



Diary thesis: Accountant in a Finnish Accounting Firm

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Abstract

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<p>The following thesis is a written diary following the application of the author's capabilities as an accountant in Taloushallinto Koskelin, a small Finnish accounting firm. The author is employed full-time at Taloushallinto Koskelin. Diary entries are recorded on a weekly basis and are comprised of daily entries and weekly analyses. The daily entries describe the tasks and challenges encountered by the author. Weekly analyses focus on the most important aspects of each week and their theoretical significance to the author's position as an accountant. The author's responsibilities are primarily focused on recording and updating financial transactions across the bank statement, sales register, and purchase register.</p> <p>The observation period was 4.9. – 27.10.2023.</p> <p>During the observation period, the author committed to completing concrete goals: establishing better organizational habits, understanding and streamlining a sales invoice financing process, and exploring an opportunity for robotic process automation. In completing these goals, the author seeks to gain understanding of the processes they contribute to, increase their productivity, and become more organized.</p> <p>The introduction chapter provides information on the author's workplace, their experience with the company, and a description of the developmental objectives. In the chapter dedicated to the initial situation, the author's responsibilities in recording financial transactions and the knowledge and skills required are analyzed alongside the systems used. Stakeholders involved in the author's work and interaction situations with various actors are outlined. Following this chapter, the daily diary entries and weekly analyses begin.</p> <p>Eight weeks of observation provided the author with a valuable opportunity to further their knowledge surrounding the concepts they utilize on a day-to-day basis as an accountant. As the developmental objectives were achieved, the author advanced their skills in accountancy and discovered future opportunities for improvement in their work. The author intends to explore these opportunities to further their professional development and utilize the knowledge gained therein to take further steps in building their career.</p>
Keywords Accounting, SME, RPA, accounts payable, accounts receivable

Contents

1	Introduction	1
1.1	Objectives	1
2	Description of the initial situation	4
2.1	Analysis of my current work.....	4
2.2	Stakeholders	5
2.3	Interaction situations	6
3	Diary entries	8
3.1	Observation week 1.....	8
3.2	Observation week 2.....	14
3.3	Observation week 3.....	22
3.4	Observation week 4.....	27
3.5	Observation week 5.....	31
3.6	Observation week 6.....	35
3.7	Observation week 7.....	38
3.8	Observation week 8.....	41
4	Discussion.....	44
	Sources	46
	Appendices	49
	Appendix 1. Business models of companies mentioned in the thesis.	49
	Appendix 2. Flowchart of an example process created in UIPath Task Mining software.	50

1 Introduction

The following thesis is a diary of my experiences, reflections, and growth as an accountant in a Finnish accounting firm. This documentation will be done during an observation period of 8 weeks from 4.9. to 27.10.2023. Herein, the reader will be given detailed insight into the tasks that I handled on a day-to-day basis, my own thoughts on and developments in my work and how my experiences during this period have benefited my professional and personal development.

Concerning my place of employment, Taloushallinto Koskelin Oy (THK) is a small firm based in Vantaa headed by my supervisor, Marja-Leena Koskelin. We provide financial services to over 50 separate companies from various industries and business sectors. Because of this, the processes and tasks across companies tend to be dissimilar and unique. THK employs 5 workers including myself. This low number of employees creates a comfortable & familiar environment which allows for ease of discussion and flexibility. I am close with my colleagues having worked with most of them for nearly 4 years. However, our separate responsibilities seldom require communication with one another aside from Marja-Leena. She has been in accounting related positions for over 40 years and serves as both a supervisor and mentor to my colleagues and me. Our assignment of tasks, guidance and questions are all handled by her.

My position as an accountant includes multiple responsibilities of which some are concrete while others are infrequent assignments. There are daily, weekly, monthly, and yearly tasks that I regularly handle revolving around general ledger accounting, accounts payable & receivable registers and financial reporting. My scheduled tasks typically do not change though more are added often. Projects and other tasks which do not occur at regular intervals are sometimes tedious and complex. To describe my work, all my responsibilities are those which I can complete on my own or with guidance, if necessary. Currently, I manage various areas of over 20 companies with sporadic projects in several more. Appendix 1 contains information on the companies mentioned in the thesis and their business models. Completing my work requires, among other things, an understanding of multiple accounting processes, the ability to use different accounting software, problem-solving, attention to detail, and, most importantly, timeliness.

1.1 Objectives

Because I have been working as an accountant from January of 2020, I have reached a significant level of familiarity in my job. That being said, my objectives are mostly product-oriented with tangible benefits. These goals include: 1.) establishing better organizational habits, tools, or methods, 2.) investigating, comprehending, and streamlining a task involving sales invoice financing and 3.) determining a task with the possibility for robotic process automation. Through these objectives I

will further my own understanding of the processes I am contributing to, enhance my productivity and self-discipline, and become a more organized individual.

In my professional and personal life, organization has not been one of my strengths. However, through routines and scheduling surrounding my profession, I have seen a general improvement. Still, the level of disorganization I currently have has an impact on my outcomes and the efficiency at which I reach them. Through research and general knowledge, I will achieve a standard of organization that I am pleased with.

The second objective I will complete revolves around the idea of invoice financing. Invoice financing is a type of funding utilized by suppliers who need to improve their cash flow. To do this, the supplier enters into an agreement with a factor, the lender who provides funding. In this agreement, the factor provides cash, usually a percentage of the total amount, immediately for the sales invoices created by the supplier. If the supplier collects money for the invoice to be forwarded to the factor, it is referred to as invoice discounting. If the factor collects money for the invoice, it is referred to as invoice factoring. Therefore, the difference between the two depends on who takes the credit risk. With more risk comes more cost, and so invoice factoring is typically more expensive. The factor takes commission and other fees as a means of income. (Bullivant 2016, 635–639.) Understanding this topic is important to the application of it in accounting, which will be explored in the diary entries.

Robotic process automation, or RPA, is a form of automation that mimics the actions of a user at a greater speed than the user is capable of. Since it simply copies what the user does, it is best used for repetitive tasks that are consistently done the same way. (Langmann & Turi 2022, 5–7.) Business automation has always provided a competitive advantage and continues to do so in a digital world through automation like RPA. The benefits of RPA cannot be understated, especially in time-savings. A study conducted by PWC (2020) showed that 84% of respondents said time-savings were the greatest benefit of utilizing RPA. Given how prevalent RPA is in modern business settings and the potential benefits of using it, I will explore possibilities in my tasks where it could be applicable. RPAs are relatively easy to create and maintain as they do not require extensive knowledge of programming. RPA software provides the user with interfaces which simplify the process of creating RPAs and thus automating one's tasks. RPA and possibilities for its usage will be uncovered for the final objective in the diary entries.

In reaching my objectives, the greatest barrier of entry is my own lack of proficiency in the Finnish language. As our clients at THK are almost entirely domestic companies, my ability to handle and communicate complicated business concepts in Finnish is low. Because of my lack of fluency, this

diary will not have a significant focus on communication despite its importance in my long-term professional development.

Table 1. Overlay matrix of the in-text connections in the diary-based thesis

Own professional development objective	Theoretical framework	Observation week(s)	Results of own professional development
Establish better organizational habits, tools, or methods	3.6	Weeks 6 & 7	Week 7 analysis
Investigating, comprehending, and streamlining sales invoice financing task	3.1	Week 1	Week 1 analysis
Determining task for possibility of robotic process automation	3.6, 3.7, 3.8	Weeks 6, 7, & 8	Weeks 7 & 8 analyses

2 Description of the initial situation

The following chapter is an analysis of my current work across the various areas of accounting I am involved in, the stakeholders involved, and interaction situations in the workplace. With the concept of bookkeeping in mind, it is my duty to record financial transactions from bank statements and accounts receivable & payable registers in journal entries across the general ledger. Though this is the bulk of my work, I also handle the creation of financial statements and certain reporting tasks. Accountancy in my setting necessitates proficiency across the accounting cycle. Thus, understanding crucial accounting concepts therein is a prerequisite of completing most of my tasks. Furthermore, the modern accountant must have a solid grasp on accounting tools utilized in the workplace.

2.1 Analysis of my current work

In the table below, the tasks I manage are outlined according to their frequency. Though this table is not exhaustive, it gives a general overview of what responsibilities I have.

Table 2. Tasks handled and their frequency.

Daily	Weekly	Monthly	Yearly
<ul style="list-style-type: none"> - Bank statement transactions - Accounts payable transactions 	<ul style="list-style-type: none"> - Accounts receivable transactions 	<ul style="list-style-type: none"> - VAT returns - Manual journal entries (depreciations, accruals) 	<ul style="list-style-type: none"> - Year-end closings - Creating financial statements

Whether it be handling bank statements or accounts receivable transactions, the process involves translating financial transactions into accounting information that is reflected in the general ledger. This allows an accounting firm or department to track all the financial transactions of a company. Recording transactions accurately is possible with supplementary information, such as receipts, invoices, or agreements.

Filing value-added tax (VAT) returns requires knowledge of VAT laws and practices in Finland and how to correctly file those returns through Verohallinto's (Finland's tax administration) website. In short, VAT is tax related to the consumption of goods and services. When an item is bought or sold, the price will include VAT. VAT must be paid forward to Verohallinto by those who are liable to pay, usually business entities who have included VAT in their sales. However, this tax liability can be offset by the VAT paid by the business for products or services that can be attributed to the

creation of sales. In cases where the VAT on purchases is higher than the VAT on sales, Verohallinto is liable to pay the VAT back to the business. It is my responsibility to ensure the transactions including VAT are all correct and to file a VAT return detailing the total VAT for those transactions for a given period. VAT returns are due the 12th of every month for the month before last.

The manual journal entries I am responsible for are depreciations and accruals in select companies. Depreciation adjustments must be created to showcase the depreciating value of an asset and are typically done monthly. I utilize accrual adjustments in one company who invoices customers for services that are not yet provided. Accrual adjustments allow me to recognize the profit from these sales in the period in which the service is provided. Adjustments are necessary to complete year-end closings which is the process of 'closing the books' for the prior financial year. In this work, I am mostly tasked with creating official financial statements to be reported to Verohallinto. However, this work will not occur during the observation period as it does not line up with the end of the financial year for the customers I interact with.

My tasks are handled across three accounting software: Procountor, Fivaldi, & Netvisor. Most of my tasks are done in Procounto. I visit Netvisor monthly as I am only typically responsible for VAT returns & manual journal entries for the companies therein. Finally, Fivaldi is a program I seldom visit, though I am occasionally given tasks for a few of the clients that we have there. Beyond these three accounting software, I utilize Excel and Word for handling data and creating financial reports.

All the knowledge that I have at this point has largely been gained through practice in my position. Schooling has supplemented it to some extent, but the uniqueness of my workplace necessitates experience through work as a foundation for understanding. Given my current capabilities, I would describe myself as an experienced performer: I am able to handle most of my tasks without guidance and form understanding of new ones through prior experience, but not always. Furthermore, though I have a clear understanding of how my tasks must be done, I do not always grasp the reasons why or the bigger picture.

2.2 Stakeholders

The stakeholders involved in my work are as follows: owners/partners, employees, clients, suppliers, and government agencies. Each of these stakeholders play an important role in the work that I do for Taloushallinto Koskelin for the reasons outlined in the following paragraphs.

The owners of Taloushallinto Koskelin control the direction of the company. Whether the business does well or poorly depends largely on their decisions. For instance, purchasing assets, cutting agreements with clients, selling shares or other critical actions can sway the direction equally towards success or failure. However, because the relative success of Taloushallinto Koskelin affects

them directly in the form of profits, decision-making is not done lightly. Owners of the business are therefore among the key stakeholders.

Employees of Taloushallinto Koskelin, like myself, are stakeholders in that we depend on the work we do here to receive a salary. Likewise, Taloushallinto Koskelin depends on us doing that work to generate the revenue necessary to pay our salaries.

