suggested by Mukerji (2012) (see chapter 2.3.2), and this policy has been extensively communicated throughout organization⁶. Also, the access rights to pricing data are properly restricted. However, basically anyone can make changes to the basic customer data (addresses, e-mail etc.) which often functions as the basis for invoicing. This is a source of moderate risk as incorrect changes may lead to a situation where invoices won’t reach customers anymore.

The table 15 below summarizes the control assessment and improvement suggestions regarding master data objectives:

Master data objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author’s comments	Development (Performed? Suggested?)	Reliability level after the study
Customer master data is entered into systems accurately and correctly	MEDIUM Invoices don’t reach customers, disputed invoices, longer payment processes, misstated revenues, incorrect valuation of receivables	Customers are created to systems in a centralized manner by a team of specialists Automated audit tool for duplicate entries	Reliability level 2 Customer creation is a formal, properly documented process handled by a centralized team of professionals. However, the lack of after-creation check-up makes the process prone to errors.	Suggested: Someone else than the person who created the customer profile and price list should be assigned to review the entries for correctness instantly after the set-up has taken place. A documentation of check-up should be archived.	Reliability level 2 No changes during the project
Only authorized people can make changes to customer master data	MEDIUM Invoices don’t reach customers, disputed invoices, longer payment processes	A policy of centralized customer data changes Access rights to modifying price lists are restricted to selected people	Reliability level 2 A formal process in regards to customer data changes is in place. Basically, documentation of requests exists as long as emails are not deleted. Still, employees can ignore the process and make changes to invoicing data if they wish.	Suggested: Disabling average users’ possibility to change invoicing data should be considered. Formal archiving of the change requests should also be considered.	Reliability level 2 No changes during the project

Table 15: Evaluation of case company’s master data related controls

⁶ Statement based on my observations during his time at the case company

4.2.3. Credit control

Most companies that don't deal directly with consumers offer their customers a possibility to pay their purchases through a credit line. Credit lines are generally considered as a convenient way to do business between companies (Rittenberg et al., 2012: 386) and they make frequent wire transfers unnecessary even if purchases are constantly made. This way both the vendor and the buyer avoid extra work. However, regardless of the convenience, the vendor always faces one slight disadvantage when credit is issued to a customer: the risk of not receiving payment in the future (i.e. credit risk). This risk is strongly present in the case company's operations as well since a significant portion of its revenues comes from credit sales.

For this reason, two credit control related objectives were recognized during risk assessment: 1) "Only financially sound customers are accepted as credit customers in the first place"; and 2) "Creditworthiness of credit customers is monitored actively. If changes in credit ratings occur, necessary actions are taken". These objectives are quite self-explanatory, the ultimate point obviously being that only customers who can be trusted to pay their debts are issued credit.

The likelihood of credit risk materialization was considered high due to the unstable economic circumstances and case company's large customer base. The possible impact of materializing credit risk clearly varies, depending on the individual case and amount of credit issued.

Several discussions with the case company's finance director took place in order to find out whether the achievement of these objectives was being reasonably assured in the case company. However, an actual interview was considered unnecessary since I was working closely with the finance director during the entire study. Nevertheless, notes were always taken when useful information was brought up in these conversations.

The conversations with the finance director indicated that the objective of issuing credit lines only for creditworthy customers was being met rather well in her opinion and established policies and processes existed. The company hadn't run into credit losses during the time the finance director had been working in the company (around one year). Obviously, checking new customers' creditworthiness is nowadays rather straightforward as there are several credit rating companies offering affordable online services. The case company was subscribing to Finnish credit rating

agency's online portal which allowed checking of a company's credit rating in a few simple clicks. As a whole, the case company's initial credit check process was as follows:

Sales Manager engages in contract negotiations with a potential customer and inquires the finance team about the creditworthiness of that entity → the finance team checks the credit rating of the potential customer from the credit rating agency's web site (rating available in a few minutes) → If the company's credit rating is anything else than C (the scale ranges from AAA to C), credit customership can be granted. If the rating is C, another payment method is to be negotiated → the credit rating report is archived by the finance team as an evidence of the inquiry.

Even if the process was simple and operating well for the most part, the finance director acknowledged a few recent cases where the process had failed due to insufficient instructions to Sales Managers. In these cases new customers had been issued credit without proper approval from the finance team. The incidents had occurred when the parent company of a new customer had already had an existing credit line in the case company's billing system, and the Sales Manager and the Sales Support team had rationalized that it is acceptable to create a new credit customer under the hierarchy of the existing parent company. However, this logic was not considered tolerable by the finance director who pointed out that under limited liability the parent company is in no means responsible for its subsidiaries' debts in case of insolvency. Check of creditworthiness from the finance team should have taken place in these cases as well.

This misunderstanding was fixed during this study by clarifying the credit policies of the case company and introducing a template which Sales Managers are to fill out and deliver to Sales Support in order to have a new customer created to an existing hierarchy. The templates are archived as documentation.

The conversations also revealed that a rather significant key control was lacking in the case company's credit control process due to the outdated ERP system: the possibility to assign an automated credit limit for customers. This issue also surfaced in the interview with the Sales Support Specialist. As previously discussed, companies often set customer-specific credit limits to their ERP systems to ensure that customer's purchases don't exceed the credit risk exposure that the vendor is willing to accept (Rittenberg et al., 2012: 387; FSN & Oracle, 2013; Ahokas, 2012: 103). The case company did not have an effective means to ensure that individual customer's purchases don't exceed, let's say, 100k€ during one day, even if extremely unlikely. This

imperfection had somewhat large impact on the monitoring of accounts receivable, which will be discussed later on in the chapter 4.2.6.

However, this sort of IT control defect does not seem to be entirely unique to the case company as the benchmark companies B and C both reported the same limitation in their credit control processes. Initial credit checks in conjunction with active monitoring of receivables were the main credit control tools for those companies. It might be that in reality this type of automated control is more difficult and costly to implement than the professional literature implies.

Since there was no effective means to set credit limits, the second objective of credit control - active monitoring of customers' credit rating - was of high importance for the case company. I find it a bit strange that the benchmark companies did not mention monitoring of customers' creditworthiness in their control matrices even if they were in the same situation. A customer may have a perfect triple A credit rating today, but companies' operating conditions tend to change quickly in the current business environment, and in one month's time, company's creditworthiness may have altered significantly. Active monitoring of creditworthiness thus strives to identify customers that have become unacceptably risky before they run into financial difficulties and issues with payments emerge.

The finance director pointed out that the same online portal being used for initial credit checks served also as the basis for the monitoring part of credit control. The process described by her was actually rather convenient. After a new credit customer is accepted, the finance team adds the customer to a "monitoring list" maintained by the credit rating agency. Whenever the credit agency recognizes a negative change taking place in any of the companies on the list, the finance director is automatically informed through an email and can start necessary actions. These actions normally involve calling the customer directly and informing them about the loss of their credit purchase option.

Despite the apparent convenience of this arrangement, there was a significant issue with the monitoring list when the conversations with the finance director took place. As previously discussed, the organization had gone through significant changes in the past which had had unfortunate implications on some of the company's processes. One such example was the maintenance of the monitoring list, which had been neglected and led to a situation where the credit rating reports that finance director was receiving from the credit rating agency were not

relevant anymore. Some customers on the reports had quit ages ago and some customers were not present even if they should have been.

In order to assess the effectiveness of this control, a complete list of case company's credit customers was extracted from the ERP system to an Excel spreadsheet and compared with the current monitoring list. Usage of some data mining functions was required due to the fact only six rightmost numbers between the monitoring list ID and the internal customer number matched. The findings were quite surprising: there were 1887 companies being followed-up on the monitoring list, and merely 1021 of these still existed in the ERP system. This indicated that almost half of the companies on the monitoring list were not case company's customers anymore. Moreover, there were 2918 credit customers listed in the ERP system of which 1900 were not found on the monitoring list.

