

# **Enhancing Financial Management at a Finnish Micro Company – Case Company X**

Nora Muhonen



<b>Author</b> Nora Muhonen	
<b>Degree programme</b> International Business	
<b>Thesis title</b> Enhancing Financial Management at a Finnish Micro Company – Case Company X	<b>Number of pages and appendix pages</b> <b>50 + 2</b>
<p>This thesis project was executed for a micro-sized fashion company. The object of the project was to enhance the company's financial management procedures and sustainability by implementing a digital financial management software. The project compares two of some of the most common and most comprehensive digital financial management software provided in Finland; Accountor Finago's Procountor and Visma's Netvisor.</p> <p>The theory part of the thesis looks into the evolution of financial management from traditional, manually, on paper executed financial management to the automation of the processes which has been enabled by the implementation of digital software, robotics, and artificial intelligence. Digital financial management has become more widespread in Finland in the past few years as the availability and the offering of SaaS services has increased. The governmental actions, both on the domestic and the European Union level, taken towards a more digitalized nation are making it easier for businesses to use digital services as well as they are creating more pressure for them to digitalize their operations.</p> <p>The software that was implemented at the case company was Procountor mostly due to its compliance with the case company's accounting firm. The project analyzed the outcome of the implementation for the following five months.</p> <p>The results of the projects indicate that the utilization of digital financial management services is not always as beneficial for a micro-sized business as it is claimed to be. The research pointed to the direction that there are no downsides to switching to digital financial management, but the case company's case proved that the benefits heavily rely on the implementation among other factors. One of the most important findings that came out of studying the results was that the costs caused by financial management increased instead of decreasing unlike was projected. On the other hand, the results show that the implementation of digital financial management software saves a significant amount of time spent on financial management processes. Thus, the demand for a digital finance software depends largely on the needs of the company and the cost-efficiency is debatable.</p>	
<b>Keywords</b> Digital Financial Management, Micro-business, Project Management, TCO, SaaS	

## Table of contents

1	Introduction .....	1
1.1	Background.....	1
1.2	Project Objective.....	2
1.3	Project Tasks .....	2
1.4	Project Scope .....	4
1.5	Benefits.....	4
1.6	Key Concepts .....	6
1.7	Case Company .....	7
2	Project Management Methods.....	9
2.1	Defining the Project.....	9
2.2	Risk Management .....	10
2.3	Project schedule .....	11
3	Digitalization of Financial Management .....	13
3.1	Financial Management.....	13
3.2	Digital Financial Management.....	13
3.3	Digital Financial Management in Finland.....	14
3.4	Benefits of Digitalization of Financial Management .....	16
3.5	Sustainability.....	16
3.6	Digitalization in the European Union .....	19
3.7	Outlook of Financial Management.....	21
3.8	Current State of Financial Management at Company X.....	23
3.8.1	Purchase Invoicing.....	24
3.8.2	Sales & Sale Invoicing .....	25
3.8.3	Travel & Expense Invoicing.....	26
3.8.4	Payroll Management .....	26
3.8.5	Financial Reporting .....	27
4	Project Outcomes.....	28
4.1	Digital Financial Management service options .....	28
4.1.1	Procourtor .....	28
4.1.2	Procourtor Integrations.....	29
4.1.3	Netvisor.....	31
4.1.4	Netvisor Integrations .....	31
4.2	Purchase Decision .....	32
5	Investment Plan & Implementation.....	34
5.1	Total Cost of Ownership.....	34
5.2	Implementation of Procourtor .....	37
6	Discussion.....	39

6.1 Results.....	39
6.2 Conclusions .....	43
References .....	47
Appendix 1. Interview with the Accounting Firm's Accountant Regarding Procourt and the Case Company's Financial Management After the Implementation of Procourt. ....	52

# 1 Introduction

This chapter covers the core information related to the project. It introduces the reader to the reasons behind the project as well as the objectives and the steps of it. The following subchapters explain how the commissioning company is going to benefit from the project and introduces the commissioning company itself.

## 1.1 Background

The project is executed for a commissioning company X. It was initiated by the company itself which had been struggling with their financial management procedures for a long period of time. The company has limited resources to manage their finances, thus there was a demand to streamline the processes to make them more comprehensive, cost-effective, organized, and less time-consuming. The case company also values sustainability and acknowledges the smaller impact digital financial management has environmentally in comparison to traditional, manually executed financial management tasks which include the extensive use of paper. The European Union Directive on electronic invoicing (Directive 2014/55/EU) was one of the main reasons why the case company wanted to implement digital financial management into their business this year; Finland was supposed to require that entities must be able to send invoices in electric format upon request from the beginning of April 2020 (CEF Digital 2020.) which, however, has been delayed by the Central government until further notice due to the COVID-19 pandemic (Tilisanomat 2020).

Even though Finland is considered to be highly developed when it comes to digitalization, digital financial management had failed to become widespread until now. Until recently, only approximately fifty percent of Finnish companies had implemented electronic financial management (Similä 2019). Companies find digital financial management services to be too expensive compared to their current financial procedures, thus in their opinion, the downsides outweigh the benefits. People also have a lack of trust in digital services; even when companies have implemented them into their financial management processes, they still print out information and store it in physical files (Kaarlemäki & Salminen 2018, 62-64).

The transition to digital financial management has been relatively slow in Finland when considering the advanced steps the country was taking in the 1990s towards paperless financial management. However, the number of companies transforming to electronic and digital financial management services has incremented significantly in recent years (Similä 2019). Finnish businesses have felt a major push to digitalize their financial management

systems to comply with steps taken by the Finnish government. Some of these steps have been taken because of the actions taken by the European Union that are aiming to enhance cross-border trade and reporting in the Member States. Some of the issues that the EU has been tackling recently have been regarding the lack of standardization and sustainability in the field of financial management. The European Union has been wide-spreading the implementation of digital financial management because of the measures it has taken to enhance financial management both in the public and the private sector in the EU Member States. The EU's directive on electronic invoicing, which became effective in April in 2019, was a major factor in the case company's decision to implement digital financial management. (Directive on electronic invoicing in public procurement 2014/55/EU.)

According to research conducted by Accountor Finago Oy (2018), digitalization has now become a significant trend in financial management in Finland, and it has a steadily increasing foothold in the field. In 2018, 20% of Finnish companies had implemented digital financial management services within the past twelve months, and half of the companies who had not yet implemented it was going to do so in the future. Only 16% of companies do not want to deviate from traditional financial management. (Similä 2019.)

It can be projected that in the upcoming years, the pressure from the legislative side is going to keep increasing and most companies are going to have to carry out their financial management tasks digitally eventually.

## **1.2 Project Objective**

The project aims to enhance the case company's financial management by implementing digital financial management by the beginning of April. The project includes six project tasks which are presented under the following subchapter.

## **1.3 Project Tasks**

PT 1. Designing a Theoretical Framework for the Project.

PT 2. Carrying Out Research.

PT 3. Illustration of Current Financial Management Procedures.

PT 4. Investment Plan – Total Cost of Ownership.

PT 5. Obtaining and implementing the selected digital financial management service.

PT 6. Reviewing the Outcome.

Table 1 breaks down the project tasks by presenting the theoretical framework, the project management methods, and the expected outcomes of each project task.

Table 1. Overlay matrix.

<b>Project Task</b>	<b>Theoretical Framework</b>	<b>Project Management Methods</b>	<b>Outcomes</b>
PT 1. Designing a Theoretical Framework for the Project	Internationalization of SMEs, change management, digital financial management	Desktop research	Theoretical framework
PT 2. Carrying out research	Internationalization of SMEs, financial management, change management, SME internal management	Desktop research	Guidelines and suggestions for improvements
PT 3. Illustrating the Current Financial Management Procedures	See PT 1 and PT 2 above	Interviews, observing Qualitative analysis	Description of the current procedures in financial management
PT 4. Generating the Investment Plan	Investment plan, Total Cost of Ownership	Quantitative analysis	Investment plan for modernization of financial management and its procedures
PT 5. Obtaining and implementing the selected digital financial management service.	Investment and implementation plan	Purchasing a digital financial management system, taking the new system into use	Electronic financial management and improved procedures
PT 6. Reviewing the Outcome	Data collected in the project, thesis	Qualitative and quantitative analysis	Description of the results and project analysis

The project begins by laying out the theoretical framework for the project. This is followed by the research phase which will provide all the needed information to successfully execute the project. With a full understanding of the subject, the project moves onto creating a description of the current financial management procedures and tasks that the case company currently carries out. After concluding what are the needed reforms that have to be considered when selecting a digital financial management software for the case company and the software has been selected, an investment plan is generated for the project. Once the investment plan has been approved, the planned digital financial management service is going to be obtained and implemented.

The outcome of the project is going to be discussed in the last step:

1. How successfully was the project executed?
2. What was unexpected?
3. Were the goals met?
4. What could have been executed differently?

The discussion of the outcome evaluates the results and concludes of the project's topic.

#### **1.4 Project Scope**

The project is focusing on enhancing the business operations of the case company by streamlining financial management procedures. The project will compare some of the leading digital financial software in the Finnish market which is suitable for micro- and small-sized businesses, thus it will not cover services that are targeted to larger entities.

Digital financial management software platforms exist in Software as a Service (SaaS) and Enterprise Resource Planning (ERP) solutions, but this thesis project is going to exclude ERP solutions and focus on SaaS solutions. Currently, ERP solutions are more suitable for medium and large businesses (Lahti & Salminen 2014, 40.), therefore they are not viable options for the micro-sized case company.

The theory part of the thesis will focus on the perspective of Finland and the European Union as the case company is Finnish and mostly does business within the EU Member States.

#### **1.5 Benefits**

The case company is projected to save their resources significantly with the implementation of the new digital financial management software and allocate them to strategically important parts of the business. In the long-term, the improvements made in financial management are going to benefit the profitability of the company.



Although digital financial management may seem costly, many people fail to see the cost-efficient benefits beyond the price tag that digitalization brings. Traditional, manually executed financial management procedures can be highly time-consuming. The time saved with digital financial management can be better allocated to tasks that bring more revenue to the company. (Back 2016.)

Research shows that organizations that have switched to digital financial management have increased their efficiency in financial management by thirty to fifty percent (Lahti & Salminen 2014, 32). The research included companies of different sizes and industries. A study conducted by Finanssialan Keskusliitto (2015, 7) discovered that financial management tasks can be carried out even five times faster in digital form: The study found that creating a monthly VAT form for a company takes approximately ten minutes when done by following the traditional procedures whereas it only takes a company two minutes when completed by using digital services. Finance Finland claims that even small companies can save half a working day every month by using digital accounting, and the full automation of VAT reporting alone would save up to three hundred person-years of work annually (Finance Finland 2015).

As financial management procedures are moved into a digital platform, all information is going to be saved on a cloud-based service. Thus, users do not have to constantly worry about losing their papers or computer files. Moreover, there is no need to archive countless amounts of paper.

Receiving and paying invoices electronically is going to decrease the risk of delayed payments. Currently, there is a risk that invoices in paper forms get lost or deadlines of payments are not met due to employee absences. The case company X is a micro company that often struggles with limitations with the number of employees. For example, the company regularly attends international events abroad which require at least two members of the staff. Often those members are part of the management who are responsible for financial management tasks. During the business travels, they are not able to access the invoices that arrive in paper form via mail which creates an obstacle to meet the payment due dates as lower-level employees do not have the authority to pay invoices. With the use of digital financial management services, the company can receive invoices digitally and handle them despite being located abroad. The company's employees can also transfer the invoices that arrive via mail to the financial management software where the authorized employees can approve the invoices and pay them.

Finland allowed the use of electronic financial statements in 2015 which means that they no longer have to be disclosed in a paper format. Different types of financial reporting are at its best done automatically or they are accessible in real-time (Lahti & Salminen 2014, 172.) to avoid the manual work effort that goes into forming them. With the use of electronic financial reporting, the company can better follow the course of development of their business and react to trends faster.

