Tampere University of Applied Sciences

Segregation of Duties

Bachelor's Thesis

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ABSTRACT

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The thesis explored the current state of segregation of duties in Tilimajakka Oy and its subsidiaries.

The empirical part of the thesis was done by a qualitative case study and literature review. The present state was surveyed through interviews and observation. The thesis briefly introduces risk management, corporate governance, and auditing theories and then maps out the potential risks in the organisation. Finally, suggestions are given on reducing the risks and establishing segregation of duties. The proposals should be applied, and the threat then re-evaluated.

The case study pointed out many potential risks and how they occur; most arise due to lack of staff and segregation of duties. The organisation's management will decide whether the suggestions are applied and whether the project was successful.

Keywords: segregation of duties, risk management, corporate governance, auditing, internal controls

CONTENTS

1 INTRODUCTION

Accounting has come a long way since the recognised father of modern accounting, Luca Pacioli, first introduced the system of double-entry bookkeeping (Sangster, 2021). Now that is long gone history and modern accounting businesses utilise computers or even artificial intelligence to help with the work. Nevertheless, with great technology comes great responsibility, one could say.

In the past decade, numerous frauds and scandals related to accounting could have been possibly prevented with proper actions beforehand. Lately, auditing, corporate governance, and sustainable risk management have grown popular to prevent errors, fraud, and scandals. Those actions are necessary in the modern business world to practice safer and better trade.

This thesis aims to identify potential risks in a commissioner company, Tilimajakka Oy, and then provide solutions to those risks by applying separation of duties, which is a concept of having more than one person required to complete a task. It is a widely known concept in the accounting world and a fundamental concept of internal controls, part of sustainable risk management.

The risks are identified in co-operation with Tilimajakka Oy employees and clients by gathering information about their daily duties and procedures. The risks are then categorised by order of their likelihood and severity and why they are potential risks, and after, there will be suggestions on what kind of actions these risks require to be prevented.

The thesis is based on three major theories: Corporate governance, auditing, and risk management. Corporate governance introduces basic ideas and examples of corporate governance relations. Auditing introduces an auditing framework, correlation between auditing and corporate governance, and practical application. Finally, risk management theory categorises the risks and provides solutions.

2 RESEARCH PLAN

2.1 OBJECTIVES

The commissioner company had concerns related to risk management, and therefore, there was further relevance to researching segregation of duties at this point. The problems reflected primarily from past events in other accounting companies; there had been cases where the organisation's assets were used in unethical manners. Another valid point to conduct the research was that segregation of duties is an essential building block of sustainable risk management (AICPA, n.d.). The research will be valuable for the commissioner as it offers actionable suggestions for improvement and contributes to creating more knowledge in terms of studied concepts.

This objective is to identify and understand possible risks within Tilimajakka Oy that could lead to fraud or error due to a lack of segregation of duties in accounting. Therefore, the thesis included only those particular duties that allow employees to perform all by themselves, meaning that employees can authorise their work.
The thesis points out duties with a significant risk in severity and offers possible solutions auditing-wise.

The thesis was conducted to be helpful, practical, and efficient for the accounting organisation. Thus, it seeks to find desirable, feasible, and accessible solutions for the organisation. The objectives are set based on the needs and demands that the commissioner has proposed.

The theses main question helps achieve the purpose mentioned above: "What are the duties that include potential risks?". In addition, sub-questions is a natural continuum for the central question:" What could be done to decrease the risk?" and "How severe is the risk?". These questions were formed based on their relativeness on the subject and proposed by the commissioner.

The questions are effective and natural because the risk management categorisation done during the research requires answers to those questions.

2.2 METHODOLOGY

The research will be executed by qualitative research methods such as interviews and polls. Interviews will be held amongst the management to receive as broad information about corporate governance as possible. The polls will be distributed amongst employees to receive information about their daily duties and feelings.

The qualitative research method was chosen based on its fit to the case study as the quantitative method would not offer as timely information as needed. Furthermore, by performing qualitative research, the thesis will answer the main question and sub-question much more accurately since qualitative research enables the researcher to gather information about interviewees' feelings and experiences and role in the organisation, which plays an important role when identifying potential risks.

Theoretical parts are written based on a literature review; these sources for the study are chosen based on their relativeness to the subject.
Most sources are from Tampere University (Tuni) library and partners that Tuni students have access to, such as SAGE Journals, SAGE research, and other universities.