Clients serve as the basis of Taloushallinto Koskelin's operations. It is through them that we have work to complete and thus to invoice for. Without clients, a business cannot operate. Though the relationship we have with our clients is balanced in their favor, they still require our services to handle, manage, and maintain the accounting necessary to run their businesses smoothly.

Though suppliers do not provide the same services or products in an accounting company as they do for other traditional businesses, they are still critical to our success. In Taloushallinto Koskelin, we utilize multiple software programs to perform our duties. The interfaces that software provides to us are nothing short of paramount. Similarly, our use of these services is necessary for our suppliers to perform well. Our relationship with our suppliers is balanced in their favor considering our relative size in comparison to their entire clientele, but the actions they take regarding the software they create impacts everyone; these means that it is crucial for them to provide top quality services to maintain a strong customer base.

Lastly, government agencies are a key stakeholder in Taloushallinto Koskelin. We follow the standards, laws, and expectations of agencies such as Verohallinto when completing our work and report to them as needed. Verohallinto, for instance, depends on us to accurately provide information to them concerning our clients and ourselves to determine various taxes. Though this is one example, it is the most important.

2.3 Interaction situations

In my work, there are three key groups which I interact with: colleagues, clients, and government agencies. Though the latter two are less frequent than the former, all are important to complete my tasks.

When interacting with colleagues, for instance my supervisor, I tend to ask lots of questions about my work to both understand how to complete it and for what purpose it serves. I also ask if specific tasks have been done which are prerequisites for some of my own tasks. Generally, interacting with my colleagues revolves around solving questions regarding my own work.

As for clients, I seldom interact directly with them. This is because their operating language is Finnish and I am currently incapable of discussing complex business-related topics in Finnish. For these clients, I pass information onto my supervisor who conducts discussions in Finnish with them. However, there are certain customers who operate in English even though they are domestic companies. It is with them that I interact with primarily. I typically contact these clients about missing information or to ask how they would prefer to handle certain unique situations, such as overpayments for sales invoices.

Finally, I interact directly with Verohallinto by submitting different forms to them. I have not had to contact anyone at Verohallinto directly, however. Situations which require contact with the government are handled by my supervisor.

3 Diary entries

3.1 Observation week 1

Monday, September 4, 2023

At the beginning of each month, my focus is on completing VAT returns. This process varies based on the software used but follows the same general procedure outlined in the figure below.

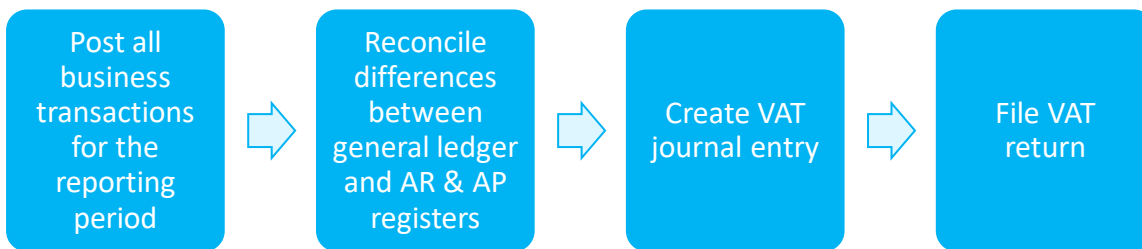


Figure 1. Monthly VAT filing process

Filing VAT returns is typically a fast process. However, the time required increases depending on whether I have posted the business transactions for the filing period. Often, I wait until the beginning of the month to post business transactions. Organizing this process in a timelier fashion is among my priorities today and within this week. I also plan to work on my largest client, Company S, and their invoice financing process that has yet to be properly set up in the accounting. Doing so would help me reach a developmental goal in this diary and further my own comprehension of another significant accounting concept.

Though the set goals for the day were quite small, I found myself entirely caught up in the second objective. My supervisor and I spent several hours fighting for understanding in the invoice financing process which is outlined below. PURO's method of invoice financing is considered invoice factoring.

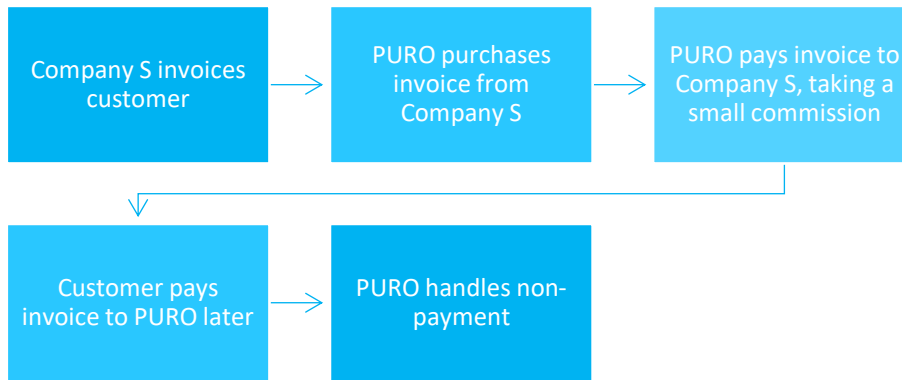


Figure 2. Basic outline of PURO financing process.

We adjusted the automatic entries created by the system which consisted of several dozen lines before realizing that it was all for naught. They had been correct beforehand, but we had not known that there was material we could reference to easily set up the process. PURO Finance is a partner of Procountor and has guidelines on how to manage its bookings. Referencing these guidelines, we were able to fix some of our mistakes but ultimately must wait on PURO to potentially recreate the journal entries.

Overall, today was a testament to my need for organization. Scrambling to find all the material needed to understand the PURO problem set my productivity back immensely. Recognizing the need for planning will benefit me tomorrow as I begin the day and further in the future as I streamline the tasks I must complete. Though today was largely working backwards from self-created problems, I now fully understand the complete picture of the PURO Finance process which will help me in completing the accounting procedures necessary to enable it.

Tuesday, September 5, 2023

On Tuesdays, I have a course which means I miss around half of the day. Following yesterday's debacle and my lack of time, I primarily focused on filing VAT returns today. However, I was informed by my supervisor that the company's in Netvisor could not be done yet as they were still invoicing for July, the filing period. Thus, Company S had my full attention. I had not booked the bank statement transactions from July and so primarily handled those before I could file the VAT return. Handling bank statements so close to the filing date can be an issue when receipts, or justification for transactions, are missing. Because of this, I informed my contact in Company S of my plan to book bank statement transactions sooner. Doing so helps spread my workload more evenly across the month and thus my productivity improves from the lack of stress around deadlines.

When handling bank transactions for Company S, I refer to my note sheet that I have created in Excel. This handy Excel sheet contains a list of transactions that frequently appear on the bank

statement. These transactions tend to be those that are not connected with a purchase invoice or otherwise connected to a document in Procountor.

Bank statement			
Book all non-invoice lines. Connect receipts from cost receipt management.			
Name	Account	VAT	Notes
Asana	7640	EU 24 ser	Management software
Atlassian	7640	EU 24 ser	Trello, Jira, forums
Auth0	7640	0	Login service
AWS	7640	24	Web services

Figure 3. A snippet of my notes in my Excel sheet.

For this month, the bank statement appeared to go as normal except for some key transactions: issued shares and the funding received therein. I had received information prior to seeing these transactions and knew they would be appearing. However, having no official information on how they should be booked, I searched for similar historical bookings. It was here that I noticed that prior bookings were incorrectly put in GL account 2020, share premium (ylikurssirahasto). Following my supervisor's instructions, I changed these to account 2060, non-restricted equity capital (si-joitettun vapaan oman pääoman rahasto, SVOP). I then booked the new transactions to that same account. Until we are given information as to their usage, they will remain in this account on the balance sheet. Aside from these investment transactions, there were some payments to Verohal-linto which did not have references. When this occurs, I must enter OmaVero's pages and check the payment the company has made to Verohallinto. Typically, the entire amount can go to the same account—2935, My Tax events (OmaVero tapahtumat)—but occasionally there is interest which must be separated. That was not the case this time, and all was normal. The last thing which I did regarding the bank statement was list out those transactions with no receipts. I gathered these transactions and sent an email to my contact in Company S asking for them to be added to Pro-countor to connect them to the bank statement. In this same email, I mentioned that I would be handling bank statement transactions earlier to lessen the pressure on the contact to gather these receipts quickly. As previously mentioned, taking this step improves my efficiency and timeliness as well as my general productivity by pushing tasks to otherwise 'empty' parts of the month.

Being entrenched in one company for an entire day during an important week is inefficient. That inefficiency is apparent when I must rush to complete other important tasks. Still, I was able to achieve the goal I had set for the day. My recognition of my poor task management is an important step in improving it.

Wednesday, September 6, 2023

Continuing the theme of completing VAT returns, Wednesday was no different. The goal for today was to file all the necessary VAT returns for the companies that I handle in Netvisor. None of these companies have any special situations and thus will not be referred to individually in this diary unless otherwise stated. I have already streamlined this process and, at this moment, do not believe it is an area which I can improve further on in Netvisor. Thus, today largely lacked any substance which could have been considered as supplementary to my professional development.

Thursday, September 7, 2023

This Thursday lent itself to one of my more time-consuming tasks: manual bookkeeping of sales invoices for Company MT. Company MT serves as a financing company, like PURO Finance in the case of Company S. They purchase sales invoices from companies while taking a small commission fee and collect payment for the invoice from the invoiced company later. The process, in my opinion, is not entirely efficient on the accounting side. A simplified explanation follows:



Figure 4. Invoice handling process for Company MT.

As you can imagine, handling sales invoices for Company MT takes a lot of time. Not only that, but there are also occasionally other fees such as enforcement fees (ulosottomaksut), debt reductions (velan vähennys), and withholding tax (ennakonpidätys). These fees are typical inclusions in the report, but it is possible that there are special deductions depending on the company the invoice has been purchased from. Overall, this process is largely complicated because it is a manual invoicing process on Company MT's side. Company MT does not typically use any special coding for these fees and thus wording changes from invoice to invoice. Often, Company MT must be contacted to explain invoices. The following is an example of a report found attached to an invoice.

Summa Yhteensä:	[REDACTED]
Komissio (sis. ALV 0%):	[REDACTED]
Käsittelykulut:	[REDACTED]
Komissio + käsittelykulut yht:	[REDACTED]
Maksetaan:	[REDACTED]

Figure 5. Example of Company MT invoice report.

This report is as simple as can be. In this case, only two accounts must be changed or booked. commission + handling fee total (komissio + käsittelykulut yht) is booked as profit and the to be paid (maksetaan) line to a liability account.

When I initially approached this task, I had not prepared for the sheer number of invoices that had accumulated in the time since I had last done it in the prior week. The invoice total sat around 95 invoices. I had a dentist appointment today and so could not totally complete the task. However, in booking these invoices I developed a mental picture of the task and tried to find opportunities where it could be improved. Although I did not manage to create a solution or change today, I pondered the potential for parts of this task to be automated. It is relatively similar the entire way through but would require several 'if' functions to completely book an invoice depending on the contents. Furthermore, reconciliation is made needlessly difficult by booking invoices to be paid and payments for those invoices to two separate accounts. This could easily be remedied by utilizing a single account and gaining access to account reconciliation tools in Procountor.

Friday, September 8, 2023

With the deadline for filing VAT returns approaching quickly, I decided to file Company S's VAT return without the requested receipts. Several transactions were not deducted in the VAT return, but such is the case when there is no justification for a cost. However, given that some are transactions that appear monthly and have receipts connected to those prior transactions, I deducted those in the tax return. Beyond filing Company S's VAT return, I sought to finish Company MT's sales invoice bookkeeping. However, though I completed Company S's VAT return quickly, Company MT's invoice handling did not follow suite. More invoices arrived yesterday, and I still was not able to complete the task. Streamlining this task is of great importance to me and my efficiency and so I discussed with my supervisor the opportunities mentioned in yesterday's entry: automation and accounting changes. She agreed that both are strong solutions which we can work to implement in the next financial year.