There are substantial positive sustainability effects that the digitalization of financial management brings which will be discussed more thoroughly later in the thesis. In conclusion, the most noteworthy and visible sustainable benefit digitalization brings to accounting is the decrease in the extensive use of paper. Other factors also need to be included when examining the topic, one being the time spent on financial management tasks.

The cooperation between the case company and the accounting firm is going to be easier. The use of digital financial management software allows the two companies to have access to the same information on the same platform; thus, the case company will not have to send the needed information to the accounting firm by mail or email.

The benefits of the project report itself can help other companies to plan and implement a transition to digital financial management. It will be reported so that it provides information concerning the beneficial results of the new financial management system, the problems that may arise in the implementation, the possible complications the company might have after implementing the new software into their business operations, and the effect it has had to the company. The goal is to provide transparent information in all the project phases.

Personally, the project is going to give me a better understanding of what digitalization of financial management truly means, how has it been progressing thus far, and how is it going to evolve in the future. Before the start of the project, my knowledge of the topic was very limited – I had no experience in using digital financial management software other than at an accounting class. Therefore, I was interested to learn more about the topic.

## **1.6 Key Concepts**

**Financial Management** is the system by which an organization monitors financial events so that it can report its activities to its stakeholders (Lahti & Salminen 2014, 16).

**Digital Financial Management** refers to the automation and processing of all financial information flows and processing steps in digital form. All transactions are paperless. (Lahti & Salminen 2014, 24.)

**Electronic Financial Management** means enhancing the financial management of a company by utilizing information technology and applications, the Internet, integration, self-service, and various electronic services (Lahti & Salminen 2014, 26).

**SaaS – Software as a Service**, is a licensing model in which access to the software is provided on a subscription basis, with the software being located on external servers rather than on servers located in-house, and it is typically accessed through a web browser, with users logging into the system using a username and password (Grant 2019).

**Total Cost of Ownership** is the sum of all costs included in the purchase, operation, and maintenance of an asset during its lifetime. It is a financial analysis that shows all present and future costs of obtaining the asset. (My Accounting Course 2020.)

## 1.7 Case Company

The case company X is a micro-sized limited liability company. The company was originally founded in 2014. The company went through major changes in 2017 when they transformed their business from importing goods from abroad to designing and producing their own products in Finland. Today, the company designs, produces, and sells accessories both domestically and internationally. The company's main product is earrings. The production is carried out in Finland and the materials come mainly from Italy and Finland – some of the steel parts of the accessories are procured from Asia. The company manufactures their products at an employment center in Helsinki.

The turnover was €111,000.00 in 2017 and the company made a loss of €54,000.00. In the following year, the company made a profit of €8,000.00. The headquarters and the shop are both located in Helsinki. The company has an annual pop-up shop at the Helsinki-Vantaa airport, but due to COVID-19 restrictions and effects, the company could not have the shop open this year. The number of employees has been three to ten people annually – currently, the number of employees is four due to the economic effects of the pandemic.

The case company mostly sells their products via their shop in the center of Helsinki, Finnish retailers, and their online store that provides worldwide shipping. The company is

going to open their second shop at a shopping center in Helsinki later in 2020. The majority of sales occur within the Finnish market. The company has gained major retailers, such as Sokos and Stockmann, in Finland in the past year, thus securing its position in the Finnish fashion industry. The case company has international retailers currently in Japan, Denmark, and Russia. Before the pandemic, it had retailers in Iceland and South Korea as well. The long-term goal of the company is to increase the number of international retailers and to grow online store sales.

## **2 Project Management Methods**

Chapter 3 explains to the reader how the project is managed and executed. The project is observed from a theoretical point of view to understand the characteristics of it which leads to the selection of project management methods and laying out the time frame for the execution of the project.

### **2.1 Defining the Project**

Project characteristics are used to define the optimal model to manage the thesis project. The characteristics that are taken into consideration to define the classification of the project are the level of risk, business value, complexity, the length of the project, and the cost. (Wysocki 2019, 17.)

The thesis project's research and implementation are projected to last for four months in total: the project is mainly executed by the thesis author; therefore, it requires more time than under normal circumstances. The project's deadline is by April 2020 when the law on eInvoicing is going to be enacted in Finland.

The main costs of the project consist of the implementation and monthly costs of the future digital financial management service which includes the expenses from both the service provider company and the case company's accounting firm that is going to help with the implementation, and the monthly fee of the service.

Table 5 below presents the project management methods that are going to be utilized in executing the thesis project. The Table breaks down the project into two separate main categories: planning the project and executing it.

Table 5. Project Management Methods.

<b>Project Phase</b>	<b>Phase 1 Producing a plan</b>	<b>Phase 2 Implementation</b>
Respondents	Case company's bookkeeping firm, management	Case company's management
Data collection method	Qualitative: Interviews, desktop research	Qualitative: Interviews
Data analysis method	Qualitative, quantitative	Qualitative, quantitative
Project tasks	PT 1, 2, 3	PT 4, 5
Outcome	Improvement plan for financial management (investment and implementation plan)	Streamlined financial management procedures

The base for the project is to have a clear understanding of the current state of financial management at the case company. The different procedures that the financial management processes entail, must be defined to recognize the needed changes and the overall goals for the project. This is going to lay out the characteristics of the future digital financial management system is expected to include. In general, from the perspective of a micro-sized company, the service provider is expected to have operated long in the field of financial management, and to have experience in the field of the industry which can be difficult considering the small size of the fashion industry in Finland. The service provider should also have a diverse selection of services, be experienced in product development, and to have good customer experiences from implementing the service. (Lahti & Salminen 2014, 47.)

## **2.2 Risk Management**

The risk level is evaluated to be low for this project. The goal is to find a suitable digital financial management service for the case company, and the main risks are related to the suitability of the service. The case company is operating in the fashion industry, which is a very small industry in Finland, thus there are most likely very few if any services that take into consideration the needs of a fashion company. Nevertheless, the effects of the implemented digital service are expected to outweigh the industry-specific difficulties that the company might face.

Lack of communication is a typical risk when executing projects. It is highly important to keep up the communication flow between the stakeholders related to the project to have

everyone up-to-date concerning changes that are occurring. Some other issues that may arise during projects in general are an unclear division of responsibility among the company employees as well as with the service provider. These are found to be low-risk issues in this case. (Lahti & Salminen 2014, 220.)

Other risks related to the thesis project are failing to meet the deadline, problems with using the new software, and the financial management costs. Failing to meet the deadline seems unlikely as the time reserved for the research and implementation phases has room for delays. The research and testing phase of the project aims to minimize the possibility of complications and errors that could occur with the new software. However, it is user-specific whether the software is considered to be easy to use, therefore there is a chance that some employees might have difficulties using it. It is also possible that the cost-efficiency of digital financial management is not as high as it has been praised.

At the start of the project, the COVID-19 virus was not considered to pose a significant threat to the Finnish economy nor even the European. However, as the project proceeded, so did the spread of the virus until to the point where the global economy started to plummet. The case company continued operating with major changes in their operations, but the project has not been notably affected by the surprising turn of events. Now, more than before, under the set restrictions and recommendations put in place by the government, the company is in desperate need of being able to handle their financials regardless of the location and to be able to see real-time data as the economy takes quick turns and the threats of quarantines can isolate the employees to their homes indefinitely. If the government sets more restrictions on the nation, such as curfews, it will affect the business's operations considerably.

### **2.3 Project schedule**

The project starts by conducting research on digital financial management and observing the financial management processes at the case company. To find the optimal digital financial management service for the company, the author must understand the subject and the needs of the company. Once the research and observation phase of the project has been completed, the author will start conducting research regarding the available digital financial systems. The suitability of the system for the case company is defined by the following characteristics: compliance with the case company's third-party accounting firm, the costs, user-friendliness, the scale of services, the development of the system, expertise in retail, and integration possibilities. The phase involves contacting the digital finan-

cial management service providers as well as integration providers, test trialing the different systems, and comparing the costs and development of services between different systems.

After making the selection of the system and price negotiations, the project moves onto the implementation of the selected system. The length of the implementation varies depending on whether there are going to be integrations between different systems. The most important integrations the project case company is likely to implement are its main cashier systems, OP-Kassa, and the online store platform, WooCommerce.

The last phase of the project is the evaluation and the discussion of results. The phase looks into the results of the executed project from a critical point of view by contrasting them with the theoretical part. The thesis author examines whether the execution of the project was carried out most optimally and if the results of the project are as projected. The comments from the case company and the accounting firm are taken into consideration in the evaluation.



### **3 Digitalization of Financial Management**

This chapter focuses on the theoretical part of the project. It defines the concept of financial management and investigates the evolution of the digitalization of financial management both domestically and internationally, focusing on the domestic aspect, as well as explains the beneficial side of digital financial management. The chapter also looks into the case company's financial management processes. It explains the current financial management procedures at the case company and lays out the problems found currently at them. The problems depict what are the real project objectives.

#### **3.1 Financial Management**

Financial management is defined by Lahti & Salminen (2014, 16.) as a system of keeping records and following an organization's financial transactions in a manner that it can report it to its stakeholders.

#### **3.2 Digital Financial Management**

Technology has transformed financial management completely. There is no longer a need to agonize over keeping detailed records of transactions manually or storing stocks of paper. The digitalization of financial management has improved the efficiency significantly, and with less time spent on the procedures and the elimination of paper, there has been a major increase in the sustainability of the field. (Investopedia 2019.)

The term digitalization is defined by Ville Tolvanen (2016) as a process that combines technology, contents, services, and interfaces to create intelligent processes alongside mere electronic service and self-service. Digital financial management is defined by Lahti and Salminen (2014, 24.) as financial management where you store information into a database that is accessible with an application or software. It refers to the automation and processing of all financial information flows and processing steps in digital form – all transactions are paperless (Lahti & Salminen 2014, 24).

According to Kaarlejärvi & Salminen (2018, 14.), full digitalization of financial management implies that everything is handled in an electronic format throughout the company's value chain. Thus indicating that all financial management and accounting material are in an electronic format and all receipts are in machine code, information is transferred between different stakeholders, systems, and partial processes electronically, intercommunication takes place electronically, the information between different applications is handled elec-

tronically, archiving is in an electronic format and the information can be accessed electronically, and different systems have been integrated into processes. (Kaarlejärvi & Salminen 2018, 15.)

Digital financial management is often linked to the term electronic financial management even though a clear distinction between the two terms has been established. In digital financial management, all transactions are paperless, and all information is stored in a database. In electronic financial management, you utilize electronic services such as the internet to enhance your financial management tasks. However, there are definitions of electronic financial management that link it closer to digital financial management, highlighting that the difference between the two is merely the automation of all processes in digital financial management. (Lahti & Salminen 2014, 26.)

Integrating different systems is an essential part of digital financial management. In order to have a sufficiently working digital financial management system, you need to be able to integrate the other parts of your business into it, such as sales and inventory management. The idea is to transfer the information from the separate systems into a shared database and the transactions into accounting automatically, thus avoiding manual, multiple entries of the same information into different systems. (Kaarlejärvi & Salminen 2018, 42-43.)

Digital financial management services can be divided into two main categories: ERP (Enterprise Resource Planning) systems and SaaS (Software as a Service) cloud services. ERP systems consist of integrated modular applications, such as sales, logistics, production, and project management, which use the same centralized database (Kaarlemäki & Salminen 2018, 35). SaaS services offer software where the user can access the needed application via the internet. The service provider is responsible for the operations, developments, and updates of the software (Kaarlemäki & Salminen 2018, 46).

