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HANDLING FINANCIAL MANAGEMENT OF A SMALL COMPANY  
IN VIRTUAL ENVIRONMENT

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For this thesis the virtual methods of financial management were studied. Solutions were looked for the question how can financial management be done in any place and in any time. The efficiency of solutions was also considered important in the target company in order to simplify and streamline the process.

A questionnaire was made for other small businesses to find out how in other similar-type of companies financial management is taken care of. As important questions were considered the interest towards cloud services and satisfaction of companies for their financial management.

Internet, literature and other sources were used to find information about virtual financial management and to find the right solution for the company.

Company's financial management software was compared to cloud financial management softwares which in the end was leading to install the existing software to cloud. A correct cloud storage was carefully selected for this purpose. In addition to software the invoice system was developed to more virtual direction. These actions together were helping the company to maintain the business regardless of where they are.

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## 1 INTRODUCTION

Small businesses these days are looking for ways to have their financial management as simple as possible. For many of the entrepreneurs it means outsourcing their financial management. Either outsourcing or doing it themselves it is clear that virtual or automated methods are needed. The main research question of this thesis is: "How to maintain and develop the financial management of a small company by virtualization?"

### 1.1 Rakennus & Tekniikka Länsituuli Oy

The target company of this thesis is Rakennus & Tekniikka Länsituuli Oy which is a small one-man construction company in Pori, Finland. Länsituuli was established in 2012. Länsituuli is mainly focused on renovating apartments and houses for sale or making some small and medium-sized construction and renovation projects for customers. Länsituuli is also equipped for larger projects such as building up the whole houses and works in a close co-operation with another small construction company.

The idea for the thesis has born during the time the thesis writer has been doing working practice in Länsituuli. The owner of the company is the writer's father and the partner company's holder is Länsituuli's owner's brother which makes this circle like a family business. The writer has learnt in the company how to maintain the background work of the company. This has included paying bills, bookkeeping, creating bills and being part of the project where the company takes care of the financial management of two companies involved in same project.

The writer has also operated the bookkeeping of the company PageUP Solutions where there is a need and a will to change to virtual methods. This company's business field is in IT category mostly so change to these methods is a natural step.

## 1.2 Financial management

Financial management is planning and controlling of the finances of a company. It can contain tasks like invoicing, paying bills, bookkeeping, salary calculations and so forth. The role of financial management is important because it is the pillar for the whole company. Financial management gives business the information about how much money is coming in or going out. The fact is that company does not run without money. Having a business also requires much paper work as part of financial management and if the bookkeeping and taxation of the company doesn't work it can cause trouble for the company.

In Länsituuli the main tasks are bookkeeping, paying bills and creating invoices. The financial management does not require everyday presence but it should be reviewed at least once in a week – more preferably more times if possible. What are the obstacles that Länsituuli is facing in financial management?

### 1.2.1 Challenges in Länsituuli

The main challenge for Länsituuli is maintaining the financial management in near future. Länsituuli wants to be able to perform financial management duties regardless of time and place. The owner of the company is not running the business full-time at the moment because he does have a day-job in another city. This takes lots of time away from office tasks but also from the actual field work.

The writer of the thesis is currently a trainee for Länsituuli and takes care majority of the financial management. She cannot promise a permanent presence at the office in Pori due to changing factors which makes it crucial for Länsituuli to find an urgent solution.

It has been noticed that besides the main challenge the current process of financial management is quite unorganized and time-consuming. The habit is to push all the duties for weekend when both participants can be present. This cannot work for long as weekends should be dedicated for the field work or having free days. The

financial management tasks should be easy and simple to perform but at the same time more efficient and reliable.

The final challenge is the adaption to virtualization as a solution. Länsituuli is used to have a more traditional way and it has come as a routine. How is it possible to make the step into the new methods to be smooth and easy to learn?

### 1.3 Methodology

This thesis is a case study as an active observer. For the case study a certain issues are monitored in the company as observant. This can include also interview with the company. More specific it will be an interview with the owner of the company in informal manner used as a foundation to define the challenges for the case study. For gathering data Internet and literature such as articles, books and other theses written about financial management are used. A questionnaire created for other small businesses is going to be in place to offer detailed information that can be used in the case study. (Hirsjärvi, Remes & Sajavaara 2009, 134, Stokes 2011, 96)

## 2 PAPER OR ELECTRIC?

The talk about how paper is going to disappear totally in the future has been going on for already several years. It is said that virtualization will replace paper and nowadays communication happens virtually, books are turning to e-books and many other things around us. Change is inevitable but as it can be found from other theses written on financial management field the fact is that the transfer to virtual financial management methods has been slower than expected in Finland.

Minttu Vantamo explained in her thesis in 2014 that in 2010 it was studied how many of the companies are sending electric invoices. 44% of the companies said they are sending electric invoices. From the result of 2005 the percentage had raised only few percents. (Vantamo 2014) If the speed has been the same for these days in best case scenario companies would have reached to 50%. This result is one of the proves of the slow transferring speed to virtualization.

Other studies are claiming that the situation in virtual financial management is the opposite. In the book "Kohti digitaalista taloushallintoa" Finland is named to be the leader of the virtual financial management before any other countries although at the same time the development to virtual financial management has been slower than forecasted. (Lahti & Salminen 2008, 23)

Finland made it possible already in 1997 to perform a virtual financial management and filing papers was not required anymore. This was influenced by the high usage of Internet and the interest to make payments in Internet bank. When it comes to Internet payments Finland is also standing clearly on top. Electric bills between companies are in good position but consumers have not started to use them so actively. (Lahti & Salminen 2008, 23)

A look to other research gives a good idea that in virtualization potential room for development can be found. To prove this as a fact an own research was created. Next chapter will explain what was this research and why it was important part of the thesis.