It turned out, however, that the amount of credit customers found in the ERP system (2918) was somewhat inflated due to the fact that ancient customer data had been retained. For this reason, some manual filtering of the data was still required. Finally, after all relevant credit customers had been determined, the old monitoring list was deleted and the new one was uploaded to the credit rating agency's portal. The final outcome of this exercise was an up-to-date monitoring list which could be trusted to deliver the finance director only relevant credit rating reports. Obviously, it was acknowledged that the only way to keep the monitoring list updated in the future was to add and remove customers from the list as soon as any new developments occurred. Accordingly, clear responsibilities were assigned and communicated to relevant personnel.

I consider active monitoring of creditworthiness as a valuable credit control tool as it allows effective recognition of customers who have become unacceptably risky over time. The initial credit check only protects the vendor for a limited period of time. As already pointed out, reviewing customers' creditworthiness after the initial check was not mentioned in the benchmark companies' control matrices which implies that the case company might be ahead of its peers in this area. With regard to the recommendations of professional literature and generic control matrix, most of them were related to fine-tuning the credit limits and automated credit checks (see chapter 2.3.3) which was not possible in the context of the case company. For this reason, they are not further discussed here.

The table 16 below summarizes the credit control evaluation and points out the performed and suggested improvements in this field of internal control:

Credit control objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author's comments	Development (Performed? Suggested?)	Reliability level after the study
Only financially sound customers are accepted as credit customers	HIGH Credit losses are likely if proper credit controls are not in place. Impact of materializing credit losses varies from tiny to substantial, depending on the case.	Creditworthiness of every potential customer is checked by the finance team. Credit rating report archived as documentation of the inquiry. Clear policy on acceptable credit ratings.	Reliability level 2 Credit check is a formal, properly documented process with established policies. However, it turned out that there was a slight misunderstanding (creation of customers to existing hierarchies). Lack of credit limits.	<u>Performed:</u> Clarified instructions for sales people (all customers subject to credit check); a template created for adding a new customer to existing hierarchy. <u>Suggested:</u> Inquiring the ERP provider about the credit limit possibility	Reliability level 3
Creditworthiness of credit customers is monitored actively. If changes in credit ratings occur, necessary actions are taken.	HIGH Credit losses are likely if proper credit controls are not in place. Impact of materializing credit losses varies from tiny to substantial, depending on the case.	Automated updates regarding changes in customers' creditworthiness to finance director. When rating falls under acceptable, customer's credit line is withdrawn.	Reliability level 1 Basically a formal and functioning process with high level of automation, but ineffective in practice due to neglected updates to monitoring list.	<u>Performed:</u> The monitoring list was updated to correspond to the current credit customers of the company. Clarified responsibilities regarding list maintenance.	Reliability level 4

Table 16: Evaluation of case company's credit control related controls

4.2.4. Revenue recognition & invoicing

Two internal control objectives presented in the risk assessment chart (table 12) are discussed under this chapter: correct and timely revenue recognition and completeness of invoicing.

To begin with, three separate sources of revenue are recognized at the case company but only two of them were considered meaningful in the context of this study: service fees and commission revenues. The service fees comprise the majority of the case company's revenues and can thus be regarded as most important to recognize properly. Service fees are based on the sales contracts and they are charged from the customers' as services are rendered.

It is important to note that the case company doesn't actually sell any products of its own but rather acts as an agent between its customers and the end-producers. The service fees are added on top of the prices of the end-products of which not a single penny is recognized as case

company's revenue. Commission revenues, in turn, are the "incentives" that the case company receives frequently from the above mentioned end-producers.

When assessing the revenue recognition practices and controls, the finance director was the main source of information due to the fact that she is responsible for financial reporting and period-end closing at the case company. The data collection was based on conversations and inquiries, official interviews were not arranged. It is acknowledged that this can be seen as a deficiency by some but in practice the data would not have been any different if interviews had been arranged. Notes were always taken when useful information surfaced.

As pointed out earlier, failure to recognize revenue timely and correctly often leads to impaired decision-making and unreliable financial reporting. In worst case scenario, material misstatements spotted by external auditors may even cause difficulties with financiers due to lack of trust. Based on these claims, failure to achieve the objectives in this category was considered a medium-level risk.

The conversations with the finance director revealed soon that the service fee revenues seemed to be well controlled in the first place which clearly was the expected discovery. However, I wanted to make sure that the case company's revenue recognition practices were in line with the recommendations of professional literature. According to Yoo (2003), revenue can be recognized when all the following conditions are met: (1) persuasive evidence of a (sales) arrangement exists, (2) delivery has occurred or services have been rendered, (3) the seller's price to the buyer is fixed or determinable and (4) collectability is reasonably assured (Yoo, 2003).

In case company's case, there was an automated IT control implemented in the ERP system which automatically recognized the revenue as soon as a customer purchase was invoiced. The invoicing, in turn, was done immediately as a reservation was entered to the centralized reservation system. This might sound a bit straightforward but it turned out that it the recognition process fulfilled all the conditions suggested by Yoo (2003).

First, persuasive evidence is born when a customer sends a purchase order from the case company's online portal or makes a call to case company's sales service. Second, the service is completely rendered as soon as the ticket reservation is entered to the centralized reservation system. A ticket in customer's name is born at this point ("the product is delivered"). Third, by the

time of the reservation a fixed price has also been determined. Last, collectability is reasonably assured through credit checks and usage of other risk-free payment methods (credit cards etc.). Based on these observations, I was reasonably assured that an effective control exists to guarantee proper recognition of service fee revenues.

With respect to the commission revenues, there was slight obscurity with respect to their timeliness when this study was started. The finance director explained her view of the commission revenue process when the topic was initially discussed as follows:

“We have this commission collection agency as our partner. They receive the information about the hotel reservations we make to our customers and collect the commissions that we have earned on behalf of us. However, at the moment I’m not 100 % sure whether the payments we receive at the end of each month belong to that period or whether we should be accruing them somehow.”

I started to make inquiries around the case company in cooperation with the finance director and rather soon positive findings were made. One person in the reporting team turned out to be well aware of the status quo and was able to shed light on the process. Moreover, the finance director arranged a conference call with the commission agency to dig even deeper. As a result, the following information was extracted:

- An automated script sends hotel reservation information to the commission agency as soon as they are transferred to case company’s ERP system and invoiced (the following night) →
- Commission agency requests the (case company’s) commissions from hotels as soon as customer’s accommodation has come to an end →
- Hotels pay the commission to the commission agency →
- The commission agency pays the commissions collected (during that month) to the case company’s account every month’s last day.

The information obtained showed that the commissions paid to the case company by the end of each month actually belong to that period and no revenues need to be accrued. This was once more ensured by analyzing the payments received during the period of January to July.

It was also agreed with the commission agency that the finance director will receive a summary report of the commissions collected at the end each month. This control allows the finance team to compare the report with the received payments and to ensure that the book-keeping team in

Estonia has entered the commissions properly to the ERP system. In my opinion, effective commission revenue controls could be deemed to be in place after the process was clarified.

All in all, it turned out that revenue recognition controls were functioning quite well in the case company. Stallworth & DiGregorio (2005) stated that internal controls should provide specific guidance regarding how to, and how not to, record transactions. However, in case company this type of guidance wasn't really necessary due to the fact that automated IT controls were doing most of the work. This is always good as the possibility of human error is eliminated.

Revenue recognition is such a company-specific procedure that comparison of case company's controls with literature and the benchmark companies proved rather futile. The main reason for this was that hardly any generic best practices were observed in the professional literature, except for the basic conditions that have to be met (i.e. Yoo, 2003). The benchmark matrices, in turn, contained mostly ambiguous descriptions of what controllers' month-end analyses involve. However, comparison in the hopes of improvement ideas wasn't even considered compulsory due to the well-functioning controls of the case company. In my opinion, it doesn't matter how proper revenue recognition is ensured as long as it is done, and in case company this seemed to be the case. The table 17 below summarizes the evaluation of revenue recognition controls:

Revenue recognition objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author's comments	Development (Performed? Suggested?)	Reliability level after the study
Correct and timely recognition of service fee revenues	MEDIUM Material misstatements of revenue may have rather significant impacts, especially if observed by auditors and published. For example, financing may become more difficult due to reputational damages. Faulty business decisions may also take place as a result.	Automated IT control in place to recognize revenue as soon as invoices are created. Invoicing means that the service has been completely rendered.	Reliability level 4 Automation minimizes risk of human error, no subjective judgments are required. Fully integrated to operational aspects of business. Highest possible level of standardization. Control is in line with revenue recognition requirements.	Not necessary	Reliability level 4
Correct and timely recognition of commission revenues	MEDIUM See above	Automated IT control to send the reservation information to commission collector. Payments automatically received.	Reliability level 2 Basically a functioning process even initially but formality and documentation were lacking. Uncertainty with regard to necessity of accruals.	<u>Performed:</u> Commission process was clarified and mapped. Ensured that no accruals are needed. A monthly report from the collector was established to ensure proper payments.	Reliability level 4

Table 17: Evaluation of case company's revenue recognition related controls

Another control objective falling under this chapter is completeness of invoicing. This is an essential control objective in the sales process as a company obviously won't be receiving payments for sales that are not invoiced (i.e. lost cash flows). You don't pay your electricity bill if you don't receive an invoice.