2.2.1 Qualitative research

Qualitative research is an excellent method to study phenomena by taking part in the research by observing the participants while they reflect on their life and experiences; this is called a biographical interview. It helps the participants express their surroundings and leads to new insights, benefiting the researcher. Moreover, qualitative research fits well with the thesis subject since the goal is to find new ways to decrease existing risks within the company, which the commissioner company possibly does not yet acknowledge. (Flick, 2011.)

Qualitative research aims to understand the world around their study and produce knowledge. During the thesis, the researcher will observe the everyday life of the employees and interview them about their work, duties, and company policies, and attempt to observe it from their perspective. These observations and interviews will act as leads. (Flick, 2011.) (Alasuutari, 2011.)

The research begins by creating codes and variables for the gathered material. Later, that material is analysed; in this case, that material will be the observations and interviews that will be later transcribed. Finally, the results will be interpreted in the second phase, and former literature will help understand the findings. (Alasuutari, 2011.)

2.2.2 Literature review

According to (Salminen, 2011) a literature review is a systematic and accurate method that identifies, evaluates, and summarises existing research materials done by scientists and experts; the literature review is based on decisions done in high-quality research work and conclusions. In a nutshell, the term means that one explores and gathers information from high-quality research and then evaluates and analyses it.

There are three main categories: descriptive literature review, systematic literature review, and meta-analysis (Salminen, 2011).
A systematic literature review is a summarised version of existing literature key points related to the topic. It aims to point out those findings that are the most important and exciting. (Salminen, 2011)

According to (Salminen, 2011), the systematic literature review is an efficient way to test hypotheses', present case study results in a summarised manner, and evaluate the effectiveness it would serve Tilimajakka in the best possible manner. Systematic literature reviewer goes through the material briefly, finds the key concepts, and then organises it based on its historical and scientific context. This process makes it easier for the performer to validate why the research is essential. (Salminen 2011.)

3 CONCEPTS AND THEORY

The thesis is based on three main concepts and theories, sustainable risk management, corporate governance, and auditing. These concepts and theories are chosen on their relativeness to the subject and support amongst professional networks such as the Association of International Certified Professional Accountants (AICPA), KPMG, and literature. (AICPA, n.d.) (KPMG, n.d.) (Kobelsky, 2014.)

3.1 Corporate governance

Corporate governance is a structure where the business corporation is managed and controlled at its senior level to achieve its objectives, performance, financial management, accountability, integrity, and openness (Meena, 2010).
Corporate governance responsibilities include setting the organisation's strategic goals and providing leadership to put them in action, supervising the management, reporting to shareholders and society. Furthermore, the term is extensive, but, in this thesis, the word means how the organisation is being led by and overseen. (Figure 1) illustrates an example of a corporate governance structure.

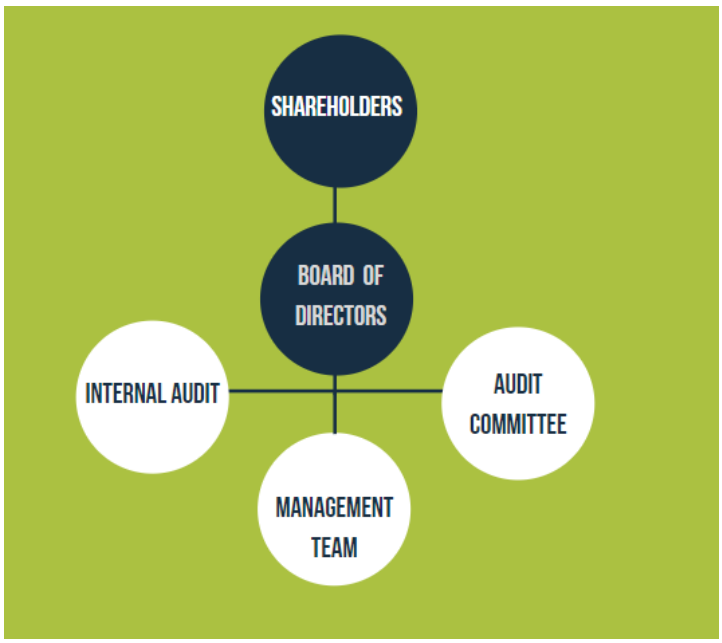


FIGURE 1. Corporate governance relations

The perspective and evaluation of corporate governance vary. Whether it is well-done depends on who evaluates it, since the evaluating criteria could vary whether it is an investor or government examining the organisation (Peussa & Ruotsalainen, 2013).