Week 1 Analysis

The biggest challenge I faced in the first observation week was concerning the bookkeeping associated with invoices in Company S being financed by PURO Finance. PURO Finance is a Finnish fintech company which has partnered with select ERP providers to enable them to handle the entire invoice cycle from e-invoicing, financing, collection, and bookkeeping (PURO Finance 2021). Fintech, or financial technology, services integrate the use of tech solutions, such as ERP management, to make financial activities, like invoice financing, more efficient, cost-effective, and easy to use (Zachariadis 29 October 2018, min. 4–5). In the case of PURO, you can easily apply for financing online and have them integrated into your chosen ERP system, given that they are partnered with them. Company S has hired PURO Finance through Procountor’s Kassaturva program as PURO is partnered with Procountor.

When a company begins using PURO Finance through Procountor’s Kassaturva program, the company gives access to PURO’s API in their accounting. This allows PURO to create the necessary journal entries to reflect the use of invoice financing. However, for this process to work, the accountant must make some changes for deployment: new accounts must be opened, a posting rule for the bank statement must be created and sales invoice accounting must be updated to ensure smooth automation in the future. The accounting procedure that PURO follows can be seen in the figure below.

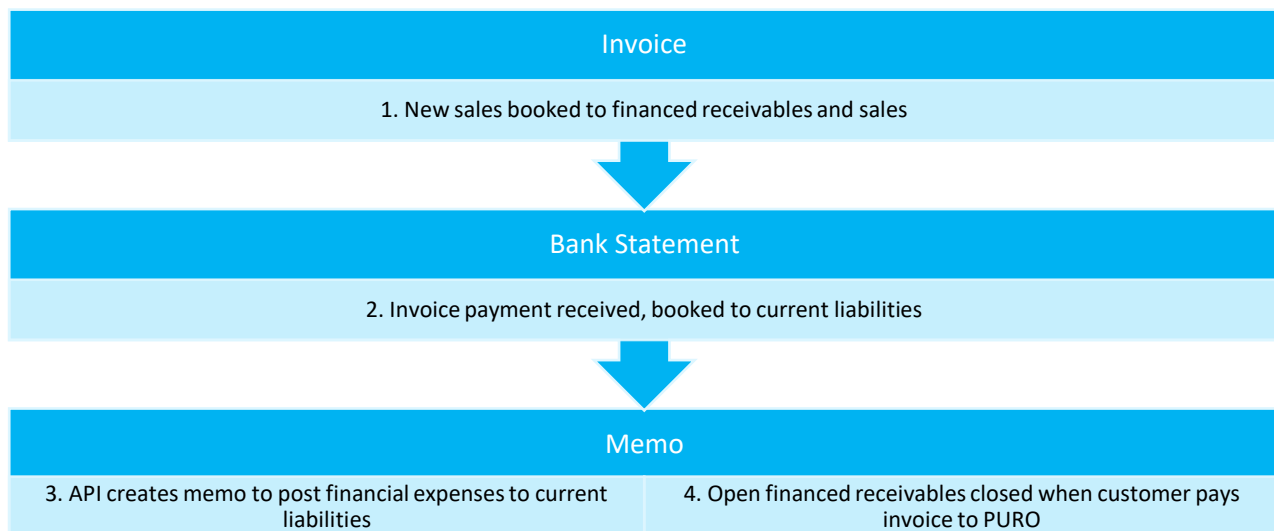


Figure 6. PURO Finance accounting procedure. (adapted from Procountor 2022)

As seen in the prior figure, PURO’s process begins at the sales invoice. Each invoice to be financed must be booked to financed receivables and sales which can be automated with default postings. In Company S’s case, all invoices are financed. The financed receivables account must

be opened by the accountant specifically as GL account 1718. Then, PURO Finance pays the invoice to Company S while deducting any financial costs. The payment is booked to a current liabilities account which must be opened by the accountant as GL account 2842. The payment on the bank statement can be automated through a posting rule. At the end of each month, PURO's API creates a memo to post those financial expenses. The GL account for financial expenses, 9640, must be opened if it is not already. The expense is debited to financial expenses and credited to the current liabilities account. In this same memo, if the customer has paid the invoice to PURO, the total amount of the invoice is credited from the financed receivables account and debited from the current liabilities account. The invoice is also marked as paid in the AR register. Behind this process, PURO creates spreadsheets to keep track of all invoices it handles, pays, deducts costs from, and those that remain open. This data is available to me and is invaluable for reconciliation. This is because I can compare the total amount of money from open invoices in the AR register to the data that PURO provides to discover any discrepancies in accounting. (Procountor 2022).

My supervisor and I were not aware of this process prior to the mistakes we made in changing the API's entries to match our own idea of what seemed correct. Though what we did technically would have worked, it completely circumvented the entire purpose of the fintech PURO was using. However, with the knowledge I have now, I am able to correct the issues we created. In the coming week, I will correct the accounting for all the invoices not booked to the financed receivables account and any related payments in the bank statement.

Beyond the issues faced in Company S, I discovered that I am lacking in my task management abilities. This is reflected in my ability to meet certain deadlines during the month, such as filing VAT returns, and results in possibly increasing the amount of VAT that must be paid by a company. If I do not know which receipts are missing well before the filing date, there is not ample time for the contact in the company to gather them to justify and deduct their related expenses. I have begun to rectify this issue by agreeing with my contact in Company S to handle bank statement transactions sooner. In the coming weeks, I plan to take steps toward improving my organization and task management in concrete ways.

3.2 Observation week 2

Monday, September 11, 2023

With the period for filing monthly VAT returns ending, the following weeks in the month mostly contain daily work with occasional unique tasks. Today, I handled the accounts payable register and bank statement transactions for Company PT in Fivaldi.

When connecting each purchase invoice for Company PT to the proper account, it is typical to come across invoices from suppliers I do not recognize, and which do not appear in my note sheet. In this situation, it is helpful to utilize historical data to get the correct account. Luckily, modern accounting software lends itself to finding archived data easily and so this only slows down the process by a small amount. However, to increase my efficiency in future situations, the supplier, account, and any related cost centers are added to my Excel notes.

I was also able to complete Company MT's monumental list of invoices. In doing this, I was presented with some invoices that had reports which contained content that was very out of the ordinary. My supervisor was able to explain what these lines in the report meant after conversing with a contact in Company MT. Essentially, Company MT had deducted an advance payment (ennakkomaksu) from a payment to a customer to repay outstanding loans to Company MT that the customer has. These loans seldom have easily accessible agreements and are generally hard to follow given Company MT's organization. Luckily, my supervisor has created an Excel sheet to track loans issued by Company MT. Utilizing tools like this is essential when dealing with particularly disorganized clients and organized work makes the accountant's job much easier.

Tuesday, September 12, 2023

With Company MT's invoices up to date, their related deductions as communicated in the invoice reports have been credited to their respective accounts. Among these deductions are some liabilities which Company MT is responsible for paying forward. To paint a clear picture of the open balance, I submit a short report by email to my supervisor so that she can pay off the liability.

After creating the report initially, I was informed by my supervisor that it needed to be more descriptive with the information it provided. I had wrongfully assumed that balances for each account were enough, but it is arbitrary information without knowing which customers the balances are connected to. The report I created is below in Figure 7 with sensitive information concerning customers omitted.

Account summaries

- **2965: 21 657,47e** total balance open.
 - o [REDACTED] Oy: **18 054,17e** (ML3101, 3248, 3177)
 - o [REDACTED] Oy: **2 087,03e** (ML3180, 3239)
 - o [REDACTED] Oy: **1 516,27e** (ML3165, 3230)
- **2921: 698,32e** total balance open.
 - o ML3180, [REDACTED] Oy
 - o ML3239, [REDACTED] Oy
- **2939: No balance.**

Figure 7. Weekly account summary report submitted via email.

Account 2965 is dedicated to enforcement fees, 2921 is for withholding tax, and 2939 holds debt reductions. As you can see, there are some enforcement fees and withholding tax to be paid for some customers. My supervisor handles any necessary payments and can utilize my report to see briefly who she is paying on behalf of, what amount she is paying, and which invoices these amounts have been deducted from. Though it took time for me to reach this final version, I understand now what information is important for my supervisor to receive on a weekly basis for Company MT.

Wednesday, September 13, 2023

Wednesday's tasks were limited in that they did not provide much in terms of professional development. I connected some purchase invoices in Company PT to their proper expense accounts but did not see an opportunity to provide content for the diary within this task. Moments like these tend to lend themselves to completing schoolwork. However, in coming weeks I hope to use them to further organize my digital and physical workspace and my overall workflow.

Thursday, September 14, 2023

The goal for this Thursday was to revisit each sales invoice sent by Company S after they began financing their invoices via PURO. Since PURO's guidelines require all financed invoices be booked to financed receivables in account 1718, every invoice that was created prior to the change of default accounts needed to be updated. Completing this task was my target today but I was surprised by another issue involving Company PT. An error existed somewhere which was causing the year's result on the balance sheet to differ from that of the income statement. Given that problem solving is one of my strengths, I looked forward to discovering the cause behind this issue. I handled this before moving onto Company S as Company PT's issue took precedence. This is because we are currently closing the prior financial year and need to fix the error to continue.

Fivaldi is tricky for me to use as it is severely lacking in its English translation. Luckily, I have spent enough time using the software to know generally what I am looking for while working. When I began searching for the discrepancy in the accounting, I assumed it must exist somewhere in a balance sheet account considering it was not affecting the income statement. I utilized the search capabilities to check through the general ledger to help discover the issue. From here, I noticed that the total debit entries were not equal to the total credit entries. So, at this point I had deduced that a debit line was missing somewhere. Given that several of the systems in Fivaldi are automatic, I tried to think of places in which we were doing manual journal entries. This is when I recalled that every month, we enter cash sales receipts into the system for the prior month. I immediately

checked the journal entries in Fivaldi's program and discovered a debit line was missing for the cash documents in November of last year. For some context, Company PT's financial year is from 1.6.-31.5.20XX and so entries in November from the prior calendar year influence the current financial year. I fixed the error by creating the required debit entry in the cash document memo. By conquering the problem in Company PT, I furthered my own understanding of how certain discrepancies in financial statements may be caused and where to find the issue relatively quickly.

As for Company S, I was able to update all the sales invoices to the correct receivables account. With all the historical data being seemingly corrected, I moved forward with comparing the transactions in Procountor to the information provided in PURO's spreadsheets. I was able to match the month of June but found an odd discrepancy: the final balance for the month given in PURO's Excel file does not match that in Procountor. Moreover, the final balance does not match the supposed calculation in the file itself, as seen below.

Veloituslaskut yhteensä	74185.86
Hyvityslaskut yhteensä	-1769.73
Kassa-alennukset yhteensä	0.00
Suoritukset yhteensä	-15397.64
Kulut yhteensä	0.00
Loppusaldo 30.6.2023	49510.49

Figure 8. Transaction information provided by PURO.

As you can see, the final balance (loppusaldo) does not reflect the changes between the total sales invoices (veloituskulut) sent, refunded invoices (hyvityslaskut) and the changes to the receivables (suoritukset). My supervisor and I are not sure why that is and have contacted PURO to find out why.

Friday, September 15, 2023

Keeping in line with yesterday, Friday began with a surprise: an accounting error had been made in Company Z for nearly all salary slips dating back to March. Company Z uses Procountor for their accounting software. Coincidentally, March is when I took over the salary accounting task.