### **3.3 Digital Financial Management in Finland**

Finland started to practice paperless accounting already in the 1990s, as Figure 1 below depicts. Finland was the first country to change its legislation to enable the transition from traditional financial management recorded on paper to electronic financial management in 1997. Before the legislative changes, it was mandatory to archive all transactions manually on paper. Based on the progressive steps Finland was taking back then, one could have predicted that the country would continue to make headway in the field. However, as Figure 1 indicates, it took Finland until 2010s to start digitalizing financial management processes; consequently, the country lost its status as a forerunner in the field. Twenty

years after enabling paperless recording of transactions, digital financial management has gained a strong foothold in financial management. (Kaarlejärvi & Salminen 2018, 11.)

Figure 1 below depicts the development of financial management in Finland on a timeline from the 1990s when the legislation enabled electronic financial management to the present.

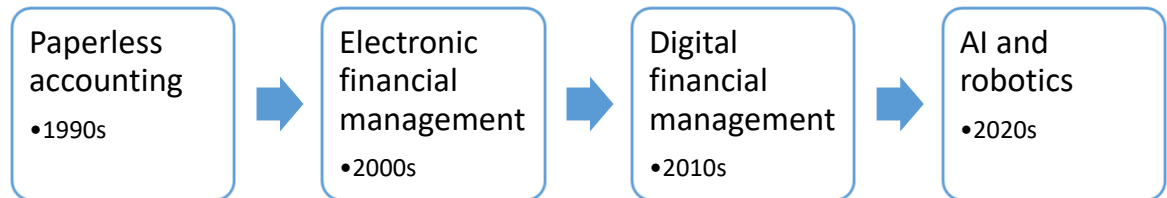


Figure 1. Evolution of Financial Management in Finland (Lahti & Salminen 2014, 27.)

According to Johanna Tuominen (2020), the Commercial Product Manager at Accountor Finago, approximately 50% of Finnish companies in 2019 did not use electronic financial management. A study conducted by Taneli Vainionpää (2016, 53.) found that in 2015, 51% of micro companies (less than ten employees) located in the region of Kokkola were using some form of digital or electronic financial management which supports the research carried out by Accountor Finago.

Most finance activities can be digitalized completely with information and communications technology (ICT). Therefore, it is not surprising that according to the statistics, financing and insurance gained the most ICT investments of the business sectors in Finland between the years 1998 and 2013 (Pohjola 2020). Currently, the Technologies Industries of Finland organization has an on-going project developing real-time economy ecosystems. The project was started in 2017 to launch ecosystems that advance the processing of economic information. The project consists of digitalizing company reporting and company information, and to have electronic receipts to travel between different parties within the ecosystem. (Technology Industries of Finland 2019.)

The development of real-time ecosystems enables the transition into an invoice- and receipt-specific VAT reporting. The transition would allow automatic VAT reporting for companies based on their invoice- and receipt information. The information would be transferred to the Tax Administration by using the interface. (Vero 2020.)

Finland has been taking steps towards financial management digitalization in legal forms as well. As aforementioned, Finland renewed its accounting law to allow companies to disclose its financial statements in electronic format in 2015 (Sirkiä 2017).

### **3.4 Benefits of Digitalization of Financial Management**

Merely the automatization of financial reporting is estimated to save up to €250 million annually in Finland (Lahti & Salminen 2014, 171). The automation of processes enables the allocation of resources into more important tasks, consequently facilitating entities to be more profitable. The sustainability effects of digitalizing the processes, which are discussed in the next subchapter, go even further than the monetary benefits.

### **3.5 Sustainability**

Improving accounting efficiency includes both reducing the used working hours and paper documents with the increasing use of electronic systems. Both of these have major effects on the climate. Therefore, the digitalization of financial management not only increases the efficiency of business operations but also has a drastically positive impact on the environment. (Finanssialan Keskusliitto 2015.)

The benefits that the implementation of digital accounting in micro- and small enterprises brings can be considered significant on a national scale. The majority of enterprises in Finland consists of micro-businesses; micro-businesses with up to nine employees make up 94.33% of the total number of companies (Statistics Finland 2020, 39). Despite the size of the company, the automation of accounting tasks can be expected to lessen the environmental impact by 80 to 90% in nearly every company (Finanssialan Keskusliitto 2015, 8). Combining the large number of micro-sized businesses in Finland and the major environmental savings, the transition of micro-businesses to digital financial management presumably constitutes for a remarkably lesser impact on the environment.

Electronic invoicing is four times more environmental-friendly in comparison to the manually executed invoicing in paper format. The process of both purchase and sales invoicing manually is highly time-consuming. Electronic invoicing is remarkably faster, and it avoids the use of paper. The amount of time spent on handling invoices is the biggest factor in the carbon footprint of an invoice, thus, the most emission savings come from the increased productivity in the process of sending an invoice electronically. It saves approximately 50% of time in handling invoices as it automizes phases of the process. The environmental benefits are also obtained from the elimination of paper in the processes. (Hellgren & Tenhunen 2010.)

According to Finance Finland (2015), more than three and a half million VAT reports are filed each year in Finland. Half a million of the reports are filed in paper format. The number of companies filing VAT reports in paper format adds up to a minimum carbon footprint of 60,000 kg – requiring eighty trees and 20,000kWh of energy (Good Energy 2018). Using recycled paper, assuming that it has been used to its maximum capacity, would save 47% of the carbon footprint (Good Energy 2018). Table 2 below presents the emissions of different paper forms used in financial management tasks and the emissions that are caused by office work and archiving digital documents.

Table 2. Emissions of financial management tools (Finanssialan Keskusliitto 2015)

<b>Emission component</b>	<b>Emissions (g CO2e/x)</b>
<b>Office work</b>	1g per second
<b>Letter paper</b>	9.93g per A4 paper
<b>Envelope</b>	18.16g per letter
<b>Mailing</b>	21.3g per letter
<b>Archiving</b>	35.3g per letter
<b>Digital document (archiving)</b>	1g per document

Besides the use of paper, the sustainability of financial management needs to consider the amount of time spent on the processes as it contributes to the efficiency of executing the tasks. Table 3 presents the amount of time spent on different financial management tasks and the carbon footprint of each task based on the emissions provided in Table 2. The data is based on fully manual tasks compared to automated processes.

Table 3. Saved working time and carbon footprint after automation, broken down by task (Finanssialan Keskusliitto 2015)

<b>Task</b>	<b>Duration (min:sec)</b>		<b>Saving</b>	
	<b>Paper</b>	<b>Automated</b>	<b>Working time (min:sec)</b>	<b>Carbon footprint (CO2e)</b>
<b>Invoice, incoming</b>	5:42	0:54	4:48	0.29kg
<b>Invoice, outgoing</b>	11:00	4:40	6:20	0.38kg

<b>Card payment receipt</b>	8:40	1:00	7:40	0.46kg
<b>Account statement processing</b>	5:00	1:00	4:00	0.24kg
<b>Entry of service fee</b>	5:00	1:00	4:00	0.24kg
<b>Monthly VAT report</b>	10:00	2:00	8:00	0.48kg

Even though the environmental impact of micro-sized businesses is often not considered to be significant, the repercussions of more than 265,000 businesses (Yrittäjät 2020) are evident. Table 4 below presents the savings in terms of carbon footprint and percentage that the automation of financial management tasks has in comparison to the manually executed tasks.

Table 4. Monthly CO<sub>2</sub>e emissions of accounting tasks and documents (Finanssialan Keskusliitto 2015)

	<b>Paper</b>	<b>Automated</b>	<b>Saving %</b>
<b>One-person business</b>	39.4kg	5.1kg	87%
<b>Small business</b>	306.0kg	37.3kg	88%

The pressure for companies to work towards more sustainable and transparent business operations is high. The pressure is increasing constantly, especially in the fashion industry where many medium- and large-sized companies, such as Acne Studios, Marimekko, and LVMH, have applied sustainability reporting into their annual financial year reporting. Currently, there are no obligations to file a sustainability report nor are there any regulations on the reporting, with the exception of the EU Directive 2014/95/EU (Directive on disclosure of non-financial and diversity information by certain large undertakings and groups 2014/95/EU). Since the Directive only concerns certain large companies, it is only applicable to 6,000 companies in the European Union (European Commission 2020). This is very likely to change in the upcoming year as the social pressure intensifies. Knowing that the European Union has already put in a place a directive that obligates thousands of companies to report non-financial and diversity information, it can be presumed that in the future, it will be mandatory for a larger number of companies. It raises the question of whether sustainability accounting is going to be implemented in the current digital financial management services.

### 3.6 Digitalization in the European Union

Transactional data in financial management refers to the business transactions in financial management which involve documents, and which are used to form accounting documents (Kaarlemäki & Salminen 2018, 69). Public projects continuously aim to enhance and digitalize transactional data to decrease expenses and dismantling barriers in trade (Kaarlemäki & Salminen 2018, 70). An example of a public entity developing their standards and formats to digitalize transactional data is the Directive 2014/55/EU on electronic invoicing (Directive on electronic invoicing in public procurement 2014/55/EU).

The European Union came to an agreement in 2014 to enhance financial management both in the public and the private sector in the EU Member States. There was no common standard for electronic invoicing (eInvoicing) in the Member States, which led to the creation of their own technical solutions based on separate national standards. In Finland, there has been very little mandatory information that has been required for electronic invoices which has led to multiple different types of eInvoices – some of which were missing important information (Fredman 2020). With the use of multiple different electronic invoicing standards in the Member States, additional operating costs and uncertainty have occurred due to the complexity of it. This has created obstacles to economic operators when practicing cross-border procurement since it often means they have to comply with new standards whenever they enter a new market. The number of these standards was predicted to increase in the future due to the lack of a common standard. This was seen as an obstacle for trade in the European Union because adjusting to different standards in each market was discouraging enterprises to practice cross-border trade (Directive on electronic invoicing in public procurement 2014/55/EU). This led to the creation of the Directive on electronic invoicing, Directive 2014/55/EU.

The objective of the eInvoicing directive is to promote cross-border trade and to generate substantial benefits in terms of costs, environmental impact, and reduction of administrative burdens (Directive on electronic invoicing in public procurement 2014/55/EU). In general, the directive's purpose is to widespread electronic invoicing in the European Union Member States (Rumpu 2019).

Electronic invoicing standard EN 16931-1:2017 (CEN/TC 434 - Electronic Invoicing EN 16931-1:2017) was ratified in April 2017 and it was published at the end of the year by the European Committee for Standardization (CEN 2020). The main objective of it is to enable sellers to send invoices to customers by using a single eInvoicing format and not to have to adjust it with different individuals. The standard established a semantic data model that

defines the core elements of an electronic invoice. The model may be used both in the public and the private sector for procurement invoicing, and it considers the special needs of smaller enterprises. (CEN 2020.) (CEF 2020.)

As long as the existing technical standards in the Member States do not conflict with the European standard, they do not have to be replaced nor restricted (Directive on electronic invoicing in public procurement 2014/55/EU).

The European standard EN 16931-1:2017 on electronic invoicing states that only machine-readable invoices, which can be processed automatically and digitally by the recipient, should be considered to be compliant with it. Thus, an image file does not meet the requirements for an electronic invoice. In other words, sending a scanned image of an invoice does not qualify for an electronic invoice. (Directive on electronic invoicing in public procurement 2014/55/EU.)

The Finnish government enacted the law on eInvoicing (laki hankintayksiköiden ja elinkeinonharjoittajien sähköisestä laskutuksesta 241/2019) in February 2019. The law came into effect later the same year on the first of April. However, the law only affected public administrators as the Finnish Government decided to use an extra year for the compliance of non-central entities. As of the 1<sup>st</sup> of April, in 2020, the law was supposed to affect all central, regional, and local contracting authorities. However, it has been delayed by the Central government until further notice due to the COVID-19 pandemic (Tilisanomat 2020). The law on eInvoicing in Finland already had two extensions added on the national level: It is extended nationally to invoices based on contracts above national thresholds but below EU thresholds, and the contracting entity and the trader both have the right to receive an invoice from one another electronically upon request. The law 241/2019 on eInvoicing states that a contracting entity or a trader has the right to receive an invoice from another contracting entity or a trader in an electronic format upon request. The targets of eInvoicing are cost and operational savings and the reduction of administrative burden. (CEF Digital 2020).