### 3 SURVEY

There was a simple study created for small businesses. The purpose of this study was to find out what are small entrepreneurs view about their own financial management, how satisfied they are and what do they think about cloud services. After the study the results will be gathered and analyzed. The aim is to find if there are any similarities between similar businesses or regions. In general the study will show the same thing seen in many other thesis' which is the slow transition from paper-based financial management process to electric-based.

Selecting questions did not follow any specific guidelines. Questions were decided based on the things that needed to be studied. The need included knowing about the interest towards cloud services, how satisfied are the businesses to their financial management, how much are they doing themselves and are they getting invoices in which form.

Questionnaire was given to 28 entrepreneurs from which 25 answered giving the response rate of 89 %: The respondents were from Central, Southern and Western Finland which is also the main working area for Länsituuli. The respondents had the choice to fill in the form in the Internet or answer to the interviewer directly. Questionnaire was delivered to respondents through social media, phone calls or personal approach. Email was used only with two entrepreneurs. A specific campaign was also organized for some of the respondents. Direct approach was preferred over email because email response rate is normally low. This means a response rate of about 20%. What needs to be noticed is that the sample size is small and therefore not totally accurate for response comparison. (Website of Benchmark Email, Penwarden 2014)

When all the answers have been gathered the data will be analyzed. The purpose is to find combining factors among the answers. This could mean for example connection between field of business and interest in cloud services or financial management outsourcing rate.



How this study is going to help Länsituuli in this case is understanding what kind of companies there are around and in which position Länsituuli stands in the development. Some of the participants of the survey can be seen even competitors or possible partners in business. Länsituuli is compared to other businesses specifically those in construction field.

### 3.1 Campaign

During a research period a special campaign was held in order to get more answers to the questionnaire. A riding competition was held at Kullaa, Ulvila in Satakunta Region. It was agreed with the owner of the riding stables that at the same time when announcing the competition to be started there would be a notice about the questionnaire going on. The entrepreneurs in the audience could come to the cafeteria and fill the questionnaire form directly from computer and at the same time participate to a lottery. A winner of the lottery would win coffee and something to eat from the cafeteria at the end of the competition. Because the idea of the thesis is virtualization paper version of the questionnaire was not offered and it was also not asked by anyone.

Despite the small amount of audience and entrepreneurs the assumption is that about 90% of the entrepreneurs came to fill in the questionnaire.

### 3.2 Observations

Like it is mentioned in several theses handling financial management the observation has been that the transition from paper-based to electric-based financial management has been slower than forecasted. This survey will prove also that transition is still slow and many non-virtual users could be potential users.

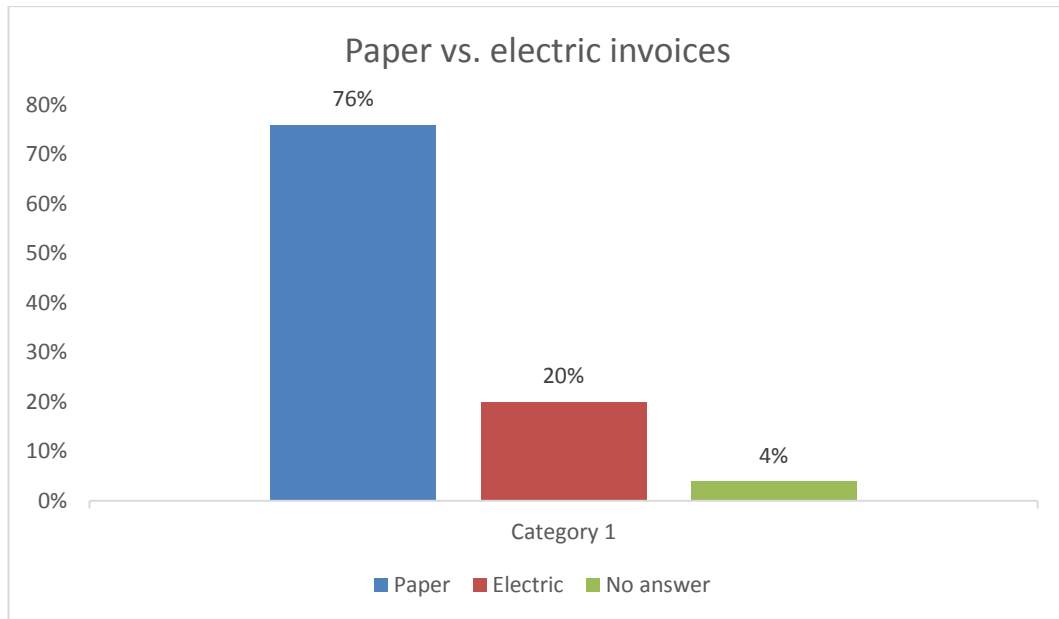


Chart 1: Paper vs. Electric invoices

Prove that the transition has been slow can be seen in Chart 1. That chart is showing how many people are getting paper and how many more electric bills over another. 76 % of the respondents are receiving more paper bills which could be seen as a worrying result in terms of virtual development.