This risk was considered to be of medium-level in the risk assessment phase. The impact of incomplete invoicing can obviously be significant for a company if wide-ranging failures are taking place. However, it is such an essential part of doing business that it's unlikely that a company with any financial control would let lack of invoicing to be happening on large scale.

In order to acquire understanding of how completeness of invoicing was being ensured at the case company, Customer Service Specialist and Service Manager A were interviewed together with respect to this subject. The interview lasted around half an hour. Entire list of questions for this interview can be found in Appendix 6.

When inquired about invoicing controls, the Service Manager A commented as follows:

“As soon as the customer’s reservation is processed in the central reservation system, the data is transferred to our ERP system which automatically forms an invoice based on the reservation data. There is high level of automation, making the process quite trustworthy... However, there are also cases where the Customer Specialist decides to leave the invoice pending for some reason. This might be due to a likely change or a need to add more products or passengers to the same invoice a little later. In these cases the invoice has to be manually transferred to processing... Basically it is not possible that an invoice would be forgotten since every Customer Specialist is instructed to follow the list of non-invoiced transactions in the ERP system and to deal with them as soon as possible and we (Service Managers) enforce it too. There is also an automated report of non-invoiced sales generated by the ERP system that is sent to Service Managers and finance team at the end of every week.”

However, I wanted to probe a little further and inquired whether under any circumstances it was possible that an erroneous reservation data, for example, would prevent an invoice from being processed successfully. Customer Service Specialist responded:

“Yes, it is possible and these things happen since the reservations can be quite complex. Whenever there is an error that prevents the invoice from being processed, the specific case ends up on a list

of non-validated transactions. We (Customer Specialists) frequently follow this list as well and make corrections as soon as possible.”

I reviewed both of the above mentioned lists in the ERP system and noted that they are conveniently available in the main window and easy to follow. At the time of the review there were a few non-invoiced and non-validated transactions pending. Based on all the evidence, it seemed that proper controls were in place and they were functioning effectively to provide reasonable assurance over completeness of invoicing.

With respect to the literature and benchmark matrices, there weren’t many useful ideas to be adopted for the case company. Ahokas (2012: 105) suggested that a report of non-invoiced deliveries should be monitored to ensure completeness of invoicing, but this was already thoroughly being done at the case company. Mukerji (2012), in turn, discussed the benefits of automated billing process which already had been adopted as well. The benchmark matrices state that controllers follow non-invoiced orders which is basically what Ahokas suggested. Luckily, the case company’s invoicing controls seemed to be functioning to such an extent that no actual improvement ideas were considered necessary.

The table 18 below summarizes the evaluation of invoicing completeness:

Revenue recognition objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author’s comments	Development (Performed? Suggested?)	Reliability level after the study
All services rendered are invoiced.	Medium Risk of lost cash flows. Impact of incomplete invoicing obviously varies on the amount of non-invoiced services/products. Likelihood in turn depends on the extent of invoicing automation, IT systems and procedures.	Automated invoicing process. Simple monitoring lists for non-invoiced and non-validated transactions that are actively followed-up. Finance team and Service Managers receive reports about non-invoiced transactions.	Reliability level 4 Automation minimizes risk of human error. Fully integrated to operational aspects of business. Formal process, documentation exists (reports). Several people committed to monitoring of proper invoicing.	Not necessary	Reliability level 4

Table 18: Evaluation of case company’s invoicing completeness controls

4.2.5. Credit notes

As previously discussed, credit notes can be regarded as “negative invoices”, and generally they are used for reimbursing customers’ purchases when there has been a price discrepancy or some other issue that has resulted in a refund claim. In practice, there are two ways to handle credit notes: they are either paid out to customers’ bank accounts in cash or the amount is reduced from the customer’s upcoming purchases.

Credit notes are an integral part of the case company’s sales process as well. They are particularly common in case company’s operations due to the fact that customers often have a possibility to make changes or cancel their reservations after the initial purchase. Credit notes are utilized in these cases. However, as pointed out, majority of case company’s business takes place in established customer relationships which means that reimbursing customers’ bank account is seldom required and credit notes are rather refunded from customer’s future purchases. Deductions from upcoming purchases are a safer alternative for the company since no actual transfers of money take place. This leads to a smaller incentive to attempt a fraud since no cash is available. In a case where money is actually transferred, an employee might try, for example, to have the money paid to his own bank account instead of customer’s.

Less surprisingly, the manipulation of credit notes and refunds are particularly popular methods of defrauding the business (FSN & Oracle, 2013). A risk is always present when cash leaves the company. For this reason, credit notes were considered to comprise a medium-level risk. The control objective is simple: credit notes are properly approved.

In order to figure out whether credit note issuance was effectively controlled, an interview was arranged with Service Manager B. She had her own team of Sales Specialists to manage and was thus expected to be well aware of the everyday operations. The interview was conducted over phone and lasted around half an hour. Appendix 7 presents the interview questions.

Before the interview, the credit note instructions⁷ directed at Sales Specialists were reviewed to build an initial understanding of how credit notes were to be handled in practice. Then, at the start of the interview, Service Manager B was described how the issuance of credit notes should be

⁷ Available for sales personnel in case company’s intranet

done according to the intranet instructions and she was requested to comment on the described process. The response from her part was slightly surprising:

“Those instructions are hopelessly outdated. First of all, the person who is named responsible for paying the refunds to customers’ accounts does not work in the company anymore... The process is slightly unclear at the moment, but as far as I know the finance director is first notified and she then communicates the payment request to the payment team. Still, clarified instructions with regard to this matter would be more than welcome... However, outgoing payments are requested quite seldom. The normal procedure is that the refund amounts are deducted from customers’ accounts payable or future purchases.”

The interview strongly suggested that the process was not in proper shape even if cash refunds were not frequently taking place. The findings were communicated to the Finance Director who was already expecting something like this. She outlined that a clear process for outgoing credit note payments had to be established immediately and arranged a meeting with Service Managers, in which a simple approval process was agreed upon. The new approval process is illustrated in the figure 7 below:

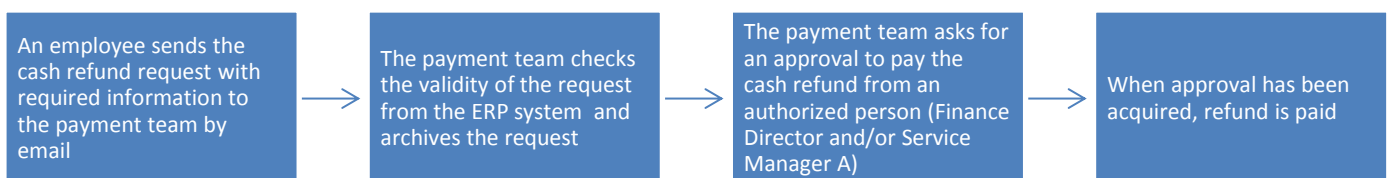


Figure 7: The agreed-upon credit note process

Even if there wasn't a reason to suspect that fraudulent credit notes would have been issued at the case company, the unclear approval process was considered a significant risk. As previously discussed, clearly communicated policy regarding which employees are entitled to issue credit notes and on which basis is one of the main defense mechanisms against fraudulent activities in this field (Ahokas, 2012: 105).