Besides the directive on electronic invoicing, another example of the European Union taking action towards sustainability in the financial field is the inclusion of sustainability reporting to certain enterprises' annual reporting. The Directive 2013/34/EU requires certain large undertakings and groups to disclose non-financial and diversity information. The Directive was created due to the need to increase the transparency of the social and envi-



ronmental information in all sectors across all EU Member States. It aligns with the renewed EU strategy for Corporate Responsibility which was adopted in 2011. (The European Parliament 2014).

### **3.7 Outlook of Financial Management**

The significance of data is increasing immensely. Data is an essential base to utilize digital financial management, automation, robotics, and artificial intelligence (AI). The correctness of data must be assured to have efficiently functioning processes that provide accurate information from the data it receives. (Kaarlejärvi & Salminen 2018, 68.)

AI and robotics are playing a big part in the automation of processes in digital financial management. Many enterprises utilize AI and robotics in the development of their services already, and this is projected to become a mainstream trend in the 2020s. (Kaarlejärvi & Salminen 2018, 51).

Robotic Process Automation (RPA) is the most utilized process in financial management (Kaarlejärvi & Salminen 2018, 51). RPA automates business processes that are repetitive, sensitive to errors, rule-based, and time-critical or seasonal (Deloitte 2020). It is an application of technology that aims to streamline business processes by eliminating tasks and to reduce costs which allow better allocation of resources (Boulton 2018). RPA functions the way an average human employee does, but more accurately and faster without taking breaks (Kaarlemäki & Salminen 2018, 53). According to David Schatsky, a managing director at Deloitte LP, the deployment of RPA bots at a bank counted for only 30% of the costs that employee recruitment would have cost (Boulton 2018).

Implementing a software robot only requires a few weeks of work whereas creating automation for the same purpose to a platform can take several months. Hence, it is much more cost-efficient to use robotics for the automation of processes. The use of a robot also prevents the possibility of making mistakes since it follows precisely what it has been programmed to do, unlike an employee who is prone to mistakes. In case of a mistake or an error, the flow of information is easy to track because all the actions taken by the robot are always saved. A robot does not take time off from work like an employee who has specific working hours, nor does it forget to execute tasks it has been assigned to. (Kaarlemäki & Salminen 2018, 54.)

One of the most used technologies in financial management is the use of different types of Optical Character Recognition (OCR) based solutions. It can be used for tasks such as handling receipts or invoices. OCR can pick the needed information from a photo or a

scanned paper which is then processed. The technology can also be applied to emails or voice recognition. (Kaarlemäki & Salminen 2018, 57.)

Machine learning is more intelligent compared to RPA and it is a basic form of AI. It should not be confused with as being an advanced form of cognitive AI because the functions are based on processing large amounts of data, categorizing, and forecasting which are based on different mathematical models instead of independent problem-solving and improving its operations. Machine learning, nevertheless, does develop itself to some extent and it learns from mathematical algorithms when the amount of data grows. Thus, a human does not need to teach new rules nor actions to the technology (Kaarlemäki & Salminen 2018, 59). The most recognizable forms of machine learning are in marketing and streaming services where it is utilized to analyze the consumer's selections to predict what he or she may like. In the same way, machine learning can be used in financial management to predict what a person would do in a certain situation based on what they have done in the past. The actions that machine learning can take are categorizing information and making projections, which can be in a form of suggestions or automatic procedures that are based on the projections (Kaarlemäki & Salminen 2018, 60). This, however, requires a large amount of data in to be reliable.

Artificial intelligence has not yet been developed to a level where it can be utilized in widespread use. It is mostly customized for specific purposes, and mostly at large enterprises. Nevertheless, it is projected that AI is going to develop to the level where it can automate more than 95% of the current financial management tasks in the next few decades. (Kaarlemäki & Salminen 2018, 61.)

As stated above, AI and robotics are changing the way financial management processes are executed. In conclusion, technology is going to replace currently manual tasks and leave analyzing for the employees. Consequently, it leaves more resources into decision-making which is more beneficial for companies in the ever more fast-moving business world where you need to be able to have real-life data at your hands at all times to be able to make rapid decisions. The case company's accountant from their third-party accounting firm says that the role of accountants in the future is leaning more towards the position of a controller/ financial manager which she finds to be a highly positive development for both the accountants and their clients (Appendix 1).

Financial management is moving into an electronic form where the use of automation is possible. As aforementioned, the European Union has already implemented a directive on

electronic invoicing that sets out regulations that invoices need to follow. Finland is developing the use of electronic financial statements that would replace the paper-from version, which was required by law until the beginning of the year 2016 (Sirkiä 2017). The measures that are being taken on governmental levels to modernize financial management strongly indicate that these types of reforms are going to continue in the upcoming years.

### **3.8 Current State of Financial Management at Company X**

Currently, the case company's main financial management tasks include the use of OP-Kassa cashier system, the combination of WordPress and WooCommerce online store system, Bambora, and iZettle cashier terminals, Excel, email, and paper files. The main reason to implement digital financial management into the procedures is to eliminate the use of Excel and manual paperwork which are time-consuming and exposed to risks. The ideal would be to integrate the main cashier system, OP Kassa, and the online system with the future digital software to have sales information available in real-time. The integrations would eliminate manual entry of information to the other system. In general, the objective is to spend less time on financial management tasks than currently.

Figure 2 depicts the average time micro-businesses and small businesses spend on financial management tasks when it is carried out in traditionally (manually) in comparison to automatic execution of tasks digitally.

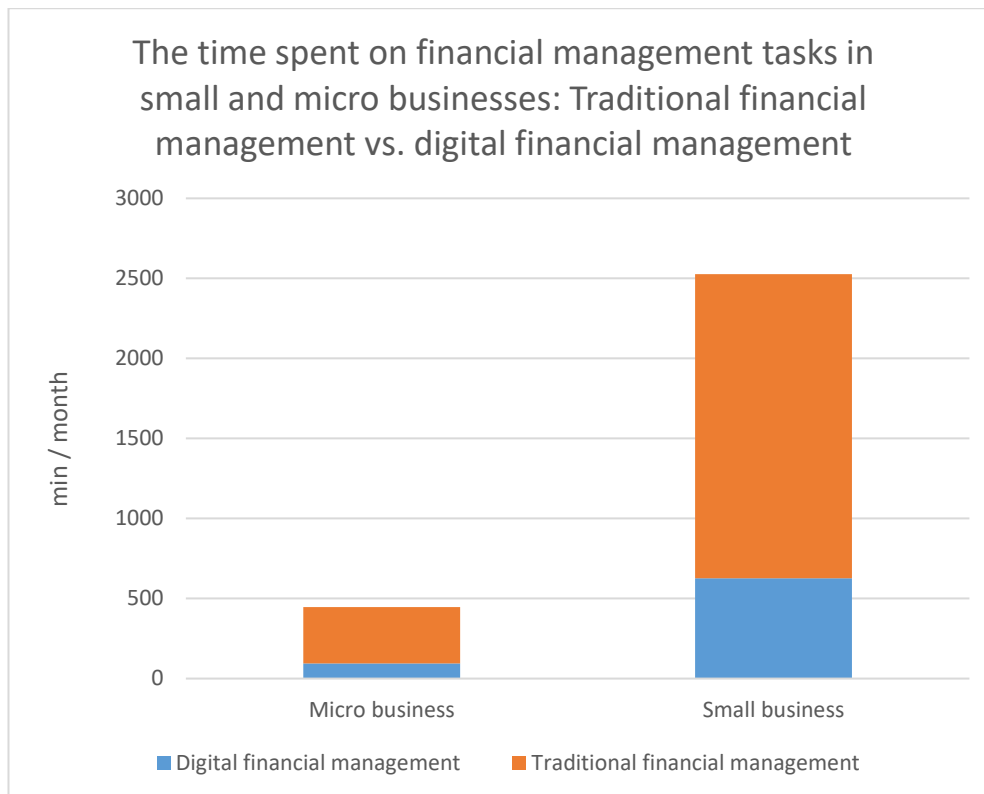


Figure 2. The time spent on financial management tasks in small and micro businesses: Traditional financial management vs. digital financial management (Finanssialan Keskusliitto 2015.)

Figure 2 depicts that digitalizing financial management tasks, even on the level of micro- and small businesses can on average save 75% of the time spent on the tasks. Traditionally executing financial management tasks at a small business requires approximately forty-one hours per month whereas with the use of digital services they only require ten hours monthly.

Based on the conducted research, it can be assumed that the time required for financial management tasks is going to decrease by over 70%. The costs related to financial management can be expected to decrease as well due to the significant reduction of time spent on the tasks and the expected smaller role of the third-party accounting firm.

### 3.8.1 Purchase Invoicing

Purchase invoicing is the process that begins from a purchase inquiry and ends with the payment of the purchase (Kaarlejärvi & Salminen 2018, 93). Figure 3 below presents the process step by step. Currently, the case company processes their purchase invoicing either manually on paper or via email. After receiving a purchase invoice, it is paid manually, and the accounting firm books the invoice.

The digitalization of the purchase invoice process saves resources significantly as it automizes most of the process as a whole. When an invoice is received online, the software automatically processes the information, therefore the recipient does not have to insert the information into the system by herself/ himself.

According to the research, most of the Finnish companies use electronic invoicing. 70% of all the companies in Finland were using electronic invoicing by the year 2014 (Lahti & Salminen 2014, 52). Kaarlemäki & Salminen state that the portion of received invoices at large companies and public entities can be as high as 80% to 100% (2018, 96). Finanssialan Keskusliitto (The Finance Central Union) supports the claim by saying that in general, most companies have switched to electronic invoicing (2015).

Figure 3 depicts the six steps of the electronic/ digital purchase invoicing process.

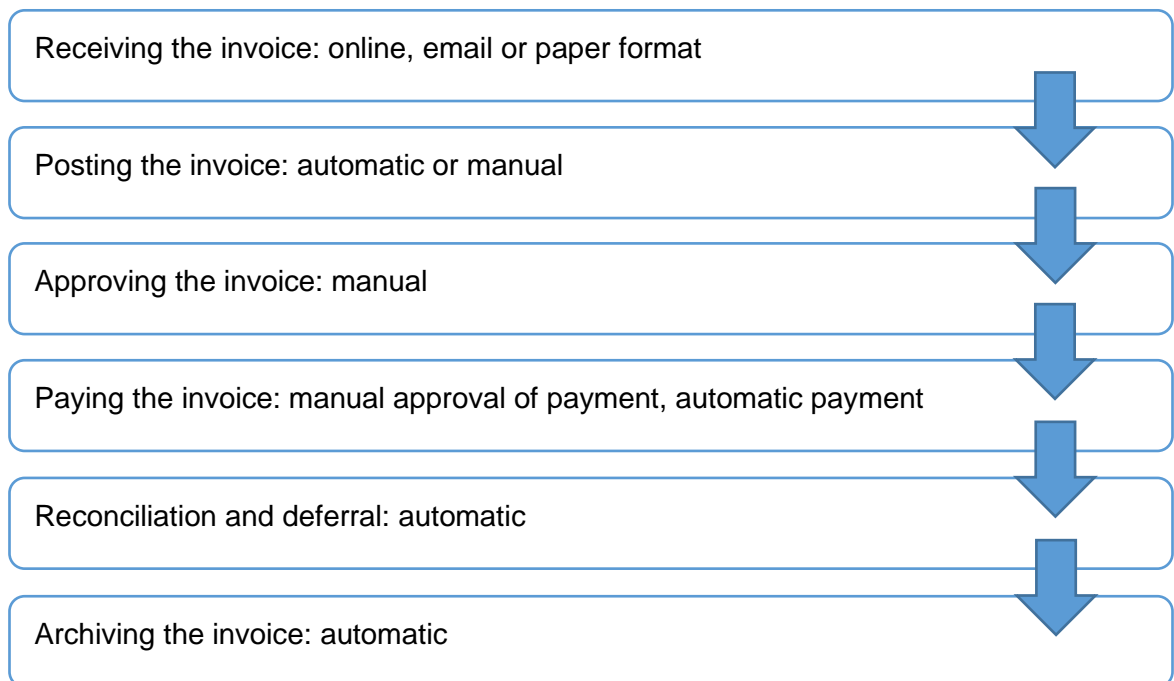


Figure 3. Purchase invoicing in digital format (Lahti & Salminen 2014, 53.)