3.2 Internal audit and control framework

Internal audit has been considered the organisational regulator and necessary element of organisational control. It aims to examine and evaluate its activities as a service to the organisation by measuring and assessing the effectiveness of organisational controls. In addition, internal audit is a vital administrator tool, which is directly operating in organisational structure and the general rules of the business. (Meena, 2010, 17-18.)
Internal audit should work towards improved risk management, control, and governance within the organisation with practical application offering more value and effectiveness to the organisation. (Meena, 2010, 18.)

3.2.1 COSO (Committee of Sponsoring Organisations)

Committee of Sponsoring Organisations formed by accounting and financing professionals developed a framework for consistent internal controls evaluation. Instead of regulations, the framework acts as a guideline for an effective internal control system. In addition, COSO was designed to be suitable for enterprises of all sizes and types in terms of expertise. (Moeller, 2014, 1.)

According to (COSO, 2013), internal control consists of five integrated components: control environment, risk assessment, control activities, information and communication, and monitoring activities.

The cornerstone of internal controls within an organisation is environmental control, which establishes standards, processes, and structures that serve as the foundation. The management of the organisation is in charge of conveying the relevance of the control environment and establishing its expectations and standards. The integrity and ethical values of the organisation; the limits allowing the

board of directors to carry out its authority oversight duties; the organisational structure and assignment of authority and responsibility; the process for attracting, developing, and retaining competent employees; and the accuracy around performance measures, encouragements, and rewards to drive accountability for performance are all part of the control environment. The control environment that results has a long-term impact on the internal control system as a whole. (COSO, 2013.)

Risks are defined as the probability that an event will occur that will have a negative impact on the achievement of objectives. Risk assessment is a time-consuming procedure that necessitates a flexible strategy. Management sets goals for the organisation in categories such as operations, reporting, and compliance, with enough clarity to identify and analyse risks to those goals. Risk assessment also necessitates management's consideration of the potential for risk management to result in changes. Those modifications could, for example, be tied to a company model. (Source: COSO, 2013.)

Control activities are the actions that are taken as a result of rules and procedures to guarantee that management's instructions limit risks in order to meet objectives. Control operations are carried out at all levels of the organisation, at different phases of business processes, and in the technological environment. They can be proactive or reactive, and they might comprise a variety of manual and automated tasks such as authorisations, approvals, and verifications. The variety and growth of activities are usually designed with segregation of duties in mind. However, management chooses and proposes alternate activities when segregation of roles is impossible. (Source: COSO, 2013.)

Information is required for the organisation to fulfil its internal control responsibilities and achieve its objectives. To aid the functioning of other internal control components, management obtains or generates and uses relevant and high-quality information from both internal and external sources. The continuous, iterative process of providing, sharing, and obtaining essential information is communication. Internal communication is the process of disseminating information within a company. Through effective communication, management

may provide a clear message to staff that control duties must be taken seriously. External communication allows important external information to be communicated inbound and provides information to external partners in response to their needs and expectations. (COSO, 2013.)

Internal control's five principles necessitate regular monitoring. To evaluate if each of them is present and functional, ongoing evaluations, separate examinations, or a mix of the two are utilised. To offer timely information, continuous assessment should be embedded into business processes at all levels of the organisation. Separate evaluations should be conducted on a regular basis, based on the risk assessment, the effectiveness of ongoing assessment, and any other management concerns. The results of the monitoring are compared to criteria established by the organisation's leadership or recognised authority. Finally, employees should be engaged and alert their supervisors to any shortcomings. (COSO, 2013.)

3.2.2 Internal auditing and corporate governance

Internal auditing contributes to corporate governance by bringing the best practice ideas about internal controls and risk management processes. It provides information about any fraudulent activities or irregularities, conducts annual audits, reports the results to the internal audit committee, encourages the audit committee to show reviews on each period of its activities and practices. (Meena, 2010, 19).
To conclude the duties, the internal audit committee aims to encourage and strengthen the internal audit position by providing an independent and supportive environment for the internal audit function.

3.2.3 Theoretical framework summary

In this thesis, the framework and theory of corporate governance and internal audit are used as a guideline to find solutions for the separation of duties in the best possible manner. Furthermore, the thesis seeks to solve the fundamental issues caused by the lack of internal auditing and corporate governance.