Company Z operates in such a way that they have very few permanent workers and several temporary employees. This is because they are a dance organization and are hiring different individuals based on the shows they are hosting. Temporary workers' salaries are booked in a separate location than permanent salaries as they are not a fixed salary and thus all deductions from their salaries must be accounted for in a different segment of the chart of accounts. Salary accounting is

updated monthly and has been my responsibility since March. I had not given the correct account to all the previously mentioned deductions and had to revisit every salary slip to ensure they were correct. An example of an incorrect slip and the corrected version follows in Figure 9.

Account	Accounti		Account	Accounti
4030	684,00		4030	684,00
5330 Lomapalkkojen jaksotus	85,50		4030	85,50

Figure 9. Incorrect account in Company Z salary accounting compared to correct account.

GL account 4030 is the account which refers to the position for which this temporary employee has been hired for. The range of accounts for temporary workers and their salary deductions stay within the 4000's to ensure they appear in the variable salaries segment. 5330 is the account where the portion of the salary reserved for holiday pay (lomapalkkojen jaksotus) is booked. However, 5330 is in the fixed salaries segment of the chart of accounts and thus must be changed to reflect the salary belonging to a temporary worker. The reason that the holiday pay apportionment is not accounted for in its own separate account from the temporary worker's overall salary is because it can be found in the payroll register. Using a separate account for the holiday pay apportionment overall, even for fixed salaries, is more for historical consistency than practicality. This is because in Company Z's prior accounting system it was necessary to have a separate general ledger account for budgeting purposes for which they still use it for, for continuity. This is only an example of one of the accounts that needed to be changed. For instance, it occasionally happened that a temporary worker had their travel or hotel expenses covered by Company Z by way of compensating them through their salary. The related expense accounts were incorrect and needed to be changed as well.

It took a large portion of my day to completely fix these errors and so I was unable to complete the monthly salary accounting for September in Company Z. It is best that this be done around when the salaries are initially accounted for in the payroll register, the 15th of every month, so that they are properly shown in the general ledger and thus the information that Company Z can review via the income statement. On Monday, I will complete the accounting for September's salaries.

Week 2 Analysis

As compared to PURO Finance's connection with Company S, Company MT's style of invoice financing is more personal and involved in their client's business. The reports mentioned in the first observation week that are included with each of Company MT's sales invoices reflect the amount of a client's sales invoice that they will finance. Every payment that Company MT makes to a client has a standard commission and handling fee that is shown as a deduction in the payment total on

the report. Further deductions such as enforcement fees and withholding tax can appear on Company MT's reports which is dissimilar to PURO Finance's style of financing as seen thus far. For reference, PURO only takes a commission and handling fee. However, these deductions do not contribute to Company MT's profits as they are liabilities that Company MT is handling on behalf of their client. Enforcement fees, in this context, are fulfilling a garnishment enforced by the National Enforcement Authority Finland (National Enforcement Authority Finland 2020). The client is the debtor and Company MT pays the enforcement fee forward to the National Enforcement Authority. Withholding tax appears occasionally on Company MT's reports as 'ennakonpidätys 13%'. The deduction for withholding tax is only applicable for those clients who are not on the prepayment register. Finland's prepayment register is a system that a business entity or self-employed individual can utilize to shift the responsibility of handling withholding tax on nonwage compensation, or income generated by the business, from the payor to themselves (Verohallinto 2021b). When a customer of Company MT is not in this prepayment register, Company MT deducts the standard withholding tax rate for a business entity of 13% from the amount to be paid (Verohallinto 2021b). The withholding tax is then reported to the Incomes Register as is required and the withholding tax is paid to the Finnish Tax Administration by Company MT (Verohallinto 2022). With the background for these two standard deductions explained, the importance of reporting them correctly to my supervisor cannot be understated.

On Tuesday, I created a summary for my supervisor outlining the liabilities for which Company MT was responsible for paying. Though it conveyed the data in a sufficient manner, it missed the mark in some ways: formatting and a lack of supplementary information that would streamline repayment. In short, I must provide a brief statement for each liability account that is affected during a given period. The contents of the statement are shown briefly in Figure 10. Considering the uniqueness of the report, the expectations of the contents were provided by my supervisor and thus serve as the guidelines for what I shall include. Essentially, the statement is a breakdown of the currently open account balance. This could be referred to as a form of account analysis which is done by examining the line items of an account, typically one belonging to the balance sheet (such as a liability account), to understand the contents of the account (Bragg 2023a). For the purposes of the statement, I will itemize the lines of the accounts per customer in an Excel sheet. Alongside each customer will be their business ID which is the code given by the Finnish Patent and Registration office or the Finnish Tax Administration. The business ID is a seven-digit code which identifies the business and is used on invoices, letters, reports, and forms (YTJ s.a.). The current open balance for the customer will be displayed next to their name and will be broken down into separate invoice amounts which sum up the total and the invoice number will be noted next to the amount. Furthermore, the related reference number will be displayed. Reference numbers are utilized to identify transactions and are provided, for instance, by Verohallinto in accordance with what type of taxes

are being paid (Verohallinto 2023). Agreements with the National Enforcement Agency also contain a reference number. Lastly, the bank account to which the corresponding amount should be paid will also be included. I will be implementing this style of summarizing information at the time of the next report.

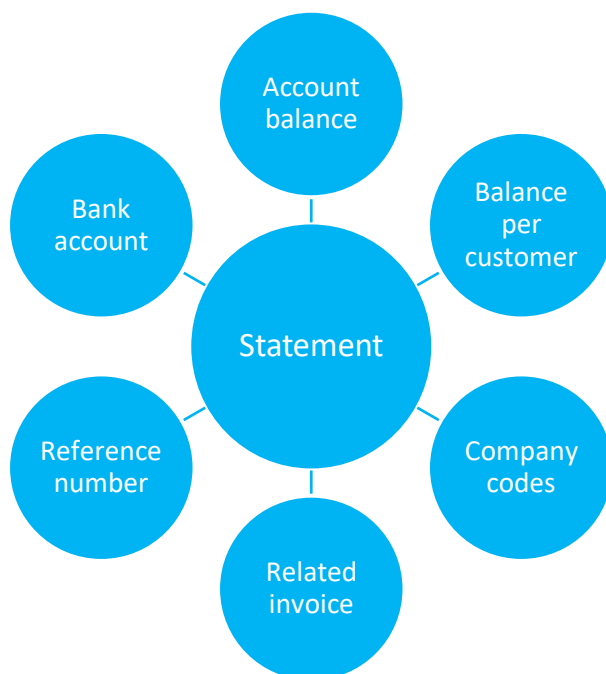


Figure 10. Radial representation of statement contents.

Facing double entry issues in accounting are common in situations where there is no check to stop the introduction of an unbalanced entry. Thankfully, it is difficult to accidentally cause such an issue in modern accounting software as they typically warn you when credit and debit lines are not in sync. However, it is still possible for incorrect entries to be made as was apparent on Thursday regarding Company PT's imbalance. To rectify issues of this sort, reconciliation is the preferred approach. Performing an account reconciliation ensures that general ledger account balances are complete and accurate. Though it was not my approach in this case, following a documentation review to reconcile the difference would have been optimal. Documentation review, as explained by Bragg (2023c), is a form of reconciliation in which the transactions of an account are reviewed for their appropriateness. In the case of Company PT, this could have been accomplished by checking the balance of the affected cash account against cash sales. Doing this would have illuminated the understatement of the cash account and thus led to the correction of the entry.

The chart of accounts is a list of all the accounts that are utilized for recording transactions in the general ledger of a company (Averkamp 2023). Typically, these accounts are separated based on where they appear: the balance sheet or the income statement. Accounts are further segmented

on the balance sheet by assets, liabilities, or equity accounts and revenue or cost accounts on the income statement (Averkamp 2023). The makeup and organization of the chart of accounts will vary based on the organization of the company. In Company Z, as previously mentioned, it is important that the salaries and their related deductions or compensations be accounted for in the correct segment of the chart of accounts. Company Z has segmented their chart of accounts to separate the costs of events from management costs, meaning costs that are incurred due to the management of the company. Temporary salaries are considered costs of events and permanent salaries are management costs. Salary deductions in Finland include withholding tax, health insurance contributions, pension contributions, and insurance contributions and are the employer's obligation to pay (Verohallinto 2019). Compensations included in salaries paid by Company Z are typically hotel or travel costs. Information concerning salaries, their deductions and compensations is created in the payroll register before appearing in any general ledger accounts. A payroll register is a "tool that records wage payment information about each employee" such as tax and premium rates (ADP 2023). It does not utilize double entry bookkeeping as the general ledger does and instead uses salary codes that correspond to general ledger accounts. Figure 11 shows the connection that salary codes have to general ledger accounts. For instance, when the salary code 1000 is used in the payroll register, the salaries account (5000) is debited, and the payments account (2880) is credited.

Salary category	Salary type	Code	Debit account	Credit account
Salary for time worked	Time-rate pay	1000	5000	<input type="checkbox"/> 2880
Salary for time worked	Monthly salary	1001	5000	<input type="checkbox"/> 2880
Salary for time worked	Weekly salary	1002	5000	<input type="checkbox"/> 2880
Salary for time worked	Daily salary	1003	5000	<input type="checkbox"/> 2880
Salary for time worked	Hourly salary	1004	5000	<input type="checkbox"/> 2880

Figure 11. Payroll register default postings in Procountor.

It is here that the accounts that I corrected this week and update monthly are initially selected. Theoretically, it is possible to create salary codes for every general ledger account that I utilize in this task. However, this would be a massive undertaking as individual salary codes would need to be created for the various professions, their deductions, and compensations in Company Z. The total work required would not change but merely shift to the payroll clerk. Completing a project of this size is for the convenience of the accountant at the expense of the payroll clerk would be pointless in our situation.

Through the research conducted in explaining the tasks I face in a week to both the reader and I, I am building upon the knowledge of the complete picture of my role. During the time I have spent at Taloushallinto Koskelin, my focus has largely been on completing the tasks I have been given and

learning to do them well. Completing this weekly analysis is aiding in pushing my critical thinking concerning what purpose the tasks I do serve.

3.3 Observation week 3

Monday, September 18, 2023

Today I worked towards updating accounts in Company Z's September salaries. I have already explained how this is done aside from two aspects: cost centers and splitting. In Company Z, cost centers correspond to various shows and productions. When I update ledger accounts, a salary may be associated with a particular cost center. This allows Company Z to create a special financial statement to view the expenses of each cost center independently.

The following information was not discussed earlier because it was not needed to address last week's bookkeeping problems. However, it is essential to now clarify the source of the salary bookkeeping data. Company Z creates an Excel salary list that specifies the account and profession associated with each person, as well as any relevant cost centers where their salary should be recorded. Figure 12 shows a few salaries in the salary list.

NIMI	TILI	KUST. PAIKKA
	4013	80
	4022	80
	4012	80

Figure 12. Salaries in Company Z's salary list with account (tili) and cost center (kust.paikka).

In the salary list there is more information that the payroll clerk utilizes in creating the salary in the payroll register. Since these details do not concern my responsibilities, I will not elaborate further on them.

In the case of the three salaries in figure 12, I can assign one cost center to the entire receipt. However, there are situations where an individual may have had various roles, participated in different shows or productions, or both, within a month. These exceptions are pointed out in the salary list, as illustrated in figure 13.



Figure 13. A salary in Company Z with two different ledger accounts and cost centers.

In the image above, an employee has received a salary for two roles: one related to management (5000) and another for a specific production (4150), which is linked to a cost center (085), including all salary deductions. If the employee has multiple roles in the salary list, different cost centers, or both, we need to divide the salary deductions accordingly. To do this, we calculate the percentage that each separation represents relative to the whole salary and then apply that percentage to each deduction. I use a calculator for this purpose, as seen in figure 14.

