Working as an ERP-support person in a big Finnish company

Aleksi Karppinen

Haaga-Helia University of Applied Sciences
Business Information Technology
Bachelor’s Thesis
2023

Author(s)

Aleksi Matias Karppinen

Degree

Bachelor of Business Administration

Report/Thesis Title

Working as an ERP-support person in a big Finnish company

Number of pages and appendix pages

44

The purpose of the thesis was to track my own work as an ERP-support person in a Finnish company and to document and analyze it into the form of an eight-week diary report. The purpose for doing this was to examine and improve my working and to compile analyses on different topics related to my work.

The method of this thesis is a diary report which includes weekly reporting from the work that was done and weekly analysis. The analyses include further discussion on the diary entries and analyzes them to summarize the key findings of the report and to look back at the work done as a whole.

Many important areas related to the work on a psychological and technical level were analyzed. This led to many findings about different aspects of the work that was done and gave further notions on development of everything from the system and its technical aspects to more personal psychological aspects to further develop personal skills and conceptual frameworks.

During the making of this thesis, I found that I was able to improve myself professionally and did many useful findings through analyses such as ITIL analysis. The thesis supported my professional growth and development as it made me analyze my ways of working in more depth.

Keywords
ERP software, ERP database, analysis, professional development, ERP support

Contents

1 Introduction

The implementation of the thesis was a diary-based report thesis. It is a compilation of daily reports of work activity and the analysis of that reporting on a weekly basis. These weekly analyses focus on chosen topics that change weekly or on the topics that are topical for each week's work. The analyses can study technical or psychological aspects or both in tandem, but the key is to find something to develop, or study. Diary entries will span a time of eight weeks. The entries will give insight into the work of an ERP-support person in a big company in Finland. Different kinds of analyses and personal development will be highlighted but the technical side will also be touched on.

The company in question is a Finnish company that does wholesale and retail in the Industrial sector. The company has multiple locations in Finland but also a few abroad. The customer base of the company is worldwide. There are big customers abroad as well as in Finland, but most of the retail business happens in Finland as there are only a couple of locations outside of Finland.

I work in the ERP-team which consists of under ten people and those people are my direct colleagues. We are all a part of the IT department which has more people in one different team and a few different roles. My customers are the people that work for the same corporation as I do. I give internal support on the use of our ERP system to all our employees, from warehouse workers to salespeople. That means that I do not serve the external customers of our corporation rather the workers of the same corporation I work for.

My job consists mainly of two things. Answering support calls and emails and system testing/modifications. Mostly my job is answering support calls as I try to enable my direct colleagues to work on their own projects because I am the newest member of the team. I try to take the extra work off their shoulders so they can focus on their tasks. Sometimes I might get some system testing or modification tasks to do. There might be a few of these a month or there might be a few months without them. Usually, these system testing tasks are a bit more intense when it comes to the workload they bring. The support calls I receive differ a lot from simple tasks that might take ten seconds to tasks that might take multiple hours to solve and fix.

The job requires an understanding of computer systems and especially ERP systems. I had a great advantage for this job because I had worked as a warehouse worker for the same corporation, so I had extensive experience on the ERP system from a completely different perspective than what we have as system administrators in the ERP team. This meant that I already had a deep understanding of the basic functionality of the ERP software and quite deep knowledge of the warehouse features and abilities as I had used them for a year firsthand.

Objectives I set for my professional development were to enhance my own working methods and conceptual frameworks. I also wanted to study different aspects of work-related subjects to get more insight into them.

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

Objectives	Observation week	Results
ERP analysis	week 2	2.5
Communication analysis	week 3	2.6
Professional development analysis	week 5	2.8 & end discussion
Information sharing analysis	week 6	2.9
Vendor cooperation analysis	week 7	2.10
Prospect of ITIL analysis	week 8	2.11 & end discussion

2 Description of the initial situation

2.1 Analysis of current work

An average workday for me consists of answering support calls from the employees of our corporation and then helping them solve their problems. I also answer some support emails and overview some automated errors so I can notify the correct people when something fails or fix it myself. There is a very wide variety of topics for the calls and emails, but the majority of the daily tasks revolve around the tasks of the salespeople and warehouse workers of the corporation. These tasks are often related to problems in sales orders and purchase orders. Some common tasks are also related to warehouse tasks and printing as paper is still quite widely utilized in some parts of the operation of the corporation.