Without going too much in-depth about the issue or solutions yet, corporate governance and internal audit give a great understanding that in the organisation, there should be an administrative tool that oversees the work and provides employees with a safe environment to work. Although at the same time, they know that the risk of error is decreased, internal audit and corporate governance also provide a code of conduct, which makes the working environment safer when there is less knowledge about the organisation's rules. (Meena, 2010.)

3.3 Risk management

Sustainable risk management is a cornerstone for business; when done right, the company can avoid harm even before it happens by predicting potential risks and hazards. In this thesis, risk management will be utilised to prevent, mitigate or transfer those risks that could lead to error or fraud. The potential risks are identified in co-operation with Tilimajakka employees by discussing them. (AICPA, n.d..)

There are always two variables: the probability of an event and the consequence. In this thesis, there will be a list of possible risks, and they will be evaluated based on the likelihood and the severity of the result. As always, some risks can be tolerated, and risks that require immediate action, and the response will be either: Avoid, Mitigate, Transfer, or Accept. (AICPA, n.d..)

Six P's of risk management are essential when designing effective risk management. Those six P's start with planning. Every organisation needs a strategy on how risk management will be executed. Preparation provides a framework for the risks and guarantees that the strategic risks are considered early and appropriately. (Baxter, 2010.)
It continues with prioritisation; in risk management, it is crucial to identify and categorise those risks which are more likely to happen or severe and must be prioritised and mentioned earlier (Baxter, 2010). (Figure 2) illustrates the rest of the P's, and then they will be covered.

FIGURE 2. Risk Management Six P's (Baxter, 2010)

The process is how risks are identified, analysed, and handled. Platform refers to a method of reporting the risks, reporting could be done, for instance, via software nowadays, but it could be as simple as a spreadsheet. This step should include capturing, manipulating, and reporting the risks. Many workplaces use nowadays kind of electronic reporting system for hazards and risks that have come close to happening or have happened. (Baxter, 2010.)

The two last P's are performance and people; without the right people and engagement at the proper level and at the correct time, the risk management will not be effective, and that is where performance steps into the picture. Risk management is difficult to measure due to its probabilistic nature; all five P's must be done in respectful manners to ensure the best possible performance. (Baxter, 2010.)

Inspiring and innovative leadership correlates with team effectiveness and then increases the likelihood of success in the future. Effective leadership can be achieved by ensuring that the workplace is a safe and pleasant environment. Segregation of Duties seeks to prevent employee fraud and error by reducing the possibility of involvement wherever there are conflicts of interest, thus reducing the likelihood of any kind of conflicts correlates with lowering the risk of fraud and error. (Kim, Gangolly, Ravi, & Rosenkrantz, 2020, 166; Baxter, 2010, 1.)

Risk management requires critical thinking, and during the research, to ensure the best possible risk management following three points must be done carefully. Firstly, essential risks have to be identified. Secondly, Risks must be prioritised correctly. Thirdly, risks must be mitigated and taken action against accordingly. Otherwise, risk management will fail. (Figure 3) illustrates checkbox evaluating criteria to ensure effective risk management (Baxter, 2010, 15.).

ID	CATEGORY	EVALUATION CRITERIA	STATUS
R1	Leadership	Risk management is a strategic priority: it is owned by a member of the senior executive team, and its importance has been cascaded down through all management levels	☐
R2	Attitude	Senior management actively supports the creation of joint risk management processes with clients. Openness and collaboration are high priorities when discussing risk	☐
R3	Roles and responsibilities	Risk management is an integrated part of roles and responsibilities and is consistent across the enterprise	☐
R4	Process	Teams are fully trained in a common risk management process and are effective in its application	☐
R5	Escalation	Teams are fully aware of audit responsibilities and understand how and when to escalate risks	☐
R6	Projects and implementation	Risk management initiatives follow best practice project management principles, have sufficient resources and budget, and address issues and risks	☐
R7	Support systems	There is a common web-based tool that provides visibility and control over the business, ensures teams follow a common process, reduces administration and encourages continuous learning	☐
R8	Opportunity management	Teams think equally in terms of identifying and realising opportunities as they do risks	☐
R9	Risk culture	There is a culture of risk awareness, where management have embraced risk management and walk the talk	☐
R10	Performance management	You have agreed key performance indicators for your risk management framework, a clear process for review and a culture of learning and improvement	☐