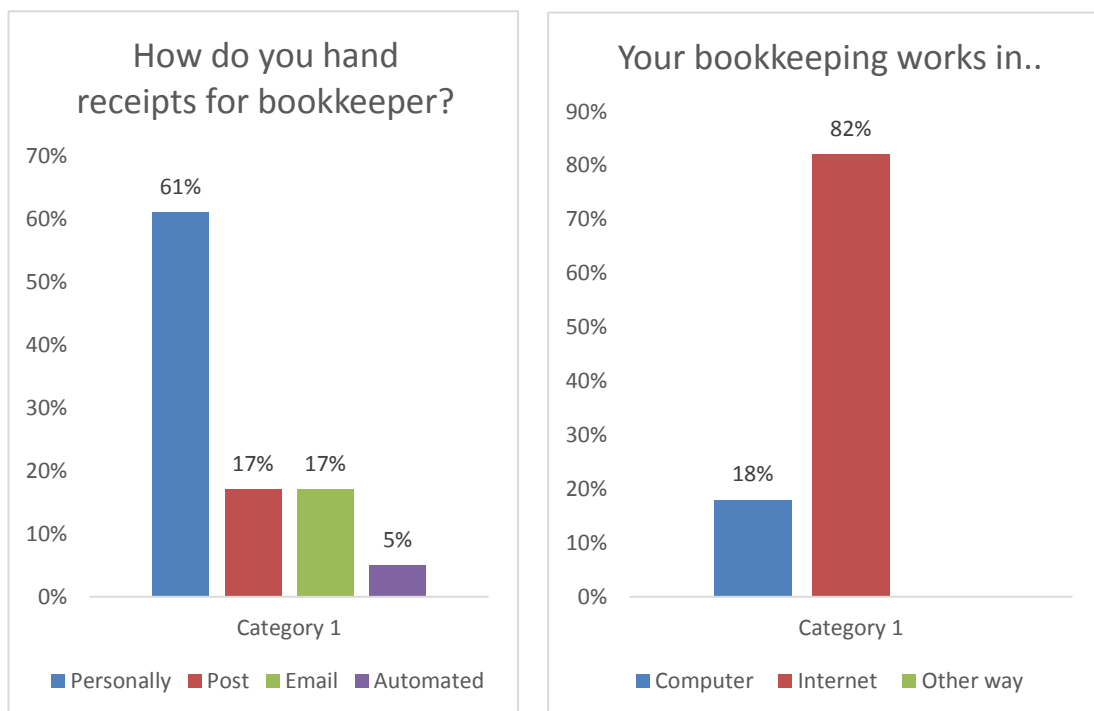


Chart 2: How do you hand receipts for bookkeeper & Chart 3: Your bookkeeping works in...

In charts 2 and 3 evidence for virtual and cloud development can be further studied. Chart 2 shows which is the preferred way to hand in the documents for the bookkeeper. Most respondents trust on personal encounter with the bookkeeper. Several use post and email but interesting is to see only one respondent can be found whose information will automatically go to accountants system. This is the only automated action from these options.

Cloud options are not in use when asked in which form is the possible bookkeeping program. Two entrepreneurs are using software in Internet and others have installed bookkeeping program from stick or from CD to the computer. The results can be seen in Chart 3.

The average satisfaction of financial management at the moment among the respondents is 4,25. This is based on choices where 5 means extremely satisfied and where 1 stands for extremely unsatisfied. Things entrepreneurs would like to change in their financial management are mostly about the costs and limitations. Someone wants to start taking care of financial management her/himself whereas many think they would not like to do it at all. More automation is also being hoped for.

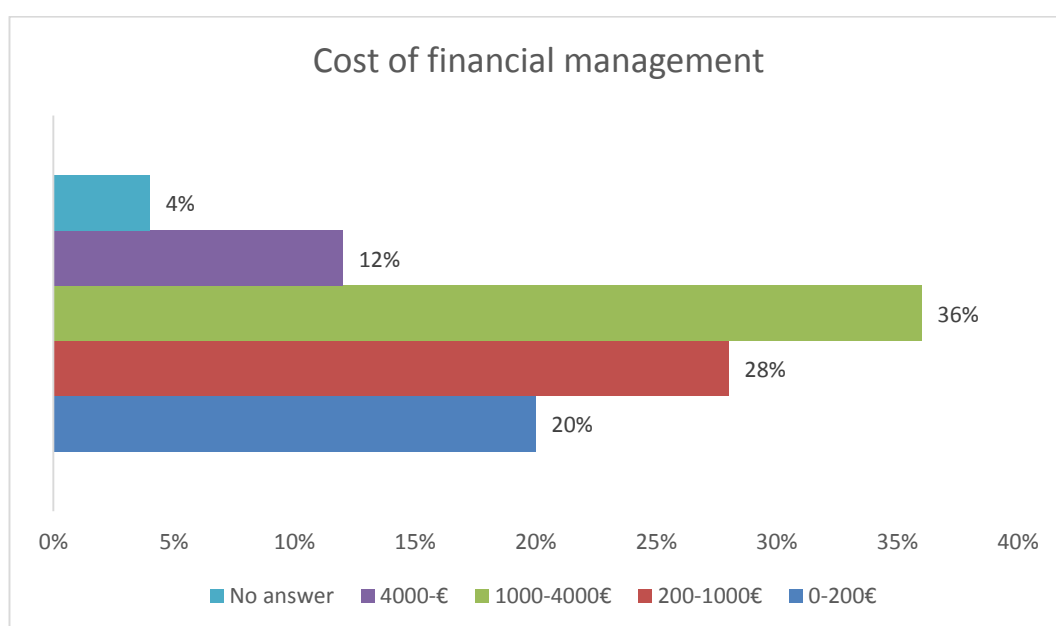


Chart 4: Cost of financial management

If the costs are looked at more closely it can be seen in Chart 4 how variable they can be. The following categories were created to be able to have the chart: 0-200 euro per year, 200-1000 euro per year, 1000-4000 euro per year and more than 4000 euro per year. It was not further explained what is considered as a financial management cost but most of the respondents understood this as mainly the cost of accountant or use of their own bookkeeping program. The majority of the businesses are spending from 1000 to 4000 euro per year for financial management. When these results were combined with others it was noticed that from the companies who were outsourcing their financial management those who used automated or otherwise virtual methods more than others spent less money compared to others.