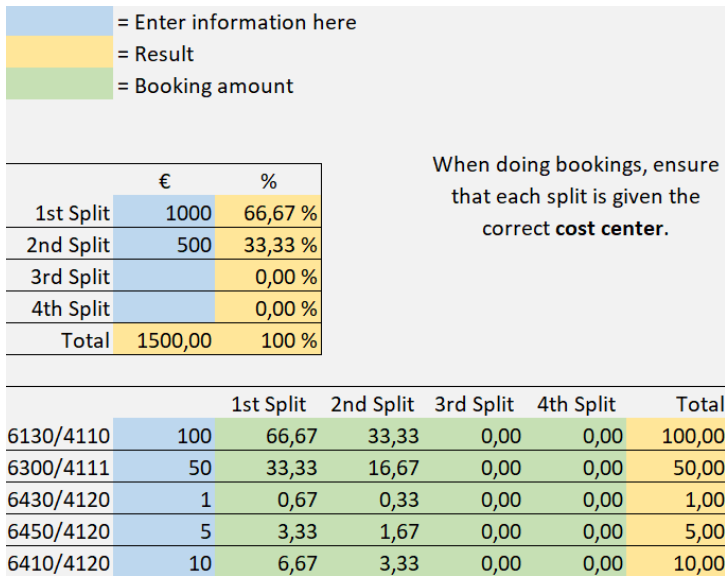


Figure 14. Company Z calculator for splitting salaries.

In this example, the numbers in the calculator are not real. To explain figure 14, let us start with the first box, which shows 1000 and 500. In this case, 1000 represents the management salary and 500 represents the production salary. 1000 is 66,67% of the total salary and 500 is 33,33%. In the lower box, each total salary deduction (expense accounts 6XXX/4XXX) is placed in the blue boxes, and the percentages are applied to them. This calculation yields the amounts by which each deduction should be split between accounts or cost centers, as shown in the green boxes. Using this information, I can divide each expense line in the salary receipt and assign the correct accounts and cost centers.

This task is time-consuming and is prone to mistakes, as was apparent in the prior week. Defining the task exposes steps which require more attention than others. For instance, when a salary must be split, it is important that I do it correctly to avoid fixing mistakes in the future.

Tuesday, September 19, 2023

On Tuesday, I spent my time doing daily tasks which I have already mentioned here. However, I did have a discussion with my supervisor about financial statement consolidation. She is currently working on this in a company unrelated to my current responsibilities. She mentioned similar work would occur in Company PT, and that it could become my project.

Wednesday, September 20, 2023

The 20th of each month is an important reporting date. When a Finnish company provides services to a buyer in another EU country who is responsible for paying VAT in their own country, the Finnish company must submit a VAT recapitulative statement (Verohallinto 2021a) by the 20th of the following month. This statement essentially summarizes the intra-community sales (inside the EU) made by the Finnish company in the previous month. I submit this report for companies on a monthly basis as required. Today, I submitted a recapitulative report for Company S which is shown in figure 15.

Country code	VAT number	Country	Sales of goods, €	Sales of services, €
SE	██████████	SE - SWEDEN	0,00	1 270,36
SE	██████████	SE - SWEDEN	0,00	3 878,68

Figure 15. VAT recapitulative statement for Company S.

This report shows the company's VAT ID, operating country, and the total sales of services or goods to that company. In the future, I might have to submit recapitulative statements for the sale of goods, which I am currently unfamiliar with. It is important that I understand how it is done should it become my responsibility.

Thursday, September 21, 2023

Thursday was dedicated to completing Company S's bookkeeping. I started by reviewing transactions on the bank statement that were not handled automatically. During this process, I noticed that all new payments from PURO were automatically booked to the liability account I had set as the default posting account. Since there are several of these payments during the month, not having to handle them manually saves substantial time. However, some other transactions in the bank

statement caught my attention, including a 150-thousand-euro withdrawal, two substantial payments without explanations, and some minor interest income and a cost from the same supplier. After reviewing the bank statement, I promptly emailed my contact at Company S to request explanations. By doing this work three weeks earlier than I normally do, the start of the coming month will be smoother and more organized.

For the remainder of the day, I concentrated on reviewing every purchase and sales invoice in Company S for the month of August. The aim was to ensure that all information in the invoice was accurate and correctly recorded.

When examining sales invoices, I first verify if the invoice is for services sold to a foreign entity. If it is, I make sure the sales account reflects this by using either the intra-community sales account or the account for sales from outside the EU. For the intra-community sales account, the VAT coding must be 'EU 24% (services)', and the account for sales from outside the EU, I left blank. It does not matter how it is coded as services rendered outside the EU do not need to be reported to Verohalinto in this case.

Once I confirm these accounts, I check if the sales are for a period longer than a month. If they are, I update the date range in Procountor to match the period specified in the invoice.

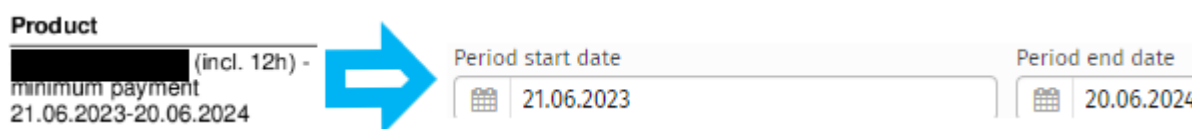


Figure 16. Date range from invoice transferred to Procountor.

By doing this, I can begin to spread the income over the entire duration of the service, rather than recording it all in the month when the sales invoice is issued. To achieve this, I use accrual tools in Procountor. These tools collect invoices that have a specified date range, both for sales and purchase invoices. However, it is important to note that, as agreed with Company S, costs from purchase invoices are not included in the accrual process.

In the accrual tools section, I choose the sales invoice lines I want to defer, and Procountor automatically generates journal entries for each period, or month, that the services in the sales invoice are provided during. To defer the income, the income account is debited the full amount of the sales invoice, and the deferred income liability account is credited the same amount. Then, for each month of service, a journal entry is created that credits the sales account and debits the deferred income liability account to recognize the month's portion of income of the total sales invoice.

For purchase invoices, I ensure that the expense account and VAT coding is correct. For new suppliers, I update posting defaults to make future bookkeeping more efficient.

Friday, September 22, 2023

On Friday, my plan was to implement my new guidelines for completing the weekly report for Company MT. However, after I finished all the necessary bookkeeping in the latest invoices, I noticed that there were no new changes to the balances in the relevant liability accounts. As a result, there was no reason to create the report, and I did not have the opportunity to test my improved reporting skills.

Week 3 Analysis

The third observation week primarily centered around furthering my own comprehension of a few of my responsibilities. By breaking down tasks and detailing each step taken towards their completion, I shed light on points which I can improve on. Furthermore, I am forcing myself to learn the complexities of my work by fighting for understanding of concepts which I have a minimal grasp on.

Through cost ascertainment, an organization can determine the costs of their operations and the segments within, such as cost centers. Cost centers are areas within the organization that have been decided on by management. They may represent a function, segment, department, individual or any combination of these. Typically, cost centers are divided into production cost centers or service cost centers. (Oxford Reference 2010, 115–116.) Multiple companies within our customer base use cost centers, including our own. In our own company's accounting, we utilize cost centers to represent individuals. They are used to identify who has generated what income.

Laws and regulations concerning VAT require an organization to report various things during a given period. This week, I submitted a recapitulative statement. As mentioned in Wednesday's diary entry, the recapitulative statement is a summary of intra-community sales. These sales only include those in which the buyer is liable to pay VAT based on the reverse charge mechanism. In the case of a Finnish seller, the reverse charge mechanism states that because the Finnish seller is not based in the buyer's country, the buyer is liable to pay VAT (Verohallinto 2021c). The customers for which we must file recapitulative statements do not involve any unique business which requires special reporting and so it is simple to file statements. It should be noted that when income is deferred, for instance in Company S, the VAT recapitulative statement does not take the deferral into account. Deferring income is solely shown in the company's bookkeeping.

Our customers have distinct tasks to complete. During these tasks, I have observed that it is uncommon for modern accounting software to have tools for unique situations. Take, for instance, the

challenge of splitting salaries for Company Z, which is complicated by the multitude of accounts and cost centers associated with various professions and productions. Proccountor's capabilities do not inherently streamline this process, necessitating personal solutions. While the calculator does expedite the splitting task, I find myself wanting more efficient methods. Personally, I believe scenarios like these present opportunities for robotic process automation (RPA). I have enrolled in a course to gain a better understanding of RPA and the identification of automatable tasks. By learning these concepts, I hope to apply them in my own work and potentially reduce the time required for repetitive tasks.

3.4 Observation week 4

Tuesday, September 26, 2023

Monday proved uneventful in terms of my professional development. However, Tuesday brought a sense of fulfillment. As the year-end approaches, there is a significant workload to ensure the accuracy of accounting records for most of our customers in preparation for closing the financial year. This involves checking account balances, making year-end adjustments, and conducting reconciliations. Some of these tasks exceed my current capabilities, mainly due to my limited Finnish language skills. Considering this, my supervisor decided that I should handle certain tedious tasks to allow her to concentrate on the upcoming year-end closings.

In Proccountor, purchase invoices are initially assigned a default account for booking. However, this default account is often not the correct one for these invoices and must be updated. My new role involves reviewing purchase invoices for Company MG, MM, and MT, and correctly assigning them to the appropriate expense accounts. Company MG is a holding company that owns Company MM, Company MT, and several other companies that I do not currently handle. Company MM specializes in personnel services, providing temporary employees to interested parties, while Company MT primarily deals with invoice financing. All these companies have a multitude of purchase invoices which must be updated.

Although changing expense accounts is monotonous, it is not a difficult task. If I had any questions about how to categorize an expense, I could easily seek guidance from my supervisor or refer to similar purchase invoices or those from the same supplier. Moreover, when I recognized a recurring expense, I updated the posting default for the supplier to minimize the number of purchase invoices ending up in the wrong place. Lately, my primary focus has been on improving the efficiency at which I complete my tasks, and today was no exception.

Wednesday, September 27, 2023

A particularly small company that I am responsible for is Company MJ. Company MJ is a mechanic shop and has only one employee. As you can imagine, the tasks required to ensure smooth accounting are simple and can be done in a short amount of time. All the accounting is handled in Procountor. Company MJ does not use Procountor's purchase or sales register and is almost entirely managed through the bank statement. Any costs which have not been paid for through the connected bank account are uploaded as their own journal entries to Procountor. In these entries, the bank asset account is replaced by a liability account to reflect the company's liability to repay the expense to the owner's personal account.

While handling August's transactions, I utilized my newfound appreciation for default postings to streamline booking certain lines in the bank statement. For instance, the owner often purchases hardware from the same supplier. So, utilizing the name of the supplier, I was able to create a default bank statement posting for future purchases, further lessening the amount of time required to complete Company MJ's tasks.

Finally, I filed the VAT return for Company MJ well ahead of the deadline. This is because my supervisor prefers to include it in the monthly invoice since it is rare that the owner of Company MJ needs the period to remain open to the filing deadline.

Thursday, September 28th, 2023

Today, my contact at Company S provided clarifications regarding the transactions mentioned in the diary entry from Thursday the 21st. The 150.000-euro withdrawal was actually a transfer to their second bank account, which is not linked to Procountor. When a bank account is not connected, Procountor does not automatically generate entries for its transactions. This means I need to manually create each transaction while being meticulous to avoid errors. To manage the transfer between bank accounts, I used a clearing account as an intermediary step before manually recording the entries for the second bank account.

Regarding the two substantial costs, they were expenses related to software development. I correctly allocated them to the appropriate expense account and made a note for future reference.