FIGURE 3. Checkbox evaluating criteria for risk management (Baxter, 2010, 22)

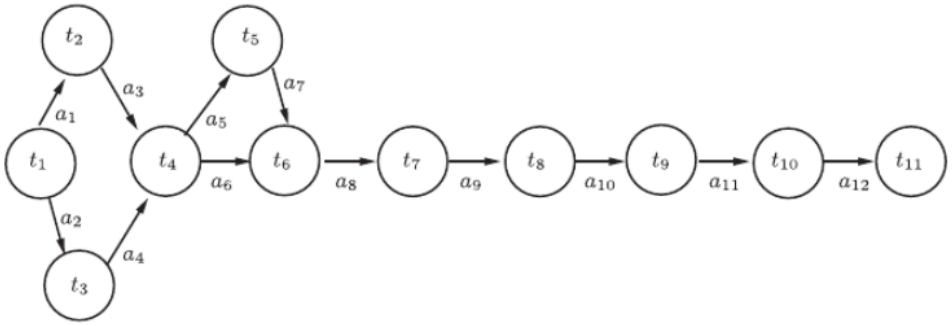
4 Segregation of duties

Segregation of Duties (SoD) is a fundamental part of sustainable risk management and internal controls. SoD means that work is allocated so that an employee or individual cannot commit and hide errors or fraud in their regular duties. However, SoD tends to be challenging for especially smaller firms. There is only a minimal amount of research about the conceptual basis for guiding how the duties should be segregated to improve internal controls. (Kobelsky, 2014.)

4.1 Computational Approach

(Kim, et al. 2020) Proposes a method to create algorithms and roles with privileges for the individuals and distribute the workflow in smaller parts. Although the method requires much communication between the individuals and slows down a single assignment.

(Figure 4) illustrates a purchase process where each individual has different responsibilities and roles; the workflow is broken down into smaller pieces. When one phase is completed, the duty is moved to the following individual to be reviewed and then processed further. (Kim, et al. 2020.)



t_1: Distribute PR
t_2: Review & approve PR for vendor & price
t_3: Review & approve PR for budget
t_4: Distribute approved PR/PO
t_5: Send PO to vendor
t_6: Prepare RR
t_7: Update inventory
t_8: Match PO, RR, and VI
t_9: Approve payment of vendor invoice
t_{10}: Prepare and sign check
t_{11}: Mail check to vendor

FIGURE 4. A visual example of role, privilege, and workflow distribution (Kim et al. 2020, 173)

The method is very effective in risk management and internal controls but does not seem to fit smaller firms, even though it could be scaled down.

4.2 Agency theory-based model

Another recognised method is using an agency for supervision (Figure 5).
In this method, there would be a third-party organisation that would review the work. However, this method includes additional costs and decreases independence. (Kobelsky, 2014.)

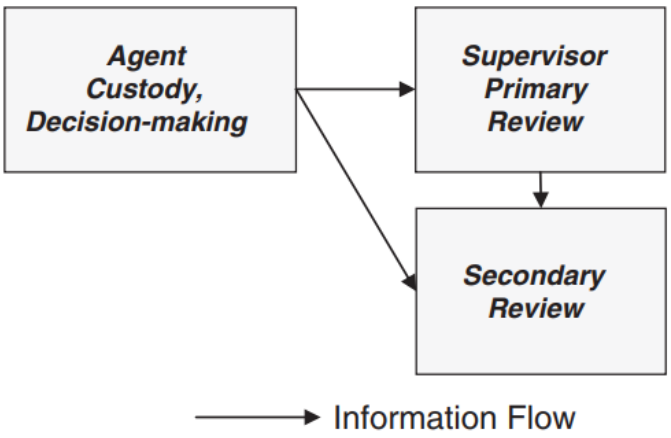


FIGURE 5. Executing SoD by using a third-party agency (Kobelsky, 2014, 306)

As mentioned in the objectives, this thesis aims to find feasible, accessible, and desirable solutions for Tilimajakka Oy. The theory behind this method is practical, but considering the scale of Tilimajakka Oy and the available resources, this method would not fulfil the set objectives.

4.3 Practioner Model

The practitioner model differs from the agency model in four ways; it would be efficient, but it has its downsides. However, the practitioner model is an enhanced version of the agency model.