What the questionnaire doesn't show is that many people are still not even aware what cloud services mean. While having this questionnaire and especially during the campaign many people asked what does it mean - even when the questionnaire explained shortly what does it mean. Some people got interested understanding there is a possibility to use such services and some people were not interested. Mostly the people who were not interested did not even ask what does it mean and they seemed not focused to understand. These are the observations made by the conductor of the questionnaire who was there to assist with the questions.

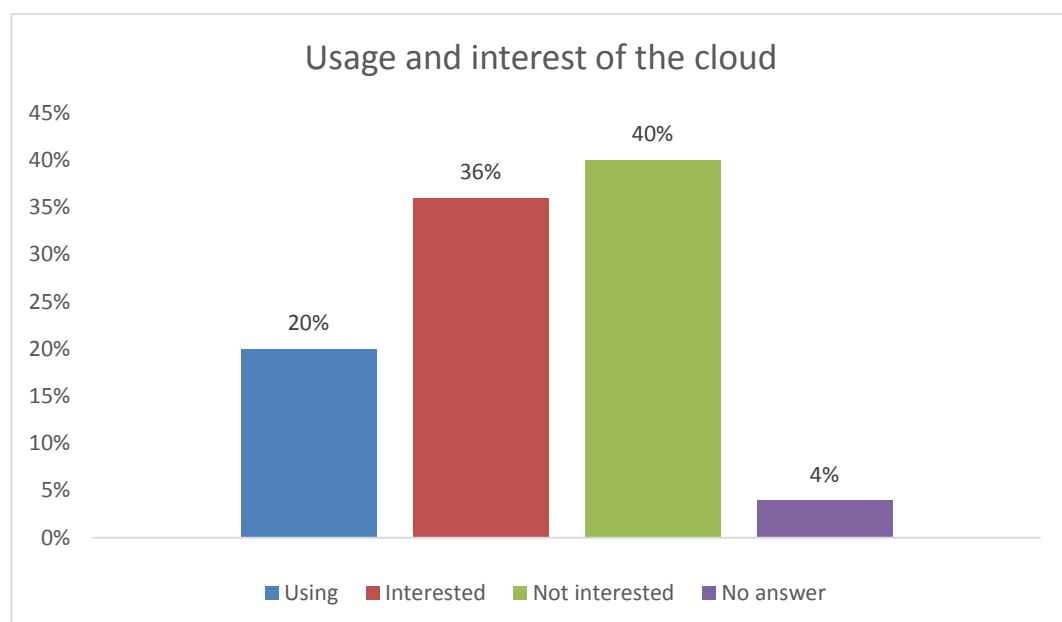


Chart 5: Usage and interest of the cloud

From chart 5 can be seen how many people are using, are interested or are not interested in using cloud services. Only 20 % of the respondents are already using some cloud-based services. The similarity between these people are that their field of business is more in office jobs which includes for example designing.

Most of the respondents are not interested in cloud services and these people are mostly coming from small cities. In health and well-being fields people were not yet using cloud services but there is a noticeable interest towards them.

### 3.2.1 Construction businesses

A sample was decided to take out of all respondents. The sample includes all the construction entrepreneurs who answered the questionnaire. Among 25 businesses were 5 construction companies which Länsituuli was one of them. This sample was selected because it is important to point out the business field of the target company.



Chart 6: Time equals to satisfaction

It was discovered that Länsituuli is noticeably different from other construction companies. Länsituuli was the only one from the construction companies which didn't outsource their financial management. This is directly proportional to the satisfaction of the companies. It can be seen both in sample as in the whole response group (See chart 6). When Länsituuli scored 3 in satisfaction the other construction companies scored 5. However when Länsituuli is compared to other companies which take care of their financial management themselves it is noticed that the others are not extremely satisfied also. It gives a conclusion that the more the company performs from its financial management the more unsatisfied it will be. The thing to remember is that already earlier when giving the general satisfaction rate it was mentioned what are the things companies would like to change. Answers were given mostly by entrepreneurs who did not rank so high in satisfaction and one of the things they wanted to have was automation. This could improve their satisfaction noticeably.

Other companies were not using or interested in cloud services but Länsituuli as the only construction company was interested in cloud services (Chart 7). All of the construction companies were getting more paper bills than electric bills.

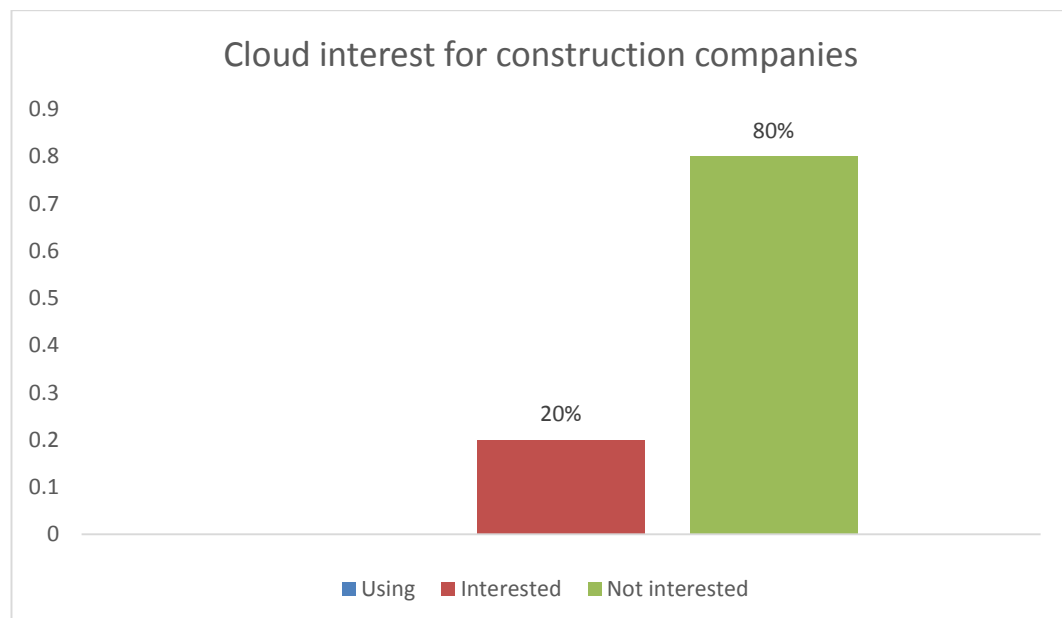


Chart 7: Cloud interest for construction companies

If construction companies were to compare to other fields it looks like construction businesses are not staying with the technical development.