Additionally, there were two incomes and an expense from a single supplier concerning late payments from customers on sales invoices. The supplier, Kravia, is a debt collection agency. Company S has partnered with Kravia to recover outstanding debts from its customers. The interest income was the interest that customers agreed to pay on overdue payments, as indicated in the invoice header in Figure 17.

Company S

Customer
information

INVOICE

Date:	25.9.2023
Company ID:	[REDACTED]
Customer Number:	[REDACTED]
Invoice Number:	3225
Bank Reference Code:	[REDACTED]
IBAN account number:	[REDACTED]
BIC:	ITELFIHH
Terms of Payment:	14 days net
Due Date:	9.10.2023
<u>Interest Rate:</u>	8 %
Currency:	EUR
Contact Person:	[REDACTED]
Order Reference:	[REDACTED]

Figure 17. Company S invoice header with interest rate on late payments.

When Company S sends an invoice to Kravia for debt collection, Kravia contacts the debtor for payment. Kravia then sends an invoice to the debtor, outlining the debt owed to Company S, including the interest. Kravia's invoice also includes their collection fees, which serve as their compensation for the services provided to Company S. After the debt is collected, Kravia sends the interest income to Company S and an invoice that includes only VAT. Currently, I am unsure why this process is structured this way. I have reached out to Kravia for an explanation and am awaiting their response. I plan to further investigate this by referencing debt collection laws in this week's analysis.

Friday, September 29th, 2023

On Friday, I spent my time allocating the mountain of invoices in Company MT to the correct accounts. Even though my RPA course has not begun, I am already observing opportunities for automation. I have some previous experience using RPA through my coursework, and I have a general understanding of where it can be most effective. For instance, the task of allocating invoices in Company MT is repetitive and monotonous, making it a prime candidate for RPA. Currently, I am considering planning out an RPA for this task, but I also have other ideas in mind that I may explore in the coming weeks.

After going through every unallocated invoice in Company MT, I reviewed the balances of the liability accounts, as mentioned in the diary entry from September 12th. I had the chance to apply the new guidelines discussed in the week 2 analysis, and I created an Excel account summary report, visible in Figure 18.

Company MT Liability Report						
2965 Ulosottomaksu						
Bal	Company	Velallisen tunnus	ML	Maksukiellon viitenumero	Pankkille	
-3305,87				3101 RF85 1460 0127 5682 35		*OVERPAYMENT
270,00				3362 RF85 1460 0127 5682 35		
3347,61				3307 RF85 1460 0127 5682 35		
3617,61				RF85 1460 0127 5682 35		
1308,85				3295 RF32 1460 0241 9192 23		
220,00				3349 RF32 1460 0241 9192 23		
1528,85				RF00 1460 0241 9192 23		
427,06				3356 RF41 1460 0241 9192 23		
2921 Ennakonpidätys ostolaskuista 13 %						
Bal	Company	Velallisen tunnus	ML	Maksukiellon viitenumero	Pankkille	
464,05				3243 RF59600174825184		
464,05				3295 RF59600174825184		
78,00				3349 RF59600174825184		
1006,10				RF59600174825184		

Figure 18. Company MT liability report based on new guidelines.

The new liability report shows outstanding items for the selected liability accounts. It includes the debtor's name (company), their business or personal ID (velallisen tunnus), the sales invoice (ML) from which the liability was deducted, the reference number (maksukiellon viitenumero) provided by the National Enforcement Authority or Verohallinto, and the bank account (pankkille) to which the liability must be paid. The reference number is crucial for linking the payment to the corresponding debt being repaid.

As seen in the account report, there is an overpayment due to my prior mistake of overstating the balance in the previous report from September 12th, which led to a double payment. I overlooked the initial payment of the overpaid invoice when creating the previous report. Such errors are more likely to occur when information is not organized properly. By creating a more structured report, I aim to reduce the likelihood of making such mistakes. Reviewing previous account summary reports when creating new ones minimizes the chance of accidental overpayments. In this case, my supervisor was able to use the overpayment as credit towards the latest payment, but this is not always possible. Avoidable tasks like this impede our efficiency, so limiting them is best practice.

Week 4 analysis

As a foreigner working in a small Finnish company, it is quite often that I find myself limited by my current level of understanding of the Finnish language and my capability to use it. Learning Finnish to the point of fluency is a long-term goal for myself, but I am far from that point as of now. Because of this, the work that I can do does not require much knowledge of Finnish. Basic accounting tasks and tedious work make up the bulk of my responsibilities, which is not necessarily a problem.

I am exposed to various processes that exist in most companies, giving me solid experience for future endeavors. Furthermore, the time that I free up for my supervisor allows her to spend more time in a consultancy role for clients and gives her the opportunity to focus on complex situations that may require Finnish skills.

With my hands in so many different areas, I find myself in a unique position to analyze the tasks that make up the processes of our work. In doing so, I find opportunities to improve our efficiency, such as through default postings. However, we can boost our productivity further through robotic process automation (RPA). According to Taulli (2020, chapter 1), RPA can be seen as a digital worker that copies an employee's actions. It is possible that tasks such as the invoice allocation in Company MT could be automated through RPA. I will have a better understanding of how this can be done in the coming weeks as my RPA course begins on October 1st.

I am familiar with how to complete my accounting tasks, but I often do not understand the reasons behind specific practices. For instance, this week I observed that Company S was making payments to Kravia which were entirely VAT. Kravia responded to the email I had sent on Thursday by calling and explaining that they could not charge the debtor VAT according to the Finnish Competition and Consumer Authority's guidelines. Upon reading these guidelines further, I learned that when a creditor like Company S can claim VAT deductions, debt collection agencies like Kravia are not permitted to charge VAT on their fees when collecting debts. In such cases, the VAT responsibility shifts to Company S, rather than the debtor. (KKV 2014.)

3.5 Observation week 5

Monday, October 2nd, 2023

After receiving an explanation from Kravia about their invoicing process with Company S, I returned to the bank statement today to correctly record the 100% VAT transactions. In their invoices, Kravia shows the basis for the VAT both as a debit and a credit, providing transparency to Company S, even though it has no effect on the total invoice value.

Kuvaus <u>Muistutus- ja perintäkulut 01.08.2023 - 31.08.2023</u>	Yksikköhinta veroton ja määrä 267,40 => 267,40	Alv-määrä 0,00 (0,000 %)	Yhteensä verollinen <u>267,40</u>
	Yksikköhinta verollinen 267,40		

Kuvaus <u>Vähennetään velallisen suoritus</u>	Yksikköhinta veroton ja määrä 267,40 => -267,40	Alv-määrä 0,00 (0,000 %)	Yhteensä verollinen <u>-267,40</u>
	Yksikköhinta verollinen 267,40		

Kuvaus <u>Arvonlisävero 24%</u>	Yksikköhinta veroton ja määrä 64,18 => 64,18	Alv-määrä 0,00 (0,000 %)	Yhteensä verollinen <u>64,18</u>

Figure 19. Kravia invoice showcasing basis for VAT.

In Figure 19, relevant details are underlined in red. The first line displays the fees Kravia charged to Company S's debtors in August. The second line subtracts these fees from the invoice, and the third line shows the VAT, calculated at 24% of the fees.

To correctly record this in Company S and to better track these transactions, my supervisor had me create a specific cost account for Kravia invoices. I debited the account for the full fee, including VAT, and then credited it for the same amount without VAT. This ensures the correct treatment of VAT in the general ledger without recognizing the basis.

This kind of invoicing is unusual, but it was gratifying to understand the details, even if not required for recording. It is an example of how understanding the broader context benefits my professional growth beyond the ability to complete tasks.

Tuesday, October 3rd, 2023

In the first week of the month, I focused on VAT reporting as usual, which I will not delve into here since it has been discussed extensively before. However, I took on additional responsibilities due to a coworker's departure, involving VAT returns for some Netvisor companies. While working with these new companies, I aimed to improve reporting efficiency by understanding the specific steps involved in filing their VAT returns. They followed a similar process as mentioned earlier, but I paid attention to recurring transactions and the accounts used. This will help me handle future transactions more effectively.

I also identified an issue in Company S's VAT return – an incorrect sales invoice. Company S had unintentionally included reminder fees on the invoice which were intended to be returned to the customer for a prior mistake. Notably, these reminder costs lacked VAT. I promptly informed Company S about the mistake, and they assured me they were addressing it. To avoid their incorrect representation, I made sure the reminder costs were recorded in a non-sales account as a liability

to the customer. However, I left the reminder fees as zero-rated VAT income in the sales register and VAT return, as the invoice had already been sent and paid. Zero-rated income refers to VAT-exempt sales for which tax deductions can be claimed on purchases that relate to them (Verohalinto 2021c).

Wednesday, October 4th, 2023

On Wednesday, I continued completing VAT returns for Netvisor companies. In the process, I noticed several purchase invoices in different companies that seemed to be duplicated. The names of these companies are not relevant as this situation is the same regardless of who the customer is. This “duplication” occurs when a purchase invoice is not paid on time, and the supplier sends a reminder invoice. These are easy to identify because Netvisor assigns them the same invoice number as the original, triggering a warning message displayed in Figure 20 at the top of the invoice.

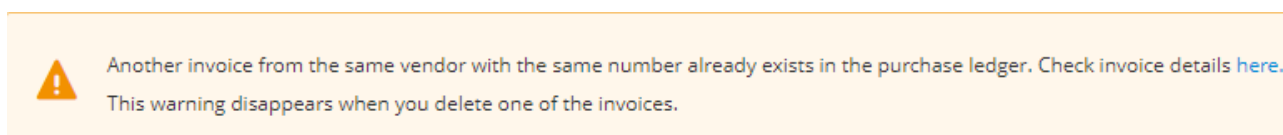


Figure 20. Warning given by Netvisor when multiple invoices with the same number exist in the system.

Netvisor suggests deleting one of the invoices, but that is not always feasible. The duplicated invoice serves as a reminder and may include reminder fees that need to be paid. In such cases, we keep the reminder invoice but adjust the amount to include only the reminder costs in the total. This prevents overpaying the invoice, which has occurred in the past.

Although managing the purchase register for Netvisor companies is not part of my usual responsibilities, I do check it during reconciliation before submitting a VAT return. If I encounter this situation, as described, I handle it myself. It is crucial to regularly review the purchase register to avoid potential double payments because those in charge of payment often do not thoroughly verify duplicate (reminder) invoices. I shared this information with my coworker responsible for the purchase register in these companies to prevent these errors in the future.

Thursday, October 5th, 2023

Thursday was the final day for filing VAT returns, and it highlighted a crucial aspect of bookkeeping: the audit trail. The audit trail consists of the documents that support and explain the transactions in an organization (Bragg, 2023b). When a significant transaction, like the one I encountered in a Netvisor company today, arises, I need to quickly locate the relevant documents tied to that transaction. Usually, I begin by checking our shared online files for each customer to find any

receipts or invoices related to the transaction. However, if this search does not yield results, I must reach out to either my supervisor or the customer to get more information about the transaction. This can slow down the bookkeeping process.

The inefficiency of the delays in customers providing information for the audit trail and our document organization hinder our overall productivity. While I may not have much control over the customer's responsiveness, I can strive to enhance how we manage our documentation and how soon these situations are noticed. I plan to further organize my own files and potentially the shared files in the coming weeks.

Week 5 analysis

The reminder cost mistake in Company S was a direct result of a unique issue which exists for the invoiced customer: they did not include a reference number. In Finland, invoicing companies identify invoices sent to customers through a reference number. When the customer pays the invoice, they can include the reference number in the payment. Finnish banks recognize this number, and if it complies with the expected formatting standards, it is reported on the bank statement as a reference payment. (Nordea 2016.) Then, when Procountor retrieves the bank statements, it automatically connects the reference payment to the corresponding invoice and marks the invoice as paid in the sales register (Procountor 2023).