### 3.8.2 Sales & Sale Invoicing

The sales invoicing process consists of all the steps from the sales order to the payment. Sales entail sales transactions, reference transactions, and bank account transactions. (Kaarlemäki & Salminen 2018, 93-94.)

The sales invoicing process is handled at the case company on a template on Excel. The invoices are sent as attachments via email.

Sales reporting is handled by manually printing the monthly sales reports from all B2C sales outlets; Online store's Paytrail, Stockmann Online Exclusive's Checkout, and the shop's and event's payment terminals Bambora, iZettle, and Checkout. After printing the sales reports, they are sent to the accounting firm via email.

In case that it is possible to integrate all sales outlets that the case company has, all information would be automatically transferred into the digital financial management software. The reporting process itself is also automatically carried out by the software.

### **3.8.3 Travel & Expense Invoicing**

The travel and expense invoicing process arises from a company's traveling employee's right to claim compensation for travel expenses or from the expense transactions that an employee has created for the company (Lahti & Salminen 2014, 101). At the case company, the most typical expenses are related to traveling and purchases made for the business premises and hosting events. The case company actively attends fairs and events both internationally and domestically resulting in a high number of travel expense receipts throughout the year. Due to the nature of the fashion industry, the décor of the company's shop is changed according to the season and campaigns, hence the company purchases decoration elements and items and materials needed for renovation often.

Currently, the case company handles the travel and expense invoicing both manually and electronically. The receipts are saved into physical files and they are sorted manually by both time and the type of expense. There is a high risk of receipts getting lost and manual work is time-consuming. Once the receipts have been sorted, they are manually inserted into an Excel file. The file is then sent to the accounting firm.

### **3.8.4 Payroll Management**

The accounting firm has been responsible for the case company's payroll management thus far. Most digital financial management software services offer payroll management. For example, financial management and payroll administration services and software company Accountor Finago's software Proccountor provides payroll management which stores the personnel and salary information, calculates and pays salaries, and sends notifications regarding the salaries (Proccountor 2020).

### 3.8.5 Financial Reporting

Financial reporting consists of composing different reports, such as the income statement and balance sheet, and the distribution of those reports. Successful automation of reporting and accurate real-time reporting information requires to have the basics in order; otherwise, the information might not be trustworthy (Lahti & Salminen 2014, 172).

The case company is considered to be a micro-sized business based on the Finnish Accounting Act 1336/1997 since the case company has a net turnover of less than €700,000.00, the total assets are less than €350,000.00 and the number of employees is between five to ten persons (Finlex 2017). Once the company's net turnover is either €12,000,000.00 or more, the total assets are €6,000,000.00 or more, or the average number of employees is fifty employees on average working for the company, it is considered to be a small-sized company. For both the micro- and small-sized businesses, financial reporting consists of an income statement, a balance sheet, and attachments, such as the profit and loss account based on the nature of expenses. (Leppiniemi 2017.)

There are differences on how the two different sized companies must disclose their financial information. When it comes to enclosing information on the income statement, a micro-sized business applies the same layout based on either the nature of expenses or the function of expenses as small businesses. However, a micro business is not required to explicate its cost-structure extensively and it may present their costs based on the total sum by main categories. Micro- and small businesses also use the same structure for the balance sheet where they are allowed to present the balance based on the total sums within the Accounting Act's limitations without explicating them extensively. The structure for two different sized companies mostly differs in the presentation of capital. Micro businesses have to present the capital items that are mentioned as capital in the company law governing the form of the company. (Talouhallintoliitto 2017.)

In the case of a micro- or small limited liability company, the company is only required to present the information stated by the Accounting Act and tax legislation. A micro-limited company is not required to provide information regarding the results of operations and financial position other than that expressly required by the statute and tax legislation to give a correct and sufficient picture of the business. (Talouhallintoliitto 2017).

The accounting firm is currently responsible for the case company's financial reporting, and the company has been composing their financial reporting in an electric format which has been allowed by law in Finland since January first in 2016 (Leppiniemi 2017).

## **4 Project Outcomes**

This chapter looks at the outcomes of the research conducted for the project concerning the digital financial management software services. The chapter presents the possible digital financial management service providers and the available integrations. It then goes into arguing which one is the optimal choice and calculates the Total Cost of Ownership of the implementation and the use of the service.

### **4.1 Digital Financial Management service options**

The case company is going to implement a digital financial management SaaS service which is combined with the services provided by the company's third-party accounting firm. As aforementioned in the thesis, it is important that the service provider has operated long in the field of financial management, the service provider should have a diverse selection of services, be experienced in product development, and to have good customer experiences from implementing the service. Based on the conducted research, the digital financial management SaaS services provided by the companies Accountor Finago and Visma are considered to be some of the top market leaders in Finland and meet the given criteria extensively.

Visma is a software company founded in 1996 providing different enterprise software solutions and IT-consulting across Europe. The company's revenue was €1.5 billion in 2019 and they have one million customers, over 100,000 of which are in located Finland (Visma 2020). Finago is a financial management software company that is a part of Accountor Finago Oy which was originally founded in 1990 and provides financial management and payroll administration services and software (Finago 2020). Finago's revenue was €47.2 million in 2019 (Finder 2020).

#### **4.1.1 Procountor**

Financial management company Accountor Finago is offering different sized packages for their digital financial management software Procountor. The packages vary based on the number of employees the company has on payroll and the number of receipts per month. The packages can be customized for the company's needs.

Procountor Kevyt package is the smallest package offered by Finago and it is only €19.00 per month. The services the package includes, however, are very limited, and the extra



costs per receipt and person on the payroll is more expensive than in the more comprehensive Perus-package which is a step up from Kevyt; the extra costs are €1.87 per receipt and €4.99 per person on the payroll. The package's monthly fee only includes ten receipts and one person on the payroll. What is also left out from the package in comparison to the Perus-package is the invoicing for multiple recipients.

Procountor Perus package includes sales invoicing, (reoccurring) invoicing for multiple recipients, purchase handling, internal accounting dimensions (targets of the internal accounting, such as projects), forty receipts per month, and payroll computation for four persons for €59.00 a month. The package charges €1.57 extra for every receipt exceeding the monthly limit and €3.99 for an extra person on the payroll. Other services, such as contractual billing and inventory management, can be added to the package for an extra monthly fee. As a company operating in the fashion industry, inventory management is important for the case company, and adding it to the system is probable. The additional monthly fee for inventory management is €29.00.

The concern with the Perus package is the number of receipts per month. The number of receipts is most likely going to exceed the limit and it is difficult to estimate the actual cost of the service. According to the owner of another micro-sized Finnish fashion company X, their company's Procountor fee was nearly €500.00 one month due to the large number of receipts they had that month. If the number of receipts is doubled in a month, it will result in a total cost of €122.00 per month which is still significantly less than the monthly fixed fee for the larger Plus-package that costs €249.00 per month. Once the number of receipts per month reaches the number of 161, the cost per month is the same as in the Plus-package which includes 200 receipts.

The Plus-package for Procountor has a fixed cost of €249.00 per month. In addition to the services that are included in the Perus-package, Plus entails item invoicing for work completed for customers, and the services have higher monthly limits: the number of receipts is two hundred and the additional receipts have a cost of €1.25 per receipt, and the number of employees is up to twenty persons with a cost of €2.99 a month for an additional employee. The package is more cost-effective compared to the Perus-package if the number of employees remains four or less, but the number of receipts exceeds 161 per month.

#### **4.1.2 Procountor Integrations**

The case company uses two different retail sales systems: OP Kassa for sales at the company's own shop in Helsinki and Stockmann online store's orders, and WooCommerce for the company's online shop. Currently, the two systems are not integrated,

therefore the reported sales nor the sold inventory are in the same system. The sales reports and inventory management have to be executed manually, hence; errors can undoubtedly occur on regular basis.

At the moment, Flashnode offers the possibility to integrate Proccountor and WooCommerce, but the benefits can be contested. The owner/ CEO of the case company says that the most important aspect of the integration of the two systems would be in the creation of new products. Currently, whenever a new product is created, it needs to be created separately into each existing system. Therefore it takes two to three times more time than if it was created on all systems at the same time. As it turns out, the integration between WooCommerce and Proccountor only transfers new products into Proccountor from WooCommerce when the product is purchased. Hence, if a product is added to the online store, it will not appear on Proccountor until a customer purchases it.

The WooCommerce integration could make it easier to handle billing the retailers. The company is working on a system where the retailers place their orders via the company's online shop; thus, the retail orders could be directly transferred to Proccountor with the integration. It would also enable the automatic transfer of customer information to Proccountor when they place an order.

The monthly fee for the WooCommerce integration is €79.00 a month. The first two hours of the implementation are cost-free, but after that, the costs are €125.00 per hour. According to the sales representative from the company that offers the integration, Flashnode, typically the duration of the implementation does not exceed two hours.

Proccountor does not have an integration possibility with OP Kassa presently. When asked about the future plans for the integration option from Johanna Tuominen, product developer at Finago Accountor, she says that they are planning to provide the integration in the future. However, it is now not a priority for the company and the launch of the service will take place in the foreseeable future – not within a year or less.

Since it is not possible to integrate both OP Kassa and WooCommerce to Proccountor and there is an issue with inventory management on the WooCommerce integration, it is not worthwhile to consider the matter at this moment. If the WooCommerce integration were to be implemented, OP Kassa would still be left out of the equation, thus meaning that the sales would need to be reported separately and the inventory management would be handled manually.

### **4.1.3 Netvisor**

Software company Visma has developed a digital financial management software service Netvisor targeted especially for small- and medium-sized companies. The fixed monthly fee is determined by the company's revenue, and the service is offered in four different sized packages. The package fees vary from thirty to €110.00 a month if the company's revenue is a maximum of €200,000.00. If the revenue is between €200,000.00 and €500,000.00, the fees vary from €50.00 to €150.00 a month. The additional fees are calculated based on the number of employees, and the added services, such as the number of employees that register the travel and expense invoices. The additional fees vary based on volume. For example, the monthly cost for two employees on the payroll is €10.00 per person, but for ten employees the cost is €5.00 per person. (Netvisor 2020). Finago is a Finnish financial management software company that is a part of Accountor Finago Oy, financial management, and payroll management software company (Finago 2020).

The fixed monthly cost for Netvisor's Basic package is €30.00 if the annual revenue is a maximum of €200,000.00. The monthly fixed cost includes electronic accounting and an unlimited number of receipts and users. Sales and purchase invoicing are available for an additional fee.

The fixed monthly cost for the Netvisor Core package is €60.00 when the annual revenue is a maximum of €200,000.00. Core includes the same services as the Basic, and sales and purchase invoicing.

The fixed monthly cost for the Netvisor Professional package is €80.00 if the revenue does not surpass €200,000.00. In addition to the same features that the Core package entails, the Professional package also offers budgeting, reporting, forecasting, sales and purchase orders, and API (Application Programming Interface).

The fixed monthly cost for the Netvisor Premium package is €110.00 if the revenue does not surpass €200,000.00. The Premium package includes all the features that are included in the smaller packages and it offers inventory and product management.