The sales personnel were informed about the approval process by Service Managers in team meetings as soon as the instructions had been agreed upon. In addition, the clarified instructions

were uploaded to the company intranet which serves as an important internal communication channel when new policies or practices are being implemented.

After the process had been clarified and extensively communicated throughout the organization, the perceived risk was considered sufficiently mitigated as the actions taken reasonably assured the achievement of the control objective (“credit notes are properly approved”). Only payments approved by one of the authorized persons will be processed.

Similar approaches to credit note control were adopted by the benchmark companies B and C who reported that Controller’s approval is required for credit note payments. Moreover, they are archiving the approved credit notes for audit and monitoring purposes. These are exactly the same controls that the generic control matrix suggests. Company A, in turn, reports the usage of a detective monitoring report, rather similar to the one described by Rittenberg et al. (2012: 420) previously (see chapter 2.3.5). According to company A’s matrix, “a benchmark report (comparing the issuance of credit notes and amount of returned goods between different sales units) is reviewed monthly by Controller”.

This type of benchmark/summary report might prove useful at the case company as well since it would allow the finance team to easily notice if any alarming trends appeared. The current process doesn’t enable the case company to follow-up on credit notes in broader terms even if individual credit notes are properly approved. Mukerji’s (2012) recommendations (see chapter 2.3.5.) were mostly related to fine-tuning the credit note process and were not considered essential in terms of this study. The table 19 below summarizes the credit note control evaluation:

Revenue recognition objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author’s comments	Development (Performed? Suggested?)	Reliability level after the study
Credit notes are properly approved.	Medium Unauthorized credit notes comprise a fraud risk (i.e. uncontrolled outflows of cash from the company.)	Unclear	Reliability level 1 Unclear process. Only outdated instructions available for sales personnel.	<u>Performed:</u> A clear policy and instructions for credit note payments were established. Documentation now exists. Training took place. Fully integrated to operations. <u>Suggested:</u> A summary benchmark report would allow monitoring credit note payments over time and between teams.	Reliability level 3

Table 19: Evaluation of case company’s credit note controls

4.2.6. Monitoring accounts receivable

Collecting receivables from customers brings company's sales process to a conclusion. Clearly, this part of the revenue cycle is also among the most important ones since revenues that aren't successfully converted into actual cash flows in due time do not count for much. The sooner the receivables are collected, the sooner the company can put the fruits of its operations into productive use. Effective monitoring and collection of receivables are important parts of the case company's sales process as well since, as previously discussed, a major part of its income comes from credit sales.

At the case company, three different internal control objectives associated with accounts receivable were recognized during the risk assessment phase:

- ✓ Accounts receivable are monitored and collected frequently.
- ✓ Write-offs in accounts receivable are properly approved.
- ✓ Payments are timely allocated to correct receivables.

Clearly, the motive behind the first objective is to ensure timely payments from customers and minimize credit losses. As previously pointed out, active monitoring of accounts receivable was the case company's only means to guarantee that customers don't gather excessive credit balances and take advantage of their credit lines due to lacking credit limit controls (see chapter 4.2.3). Failure to achieve this objective was considered a high-level risk due to the fact that some payments might never be received (or they will be received unacceptably late) if proper monitoring of accounts receivable didn't take place. Some companies tend to "forget" their debts on purpose or significantly slow down their payments if they notice that payments are not enforced⁸. It is also possible that either the case company or the customer makes a mistake in the process or has incorrect information (e.g. flawed invoicing address) due to which payments are not occurring.

The responsibility of accounts receivable in the case company was divided between the Finance Director and the Accounts Receivable team (hereinafter: AR team) located in Estonia. The finance

⁸ Statement based on my work experience

director's main responsibility was to ensure that no credit losses occur, deal with urgent matters and to oversee the process in general whereas the AR team handled the everyday routines for the most part. The information regarding accounts receivable process was gathered through documented discussions with the Finance Director and e-mail conversations with the Manager of the AR team. I have also participated in the process personally during my stay in the company.

When the initial conversations with the finance director took place, she seemed rather content with the monitoring process and did not feel that there were any major deficiencies (apart from the credit limit issue). According to her, the accounts receivable monitoring controls were as follows:

- The AR team sends the finance director an age-distributed list of credit customers' open receivables every second Monday. Finance Director reviews the customer-specific balances and decides whether any immediate actions are required. For example:
 - If a small customer has a large amount of unpaid purchases, it may be necessary to contact the customer in order to avoid excessive credit risk exposure (due to credit limit issue) and possibly set credit hold until existing balance has been paid off.
 - If a customer has overdue payments that haven't been paid regardless of reminders it may be necessary to call the customer and inquire them about possible issues. Possible credit hold.
- In addition, the AR team independently sends out reminders to customers about due invoices once a month. If invoices still remain unpaid after the first reminder, the finance director is inquired whether another reminder will be sent or whether a personal contact should be made.

If reminders and contacting the customer don't pay off, the finance director decides whether a collection agency should be involved. This has been necessary quite seldom, however, since all customers are subjected to credit check before accepting them as credit customers and their credit ratings are monitored frequently. The fact that no credit losses had been encountered during finance director's one year tenure implied that the credit controls and accounts receivable controls had been functioning rather well together and could be considered reasonably effective.

The e-mail inquiries to the manager of the AR team did not provide any additional insights. I described my perception of the monitoring process to her and asked her to comment on it. According to her, “the description was accurate and there wasn’t really anything important to be added”.

Even if the controls seemed rather effective, there was one matter I considered worthy of attention: the bi-weekly list of customers’ balances was a 50-page PDF-file which did not allow any filtering, sorting or analysis. The receivables were alphabetically ordered in the list which meant that all the 50 pages had to be reviewed to discover potentially problematic cases, and less surprisingly this took a while.

I looked into the issue and noticed that it was actually possible to pull out the report from the ERP system as a CSV-file which could be opened and edited in Excel. After figuring this out, I created a simple macro program which formats the messy CSV-report into a convenient table and allows the user to sort and analyze the receivables based on their age and amount. Now, with a few mouse clicks it was possible to discover the overdue payments and disturbingly sizeable customer balances which previously had required reviewing a 50-page PDF-file. Clearly, after this discovery the AR team was instructed to deliver the receivables report in CSV-format. Moreover, now that reviewing the customer balances was so much easier it was also agreed that receivables report would be delivered weekly to the finance director. This arrangement was considered to make up for the lacking automated credit control limit to some extent.

In addition to saving time, the Excel tool had another advantage – it allowed easy calculation of KPIs and comparison of the recent set of data with the previous receivables reports. One way to utilize this opportunity would be to monitor increases in the number of days past due, which is a KPI used by external auditors for assessing the riskiness of company’s accounts receivable (Rittenberg et al., 2012: 401). Obviously, following the payment behavior trends of its customers more analytically could be useful for the case company as well but due to lack of time such a KPI wasn’t developed during this study. However, establishing this KPI measure was listed as a development suggestion for future.

In addition to Rittenberg et al.’s (2012: 402) KPI suggestion, the professional literature found did not provide any groundbreaking control development ideas with regard to this control objective. For example, the idea of denying further purchases until customer’s overdue payments have been

received (Ahokas, 2012: 105) is somewhat common sense and was already being employed when necessary. However, the lack of potential development ideas wasn't considered as a major flaw since the case company seemed to have reasonably effective controls in the first place - a clear process and division of responsibilities existed as well. This notion was further reinforced by the observation that the monitoring controls employed by the case company were basically exactly the same as the ones presented by the generic control matrix (see p. 52):

- ✓ A knowledgeable person reviews age-distributed sub-ledgers and identifies customers with overdue invoices
- ✓ Reminders are sent frequently and a collection agency is involved if need be
- ✓ The dunning procedures are monitored by the accounting manager

This implied that the case company was utilizing controls that are regarded as best practices by internal audit professionals. It should be mentioned that the benchmark companies also reported employing the very same controls for the most part.

The second control objective falling under this category was rather straightforward: write-offs of accounts receivable are properly approved. As pointed out previously in chapter 2.3.6, unauthorized write-offs were considered a medium-level risk due to their susceptibility to fraud.