Without a reference number, I needed to manually connect the payment to the invoice. Unfortunately, Company S's invoice clerk did not notice these manually marked invoices and assumed that they had not been paid, leading to the unnecessary reminder fees. This situation is compounded by the fact that Company S should no longer receive payments directly due to their agreement with their invoice financier, PURO. Customer compliance is crucial in preventing accounting or clerical errors.

In essence, accounting involves recording economic events that affect an organization's financial position and preparing financial statements to reflect their impact. These transactions must be supported by documentation that proves their accuracy. This documentation contributes to the audit trail, which an auditor uses to ensure that an organization's financial statements are fair and representative of the accounting. (Basu, S. K. 2009, subchapter 1.7.)

Maintaining a well-organized audit trail is crucial in my work. While there are instances where gathering documentation is not always possible, such as for low value purchases in small companies, I always try to find documentation for each transaction. Though inefficient at times, it benefits my professional integrity and promotes due diligence. Without the audit trail, accounting loses its integrity.

As the observation period passes its halfway point, my focus is shifting from work to school as I anticipate lighter workloads. In the upcoming week, I plan to reorganize my workspace and delve into the RPA course I previously mentioned would begin on the 1st.

3.6 Observation week 6

Monday, October 9th, 2023

As a startup, Company S initially received funding for their business from Business Finland, the government agency responsible for promoting successful domestic and international business in the country (Business Finland 2022). Company S secured a loan for project development, which forms the basis of their core business. Repayment on this loan was scheduled to start in 2022, but Company S applied for a repayment deferral due to the project not yet achieving commercial success. Their application was accepted, and the payment was deferred to this year.

Now, given Company S's current financial situation, they have reapplied for the repayment deferral, pushing repayment to 2024. However, they received an invoice from Business Finland for the loan repayment, including interest. Fortunately, because they applied within the application period, they are not required to pay the invoice in full unless Business Finland denies their application. When repayment is deferred, Company S is only responsible for paying the interest incurred during the invoiced period.

This situation creates a unique problem for their bookkeeping. The full loan payment included in the invoice must be recognized in the general ledger to match the invoice total in the purchase register. To address this, my supervisor instructed that we book the loan repayment amount as a deduction to the loan liability account, as if it had been paid, for the time being. This entry can be corrected depending on the decision made on Company S's application. If the application is accepted, a reverse entry can be paid to remove the payment from the loan liability account.

Tuesday, October 10th, 2023

Though Tuesday contained very little in terms of professional development, there was a critical discussion with my supervisor concerning Proccountor. Most of the customers we have in Proccountor are holding companies for which we do bookkeeping on a yearly basis. Proccountor's new invoicing guidelines require every company to pay fees for the software monthly. However, this is not a realistic situation for all our customers as it would require them to be vigilant with the monthly costs which they would almost assuredly miss at some point. Missing these payments would result in costly interest fees. In an ideal situation, we would have Proccountor send a yearly invoice to these customers that we seldom visit. However, Proccountor stated this is not a possibility. Whether or not

this is a monetary scheme on Procountor's part is up for debate. Considering this, we have discussed switching accounting software.

Following discussions with her former colleagues, my supervisor decided we should contact Fennoa, a leading accounting software provider with much more flexibility in payment terms. Fennoa's software is similar to Netvisor in that it looks quite modern and is easy to use. Furthermore, it could be a good option for us as we have been in discussions with a larger accounting company that is interested in buying us out. This accounting company primarily uses Fennoa and so experience with that software would benefit our onboarding.

Wednesday, October 11th, 2023

On Wednesday, I took a moment to check in on the default postings created in observation week 4 for Company MJ. They were working as intended, with reoccurring expenses being booked directly to the correct account. Though this lessens my workload in some capacity, I will continue to be diligent in checking that each line has the correct VAT deduction based on the attached invoices or receipts.

This success in Company MJ inspired me to seek out other automation opportunities in Procountor to see where repetitive tasks could be managed through the simplest means.

Thursday, October 12th, 2023

As anticipated, work has been slow this week. In between focusing on daily tasks, I took the opportunity to tidy my workspace. Research has shown that workplace distractions, like a cluttered desk, can affect your focus and disrupt your concentration (Sander, Cazz & Jordan 2019). I spent time clearing my desk of unnecessary documents and notes, throwing away what I did not need. I also organized my drawers, making sure that note-taking materials were easily accessible. Lastly, I committed to having my cellphone out of sight to minimize the distractions it creates. These steps may be simple, but it is easy to overlook the papers and notes piling up on my desk when I am busy working. Maintaining a clean workspace will enable me to be more productive in my work.

Friday, October 13th, 2023

Friday lent itself to self-study in the RPA course. Though the depth at which I reached in the material was quite shallow, I grasped some key concepts which would aid me in the workplace. For example, the concept of process-oriented thinking, which is utilized to understand the role that each actor plays in the bigger picture of an organization. Viewing the operations of a business through the lens of process-oriented thinking involves identifying business-related activities that allow the

company to reach a certain goal. Within these activities are the various actions taken to perform the activity. Together, these activities form what is known as a process.

Understanding the processes of an organization is the first step in identifying those activities which can be automated through RPA. Essentially, you dissect the business into the smallest level of detail on an activity, or task, level and utilize RPA at the points in which it could be most beneficial. The material from which I have drawn these conclusions from is the online course "Process mining, RPA and AI" created by Liisa Uosukainen and Marianne Viinikainen (2023).

Week 6 analysis

During week six, the length to which I developed professionally was limited in scope, yet I felt achieved in the progress made towards furthering my understanding of certain concepts. For instance, startup funding in Finland through the situation with Company S. As with any loan, there are several different providers a company can choose from, such as various banks. The loan taken by Company S is for development and piloting from Business Finland. A benefit of this loan is that Company S did not need collateral to secure it as the loan is unsecured. Another benefit is that the interest rate is three percentage points below the current base interest rate or by at least one percent. Concerning how the loan is granted, after the initial portion of the loan is paid out (up to 30% of the total loan amount) the rest is paid as costs are realized concerning the project. (Business Finland 2017.)

Costs are booked to a special asset account for development costs where they are considered an asset to the company incurred for future economic benefits. Capitalizing expenses keeps large costs related to development from appearing on the income statement which is more attractive to potential investors. Over time, development costs are moved to expense accounts in a similar way that assets are depreciated. (EideBailly 2022.) However, given the current financial situation in Company S, my supervisor has informed me that how development costs are expensed will be changed, though we have not discussed how.

Aside from startup funding, I also focused on automation opportunities native to Procountor. Posting defaults exist, not only for the bank statement, but also for purchase and sales invoices where accounts can be specified based on suppliers or customers. I already utilize this in Company S but may look for other companies that could benefit from this possibility. There is also potential for software integration where data can be exported or imported from or to different software. I do not believe there are any companies that this is useful for, but I will keep it in mind if that ever changes.

Another important development in the sixth observation week was the implementation of a new organizational habit: keeping a tidy workspace. As mentioned, maintaining a workspace free of

excess clutter and stimulation is important to efficiency in the workplace. On a neurological level, the visual system is only capable of processing so many stimuli at one time. As the brain competes to process these stimuli, the ability to focus on them individually is hampered (McMains & Kastner 2011). Though research delves far beyond this level of simplicity, this conclusion is what is critical to my own development. In brief, a messy environment impacts productivity significantly.

Next week, I will move forward with process-oriented thinking into process modeling, applying it to a real work setting. There I will discuss process modeling as a topic and how it is relevant to what I am doing.

3.7 Observation week 7

Monday, October 16th, 2023

Entering the seventh week of observation, I began by working through Company MT's invoices as normal. However, in doing so, I came across an invoice whose report did not match the invoice total because of a single cent difference. I knew I had come across these before, and decided I would change the accounting value to reflect the report. I asked my supervisor if this was the proper method of handling these differences, and she immediately told me it was not. The accounting value must always reflect that of the actual invoice instead of the report's value, as it is calculated manually in an Excel spreadsheet and is prone to small discrepancies. Instead, these differences of a few cents should be booked to a special account dedicated solely to that purpose. I fixed the entry and made a note of this. Furthermore, I went back and checked for any other invoices that I might have done the incorrect method on and fixed them as well.

Tuesday, October 17th, 2023

On Tuesday, my supervisor asked if I could do the yearly bookkeeping for a holding company in Procountor: Company BF. I agreed to do it, though she warned me that there would be very difficult cases to handle. This is because Company BF purchases and sells shares quite frequently alongside some other financing activities that require more in-depth knowledge of Finnish accounting standards and the Finnish language in general. Regardless, I decided to look through the bank statements for the financial period and book what I could.

Though there was plenty that I could not handle, I took care of several transactions that appeared monthly, such as bank costs. I also handled a few expenses I came across and ensured that each transaction had proper documentation attached, improving the audit trail in Company BF's accounting overall. My supervisor and I decided it would be best if she focused on the more complex transactions.

Wednesday, October 18th, 2023

Although there was not much professional development on Wednesday, I took time to clean my digital space as I did my physical space in the prior week. I removed unnecessary files and employed a new naming system for newly downloaded/created files. It went as follows:

YYYY.MM.DD_CompanyName_FileDescription. Utilizing a naming method like this not only makes organization based on the financial period easier, it also clearly outlines the company the information belongs to and what that information is on a brief glance.

By cleaning my computer's files, I greatly improve my efficiency by limiting the time it takes to find the correct file.

Friday, October 20th, 2023

I began Friday by handling invoices in Company MT. Though nothing particularly unique occurred, I decided to create a flowchart of the activity and the tasks therein through the concept of process modeling. As previously discussed, a business process is a set of activities performed to reach a certain goal. However, how this process is defined depends on the level of detail and depth that the viewer chooses to take. For instance, accounts receivable is considered a business process. Therefore, the actions done within accounts receivable constitute the business process. For the purposes of my thesis and my work, I have viewed the chosen process in Company MT at a great level of detail. It is important to note that the concept of business processes goes far beyond what is relevant for me.

Below is a flowchart I created depicting the sales invoice handling process on a task level in Company MT.

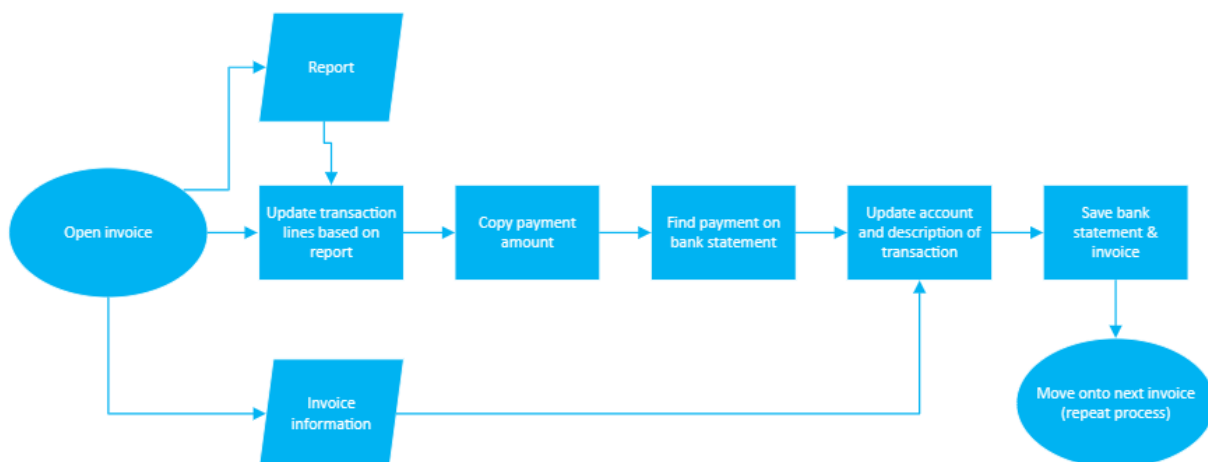


Figure 21. Flowchart for handling sales invoices in Company MT.