### **4.1.4 Netvisor Integrations**

Like Procountor, Netvisor is possible to integrate with WooCommerce with Flashnode. The cost of the integration depends on the scale of the integrations, starting from €79.00 per month. However, the price does not include inventory nor product management which

are important to the case company. Inventory management is possible to add to the service for an extra cost of €59.00. The next level of the integration is significantly more expensive with €199.00 per month, and it includes inventory and product management as well as shipping status updates. Nevertheless, with annual costs of €2,388.00, it is expensive for a micro business. (Flashnode 2020).

## **4.2 Purchase Decision**

The factors considered in the purchase decision are the compliance with the case company's third-party accounting firm, the costs, user-friendliness, the scale of services, the development of the system, expertise in retail, and integration possibilities.

The biggest difference between the packages offered for Procountor and Netvisor in terms of pricing is that Procountor has monthly limits and charges extra for exceeding the limits. For example, Procountor has a monthly limited number of invoices included in the packages and once the company exceeds the limit, they pay additional fees for each extra invoice whereas Netvisor offers an unlimited number of receipts in all of its packages except the Basic package. Netvisor's fixed monthly pricing is determined by the amount of revenue and it charges €5.00 extra for each employee whereas Procountor includes a certain number of employees in its fixed monthly price and charges extra when the number is exceeded. The fixed monthly fees for Netvisor are lower when you compare the packages, and Netvisor does not charge for the implementation of its software, unlike Procountor. However, there is a current offer that provides Procountor's implementation free of cost.

After test trialing, Netvisor's platform environment was found to be more user-friendly by the owner of the case company and the thesis author. There were not significant problems with Procountor, but Netvisor's environment was easier to navigate and the platform is visually more appealing.

Both Procountor and Netvisor are possible to integrate with WooCommerce, but Procountor has the advantage of having an integration possibility with OP-Kassa in the future. Netvisor does not currently plan to have an integration possibility with OP-Kassa. Since the case company's one of the biggest retailers, Stockmann, requires the use of OP-Kassa as the cashier system, the integration is an important factor. All the sales transactions at the case company's shop in Helsinki are processed with OP-Kassa which currently makes up approximately half of the company's direct sales. The case company also sells their products via Stockmann's online store and those sales are processed through OP-Kassa as well.

After discussing the options with the case company owner, we decided to select Procountor. The main reason was that the software is compatible with the accounting firm and Netvisor would be challenging for them to operate. According to the accounting firm, they had tried using Netvisor with another client unsuccessfully. Another reason was that the integration possibility with OP Kassa interests the case company which wants to have fully integrated financial management. Based on the developments that are taking place related to Procountor integrations, it can be forecasted that in the upcoming years the full integration of all systems used at the company is going to be possible.

## 5 Investment Plan & Implementation

This chapter calculates the TCO of the selected digital financial management software that is going to be implemented at the case company and describes the implementation of the software. The chapter explains the factors included in the TCO calculation and examines the accuracy of the costs during the implementation.

### 5.1 Total Cost of Ownership

When calculating the costs of implementing a digital financial management service, there are many factors to be considered. The method used to calculate the costs of the service is Total Cost of Ownership (TCO). TCO includes the purchase price of the service, the costs of operation and the value over time. This subchapter introduces the different costs that are considered when calculating the TCO of Procountor. The TCO for this project includes the costs of the cloud service, implementation of the service, employee training, customization of the service for the company needs, and future upgrades.

Digital financial management cloud services typically have fixed monthly fees that vary depending on several factors. In case of Procountor, the fixed monthly cost of the service depends on the accounting functions, the number of receipts and the number of employees in the payroll.

The cost of setting up the service to the company. Finago offers four different packages of implementation (not including customization) for Procountor which vary depending on the scale of support and speed of implementing the service.

Employees need to be trained to use the cloud service. This does not only depend on the current number of employees, but also the employee turnover rate and the increasing number of employees as the company grows. (Doig 2015).

Customization includes both the costs of the accounting firm customizing the service platform for the company as well as the costs of possible integrations and additional services. Companies have different financial management needs which can depend on factors such as the industry where it operates. Financial management might be supported by different integrations of services to increase the efficiency of both financial management and another segment of the company. For example, in retail industry, inventory management is a crucial part of a business and linking it to the digital financial management service can be beneficial to the profitability of the business. Balancing inventory to not have too much or

too little inventory means that the business does not have paid products sitting in its storage nor too little stock to meet the demand. Analyzing the sales is important in order to have efficient inventory management; for example, sales forecast enables projecting the optimal inventory level.

The important integrations in the retail industry entail the cashier systems used at profit centers. By integrating the cashier systems, the business does not have to transfer the sales manually and it can have real-life data regarding the sales. If inventory management has been implemented to the software, the sold products are automatically deducted from the stock.

For a retail company, having the proper added services and integrations means that business can save a considerable amount of time by avoiding manual work and have access to real-life data enabling the business to have more agile decision-making.

As the company grows, their needs for more comprehensive financial management services also increases. Digital financial management software services vary by the size of the business's operations, thus future upgrade to a more comprehensive service is necessary when the company has grown past a certain limit. Upgrading to a larger Procountor package is cost-free. At the moment, the company has four employees which is exactly the limit the Perus-package has for payroll. Due the effects that COVID-19 has had to the economy, the number of employees is not likely to grow this year. The case company has typically had between three to seven employees on payroll, and the number of employees is likely to grow next year if the economy has started to normalize and the business can continue to operate more or less as usual. The number of invoices is also going to grow once the limitations caused by the pandemic have decreased, allowing travelling and for events to take place. The limit of forty invoices per month is reached quickly when you include travelling expenses.

Table 6 below presents the total costs of Procountor's Perus-package including the services that are likely to be added. The costs consist of the implementation costs and the monthly fixed costs of the services. The Table also presents the estimated training costs based on the time spent on training and the average hourly wage of an employee. The accounting firm fee is based on the costs of the previous year.

Table 6. Total costs of the digital financial management software Procountor service based on Perus package.

Perus package	One-time cost (€)	Annual costs (€)
Procountor monthly payment	59.00	708.00
Implementation cost	95.00	-
WooCommerce integration	79.00	948.00
iZettle	30.00	360.00
Inventory management	29.00	348.00
WooCommerce-OP Kassa integration	78.00	507.00
Procountor Mini	5.95	71.40
Training costs*	114.00	114.00
Accounting firm fees**	462.00	5,544.00
<b>Total</b>	<b>951.95</b>	<b>8,600.40</b>

\* *Training costs include the training costs of two of the case company's employees. The sum is based on the hourly wage and the estimated time spent on training. The annual cost remains the same as the company is not planning to hire another employee to work in financial management.*

\*\* *Accounting firm fees are based on the monthly average in the year 2019.*

The Table 6 excludes the extra costs that are likely to derive from the exceeded limit of forty receipts per month (€1.59/ receipt) and sending (€0.49/ invoice) and receiving (€0.49/ invoice) invoices. The scanning service, OpusCapita, can be utilized when handling of invoices with the cost of €0.13 to €1.36 per invoice.

Table 7 below presents the costs of the upgraded package Plus which has a more extensive services, most notably for the case company, an increased limit of receipts per month.



Table 7. TCO – Plus package costs

	Plus-package	One-time cost (€)	Annual costs (€)
Procounor monthly payment		249.00	2,988.00
Implementation costs		free	-
Inventory management		29.00	348.00
WooCommerce integration		79.00	948.00
iZettle		30.00	360.00
WooCommerce-OP Kassa integration		78.00	507.00
Procounor Mini		5.95	71.40
Training costs*		57.00	57.00
Accounting firm fees**		462.00	5,544.00
<b>Total</b>		<b>989.95</b>	<b>10,833.40</b>

\* *Training costs include the training costs of a possible new employee working in financial management at the case company.*

\*\* *Accounting firm fees are based on the monthly average in the year 2019.*

The costs included on Table 7 excludes the extra costs caused by sending and receiving invoices. Unlike in the Perus package, the limit of two hundred receipts per month is not expected to exceed.

The likely upgrade that is going to take place at the case company is the Plus-package offered for Procounor. The implementation of the package is offered cost-free if you already are a user of the software and you are upgrading to a more expensive package. The monthly fixed service cost is significantly more expensive compared to the Perus-package; the added fixed cost is €190.00 per month.

## 5.2 Implementation of Procounor

After a quote inquiry placed by the case company to the service provider and accepting the offer, the implementation process of Procounor was mainly executed by the case company's accounting firm. There were discussions regarding the needs of the company for the Procounor platform and the accounting firm customized it accordingly. The customization of the Procounor platform was completed within a day.

According to the CEO of the case company, the implementation has not been easy because she does not find the Procountor environment to be user-friendly. After months of using the software, she thinks that purchase invoicing too complicated: there are too many steps that have to be taken which she considers time-consuming. It should be noted that the CEO has a long history working in accounting, hence it is not a matter of lack of experience or knowledge of the subject. We have consulted the accounting firm regarding the matter, and they say that the purchase invoicing process cannot be customized to meet the needs of a micro-sized business where one person typically handles the entire process of purchase invoicing instead of different people being responsible for different steps of the process. Despite the problems the company has faced with the software, Procountor has saved a remarkable amount of time in financial management processes.

After months of using the software, the CEO still has to contact the accounting firm regularly to ask advice and to delegate tasks for them which was supposed to be minimized with the use of digital service. For example, invoices and receipts that have already been paid still go through the accounting firm because according to the accounting firm, they cannot be added to the system with the package that the company has. The accounting firm also admits that it took them a while to learn how to use the software, and Procountor counseling is in high demand since it is not easy for all clients to comprehend and use (Appendix 1).

## 6 Discussion

The last chapter of the thesis reveals the outcome of the project. The first part of the chapter presents the results of the project which are reflected to the project objective. The results are then discussed in the following subchapter.

### 6.1 Results

The project was executed with the aim to enhance the case company's financial management by implementing a digital financial management software service by the beginning of April 2020. The intend of the implementation of the service was to have all financial data stored in the same place, to improve the execution of financial management processes, to have real-time data, to increase sustainability, to minimize errors, to have better cooperation between the case company and the accounting firm, and to have access to financial data regardless of the location.

The implementation part of the project was completed on-schedule. The company started to use Procountor for their financial management processes in April 2020 when the law on eInvoicing (laki hankintayksiköiden ja elinkeinonharjoittajien sähköisestä laskutuksesta) EU Directive 2014/55/EU was supposed to come fully in effect. Due to the effects of the COVID-19 pandemic, the Central government decided to delay the requirement for companies to comply their invoicing according to the EU Standard until further notice (Tilisanomat 2020).

Based on the characteristics of Procountor's processes, the software should be referred to as electronic financial management instead of digital financial management. The level of automation is on a basic level where many of the processes still require some form of actions from the employees. For example, when a purchase invoice has been received, it has to be audited and then forwarded to approval after which it has to be paid, thus the process is not automatic since it entails some manual work. However, the software has continuous development and the inclusion of automatization is expected to increase in the near future according to the accounting firm (Appendix 1).

Since integrations were not possible or considerable options due to the costs and lack of development, the digitalization is incomplete by the definition of Kaarlejärvi & Salminen (2018, 14-15). The exclusion of the integrations means that financial data has to be manually transferred into Procountor instead of automatic transfer. From a micro business's perspective, the integration costs are high and the value that the integrations would bring

to the company does not meet those costs. Another reason the integrations were not implemented was that the integration between WooCommerce and OP Kassa itself is still being tested at the moment. Thus, even when integrating the two systems into Procountor, they would not yet be connected to each other, and they would only transfer the information into Procountor. Thus, the inventory management would include manual tasks since, for example, the items sold through OP-Kassa are not automatically deducted from the inventory in the online store. In order to have fully integrated financial management, all cashier systems and sales terminals need to be integrated which means including the alternative payment terminals, iZettle and Bambora. The alternatives are used at events and pop-up shops which typically occur often, and account for a significant portion of the overall sales. iZettle is possible to integrate with WooCommerce as well as Bambora. The integration for Bambora is cost-free, but iZettle integration costs approximately €30.00 a month for the standard WooCommerce plugin. The integration possibilities are going to be re-evaluated next year, and they are likely to be implemented if they have been developed far enough to benefit the case company's processes significantly and the benefits outweigh the costs.