### 3.2.2 Validity and comparison to other sources

The questionnaire had an excellent response rate but the amount of the respondents was poor. This brings out the question if the questionnaire data can be trusted. To get comparison there is a thesis research made for farms in order to find out their readiness for virtual financial management. The thesis was written 2011 and 113 people from 1400 answered the survey done for the thesis. Based on this research 58,9% of the respondents are receiving paper invoices. This number is much lower compared to answers in this thesis. A closer result is the one where the question is about receiving of invoices. 20,4% is receiving electric bills but what needs to be noticed here is that this does not mean people are getting more electric bills than paper bills, only if they are getting electric bills in the first place. (Honkaniemi 2011)

If there was an actual consultant this questionnaire would not be enough. Although the response rate is low it would be more important the amount of respondents is higher. Main critics toward the questionnaire if not amount of answers is the overpresence of small city entrepreneurs in the survey. Some business fields or cities were presented only once in the questionnaire and therefore doesn't give a reliable data of all the regions.

## 4 VIRTUAL SOLUTIONS

When the background information has been gathered it is time to concentrate on finding the solution for Länsituuli's issue.

### 4.1 Cloud storage space

For collecting different kind of data Länsituuli needs a storage space. To follow the virtual principles this data can be stored in cloud. One of the greatest advantages of storing in cloud is that it saves space from computer. It also mean one doesn't need to be at home or at the office to access the files but can do so while travelling or staying even on the other side of the world. However cloud services are criticized about possible safety risks. The risk is there but the possibility for hacking is quite less. Another criticism is the Internet connection. Without Internet or with slow Internet reaching files is hard or even impossible. Risks can also include if the service will be shut down. For this cloud service providers offer their business versions where they guarantee all the data will be safe. (Ylä-Jääski 2015, 55-57)

In this thesis three common cloud storage spaces are introduced and in the end compared.

#### Onedrive

OneDrive, owned by Microsoft is a cloud storage space which also gives you possibility to use Office as cloud version. OneDrive offers 15 Gb of free space. From the three different cloud storages OneDrive has the cheapest price for 1 Tb of space coming with Office 365 costing 7 euros per month. OneDrive has also focused currently on marketing and gives offers for users who back-up their photos in OneDrive or invite their friends. By doing so the users will get extra space for their OneDrive. (Website of OneDrive)

#### Google Drive

Google Drive from Google gives the same amount of free space than OneDrive. 1 Tb costs 8 euros per month. Google Drive also offers the same amount of free space for Gmail. Google Drive offers users the experience of creating documents,






presentations and spreadsheets in real-time environment. It is good for the ones doing lots of teamwork who want to collaborate in real-time environment. (Website of Google Drive)

### Dropbox

Dropbox is the most expensive choice of these three. It offers only 2 Gb of free space. 1 Tb costs 9,99 euros per month but Dropbox is also offering unlimited space for businesses with 12 euros per month. Dropbox is seen more as a professional cloud service and it does have a good integration with many other programs as well as syncs with all file types and sizes. (Website of Dropbox)

#### 4.1.1 Choosing the right cloud service

Table 1: Cloud storage comparison

	 OneDrive	 Google Drive	 Dropbox
15 Gb	free	free	free 2 Gb
1 Tb	7€/m + Office 365	8€/m	9,99€/m
Specials	Business 1 Tb + Office 365 3,80€/m	Use of tools is free	12 €/m Unlimited

From these three options OneDrive seems to be the good option for Länsituuli because it is a Windows based program and most of the devices used in the company are also Windows based. OneDrive also gives good amount of free space and the business version is not expensive costing only 3,80 euro per month offering 1 Tb free space with Office 365. Google Drive offers also much free space but all the features it is offering are not really needed in the company and in this case the

owner of the company would have lots of new things to learn as he is not familiar with Google Services.

In the end Länsituuli chose Dropbox from all the choices and the reason for this is explained more thoroughly in the next chapter.

## 4.2 Financial management program

Länsituuli is having a financial management program but the disadvantage of the program is that it is not available as a cloud program. Some cloud programs were selected for test use and it was evaluated what are their benefits compared to the current one. The programs were selected based on how they were visible in google search and by their appearance on other websites. The selected programs were Zervant and Visma Netvisor. After comparing these it was however considered good to include Merit Aktiva. These together with the program in use, Datamike are presented with pros and cons in Table 2.