First, the practitioner model uses the word authorisation instead of supervision, which decreases employees' independence and value according to (Kobelsky, 2014). Second, the duties are allocated so that the authorities have privileges of making decisions, such as entering commitments and setting prices or other valuations. At the same time, the employee follows the authoriser's instructions regarding the physical custody of assets. Third, the practitioner model does not focus on the value of secondary authorisation. Fourth, the model adds third duty to be segregated, which is the recording of transactions. (Kobelsky, 2014.)

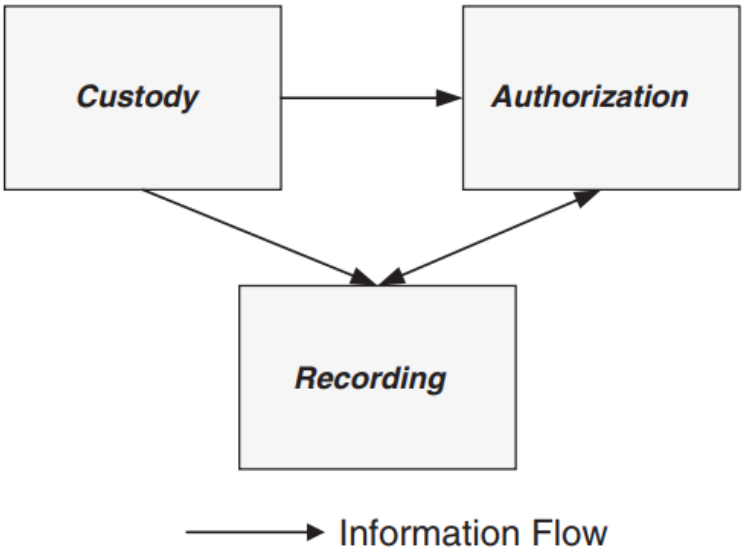


FIGURE 6. Visual illustration of the practitioner model (Kobelsky, 2014, 307)

This model could also be simplified just to work between two individuals by removing the recording phase but still maintaining a decent level of segregation. The following example could either consist of a regular employee and a manager or, for example, two employees. (Kobelsky, 2014.)

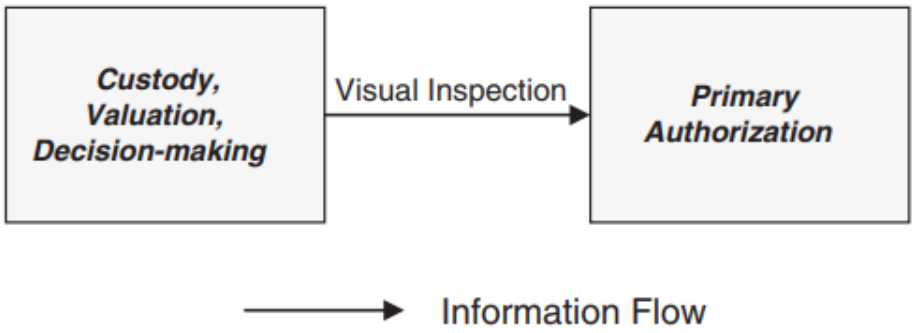


FIGURE 7. A simplified version of the practitioner model (Kobelsky, 2014, 309)

Even though (Kobelsky, 2014) points out that the simplified version could be done by peer-reviewing, he also suggests that the reviewing and authorisation should be done by hierarchically superior due to peers being often a source of considerable influence.

4.4 Organisation

Tilimajakka Oy offers comprehensive financial management services for their clients, accounting, payroll, and consulting. The company has an office in two locations: Tampere and Kyröskoski. The organisation has been active since 1960 in the Kyröskoski location, and in 1990 Tilimajakka expanded to Tampere.
Tilimajakka offers various financial services, including accounting, financial-legal services, tax consulting, and financial management.

The thesis also includes subsidiary Joviaali which came in as a merger in 2020. The company used to have five employees but currently has only two. Joviaali is an over 30 years-old company, and its owner has changed three times now. It is based in Hervanta, Tampere

4.5 Positions

There are two different positions in the organisation, payroll accountant and bookkeeper. Each employee has their clients, responsible for carrying out all the duties. An employee can have up to 50 clients, but as little as one, it all depends on how efficient the employee is and what responsibilities the client includes. For instance, if an employee has one client, it may be a client operating on staffing agency services, and the duties include paying salaries for 600 employees.

The clients can authorise Tilimajakka to use their banking services, which allows accountants to handle all payments, and another variant is that the client provides payment details to accountants. They just manually input those into the system for payments.