The discussions with the finance director revealed that in the context of the case company "properly approved" means having finance director's authorization for any write-offs that are taking place in accounts receivable. However, no write-offs had taken place in a long time so there were no precedents available to examine. For this reason, I inquired⁹ the manager of the AR team about how she perceived the write-off process (in case credit losses turned up). The AR manager's response was short and clear: "We don't do any write-offs without consulting the finance director first."

This was evidently what I wanted to hear but there was no means to guarantee that this would actually be done. In order to enforce the policy, a quarterly report that would allow the company management to monitor possible write-offs might be useful (as suggested by FSN & Oracle, 2013). At the time of the inquiries, such a report did not exist and there wasn't certainty whether it would be possible to create. Thus, the idea was listed as a possible future improvement. With

⁹ e-mail inquiry

regard to the generic control matrix, having proper approval was listed as the recommended control for accounts receivable write-offs: *“the A/R accountant prepares proposal for bad debts write off. The write off is approved according to the authorization instruction. A signed and dated copy of the list is kept on file”*. As pointed out, this policy seemed to be in place at the case company, implying that the control would be in line with generic best practices. Unfortunately, comparison against the benchmark companies was not possible due to the fact that no write-off related controls were mentioned in their control matrices.

The third and last control objective in this category was timely allocation of payments to correct receivables. In practice, this control strives to ensure that customers’ accounts receivable balances are up-to-date and payments are done in accordance with sent invoices (Ahokas, 2012: 106). Effective functioning of this control provides a solid foundation for the primary objective in this category, effective monitoring and collections of accounts receivable. For this reason, failure to achieve this objective was considered a medium-level risk.

The person responsible for this process in the case company was the manager of the Accounts Receivable team in Estonia. In order to find out whether effective controls existed with respect to this process, I prepared a simple internal control questionnaire¹⁰ based on the case company’s old control matrix and sent it to her by e-mail. A response was received in a few days. According to the AR manager, majority of bank payments were being automatically matched with invoices by the ERP system (through reference numbers). The payments that failed to be automatically allocated for some reason ended up as ‘open items’ to an account called “unknown references”. The AR manager stated that her team was following-up on this account continuously and they were manually allocating these payments to correct invoices on a daily basis (based on bank statements, customer numbers etc.). By the end of every day, the AR team was reconciling the received payments (both reference and unknown) against customer ledger to ensure that allocations were done correctly that day.

All in all, the AR team manager’s description of the process sounded quite convincing. In order to evaluate personally how effectively the unknown payments had really been allocated in the recent past, I examined the month-end balances of the “unknown references” account over the past ten months. It turned out that two times some unallocated items had remained at the end of the

¹⁰ The questionnaire is enclosed as Appendix 9

month. Assuming that this represented the effectiveness of the process in general, the process seemed to be operating rather well but not perfectly.

As earlier suggested in chapter 2.3.6 (Mukerji, 2012), automation played a big role in allocating payments properly in the case company as well. However, automation fails when a customer doesn't succeed to input the reference number correctly or there isn't one, and for this reason manual investigation is sometimes required. The AR team seemed to be taking this task seriously as there were continuous investigations taking place. This is definitely an advantage since the accounts receivable balances remain up-to-date and effective monitoring is enabled.

Furthermore, Mukerji (2012) suggested earlier as a best practice that regular reconciliations of bank statements with the customer ledger should be made to ensure that book-keeping controls are not compromised. At the AR team, this was done daily which indicates positive commitment to the quality of their work and allows the team manager to maintain proper control. Mukerji (2012) also suggested following-up on unallocated payments as a key metric to assess collection efficacy. Implementing such a KPI was not considered necessary under the prevailing conditions due to the fact that collections seemed to be functioning rather efficiently as they were. The table 20 on the next page summarizes the control evaluation of accounts receivable:

Accounts receivable objective(s)	Risk factors & analysis	Initial control(s)	Initial reliability level and author's comments	Development (Performed? Suggested?)	Reliability level after the study
Accounts receivable are monitored and collected frequently	High If receivables are not monitored actively, the likelihood of credit losses becomes high due to large amount of customers and harsh economic conditions. The impact of materializing credit risk can become large if a customer with lots of accumulated purchases suddenly ends up insolvent.	Bi-weekly age-distributed list of open receivables to Finance Director and possible follow-up actions; monthly reminder letters; collection agency involvement if necessary	Reliability level 3 Standardized control activities and established process existed; documentation as well; no credit losses had occurred lately; detecting overdue payments from the receivables list was time-consuming	Performed: Created a simple tool for analysing and sorting the list of open receivables → monitoring less time-consuming Suggested: Taking advantage of the new tool by following-up more closely trends in customers' payment behavior	Reliability level 3 Monitoring became less resource-consuming and the list of receivables is now reviewed weekly (vs. bi-weekly before)
Write-offs in accounts receivable are properly approved	Medium Unauthorized write-offs are a fraud risk.	Finance director's approval was required for write-offs.	Reliability level 3 An established policy for obtaining finance director's approval existed (confirmed by the AR manager); documentation exists in the form of an approval request	Suggested: Establishing a quarterly report from the ERP system that would allow the company management to ensure that no unauthorized write-offs have occurred	Reliability level 3: No changes took place during the study
Payments are timely allocated to correct receivables	Medium Failure to keep track of customer balances may result in unjustified collection procedures and incorrect accounts receivable balances.	Reference payments were automatically allocated to correct invoices; continuous monitoring and allocation of "unknown references" was done; daily reconciliations between bank statements and general ledger	Reliability level 3 Standardized control activities existed; documentation in the form of archived e-mails and bank statements	---	Reliability level 3: No changes took place during the study

Table 20: Evaluation of case company's accounts receivable controls

4.2.7. Company-specific risks

The case company –specific risk factors that were recognized in chapter 4.1 and their control evaluations will be shortly discussed in this chapter. The discussion over these risks will be limited since the matters are highly company-specific and in-depth descriptions would easily become inordinately heavy for readers without providing any added value for the study. These accounts were:

- A particular receivables account (private customers)
- Gift card process and related balance sheet accounts

- Error account
- Commission revenues¹¹

To begin with, the “receivables from private customers” account was considered a risk due to the fact the company had not been in business with private customers in several years (except for occasional online purchases) but still there was an account which balance was growing and shrinking monthly. In order to figure out what was going on with respect to this account, two payment specialists were interviewed in co-operation with the finance director. The theme interview lasted one hour and took place at the company headquarters. It should be noted that the interview wasn’t a typical one but rather a collaborative meeting where case examples were discussed and investigated. A description of this interview is provided in the appendix 8.

After cooperatively going through a few transactions that had remained on the given account for a while, the payment specialists pointed out that some sales people were apparently using the ERP system incorrectly when certain types of transactions took place. For this reason, the account was behaving in such a way and had some rather old customer balances laying around that were not supposed to be there. It also turned out that the case company’s ERP system did not communicate properly with a certain credit card payment system due to which frequent manual reconciliations should have been performed by the Estonian Accounts Receivable team.

As a result, it was decided that these issues would be communicated to relevant parties and actions would be taken. As this meeting was unfortunately arranged towards the end of this study, actual controls were not yet implemented when this was written. However, the most important objective was achieved: the case company managed to figure out what was going on with respect to this account and whether an actual risk existed. Positively, it turned out the balance was due to a minor mistake and there was no major risk related to it.

With regard to case company’s gift cards, two issues were perceived. First, the finance director had been informed about a possibility of gift card double usage through a loophole in the process, and second, it seemed that the gift card accounts had surprisingly sizeable balances in the balance sheet considering their perceived popularity among customers.

¹¹ Already covered as a part of “revenue recognition and invoicing”, chapter 4.2.4

After some further examination with the finance director, it turned out that a large portion of the case company's gift card liabilities had expired. The gift cards had a validity period of one year but for some reason old liabilities still remained in the balance sheet. This explained the substantial amount of gift card liabilities and strongly suggested that the expired portion of the gift card debts could be wiped out from the balance sheet and recognized as revenue because the gift cards had not been used in due time and the case company was not bound to accept them anymore. As a result, gift cards older than one year were decided to recognize as revenue which solved the mystery of seemingly excessive gift card liabilities.