Table 2: Pros and cons of cloud financial management programs

Zervant	Visma Netvisor
<ul style="list-style-type: none"> <li>+ low in cost</li> <li>+ good user interface</li> <li>+ clear actions, easy to use</li> <li>+ good reports</li> </ul>	<ul style="list-style-type: none"> <li>+ covers all kinds of needs</li> </ul>
<ul style="list-style-type: none"> <li>- missing double-entry bookkeeping</li> </ul>	<ul style="list-style-type: none"> <li>- full version has too much of everything (demo had everything)</li> <li>- outdated user interface</li> <li>- harder to use, confusing</li> </ul>
Merit Aktiva	Datamike
<ul style="list-style-type: none"> <li>+ visually pleasing</li> <li>+ covers the needs</li> <li>+ good reports</li> </ul>	<ul style="list-style-type: none"> <li>+ low in cost</li> <li>+ all the features needed are part of the program (bookkeeping, invoicing etc.)</li> <li>+ familiar in use</li> </ul>

	+ fast customer service
- demo version had problems	<ul style="list-style-type: none"> <li>- Outdated user interface and technology</li> <li>- Not available in cloud</li> <li>- Errors in use</li> </ul>

#### 4.2.1 Comparing cloud programs

At first look Zervant seems like a perfect software. The problem with Zervant is that it does not include double-entry bookkeeping which is definitely needed for Länsituuli. Netvisor doesn't offer big improvement visually and actionwise compared to Datamike and it seems to be too much of everything. For this reason one more program was selected which was Merit Aktiva. It could work in Länsituuli but demo version was not working properly causing it to be impossible to test some actions in the program.

Datamike definitely is a program in need of big update but the advantages are noticeable – especially for a user who is new with cloud services. For this reason it was considered if Länsituuli can continue using Datamike as part of financial management.

The idea was investigated and it was found out that Datamike can be installed to cloud storage space.

#### 4.2.2 Installment of Datamike in cloud storage space

Installing Datamike to cloud is the part where selecting cloud storage space becomes important. In this case the cloud program could not be selected only based on money/free space ratio but also based on what simply works the best.

It needs to be made sure first that the program can be installed in cloud. For this information was asked from Datamike customer service. Datamike doesn't have preferences on which cloud to use but in their own example Dropbox was used.

Installing Datamike can be challenging because the folder location where you want it to be installed has to be typed manually and you don't have the option to look for it. Once the right location is typed the installation can start.

When program and files are installed to cloud and then used with different device it is important to wait all files has been copied because otherwise they might not work. In this process also the using on the other device couldn't start right away because the files program needed were not completely copied.

First Datamike was installed to OneDrive. OneDrive was not a good option because the program did not work through the other device. The folder was shared to another account for the reason that the other participant had a personal OneDrive running in her own system and could not be replaced with the account of the company. Sharing was unsuccessful and the other participant couldn't use the program through cloud by logging into the company account through the Internet. Because the test didn't work OneDrive and Datamike were not implemented to other devices company has.

Another test for cloud and Datamike was Dropbox. Dropbox application needs to be downloaded and installed to the computer. After that a new account for the company is created. Datamike will be now installed to the cloud following the instructions given.

This test was successful and Datamike seemed to get open through multiple devices with the company account. The last part was to run a copy of saved data to cloud Datamike and it worked as perfect as it would in the program installed to a laptop. This means all the data is now in the cloud and the program is ready to use.

Dropbox recommends using their business version for entrepreneurs but Länsituuli didn't see these risks important. Länsituuli is still going to back-up data to a memory stick in case anything unexpected happens in the cloud service.

In case Länsituuli would need extra space for their documents such as the receipts saved for bookkeeping they could use Dropbox and OneDrive side by side. Dropbox would be using for the program whereas OneDrive is responsible for document storing. If Länsituuli needs Office they could get OneDrive business package as the investment is only less than 4 euros per month. Although Datamike could not work in OneDrive it is still a good place to store documents and share them easily with another user.

#### 4.2.3 More on archiving

In the traditional archiving done so far, paper bills are coming with the post. Whoever goes to the office will open the letters and categorize those to arrived invoices. At some point the invoices are paid in the net bank and they are set to different place to wait they get paid in the due date. Some days the person in the office checks the bank and sees which invoices has been paid and sets them to the section where are the invoices ready to be filed in bookkeeping. Afterwards these invoices are posted to the bookkeeping system and stored in the folder. From many bills there needs to be taken a copy and printed again because the company wants to have separate folder for specific projects to see easily what were the costs and incomes for it.

Cloud archiving will definitely save paper because not separate prints for specific projects are needed anymore. In the cloud there will be a separate folder created for the project and the document is just easily copied from the main bookkeeping and pasted to the project folder.

Länsituuli is not going to rely on only cloud for storing data. It is always a risk that the data will disappear although in cloud it is not very likely. The back-up plan that Länsituuli will have is to copy all the data to a memory stick and keep that as back-

up data. Back-up is good to take always after doing something but considering how little is done every week in Länsituuli it would be enough to save the data once in two weeks. If more tasks are done at the same time it is always wise to take a copy after that. Back-up works also the other way around – in case something is saved on the computer it can be backed-up in cloud. Passwords and private documents however are not recommended to be stored in cloud. (Ylä-Jääski 2015, 57)

After going through the other parts of the financial management solution it will be introduced how the bookkeeping process is different from the old one.

### 4.3 E invoices

Although the bookkeeping system would be transferred to cloud, that alone is not enough. Länsituuli is receiving invoices and letters every week and what happens if no one is there to receive them?

Nowadays it is offered and encouraged for businesses to change totally to e-invoices. There are several ways how it works. There is an option that company A makes a deal with company B that the invoices will come directly to the other company's financial management system. This way is thought to be the easiest and safest. The protection around this connection is really efficient and if the financial management program company is using supports this kind of feature it might automatically handle the data which saves lots of work from the entrepreneurs.

It is also possible to ask companies to deliver e-invoice to company's e-invoice address in netbank. The company will receive e-invoices in the netbank and by logging in sees the invoices waiting to get accepted. E-invoices will come with a document where there are all the details of the invoice.

Getting invoices through email is probably the last way that other companies will agree to do if they do not have the chance to use e-invoicing. Sending invoices

through email is not recommendable due to safety risks. Email safety is not seen as high as it would be in e-invoicing.

Länsituuli is going towards the two last mentioned methods. The first one is not considered for not totally understanding how this would work in the current bookkeeping program. If Länsituuli finds the way for this it could think it in the future but currently e-invoices in netbank and email are a better choice.