Many companies still send invoices via mail in paper format or as PDF files via email which is controversial to the statement made by Finanssialan Keskusliitto in 2015 that claims that businesses have in general switched to eInvoicing. Five years later, it is still common to receive paper and PDF invoices which then have to be manually inserted or scanned to the digital financial management software, and the processes is significantly more time-consuming compared to receiving an electronic invoice. When you insert an invoice to the Procountor manually, first, you have to create a vendor, if the vendor has not been added to the register yet. You then need to insert the invoice into the system. If the vendor's company and invoicing information has already been registered in the system by the recipient, she or he only has to insert the purchase information which is a matter of approximately five minutes. Many of the bigger companies allow you to choose the receive electronic invoices, but it takes time to change the billing preference to each company, and there have been many cases where the electronic invoice has not arrived to the case company.

Once the invoice has been inserted into the software/ received, the recipient sends it for approval. After the approval, the next step is to pay the invoice. The rest of the steps are automatically processed within the system. The whole process takes only a couple of minutes when the invoice is received electronically, five minutes if it is received via email or in a paper format and the vendor has already been registered in the system, and ap-

proximately seven minutes if the vendor has not been registered in the system. The company can also utilize scanning by procuring the scanning service OpusCapita which costs extra. The scanning function scans the invoice, selects the information, and transforms it into an electronic invoice. However, the process is not error-free, and it requires more time in comparison to eInvoicing.

Regardless of the claims that in general companies use electronic invoicing, many companies send invoices via mail and email. The case company uses Posti and DHL for its shipping purposes, and they are the most notable companies that have not yet provided invoices in electronic format even though the case company has requested them to do so. The case company's public relations office has also failed to provide electronic invoices. This has led to repeatedly receiving collection invoices from all forementioned companies because the case company had not received their invoices.

The case company's number of receipts has surpassed the limit of only forty receipts included in the Procountor Perus package nearly every month since implementing the software. During the economy's deepest downturn caused by the pandemic, the monthly extra costs remained low, but when the sales started to stabilize, the costs of extra receipts increased the monthly Procountor costs significantly. Table 8 below presents the monthly costs caused by Procountor since implementing the software.

Table 8. Procountor monthly costs at the case company

	<b>Cost per month in € (excluding VAT)</b>
1. Month	64.18
2. Month	68.45
3. Month	74.77
4. Month	112.81
5. Month	90.75
6. Month	93.51
<b>Total</b>	<b>645.87</b>

As it can be seen from Table 8, the monthly cost of Procountor has been getting significantly over the fixed monthly cost, on average by €25.08 which makes up 42.51% of the monthly fixed cost. When the software was implemented, the case company was highly impacted by the COVID-19 pandemic's effect on the economy and the extra costs were low due to the decrease in transactions. During those months, the number of receipts did not surpass the monthly limit. In fact, the number of receipts was between 25 to 35 per

month. The extra costs consisted of the sending and receiving of electronic invoices (€0.49 per invoice).

Month 6, when the total cost of Procountor was €112.81, is the closest to an average month at the case company before the economic turndown. To breakdown the extra costs of €53.8 during that month; the largest cost was the number of receipts exceeding the monthly limit which totaled €29.83. The costs for extra receipts make up 50.56% of the fixed monthly costs. The next largest cost was receiving electronic invoices which totaled €9.80.

Table 9. Accounting firm costs at the case company after implementing Procountor

	<b>Cost per month in € (excluding VAT)</b>
1. Month	386.16
2. Month	401.50
3. Month	630.00
4. Month	411.50
5. Month	948.90
<b>Total</b>	<b>2,778.06</b>

The accounting firm fees at the case company were €5,528.00 (including VAT) all together in 2019. Thus, the sum of the costs from the five months, €3,444.80 (including VAT), presented on Table 9 make up 62.32% of the total costs last year. The monthly costs also surpass the monthly average of €462.33 (including VAT) in accounting firm costs in 2019. However, according to the case company's assigned accountant at the accounting firm, the monthly accounting costs are going to be lower during the rest of the year and the year's total costs are going to be more or less the same as in the previous year.

The Table 10 consist of the total costs of Procountor and the accounting firm costs combined. Even though the Table shows that the costs have increased since the accounting firm's costs did not decrease with the implementation of Procountor, the time spent on financial management tasks is significant. Some of the processes are not as fast to execute as the research had indicated, but the time saved is still remarkable. Therefore, using Procountor is more cost-efficient in comparison to manually executed tasks.

Table 10. Total financial management costs at the case company after implementing Procountor

	<b>Cost per month in € (excluding VAT)</b>
1. Month	450.34
2. Month	469.95
3. Month	704.77
4. Month	524.31
5. Month	1,039.65
<b>Total</b>	<b>3,189.02</b>

As mentioned above, the time spent on financial management tasks at the case company has decreased remarkably after implementing Procountor. The accounting tasks that are carried out by the case company take 80% less time per month. Before the implementation of Procountor, creating and sending a sales invoice took between one to two hours whereas now it takes between five to ten minutes. Purchase invoicing follows along the same lines but has not become as time efficient as sales invoicing: before the implementation, the process took approximately four hours per month and now it requires between one to one and a half hours per month.

The sustainability of the case company has increased after implementing Procountor. It can be said that the company's use of paper in financial management has been eliminated. The only exception to this is when other companies send invoices in paper format. The time spent on the processes is also remarkably less from before Procountor.

## 6.2 Conclusions

The benefits of the digitalization of financial management have been widely endorsed, but it seems to be that the benefits have not been put under thorough critical observation – especially from a perspective that considers specifically micro- and small businesses. The research indicated that the benefits are extensive even for smaller companies, mostly referring to the amount of time saved and the increase in sustainability. After implementing the Procountor financial management software to the case company's business operations, it became clear that even though the software is beneficial to the company, there is room for development. It is said that some of the greatest benefits that come from the digitalization of financial management processes are that it saves resources and provides you real-life data. However, this mostly applies to bigger companies that have widely digitalized services at their use. For a micro-sized company, the resources saved from using digitalized financial management processes have not been realized in such scale as

promised at the case company's situation, even after several months. The costs from financial management processes have not decreased to such extent as some software providers would argue, the time spent on some of the processes has not decreased as much as the research indicated, and the accuracy of real-life data is not reliable. Some of the processes are designed for bigger companies and the service provider has not fully considered them from a smaller company's perspective.

There is a lot of room for more development of financial management's digitalization, and it is important to create software and services that not only benefit medium- and large-sized entities, but also the micro- and small-sized entities. After all, from the total number of 360,818 enterprises in Finland, 321,484 of them are micro-businesses with employees up to four persons. Thus, making the portion of micro-businesses 89.10% of all the enterprises in Finland (Statistics Finland 2020, 39.), and the number of micro-businesses has been increasing steadily since 2002 (Yrittäjät 2020). When you include businesses with a number of employees between five to nine persons, micro-businesses make up 94.33% of the total number of enterprises (Statistics Finland 2020, 39).

As sustainability is an increasingly important aspect for companies to consider in their operations, implementing digital services is the greatest step for a company to take in order to reduce their carbon footprint in financial management. Digital financial management increases the sustainability of financial management drastically. The amount of paper and energy saved solely in the European Union with electronic invoicing indicates that taking more steps towards the digitalization of financial management tasks is not only beneficial for the companies that are saving time, but also for the environment. Even at a micro company, the use of electronic and digital services does reduce the use of paper or even eliminate it completely, and the time spent on financial management tasks is significant. Assuming that sustainability reporting is going to be mandatory for all enterprises in the future, it can be predicted that digital financial management services are going to include sustainability reporting in their services. Thus, the benefits of digital financial management are going to be even more thorough.

The implementation of digital financial management service Procounor has been mainly positive. The most significant improvements that Procounor has brought to the case company are the amount of time saved executing tasks, the access to all financial data regardless of the location, and the increase in sustainability. The learning process for a new user takes its time because the software is not as user-friendly as it could be. Even after using Procounor for months, there are some processes that can be confusing for the user. However, the instructions are easy to understand and to follow, and they are always



available. In addition, customer help is available from the service provider cost-free. Still, there is a lot of room for development of the software.

What came to me as a surprise was how underdeveloped integrations between different systems are currently and how expensive it can be on monthly basis to have integrations to Procountor. At this spoken moment, there is no integration service available between Procountor and OP Kassa and it cannot be foreseen when it will be developed in the future. This was especially surprising considering that Stockmann, one of the biggest retailers in Finland, uses OP Kassa and requires its Online Exclusive retailers to use it as well.

Mistakes can still occur since the processes have not been fully digitalized; a user may insert wrong information into the system, and it might pass through if it is not checked thoroughly in each step of the process. For example, the case company had accidentally paid one of its purchase invoices twice which was not noticed until the vendor informed the company. The risks for losing important paper and files has decreased as the only papers handled in financial management currently are the invoices sent in paper format by vendors and all information is now stored into the same SaaS service.

Paying invoices must go through three rounds of approval which is not necessary from a small business's point of view; why would one person need to go through three different steps in three different windows to pay an invoice? The payment process in general can be unnecessarily slow not only because of the steps of approval, but also in case of a new vendor, you must insert their information to the registry.

It is obvious that packages offered by Accountor Finago's Procountor are not designed to meet the needs of micro- and small-sized Finnish businesses. The packages jump from one-person business into a four-person business into a twenty-person business. Many business's number of personnel is more than four people and less than twenty which makes the package offering seem strange. However, the cost for an extra employee is much less than the costs occurring for extra receipts. The number of receipts per month in the packages offered by Accountor Finago are ten for every employee; a one-person company has a monthly limit of ten receipts, a four-person company has forty, a twenty-person company has two hundred receipts, and so forth. It is needless to say that the limit is easily reached, thus causing extra costs for the company.

After a few months of using Procountor, it became clear that the forty receipts that are included in the Perus-package was insufficient. In the decision-making part of the project, I was assured that the number is considered to be fitting, but soon after the implementation,

the management realized how easily the limit is reached. It was estimated that during the COVID-19 pandemic the number of receipts would remain to be much lower than usual due to the significant decrease in travel and expense receipts. Even though the number travel expense receipts decreased remarkably, the limit has exceeded continuously after the sales started to stabilize. The monthly cost of Procountor on average turned out to be notably higher than the fixed amount of €59.00, thus the CEO started considering upgrading the service package. However, the upgrade is only cost-effective if the sales of the company continue to increase which cannot be guaranteed under the current circumstances.

## References

Accountor Finago. 2020. Procountor. URL: <https://finago.com/fi/tuotteet/procountor/hinnasto/>. Accessed: 20 January 2020.

Back, J. 2016. Digitaalinen taloushallinto PK-yrityksissä. URL: <https://rainmaker.fi/blogi/digitaalinen-taloushallinto-pk-yrityksissa/>. Accessed: 25 August 2020.

Boulton, C. 2018. What is RPA? A revolution in business process automation. URL: <https://www.cio.com/article/3236451/what-is-rpa-robotic-process-automation-explained.html>. Accessed: 24 August 2020.

CEF Digital. Compliance with European standard on eInvoicing. URL: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Compliance+with+eInvoicing+standard>. Accessed: 22 August 2020.

CEF Digital. Country factsheets. URL: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eInvoicing+in+each+member+state>. Accessed: 5 March 2020.