The bookkeepers do not perform payments except value-added taxes, although those taxes are paid directly to the tax office. Thus it would not benefit an individual in case of fraud, leaving the payroll accountant to the primary concern of the thesis.

Payroll accountants calculate net salaries, deductions and withholdings to various sized companies, smallest companies only have one employee, whereas the

largest they handle can have even 30. By default, the client sends payroll materials by e-mail to the accountant, and then the calculations are done and sent for approval. In some cases, the accountant may approve the calculations by themselves. The materials often include completed hours and bonuses. In addition, payroll accountants are responsible for updating employee profiles, monitoring, and consulting.

Accountants perform most payroll activities using Visma Fivaldi, but some clients prefer to rely on traditional ways, such as delivering the materials on paper. The software includes many optional services, but they all come with a fee.
For instance, if the client wants an additional user for the software for approving the payments, et cetera, it is possible, but each user costs 48€ per month.

The researcher and the interviewee concluded that possible risks exist in their daily duties by interviewing payroll accountants. First, the target company is a smaller business that often tends to lack segregation of duties simply because there are not enough employees for the segregation. Second, the software allows accountants to withdraw money without a cap, whereas the company owner has a limit of 100 000 euros. Third, the software enables direct payments without authorisation for accountants. Those payments are used for bills such as internet bills in an IT company so that the internet connection will not cut out in any circumstance.

However, for fraud to happen first, the client has to authorise banking privileges; therefore, the risk management plan will not include clients who have not authorised the accountants.

5 Identifying the risks

An approach method was created during the interviews together in co-operation with the accountants to identify the risks and possibilities.
The first obvious factor was that has the client authorised the accountant to use its banking services. As mentioned above, that was the only necessary condition for fraud.
The second conclusion was how much cash flow was there each month in the payments; the cash flow factor was chosen because it would directly affect the severity of the risk for two reasons. First, it would be more likely that more assets could be stolen during the fraud as there would be more money. Second, as mentioned earlier in the report, "SoD means that work is allocated so that an employee or individual cannot commit and hide errors or fraud in their regular duties." (Kobelsky, 2014). As the quote points out, hiding fraud is a logical continuum of the first act; it would be easier to hide it when there would be more significant cash flow and more payments.
And then, there was left to figure out whether someone authorises the payments and whether more than one employee is the client. The accountants were interviewed individually, and the factors were mapped using (Table 1).

TABLE 1. Evaluating risks

Accountant			
Company	**Bank Privelege**	**Monthly Cashflow**	**Payment authorisation**
Example Company 1.	YES	~100 000€	No
Example Company 2.	NO	-	-
Example Company 3.	YES	20 000€	YES, multiple
Example Company 4.	YES	10 000€	YES

The (Table 1) interprets that company number two does not include a risk since the client has not given banking privileges to the accountant. However, the rest of the companies include potential risks. Those companies are then brought to the risk matrix and evaluated.

5.1 Evaluating the risks

A risk matrix that has been presented in (Table 2) was used to evaluate the risks and their likelihood and severity.

TABLE 2. Risk Matrix

	Negligible	Minor	Moderate	Significant
Very Likely	Low Med 4	Medium 5	Med Hi 6	High 7
Likely	Low 3	Low Med 4	Medium 5	Med Hi 6
Possible	Low 2	Low Med 3	Medium 4	Med Hi 5

The companies would get a score based on the previous chart, using company number one as an example.

The company has given banking privileges that automatically gives it a possible likelihood score. Let us call the score 1 + 0 now. So the first number indicates the Y-axis score, and the second shows the X-axis score. The severity score requires the target company to decide what is negligible loss and what is significant, but let us assume that a client with roughly 100 000€ payments each month is the largest of the example companies. Therefore it could result in significant loss, giving it an X-axis score of four, leaving the overall score now 1 + 4. Then going back to likelihood, the earlier graph indicates that there is no payment authorisation. So let us assume now that the potential risk would be very likely to happen and the severity would be significant, giving the example company a maximal possible score of 3 + 4, which would then be 7 in total.

The risk assessment process followed the same pattern for each client until they had a total score. After the risk assessment, the companies were formed into groups based on their overall score for further evaluation.

5.2 Categorising the clients

Since there were hundreds of companies, it was efficient to divide the clients into groups based on their scores to take further actions accordingly.