Länsituuli is asking the biggest and more frequent invoice-senders to change to e-invoice. If this is not possible it would be hoped to receive through email. Whenever Länsituuli deals with a new company they would ask them to use one of the methods mentioned.

The service of post called Verkosto was also considered but after going through their pricing Länsituuli was convinced to try other ways. In Verkosto company can receive and send letters and invoices in the same way as individuals with post's service Netposti. For individuals this receiving invoices and letters is free but for companies there were costs.

The more invoices Länsituuli will get through electric channels the more there is chance that Länsituuli is not going to miss the deadlines.

#### 4.3.1 Dealing with non-virtual businesses

From the survey it was noticed how many people are still not interested towards the virtual services. Some of these companies might be already in co-operation with the case company. Most of the businesses should have email and most are creating their invoices on computer. This means that even though these companies cannot send e-invoices they can still send or receive invoices through email. The assumption is that companies will understand the benefit of sending their invoices with email because that costs them less than sending paper invoices.

#### 4.4 Email as part of the solution

For all the old and new activities several different emails might be needed. The main email is the company's own email. Through this channel happens all the official dealing with the customers, other companies and officials. The email is tied to the upcoming website of the company where potential customers can approach. This email might not be suitable with some of the applications or software so for those reasons it is good to have something else.

There is a live.com -email which is connected to the operating system of company devices as well as OneDrive account if needed later on. Live -credentials are also used for the dropbox account.

One participant does have an own gmail account which has to be linked to the company process. This participant does not hold yet an own email account from the main email system but the gmail is needed anyway. She is the main responsible for financial management and the operations of all the systems. Having an gmail account guarantees that necessary programs can work in collaboration with the others.

#### 4.5 Overview of the new system

It was explained before how is the normal handling of invoices that are coming to the company. Same process happens also for receipts. In Figure 3 it can be seen how it has changed. Same process is gathered to these instructions:

1. Invoice arrives.
  - a. Invoice comes directly to netbank where it will be accepted. As an e-invoice it does have a document as an attachment which includes all the same details that the paper invoice would include.
  - b. Invoice is received by email as an attachment. It looks similar to a paper invoice but it is in virtual form.



- c. Paper invoice is delivered to company address. At the office it is scanned to the computer.
2. No matter which way the invoice has arrived the documents will be saved in the cloud folder for arrived invoices.
3. Invoices are checked and accepted to be paid in Internet bank.
4. Invoices are transferred to the folder for invoices in process. This folder will also include invoices created by the company itself before the money is received.
5. When payments have left the Internet bank the invoices will be posted to bookkeeping program in cloud and after that moved to the final destination which is the folder for main bookkeeping (handled documents). In this section a copy is created if needed and pasted to a project folder.

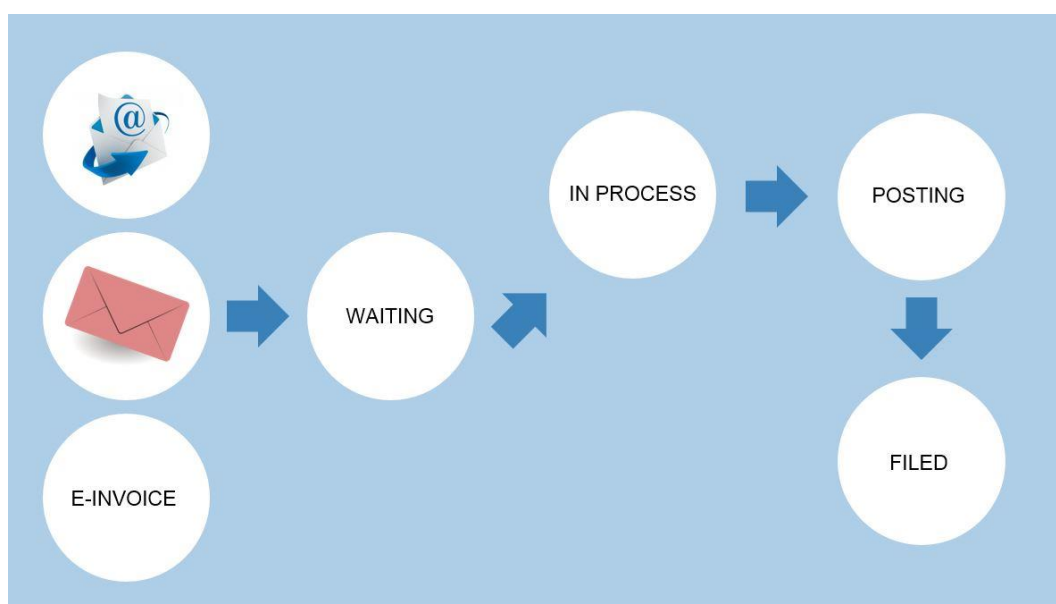


Figure 1: New process of invoice handling

The more processes are being automated the more faster they become. It is studied that the handling of e-invoice takes about 12 minutes less than handling of a paper bill. Handling of paper bill takes 14 minutes whereas e-invoice only 2 minutes. (Salmi & Vahtera 2002) Länsituuli estimates that as their processing time has been cut to the half of the original time. They have not calculated the difference so far. The reason why the difference would not be bigger is based on the fact that although Länsituuli has a virtual system it is not that much automated.

## 5 RESULTS

In the end of testing period the results are gathered and evaluated. Both the successes and failures are looked for. Getting the conclusion of results it will be defined what are the things that need to be changed in the future.

### 5.1 Evaluating success

It can be said that the purpose of this thesis was almost fulfilled. The main thing was to be able to handle financial management regardless of time and space and now it is possible.