CEN European Committee for Standardization. CEN/TC 434 – Electronic Invoicing. URL: [https://standards.cen.eu/dyn/www/f?p=204:110:0:::FSP\\_PROJECT,FSP\\_ORG\\_ID:60602,1883209&cs=104E4C4FA3744A8DEA8E98A7B500306FD](https://standards.cen.eu/dyn/www/f?p=204:110:0:::FSP_PROJECT,FSP_ORG_ID:60602,1883209&cs=104E4C4FA3744A8DEA8E98A7B500306FD). Accessed: 22 August 2020.

Deloitte, 2020. Robotic Process Automation (RPA). URL: <https://www2.deloitte.com/fi/fi/pages/technology/solutions/robotic-process-automation.html>. Accessed: 24 August 2020.

Directive 2014/55/EU. Directive 2014/55/EU of the European Parliament and of the Council on electronic invoicing in public procurement, 16 April 2014.

Directive 2014/95/EU. Directive 2014/95/EU of the European Parliament and of the Council on disclosure of non-financial and diversity information by certain large undertakings and groups, 22 October 2014.

Doig, C. 2015. Calculating the total cost of ownership for enterprise software. URL: <https://www.cio.com/article/3005705/calculating-the-total-cost-of-ownership-for-enterprise-software.html>. Accessed: 16 March 2020.

European Commission. 2020. Non-financial reporting. URL: [https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting\\_en](https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en). Accessed: 22 August 2020.

Finago. 2020. About Us. URL: <https://finago.com/en/about-us/>. Accessed: 16 January 2020.

Finago. 2020. Step-by-step payroll calculation in Procountor. URL: <https://procountor.finago.com/hc/en-us/articles/360000367557-Step-by-step-payroll-calculation-in-Procountor>. Accessed: 4 November 2020.

Finance Finland, 2015. Accounting automation would save hundreds of work years. URL: <https://www.finanssiala.fi/en/news/Pages/Accounting-automation-saves-years.aspx>. Accessed: 25 August 2020.

Finanssialan Keskusliitto, 2015. The Climate Impact of Accounting Automation. URL: [https://www.finanssiala.fi/en/material/FFI-Report\\_Climate\\_Impact\\_of\\_Accounting\\_Automation.pdf](https://www.finanssiala.fi/en/material/FFI-Report_Climate_Impact_of_Accounting_Automation.pdf). Accessed: 20 March 2020.

Finder, 2020. URL: <https://www.finder.fi/Sovellukset+ja+ohjelmistot/Finago/Espoo/yhteystiedot/463463>. Accessed: 16 January 2020.

Finlex, 2017. Accounting Act 1336/1997. URL: <https://www.finlex.fi/en/laki/kaannokset/1997/en19971336.pdf>. Accessed: 13 October 2020.

Finlex, 2019. Laki hankintayksiköiden ja elinkeinonharjoittajien sähköisestä laskutuksesta. URL: <https://www.finlex.fi/fi/laki/alkup/2019/20190241#Pidp446241968>. Accessed: 23 August 2020.

Flashnode. 2020. Netvisor-integraatiot. URL: <https://www.flashnode.com/fi/integroitavat-ohjelmistot/netvisor>. Accessed: 15 January 2020.

Fredman, J. 2020. Valtio vauhdittaa verkkolaskutusta. URL: <https://tilisanomat.fi/teknologia/valtio-vauhdittaa-verkkolaskutusta>. Accessed: 22 August 2020.

Good Energy, 2018. Good stats on carbon saving. URL: <https://www.goodenergy.co.uk/good-stats-on-carbon-saving/>. Accessed: 26 August 2020.

Hellgren, J. & Tenhunen, M. 2010. Ympäristöystävällinen verkkolasku. URL: [https://www.finanssiala.fi/materiaalit/Ymparistoystavallinen\\_verkkolasku.pdf#search=ymp%C3%A4rist%C3%B6yst%C3%A4v%C3%A4llinen%20verkkolasku](https://www.finanssiala.fi/materiaalit/Ymparistoystavallinen_verkkolasku.pdf#search=ymp%C3%A4rist%C3%B6yst%C3%A4v%C3%A4llinen%20verkkolasku). Accessed: 24 March 2020.

Investopedia. 2019. URL: <https://www.investopedia.com/articles/08/accounting-history.asp>. Accessed: 10 February 2020.

Kaarlejärvi, S. & Salminen, T. 2018. Älykäs taloushallinto. Alma Talent. Liettua.

Lahti, S. & Salminen, T. 2014. Digitaalinen taloushallinto. 1st edition. Sanoma Pro. Helsinki.

Leppiniemi, J. 2017. Pien- ja mikroyritysten tilinpäätökset: yhtäläisyydet ja erot. URL: <https://tilisanomat.fi/yritysjuridiikka/pien-ja-mikroyrityksen-tilinpaatokset-yhtalaisyydet-ja-erot>. Accessed: 28 August 2020.

My Accounting Course. What is Total Cost of Ownership (TCO)? URL: <https://www.my-accountingcourse.com/accounting-dictionary/total-cost-of-ownership>. Accessed: 16 March 2020.

Netvisor. URL: <https://hinta.netvisor.fi/>. Accessed 30 January 2020.

Rumpu, A. 2019. EU:n verkkolaskulaki edistää sähköistä laskutusta. URL: <https://www.visma.fi/blog/eun-verkkolaskulaki-edistaa-sahkoista-laskutusta/>. Accessed: 23 August 2020.

Similä, P. 2019. Yritykset haluavat sähköistä taloushallinnon palvelua. URL: <https://tilisanomat.fi/kolumnit/kumppanikolumni/yritykset-haluavat-sahkoista-taloushallinnon-palvelua>. Accessed: 20 August 2020.

Sirkiä, J. 2017. Uusi kirjanpitolaki vähentää tilinpäätösvelvollisuuksia 1.1.2016 alkaen. URL: <https://relope.fi/uusi-kirjanpitolaki-vahentaa-tilinpaatosvelvollisuuksia-1-1-2016-alkaen/>. 24 August 2020.

Statistics Finland 2020. Finland in Figures. URL: [http://www.stat.fi/tup/julkaisut/tiedostot/julkaisuluettelo/yyti\\_fif\\_202000\\_2020\\_23214\\_net.pdf](http://www.stat.fi/tup/julkaisut/tiedostot/julkaisuluettelo/yyti_fif_202000_2020_23214_net.pdf). Accessed: 1 September 2020.

Taloushallintoliitto. 2017. Mikro- ja pienyritysten tilinpäätös – Yhtäläisyydet ja erot. URL: <https://taloushallintoliitto.fi/ajankohtaista/mikro-ja-pienyrityksen-tilinpaatos-yhtalaisyydet-ja-erot-11012017>. Accessed: 28 August 2020.

Technology Industries of Finland. 2019. RTECO – Real-time economy ecosystems. URL: <https://teknologiateollisuus.fi/en/vaikutamme/digitalisaatio-ja-tietopolitiikka/rteco-real-time-economy-ecosystems>. Accessed: 30 August 2020.

The European Parliament. 2014. Legislative Acts and Other Instruments. URL: <http://register.consilium.europa.eu/doc/srv?l=EN&f=PE%2047%202014%20INIT>. Accessed: 28 August 2020.

Tilisanomat. 2020. Verkkolaskustandardille jatkoaikaa. URL: <https://tilisanomat.fi/teknologia/verkkolaskustandardille-jatkoaikaa>. Accessed: 27 September 2020.

Tolvanen, V. 2016. ATK. URL: <https://www.villetolvanen.com/2016/06/29/atk/>. Accessed: 25 August 2020.

Tuominen, J. 11 May 2020. Commercial Product Manager, Accountor Finago. Automation in Financial Management & Accounting. Presentation. Helsinki.

Yrittäjät. 2020. Yrittäjyys Suomessa. URL: <https://www.yrittajat.fi/suomen-yrittajat/yrittajyys-suomessa-316363>. Accessed: 1 September 2020.

Vainionpää, T. 2016. Digitaalinen taloushallinto: Kyselytutkimus Kokkolan seudun pk-yrityksille. URL: <https://www.theseus.fi/bitstream/handle/10024/105275/Vainionpaa%20Taneli.pdf?sequence=1&isAllowed=y>. Accessed: 20 August 2020.

Vero. 2020. Selvitys automaattisesta raportoinnista arvonlisäverotuksessa. URL: <https://www.vero.fi/tietoa-verohallinnosta/uutishuone/uutiset/uutiset/2020/selvitys-automattisesta-raportoinnista-arvonlis%C3%A4verotuksessa/>. Accessed: 14 October 2020.

Visma. 2020. Annual Report 2019. URL: <https://www.visma.com/press-releases/2019-annual-report/>. Accessed: 5 May 2020.

Visma. 2020. Ohjelmistoyhtiö Visma. URL: <https://www.visma.fi/tietoa-vismasta/>. Accessed: 15 January 2020.

Wysocki, R. 2019. Effective Project Management: Traditional, Agile, Extreme, Hybrid. 8<sup>th</sup> edition. Wiley. Indianapolis.

**Appendix 1. Interview with the Accounting Firm's Accountant Regarding Procountor and the Case Company's Financial Management After the Implementation of Procountor.**

1. We have come to notice that the limit of forty receipts per month is deficient to the company's growing needs. We would want to find a package that works better for us, but the next step on Procountor includes services that the company does not need, and it has a significantly higher monthly fixed price. We have considered the possibility of switching to another software, such as Netvisor. Do you have experience from using the software and would it be possible on your side to switch to using another type of software?
  - My suggestion is to upgrade the Procountor package when the number of receipts exceeds 160 per month. I have tried using Netvisor with another client, but unfortunately it was unsuccessful. The accounting firms have division among different types of software so there are specific accounting firms that use Netvisor.
2. Are we able to transfer the invoices and receipts to Procountor that have already been paid for? We have asked your colleague who told us that the service is not included in our package. However, the package he was referring to is the Kevyt package, not Perus that we have.
  - It's possible for you to add invoices to the system by yourself. Receipts you should scan to me so I can add them to the bank statements.
3. Is it possible to have reporting more up to date without successful integrations? The current information on our Procountor platform, is not accurate; the net sales of the year is missing important sales that we have had this summer; hence, the number is remarkably less than the net sales are at the moment.
  - It's possible to have up-to-date accounting (and it's our goal) with Procountor. In order to do that, we have to make sales reporting faster and the process of transferring receipts proficient. We could make an agreement to have all the previous month's data by the beginning of the next month.
4. Compared to the year 2019, the costs of accounting appear to have increased this year. Are the costs going to remain on the same level as in the previous months this year, and if so, why have the costs increased?
  - This year the case company has had some nonrecurring expenses, such as project billings. But I've estimated that the costs are going to be on the same level this year as they were last year.
5. How has the implementation of Procountor influenced your work? Based on research, the assumption is that electronic and digital financial management save time significantly at businesses, but they often do not mention anything regarding the benefits that accounting firms may have.
  - For an accountant, Procountor doesn't save time because the work remains the same. In addition, you have to scan papers, you have to investigate, etc. more



than before as it's harder for customers to recognize what information they are missing or what's needed. When it comes to accounting, it's slower to book information compared to the priorly used system which was a mass-production software. There is a high demand for customer counselling because every company/ entrepreneur is on a different level in information technology and it's hard to evaluate to whom the software is easy to comprehend and use and to whom it's difficult. I do believe that in the future the operations will be enhanced, if and when AI can be utilized properly (there would be reliable automatic bookings), and the role of an accountant will be more like a Controller/ Finance Manager which I'm looking forward to and which would be most likely well received change for the customers.

6. What has your experience with Procountor been like? Have you had any troubles with the software that would have required a significant amount of time or effort? If so, what?
  - My experience has been positive thus far, but it takes time to get used it since it's different from the software we used to have. I haven't run into any difficult problems that wouldn't have been more or less easily solved.
  
7. Have your customers been satisfied with the use of Procountor?
  - The feedback regarding Procountor has been positive and most of them have recommended the software to other entrepreneurs.