As you can see, the flowchart is quite simple in nature. However, this simple description is the basis of discovering opportunities to develop a process and improve upon it.

Week 7 analysis

With the observation period nearing its end, I have found that I am struggling to decide what to include in my diary entries and the weekly analysis. Considering that my work is largely routine, my entries would reflect that. And so, it has been important for me to focus on what is new or foundational for my professional development. While routine work is great experience, it is difficult to find continuous growth within it during such a short period of time. However, there are still things of interest each week. For instance, in furthering my organizational habits.

The change I committed to in detailing my files as I obtain and store them on my computer is incredibly important. As an accountant, I am constantly juggling information in the form of PDFs, Excel sheets, Word documents and images. Without a concrete system of managing data, I hamper my efficiency in completing tasks by being forced to sift through files to find the correct one. So, simply taking a short amount of time to rename documents has already made a lasting impact on my work.

Process modeling is a powerful tool for any business to master. It allows professionals to dissect their business processes into a digestible manner to find ways of improving them in an effective and efficient way. In the book "Business Process Modeling, Simulation and Design" (Laguna & Marklund 2011), the authors describe how a business process can be seen as the complex architecture in which inputs are transformed into outputs. Whether those inputs be physical or digital, the steps taken to create meaningful outputs for both internal and external customers are all a part of the process architecture. The depth of business process modeling has been further developed as more opportunities have arisen through process automation. While steps in a business process can be improved upon by something as simple as limiting authorizations needed to move forward in the process, the power of automating steps therein cannot be understated. The speed and accuracy at which automation can complete certain tasks is incomparable to what a human is capable of. So, finding automation opportunities is paramount to efficiency.

While modeling of business processes is interesting overall, my focus is primarily on the finest level of detail. Seeking out opportunities in my work which can be automated begins with modeling the process. By creating the simple flowchart shown in Friday's entry, I have already taken a step towards investigating an opportunity I had previously discovered. In the final observation week, I will

utilize task mining to further detail the sales invoice handling process in Company MT and discuss tasking mining therein.

3.8 Observation week 8

Friday, October 27th, 2023

The final observation week lacked anything worth mentioning aside from Friday. In the RPA course, I previously completed an exercise which utilized task mining software. In short, task mining assesses the efficiency of a task by utilizing user interaction data (IBM s.a.). It records the actions a user takes while working on a particular process. I used this same software provided by UIPath to investigate the sales invoice handling process in Company MT. Whether it be a mouse click or keystroke, every action was recorded. Using this information, the software created an overview detailing these actions. It combined actions into steps that I could further refine into a meaningful flowchart of the process. While the information gained through task mining can be analyzed to further develop tasks, I have used it briefly to gather information on the exact actions I have taken while handling sales invoices in Company MT. Refining the data recorded by UIPath is outside of my current time constraints but has provided extensive information for my investigation into RPA opportunities in my work. The following figure shows a brief snippet of the extensive list of actions recorded.

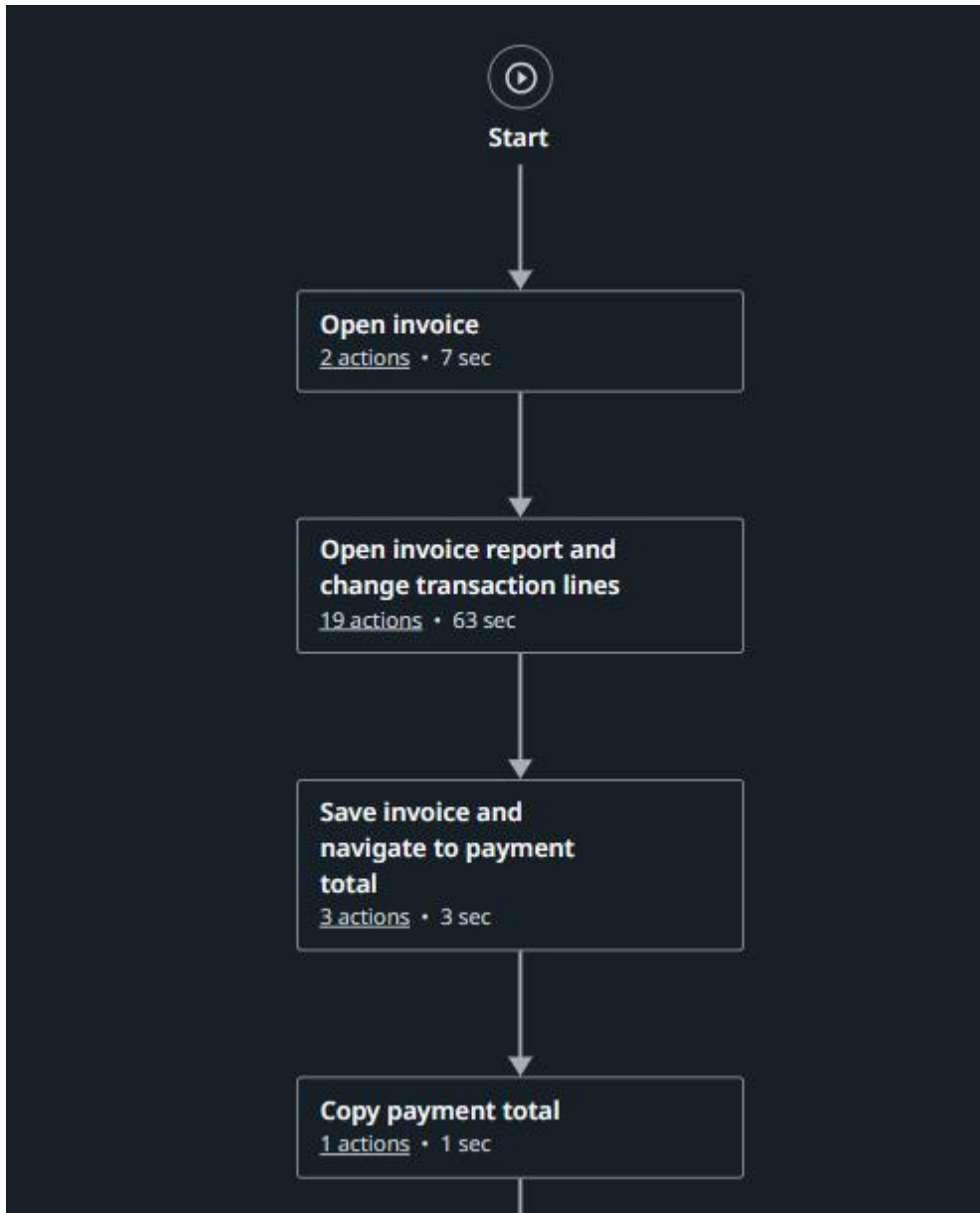


Figure 22. Task mining project overview in UIPath.

UIPath created 90 separate steps comprised of 500 recorded actions. In the future, given that I have time, I can analyze these actions and steps to create a flowchart like the one shown in Appendix 2. This would paint a very clear picture of the exact steps taken to complete the invoice handling process and thus highlight potential areas for automation. By automating steps in this process, I am referring to utilizing RPA to replicate the actions I take to complete those steps. The RPA could complete the same actions as I do remarkably faster and with fewer errors.

Week 8 analysis

With the final week of observation ending, I feel inspired yet overwhelmed by the potential of task-mining and automation in the workplace. Task-mining is a deeper part of process-mining, which focuses on optimizing an entire business process, such as procurement. Task-mining therefore looks at the actions taken to complete that business process, such as budget authorization. It can look directly at what users are doing on a computer to complete tasks and leverage that data to optimize processes at the lowest level of detail. (IBM s.a.)

Though task-mining is not required to discover and implement RPA solutions, it can help bigger organizations to discover opportunities. In my work, task-mining could be seen as unnecessary. Considering the relatively low complexity of the work I am doing, such as in Company MT, and my familiarity with it, I could likely create an RPA without the data provided from task-mining. However, I wanted to see the possibilities of task-mining and so applied it to a situation I knew well. That is not to say that I have completely exploited the full extent of task mining, but rather I have used a small portion of its capabilities in beginning to map out the process of handling sales invoices in Company MT with recorded data.

The depth to which business processes can be analyzed and improved upon using various concepts and methods is astounding. Studying and exploring those possibilities within the observation period is an impossible task, but I plan to investigate those which are applicable to my current work in the future. It is difficult to say what is worthwhile and what is not given the scale of our operations, but the possibility for automation is enticing, nonetheless.

4 Discussion

During the observation period, I initially felt that this thesis would serve as a burden in my work, hampering my focus and capabilities by dividing my attention. Though this was true in some regards, I stood to gain much more from it than I had expected. Overall, I would say that my comprehension and understanding of complex accounting concepts has improved significantly. I find myself feeling more confident in facing difficult situations. My supervisor asks for my opinion or insight for various reasons and utilizes my feedback to further develop how we handle tasks for our clients. The success I have experienced because of this has motivated me to be more efficient in my work through organization and through greater self-discipline. I feel like a more important piece in a bigger picture.

Regarding my concrete objectives, all were achieved in a satisfactory manner and even beyond the goal I had initially set. In working with the invoice financing process for Company S, mistakes and all, and the invoicing process for Company MT, my interest in automation further snowballed. I had had a deep interest in it since first being introduced to it in coursework during prior semesters, but I had not expected that interest to reach the point it has now. By practicing process-oriented thinking and envisioning ways of implementing automation, to finding practical solutions available in our accounting software, I believe my interest in automation in accounting will impact my future career path. The capabilities it holds, and the ease of use is especially interesting, given my theoretical application of it in a small Finnish accounting firm. Traditionally, automation has been viewed as having a technical barrier of entry, but I believe this barrier should no longer hold smaller companies back from benefiting from automation. I look forward to seeing where my interest takes me, either in further education or in a new workplace, and how I can have a meaningful impact on modern accounting.

There was plenty I learned from this diary that should be improved upon. Notably, my communication skills are hampered by the fact that I seldom contact individuals directly and because I do not speak Finnish. In the coming years, I hope to develop my Finnish language skills to a point where I no longer feel as if I cannot partake in complex accounting discussions. I also failed in terms of managing my time surrounding the diary thesis. I procrastinated often and pushed writing back to a point where I could no longer fully remember my day. Though this was due in part to the fact that I have a lot of responsibilities in and outside of my work, it was largely because of poor time management and a lack of self-discipline to write. It is because of this that the writing suffered. Complex topics were not necessarily described in a manner that could be easily understood without supplementary reading. This was especially difficult as I could not fully grasp to what level of description I should have started from when introducing certain topics. Nevertheless, I feel satisfied

with the professional progress I made because of this diary thesis even though the quality of it is not necessarily excellent for a potential reader.

While the process of writing a diary thesis across an observation period was nothing short of difficult, the amount to which I have developed professionally made it worthwhile. This thesis served as a personal milestone in my development and a fantastic opportunity to enhance my capabilities as an accountant.

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Appendices

Appendix 1. Business models of companies mentioned in the thesis.

Company	Description
Company S	Marketing agency specialized in connecting companies with content creators whom Company S contracts.
Company MT	Business dedicated to financing invoices. Company MT finances sales invoices. They pay sales invoices created by their customers immediately while taking a small commission. Company MT then receives payment when the invoiced client pays in full.
Company PT	Manufacturer and retail company.
Company Z	Company dedicated to organizing cultural activities.
Company MG	Holding company which owns Company MT and Company MM.
Company MM	Talent acquisition company.
Company MJ	Mechanic.
Company BF	Holding company which does various investing activities.

Appendix 2. Flowchart of an example process created in UIPath Task Mining software.