However, the other issue still remained: the possibility of double usage of gift cards. This issue existed due to the fact that the gift cards were issued in co-operation with a partner agency, and this allowed the customer to spend the gift card in either of the two companies. Unfortunately however, the ERP systems of the two companies did not communicate properly, and for this reason it was basically possible to use one gift card twice: once at the case company and once at the sister company.

In order to tackle this risk, it was decided with the case company's finance director that only the sister company would accept gift cards thereafter, thus eliminating the possibility of double usage. The sister company approved this suggestion, and the necessary changes to internal procedures were put into move. Both of the aspects that were initially perceived problematic were hence resolved.

Error account was the third company-specific risk that was recognized during the risk assessment phase of this study. The error account was an account which allowed the sales staff to write-off customer purchases so that the resulting loss was absorbed by the case company. In practice, it was used for revising erroneous billings, for example, when a customer was sold too expensive products in the first place. In theory the error account, however, could have been used for writing-off personal purchases.

Obviously, there was a risk related to this type of prospect. In order to figure out whether there were any controls in place to mitigate this risk the Customer Service Manager A was interviewed about the matter¹². When inquired about the usage of the error account, she commented: *"The error account entries are made by the sales persons as a part of customer feedback process. A*

¹² Appendix 10 discloses the interview questions

customer might contact a sales person and indicate that he/she has been charged incorrectly, and as a result error account entry is made and a proper invoice is sent to the customer... There is a policy which states that every entry to the error account must be communicated to the Customer Service Managers. Also, the sales transaction must be marked in a way that indicates that an adjustment has been made." However, it turned out that these entries were not monitored in any way – the system was completely based on trust. When inquired about the likelihood of fraud, she admitted that she hadn't come to think of such a possibility.

As a result, a control of some sort was considered necessary to ensure that the error account will not be misused. A monitoring report that lists all the error account entries made during the previous month was created and scheduled to be automatically sent from the reporting system to the finance team and the Customer Service Managers at the beginning of each month. This report allows the finance team and the Managers to monitor that all error account entries are properly communicated to the Managers and that no misuse is taking place.

5. Discussion

Company's internal control is a sum of various moving parts, or as COSO framework puts it, five inter-related components: *control environment, risk assessment, control activities, information & communication, and monitoring*. There is no single correct way to establish effective internal control over company's objectives, and every organization emphasizes these components in the way they consider to best fit their individual needs. Factors that are likely to have an impact on how organizations construct their internal control systems include entity's size, nature of its business, the diversity and complexity of its operations and its methods of processing data, among others (Boynton et al., 2001: 348).

However, the importance of control environment in establishing proper internal control has been lately emphasized in several studies (e.g. Stringer & Carey, 2002; Ezzamel et al., 1997; Cohen et al., 2002), and it's been suggested that some control activities (such as authorization and cross-checking) might be of diminished importance in modern operating environment due to evolving organizational practices and management techniques. This is likely to be true to some extent as manual control activities are often time-consuming and expensive to maintain (Ahokas, 2012: 36) which was proven true in the course of this study as well. For example, interviews revealed that

the Sales Support team did not review the price lists after they had been entered to the ERP system because the required amount of manual labor was considered excessive in relation to the benefits. Some management trends that have contributed to this suggested shift from hierarchical controls towards softer approaches include downsizing, employee empowerment, decentralization and tendency to simplify processes (Stringer & Carey, 2002).

With regard to this study, the case company had already identified the *control activities* component as the key means to ensure proper internal control in its sales process before this study was commissioned. Given the recent emphasis on control environment, one might be inclined to question whether stressing control activities in this study was proper approach in the first place. In my opinion, putting emphasis on control activities can be easily justified since they enable a practical approach to internal control and are capable of delivering tangible and verifiable results which cannot be said about control environment (due to its abstract nature). This is not to say that softer controls such as integrity and ethical values, human resource practices and management philosophy would not matter but they rather provide the foundation for more specific controls through discipline and structure (IFAC, 2010a: 54). Control activities are likely to be more effective in terms of achieving specific activity-level goals whereas control environment plays greater role in providing the organization with a “tone at the top” and defining general operating principles. *Risk assessment* and *monitoring* components in turn enable proper usage of control activities as they ensure that controls are established to address actual risks and that controls remain effective over time.

As previously stated, the literature in regards to control activities of a sales process proved to be rather scarce which led to the introduction of four benchmark control matrices. Even the widely adopted COSO framework fell short in providing actionable suggestions with regard to control activities that would allow the case company to take their sales process controls to the next level. Part of this is probably explained by the highly context-specific nature of control activities but it should also be pointed out that internal control development projects have become a valuable source of income for external auditors who participated in the creation of COSO framework (Leitch, 2008: 13). COSO has been welcomed by many as a convenient means to provide structure for internal control but it’s also been criticized for the haziness of its concepts and difficulty to apply in practice (e.g. Gupta & Thomson, 2006). In my opinion, COSO framework allows

organizations to obtain understanding of how internal control can be perceived and which matters should be considered but COSO should not be regarded as an almighty instruction book.

In terms of COSO terminology, this study fell under the *monitoring* component. Monitoring takes place either as separate evaluations that take a more detailed approach to assessing possible deficiencies in company's internal controls or as a part of normal ongoing activities in the form of management supervision (COSO, 1992: 65). When the effectiveness of existing control activities is actively monitored by the management there is obviously lesser need for separate evaluations. When this study was initiated, however, the ongoing monitoring at the case company had deteriorated to such an extent over time that a comprehensive picture of sales process' risks and control effectiveness was no longer available. This was mainly due to the changes in personnel and organizational structure.

In my opinion, the amount of ongoing monitoring required to maintain effective controls is largely determined by the quantity of manual and detective control activities a company utilizes. For example, it would not be necessary for the case company to monitor the accounts receivable so intensely if an automated preventive credit limit control existed in the ERP system. In order to reduce the necessity of management monitoring and the amount of manual labor, it's been suggested that internal control should be built *into* rather than *onto* business system, whether that be environmental controls built *into* the culture of the organisation, or IT controls built *into* the information systems (Stringer & Carey, 2002). In the light of the present study, I tend to agree with this view since automated systemic controls (e.g. revenue recognition) had remained effective over time at the case company, regardless of changes related to human factors, whereas the effectiveness of several other controls (e.g. monitoring list of accounts receivable, credit notes) had declined due to organizational changes and lack of ongoing monitoring.

Nonetheless, it is easy to say that automated controls should be used extensively but their implementation may be more expensive and challenging than one would expect. For instance, it is difficult to imagine that the benchmark companies B and C or the case company would have chosen not to implement credit limit controls to their IT systems if the cost-benefit ratio or available technology hadn't been considered problematic.

Another matter that I would like to address in the light of this study is the importance of internal control documentation. Control documentation does not have direct implications on control

effectiveness per se (Ahokas, 2012: 102; COSO, 1992: 73) but it can provide a valuable tool for keeping track of perceived risks and controls in company's different activities and facilitates both ongoing monitoring and separate control evaluations. As previously discussed, the risks and controls of case company's sales process had been documented in the form a control matrix in 2009. Even though the documentation was outdated, it greatly facilitated the risk assessment process of this study through a valuable overview of the sales process' structure and previously perceived risks. Obviously, major changes had taken place in the case company's sales process but the foundation had still remained somewhat similar.

6. Summary and conclusions

This study was commissioned in order to determine the main risks in the case company's sales process and to investigate whether effective internal controls were in place to mitigate the identified risks. Furthermore, practical improvement suggestions with respect to controls were expected to be presented when considered necessary. The study was largely motivated by a series of major changes the case company had gone through over the past years. In detail, the research questions of this study were:

1. What are the main risks involved in the Case Company's sales process?
2. What is the current state of the Case Company's internal controls in its sales process?
3. How could the internal controls of the Case Company be further developed to mitigate the identified risks in its sales process?