The financial management system works in cloud. That enables the company to do bookkeeping or create invoices of their own. The other participant does have also the knowledge of how to send invoices themselves as e-invoices. This means Länsituuli does not only receive e-invoices but they are also able to send if their customers want. The whole process has increased the willingness of the participants in company to communicate with alternative methods. Not anymore they need to sit together around the same desk when there is a problem but they can organize a video call to discuss any issues.

Hardly any solution is perfect and this is also left with a challenge. Länsituuli is still receiving many invoices by paper and the office post has to be checked regularly. The way to improve this is to inform more and more others of the virtual methods of sending invoices. Some other solutions can be also developed as a teamwork inside the company later on.

In Satakunta University of Applied Sciences there was held a seminar of Innovative Business Services 24th of April 2015. Student Samin Sedighousefnia presented in his thesis seminar the effective use of productivity tools. As one of the example companies he used Rakennus & Tekniikka Länsituuli. Although his work had the aim of productivity it has a good base for the virtual process. All the tools introduced can be used through Internet and all the new parts developed can be

combined around this operation where in the middle there is a project management software. Together with these two projects the company keeps running efficiently.

## 5.2 Changes for future

It would be recommendable for Länsituuli to keep looking for different cloud programs in the market and testing them every once in a while. When a program is found that suits nicely for Länsituuli they can move to using it. It is not known that Datamike is offering any cloud program in the future and installing update every year to cloud might be frustrating – updating has not even been tested which means Länsituuli is not aware in case some problems occur.

## 6 ENDING WORDS

The main need of the company was fulfilled which is not only a success for the thesis but a personal success for the writer. This experience has taught the writer of how challenging it is to make a real research and find practical solutions for the company.

If this was a real work this would be paid for. A good question to ask is if one thinks this was enough to get paid for the job and how much. When it comes to this thesis the research was probably a bit too narrow but it could be said that someone else could have got the same results. That is much dependent on the survey sample group. The group of this thesis worked because their position to Länsituuli is very close and most of them are located in the same area. Therefore can be said that someone might get different results but it wouldn't matter as the situation is different. The answer for the money question is that it is acceptable to be paid for but not the same amount the professional could get.

The position of the writer in the company has got stronger and more important during this process. That is promising a good future for the writer in assisting tasks not only in Länsituuli but possibly in other companies.

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## Kysely pienten yritysten taloushallinnasta

Yrityksen toimiala

Yrityksen kotikunta

### 1. Kuinka paljon hoidatte omasta kirjanpidostanne?

- vain verojen ja laskujen maksamisen
- kaiken (siirry kysymykseen 4)
- jotain edellisten väliltä

### 2. Kirjanpitäjälle toimitatte kuitit ja tositteet

- henkilökohtaisesti
- postitse
- sähköpostilla/verkossa
- automaattisesti maksutapahtumien siirtyessä suoraan kirjanpitäjän järjestelmään

### 3. Oletteko olleet tyytyväisiä tapaan jonka valitsitte kohdassa 2?

- kyllä
- ei

Jos vastasit ei, perustelee.

### 4. Toimiiko kirjanpitojärjestelmänne

(Voit ohittaa kysymyksen jos kirjanpito on ulkoistettu)

- verkossa
- tietokoneella asennettuna levyltä/tikulta
- jollain muulla tavalla

### 5. Saako yrityksenne laskuja

- enemmän paperilla
- enemmän sähköisesti

### 6. Kuinka paljon teillä kuluu rahaa taloushallintoon vuodessa?

### 7. Kuinka tyytyväisiä olette taloushallintaanne tällä hetkellä?

(5 kuvastaa erittäin tyytyväistä, 1 erittäin tyytymätöntä)

- 5
- 4
- 3
- 2
- 1

**8. Mitä muuttaisitte taloushallinnossanne?**

**9. Taloushallinnon hoitamiseen tarjotaan nykypäivänä pilvipalveluita. Pilvipalvelut mahdollistavat taloushallinnon hoitamisen ajasta ja paikasta riippumatta. Palvelut hoituvat Internetissä jolloin omalle tietokoneelle jää enemmän kapasiteettia. Palvelut helpottavat yrittäjän arkea yleensä huomattavasti niin taloudellisesti ja ajallisesti kuin myös tehokkuutta ajatellen. Oletteko jo siirtyneet käyttämään pilvipalveluita osana taloushallintoanne tai oletteko kiinnostunut käyttämään tulevaisuudessa?**

- kyllä
- ei käytössä mutta kiinnostaa
- ei kiinnosta



## APPENDIX 2

### Questionnaire about financial management for small businesses in English

What is the field of business of the company?

What is the home region of the company?

1. How much do you take care of your own bookkeeping

- a. only paying taxes and bills
- b. everything (move to question 4)
- c. something in between of a and b

2. To the accountant you deliver the receipts by...

- a. personally
- b. post
- c. email/internet
- d. automatically when the payment information transfers from internet bank to accountants system

3. Have you been satisfied to the way you picked in section 2?

- a. yes
- b. no

If you answered no, tell why:

4. Your bookkeeping program is working in...

(You can skip this if bookkeeping is outsourced)

- a. in the internet
- b. in the computer installed from cd or stick
- c. some other way

5. Is your company getting more

- a. paper bills
- b. electric bills

6. How much money is spent to financial management per year?

7. How satisfied you are to your financial management at the moment?

(5 is really satisfied, 1 really unsatisfied)

- a. 5
- b. 4
- c. 3

d. 2

e. 1

8. What would you change in your financial management?

9. Nowadays cloud services are offered for financial management. Cloud services make it possible to perform financial management regardless of time and place.

The services will be performed in Internet which means own computer will be left with more capacity. Services are making entrepreneurs life usually much easier in financial and effective way so as time wise. Have you already moved to use cloud services as part of the financial management or are you interested in using them in the future.

a. yes

b. not in use but interested

c. not interested