TABLE 3. Grouping table

GROUPS	
Group 1 2-3 pts	Example company 1
Group 2 3-5 pts	Example company 2
Group 3 6-7 pts.	Example company 3

Three groups were formed and listed on the chart above, and group 1 was the lowest risks, group 2, moderate risk and group 3 high-risk clients.

5.3 Other considerations

The reason behind an employee committing fraud could be much more than just an opportunity. Financial management professionals support a theory called the fraud triangle. It consists of three factors that likely cause an individual to commit fraud, as the thesis has already included a possibility thoroughly. Pressure, motivation and rationalisation should be considered as a factor as well. (AGA, n.d..) (Cressey, 1973.)

Figure 8. The Fraud Triangle (AGA, n.d.)

As (Figure 8) illustrates, pressure and or motivation includes personal matters such as debt, sudden financial problems, getting sick, gambling addictions or drug addiction. The rationalisation is all about the individual justifying themselves that the employer does not treat right or the job itself is not rewarding enough.

Another newer theory proposed by David T. Wolfe and Dana R. Hermanson is The Fraud Diamond, which means that the individual has the necessary traits and abilities to be the right person to do the fraud successfully. However, the opportunity is a prerequisite for all the other factors. (Wolfe & Hermanson, 2004.)

FIGURE 9. The Fraud Diamond (AGA, n.d.)

6 SUGGESTIONS

An essential suggestion to prevent fraud and error within the company is to divide the tasks. For instance, if an individual calculates the salaries in payroll activities, they will not approve them, just like (Kobelsky, 2014, 309.) proposes, the mentioned method is practically accessible for even smaller firms and is effective. Another critical method is to require all clients to approve all payments, which will minimise the risk by a significant amount in every case.

As a result, groups two and three companies would be required to use approval for payments, and the same employee can not do bookkeeping and payroll for the same client - the direct payments should be disabled entirely too.

The actions should be considered separately for the group one companies, whether segregation is needed merely by inspecting the severity, since groups two and three already may cause heavy changes and take time to adjust. After the changes and adjustments have been made, all the companies should be re-evaluated accordingly and see how they rank in the risk matrix.

Another necessary action is to thoroughly apply auditing and corporate governance by following COSO guidelines. Establishing a system described earlier prevents fraud effectively. While the individuals acknowledge that a proper system oversees their processes, it effectively decreases fraud risk. At the same time, it improves the deficiencies.

Last but not least is knowing the employees and individuals, their motivations and beliefs. Keeping employees motivated and happy by knowing them while respecting an ethical employer-employee relationship can significantly decrease the risk of error and fraud, leading to better work results.

7 Conclusion

The goal of the thesis was to identify risks caused by lack of segregation of duties within Tilimajakka and Joviaali by taking advantage of auditing, corporate governance and risk management. First, the thesis introduces the theory related to auditing, corporate governance and risk management and then identifies the possible risks in cooperation with employees. After identifying the risks, the thesis explains why they exist and how to minimise them using the theories.
The first challenge of the thesis was that there was little to no existing guidelines within the company for segregation of duties. Every accounting organisation should have guidelines for the segregation of duties and risk management.

While interviewing the employees' many risks emerged, and one of the main factors was lack of staff which naturally occurs in smaller firms. However, the most alarming factor was that the clients had only one accountant in every case handling everything. Other emerging factors were the lack of approvers and direct payments. Each factor, however, had a pattern that was a lack of segregation.
As a suggestion, the target organisation should establish an auditing committee and guidelines for segregation. Another important and exciting finding was more of a psychological aspect of the employees.

Based on the findings and suggestions, the management of the commissioner organisation could take action and then re-evaluate the risks to see whether the recommendations and results have proved helpful. Even though all the risks can not be avoided, starting with the suggestions is an excellent fundamental start, and creating a continuous ever-developing process can minimise the risks.

The project was exciting, starting with zero knowledge about the subject learning by reading scientific articles, journals, asking and interviewing the employees, and doing it taught a lot. Overall, the thesis became an excellent ensemble.

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APPENDICES

Appendix 1.Interview questions

Interview questions
Employee: Job positions, duties, name, other responsibilities
Clients: All the clients and responsibilities that they include
Bank priveleges: Does the employee have priveleges to use client assets
Monthly cashflow: How much money roughly does the employee handle on that specific client
Payment authorisation Is there people who authorise your work, if so, how many?
What do you think is the current state of segregation of duties?
Can you tell me about the company you are working, briefly