The empirical part of the study was structured in accordance with the recommendations of internal control literature and the research objectives. First, a risk assessment was performed in order to recognize the main risks in the case company's sales process. This part of the study obviously answered the first research question ("what are the main risks involved in the case company's sales process?") and laid the foundation for evaluating whether these risks are sufficiently mitigated. The main risks in case company's sales process were presented in the table 12 on pages 58 and 59.

The risks were identified through consideration of generic sales process objectives provided by literature, in-depth analyses of the case company's financial statement accounts and review of

case company's old internal control documentation. The majority of the recognized risks were derivable from the generic internal control objectives of sales process as defined by Ahokas (2012: 102). In other words, the risks could be identified by asking oneself: what can go wrong if this sales process objective is not achieved? Asking this question was suggested by Roth and Espersen (2004) as a means for identifying and articulating possible risk events. However, the analysis of case company's financial statement accounts revealed that some company-specific accounts also carried risks that were considered quite significant in terms of potential impact. These were commission revenues, a particular receivables account, gift card accounts and error account.

These findings suggest that the generic control objectives provided by literature can prove helpful in determining the risks that companies face in their sales processes but the context-specific factors should be considered as well, and going through the key accounts of an activity (e.g. sales process) may provide a useful approach for that (as suggested by COSO, 2005: 125).

After an understanding of relevant risks had been established, a control evaluation was performed using different qualitative methods (i.e. theme interviews, conversations, inquiries and surveys). The risks and controls to be evaluated were divided in six categories based on the sales process objectives they pertained to: sales contracts, master data, credit control, revenue recognition and invoicing, credit notes and monitoring accounts receivable. Also, one category was dedicated to strictly case company-specific risks which were not discussed as extensively in this study as the other categories due to their irrelevance for wider audience.

The control evaluation phase of the study strived to answer the second research question by determining whether effective controls existed to mitigate the identified risks. Based on the perceived current state of the controls, possible means of improvement were either suggested or implemented when considered necessary in order to answer the third research question.

The internal control reliability model of Ramos (2004) was modified for the purposes of the present study and used to provide simple control evaluation standards with the possibility of assigning a numerical reliability value for individual controls on a scale from one to five. If a control activity was assigned a value of three (3)¹³ by me, it was considered to be "systematic" and thus sufficient to provide reasonable assurance over the achievement of the related control objective. This was the target level of the case company as communicated by the finance director. Based on

¹³ The higher the value the better

the evidence obtained from data collection, I determined the initial reliability level for each individual control in accordance with the reliability model to figure out the current state of internal controls in the sales process.

The table 21 below summarizes the control evaluation and development phase of this study in terms of control effectiveness. The two rightmost columns demonstrate the perceived initial effectiveness (i.e. reliability) of the control activity and the corresponding value after possible improvements had taken place. The controls that were strengthened as a result of this study are shaded with light grey in the table 21 below.

Risk/Control Category	Control objective	Initial control reliability	Control reliability after
1. Sales contracts	Profitable long-term commitments	2	2
1. Sales contracts	Proper approval of sales contracts	4	4
1. Sales contracts	Legal validity of sales contracts	3	3
2. Master data	Correctness of master data	2	2
2. Master data	Limited rights to modifying master data	2	2
3. Credit control	Only financially sound companies are accepted as credit customers	2	3
3. Credit control	Active monitoring of customers' creditworthiness	1	4
4. Revenue recognition and invoicing	Correct revenue recognition of service fees	4	4
4. Revenue recognition and invoicing	Correct revenue recognition of commissions	2	4
4. Revenue recognition and invoicing	Completeness of invoicing	4	4
5. Credit notes	Proper approval of credit notes	1	3
6. Monitoring accounts receivable	Frequent monitoring and collection of receivables	3	4
6. Monitoring accounts receivable	Proper approval of write-offs	3	3
6. Monitoring accounts receivable	Timely allocation of payments	3	3
average		2,6	3,2

Table 21: Quantitative summary of the control evaluation and improvement efforts

The table 21 indicates that the average effectiveness of sales process' control activities was initially roughly 2,6, which fell a little short of the target value of 3 set by the case company. Thus,

the initial state was not catastrophic but there was definitely room for improvement. In the course of this study, five out of the total fourteen evaluated control activities were actually improved through different types of enhancements, which raised the average control effectiveness to 3,2 in the end. Four control activities in turn were considered to operate so effectively that no improvement suggestions were made at all whereas in five cases some means of improvement were suggested. The actual improvements to controls were rather simple to implement and they did not significantly increase the amount of manual labor. Short summary of the improvements is provided below.

First of all, both of the controls listed in the category “credit control” were improved in the course of this study. With regard to the objective of “accepting only financially sound customers as credit customers”, there had been a slight misunderstanding related to credit issuance policies which had led to issuing credit to customers who might not have been actually eligible. This deficiency was overcome by communicating clarified instructions for sales people (i.e. all customers are subject to credit check) and by creating an official template that is now used for creating new credit customers to existing group hierarchies. I considered these improvements to raise this control activity to reliability level three. The other control activity in this category, “active monitoring of customers’ creditworthiness”, was initially in really bad shape due to the neglected maintenance of the monitoring list which automatically sent reports about customers’ creditworthiness to the finance director. The monitoring list was updated during this study to match the case company’s current list of credit customers which augmented the reliability level from one to four, mainly due to high level of automation.

With regard to correct recognition of commission revenues, the initially unclear revenue process was clarified and mapped and it was made sure that no accruals are needed on monthly basis. In addition, a monthly report from the commission collector agency was established to ensure proper payments and revenue recognition. As a result, the reliability level of this control activity ascended from two to four.

In regards to proper approval of credit notes, the interview with the Service Manager B revealed that the instructions and the process needed to be clearly re-established. As a result, simple approval policy and process were agreed upon with the Service Managers which made it impossible to perform cash refunds without authorization from Finance Director or Service

Manager A. This new procedure was then extensively communicated to all personnel who issue credit notes as a part of their job. With these changes, the reliability level of this control activity jumped from one to three.

The fifth conducted improvement was related to the objective of frequent monitoring of accounts receivable. The control was already initially considered to operate rather effectively, but the act of detecting problematic cases from the receivables report required quite much manual labor and was thus done only bi-weekly. For this reason, an alternative way was developed to produce the report in Excel format which allowed simple analysis and age-based sorting of the receivables, thus greatly reducing the labor-intensity of this control activity. As a result, the report was thereafter produced and reviewed weekly which enabled more effective monitoring of possibly excessive credit balances. The resulting increase in terms of effectiveness was considered to raise the control activity to reliability level 4.

As pointed out previously, internal control is highly context-specific phenomenon which takes different forms in different types of organizations. For this reason, I feel that it's necessary to take certain precaution with regard to making any inferences from this study that could be directly applied to other organizations. However, the present study introduced a variety of control activities used by the case company, benchmark companies and the generic control matrix, which proved difficult to find from professional and academic literature. Moreover, some deficiencies in case company's internal controls were recognized that might be worthy of considering in other contexts as well. These examples may prove helpful for practitioners who are interested in evaluating internal controls in their sales processes. Some interesting observations were also made in the course of this study as outlined in the discussion chapter. Among these were the ambiguity of COSO framework in terms of more specific aspects of internal control, convenience of building controls *into* rather than *onto* systems and importance of internal control documentation as a means to support ongoing monitoring.

6.1. Limitations and further study

The findings of this study are subject to the general limitations of qualitative case study method, such as limited data coverage and objectivity (Scapens, 1990). The data collection in the form of

interviews, conversations and different types of inquiries focused on a few key employees due to the limited timeframe and employees' job descriptions. Another potential limitation with regard to the data collection arises from the fact that the research topic could be considered somewhat sensitive by some people. For this reason, willingness to share information that might have had negative implications on the interviewees themselves (e.g. increased workload, fear of being viewed as a slacker etc.) might have been limited, resulting in incomplete descriptions of certain aspects of risks and controls.

With respect to objectivity, there is always a risk of subjective interpretations when the researcher is a part of the organization he is studying (Scapens, 1990), which was the case in this study. For example, the internal control reliability model that was used for scoring the control activities before and after improvements relied strongly upon subjective interpretations.

This study was also faced by certain challenges in terms of previous literature. It turned out that the literature with regard to internal controls of a sales process is somewhat scarce and few actionable recommendations could be derived directly from high-quality sources. For this reason, some of the best practices had to be adopted from sources that might have had commercial interests. The scarcity of best practices in literature might be explained by the fact that internal control is operationalized in complex, dynamic organizations that differ across time, across organizations, and across cultures (Kinney, 2000).

With regard to further study, it would be interesting to explore how other Finnish medium- to large companies view their internal control in terms of the previously discussed COSO components. For example, is the control environment generally considered as important in Finnish setting as in Australia (see Stringer & Carey, 2002) or are more tangible control activities seen as the main tool for ensuring effective internal control? Also, it would be interesting to conduct a wider survey for Finnish companies who have implemented their entire internal control system in accordance with COSO guidance. Do they consider COSO as a valuable guideline for achieving proper internal control or is it viewed more as an ambiguous practice with little to offer?

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APPENDICES:

Appendix 1: Internal Control Reliability Model (Ramos, 2004)

Exhibit 4

Summary of Internal Control Reliability Model

<i>Reliability Level</i>	<i>Documentation</i>	<i>Awareness & Understanding</i>	<i>Attitude</i>	<i>Control Procedures</i>	<i>Monitoring</i>
Initial	Very limited	Basic awareness	Unformed	Ad hoc, unlinked	
Informal	Sporadic, inconsistent	Understanding not communicated beyond management	Controls are separate from business operations	Intuitive, repeatable	
Systematic	Comprehensive and consistent	Formal communication and some training	Controls integral to operations	Formal, standardized	
Integrated	Comprehensive and consistent	Comprehensive training on control-related matters	Control processes considered as part of strategy	Formal, standardized	Periodic monitoring begins
Optimized	Comprehensive and consistent	Comprehensive training on control-related matters	Commitment to continuous improvement	Formal, standardized	Real-time monitoring

Appendix 2: Brief descriptions of the benchmark companies (subsidiaries of the same mother corporation)

	Company A	Company B	Company C
Company size	Medium	Medium	Medium
Industry	Retail car sales	Automotive spare parts	Car rental
Ownership	Private	Private	Private

Appendix 3: Data collection methods applied in this study

Subject(s)	Persons involved	Data collection	Date & length
The study in general, case company's sales process, risk assessment	Finance Director	Documented discussions, collective examination of financial statements and other internal documentation	10.5. – 30.5.2013
Credit control	Finance Director	Documented discussions	1.6. – 15.6.2013
Revenues	Finance Director	Documented discussions	18.6. – 25.6.2013
Accounts receivable: monitoring & write-offs	Finance Director	Documented discussions	3.7. – 15.07.2013
Commission revenues	Reporting Specialist	Verbal inquiry	14.8.2013 – 15 min
Sales contracts	Head of Sales	Theme interview	6.6.2013 – 25 min
Sales contracts	Sales Manager	Theme interview	4.6.2013 – 28 min
Master data	ERP System Manager	Verbal inquiry	24.6.2013 – 4 min
Master data, Credit control	Sales Support Specialist	Theme interview	10.6.2013 – 50 min
Master data	Application Manager	Verbal inquiry	20.6.2013 – 3 min
Invoicing	Customer Service Specialist & Service Manager A	Theme interview	13.9.2013 – 28 min
Credit notes	Service Manager B	Theme interview	10.9.2013 – 26 min
Accounts receivable: monitoring, write-offs cash applications	Manager of Accounts Receivable team	E-mail inquiries, questionnaire	9.9 – 18.9.2013
Error account	Service Manager A	Theme interview	20.9.2013 – 37 min
Private customers' receivables account	Payment Specialist A & B	Theme interview	26.11.2013 – 54 min

Appendix 4: Questions regarding sales contracts – *Head of Sales and Sales Manager*

1. Could you please tell me a little about your job?
2. Could you describe how a sales contract is born?
3. In your opinion, is there a clearly defined process and authorizations for the creation of a sales contract?
4. Is the profitability of a potential sales contract somehow assessed? How?
5. Are the offers made by the sales department somehow documented?
6. Is there a standardized sales contract template that has been reviewed by a professional lawyer?
7. Who are authorized to sign sales contracts?
8. Who are authorized to make changes to existing sales contracts?
9. Are there any remarks you would like to do with regard to sales contract process or sales process in general?

Appendix 5: Questions regarding master data – *Sales Support Specialist*

1. Could you please tell me a little about your job?
2. What customer information is entered to the ERP system when a new customer is created? How? (Could you show?)
3. Is there some sort of predetermined standard format that is being used when customer data is entered to the ERP system?
4. Is it possible that one customer would be created twice to the ERP system?
5. When a customer is being created to the system, do you already know its credit limit?
6. Is the process of implementing new customers clear and properly documented in your opinion?
7. Are the customer master data and price lists checked in any manner after they've been entered to the system?
8. Who are capable of accessing the master data?
9. Who are capable of making changes to customer information and pricing?
10. Do you see any possibilities to misuse the access to master data?
11. Are the changes to master data somehow automatically documented or tracked?
12. Are there any automatic "data quality" tools in place to ensure data quality?
13. Do you see any risks or needs for improvement regarding master data process or sales process in general?

Appendix 6: Questions regarding completeness of invoicing – *Customer Service Specialist & Service Manager A*

1. Could you both please tell me a little about your jobs?
2. How is it ensured that every sales transaction is properly invoiced?
3. Is it possible that an invoice would not be properly processed due to a human / system error?
4. Have there been any issues with regard to invoicing as far you are concerned?
5. What are non-validated dossiers?
6. What are voided dossiers?
7. Are there any concerns regarding invoicing or sales process in general that you would like bring up?

Appendix 7: Questions regarding credit notes – *Service Manager B*

1. Could you please tell me a little about your job?
2. *I provided a description of credit note issuance process according to the instructions available in the company intranet*
3. Does the previous description sound relevant and up-to-date to you?
4. How are the credit notes handled nowadays?
5. In your opinion, do you think it would be possible to somehow misuse credit notes in seek of personal gain?
6. Do you see any risks or needs for improvement regarding credit notes or sales process in general?

Appendix 8: Questions regarding “receivables from consumers” account – *Payment Specialists A & B*

1. *Me and Finance Director presented specific transactions (4) from the ERP system and asked Payment Specialists to describe how and why they had remained on the account*

Appendix 9: Internal control questionnaire – Estonian Accounts Receivable Manager

Questions related to allocation of received collections (payments with reference numbers) to correct receivables	Answer:
<p>Do you find the below description of the control activity still relevant? Please describe any changes. If not, how is this control objective achieved today?</p> <p>“System is configured so that reference payments are automatically allocated to the right dossiers in the system. This results in automated elimination of these receivables from open items. Any unsettled payments remain open on "Unknown references" -account, from where they are manually allocated to the correct receivables after further investigation.”</p>	Yes, it's still relevant
The "Unknown reference payments" -account in ERP system is 1601310? (“Tuntemattomat viitteet”)	we are using accounts 1601310 and 1601311
How often are the unknown payments allocated? (for example, once a week)	up to date as soon as the information receives
Any documentation? How often performed? Any other notes?	emails, saved electronically.
Questions related to allocation of received collections (payments without reference numbers) to correct receivables	Answer:
<p>Do you find the below description of the control activity still relevant? Please describe any changes. If not, how is this control objective achieved today?</p> <p>“Received money is allocated manually from the bank statement to the correct receivable based on customer number (or such). All cases are settled in the order they appear on the bank statement. Transferring the receipts to bookkeeping cannot be done if there are unsettled collections in ACE. Bank statement is reconciled with general ledger on a daily basis.”</p>	It's relevant
<ul style="list-style-type: none"> Any documentation? How often performed? Any other notes? 	Bank statements. In case extra info needed, by email.

Appendix 10: Questions regarding error account – Service Manager A

1. What is error account?
2. Could you please provide me a few example of cases in which error account is used?
3. Who are entitled to make entries to error account and are entries documented somehow?
4. Are error account entries monitored in any manner by the Service Managers or management?
5. Do you see any fraud risks in regards to error account usage?