The testing and modification side of the tasks I do are not that common as other members of the team usually do most of them but sometimes, I get to do some. They include things such as testing new or old features and doing modifications and then testing if everything works the same with and without the new additions. As my work revolves around the ERP-system, essentially all my work is done with it. I do use my phone for calls and Outlook and Teams for communication. Excel is also used every now and then when it is needed for certain tasks as it is integrated into some of the actions of our system as well as just regular use of Excel. Communication skills are also important as the team needs to communicate to be at its best.

A skill that will take you far with ERP systems is basic computer and system knowledge. Most computer systems and software follow similar logic and user interfaces and they can be easily learned. I do not think that ERP education is crucial for a job like this. The real learning is done in the workplace which I feel like is accurate for many situations. However, one situation that could benefit from previous ERP studies is if a company uses an ERP system that is very widespread such as SAP. I have done multiple courses concerning SAP, but the courses did not really prepare me for using the ERP system that my company uses as they use a completely different solution. Therefore, the only slight knowledge I had for my job from studying was the overall knowledge of what ERP systems are and do. The key to my quick introduction into my job tasks with the ERP system was the fact that I had a lot of previous experience using it in practice. That meant that I already had the basic firsthand user knowledge of the system. That experience was even more valuable since I used the system from a totally different perspective compared to what the perspective is now as a system administrator. My warehouse experience gave me good insight into the working habits of warehouse workers. Some support cases can be hard to fathom for some of our team members because of differing ways to utilize the system even with the same functions. Having another perspective into the use of our system was a great advantage to have when starting in the ERP team.

I have gotten most of my know-how for this job while working. I had some introductory tutorial sessions with different members of the team during my first weeks on the job that gave me a slight overview into different aspects of the system and other related software. After that I slowly started to do more and more tasks. In the beginning it was difficult to know what to do with a big variety of tasks from calls and emails. Most cases were done so that I received a call and wrote the key points down and then solved the case with the help of one or two of my colleagues. As months went by, I started to really get the hang of things with the system and began to be able to do more and more of the cases on my own without any help from my colleagues. There are so many variables in the system that there are often new cases for most of our team members except for the few most experienced ones. I would say that I am now able to do around 70% of cases that I get independently.

I still have a lot to learn as there are many other systems in use when it comes to the software we use in our corporation. To this day, some I am still yet to use. There is still a lot to learn about the ERP system as well even though I feel like I am quite experienced with it already. I am very competent to work independently already but I still want to learn more so I can be even better. This requires that I try to enhance my own learning and methods. I could try to ask for further training into some areas of the work I do, and I need to invest some time and effort to do some professional development. My current competence level is between novice and skilled performer. I do require help sometimes but most of the time I am a skilled performer when it comes to my current tasks. I have an in-depth understanding of the tasks I do, and my performance is at a level required to complete them most of the time.

2.2 Stakeholders

Our ERP team consists of under ten people. Most of the people in my team are ERP experts by title and then there is a team leader and a project leader. My own title is ERP support person.

We are a part of the IT department that has another team besides ours and a couple of people that are not really part of any team as they just have singular roles. The team besides us in the IT department is the IT helpdesk that focuses on more general IT-related problems such as software problems outside of our ERP and hardware related issues and inquiries. We work closely with other teams in our office, and it might come as a surprise but in our day-to-day work we work more closely with the financial and billing teams than with the IT helpdesk team. From time to time there are cases where a member of the financial team will in a way work with you on a case or ask for your help. Financial and billing have some software in use that we do not use that much but they also use the ERP system quite a lot so that is why they must interact with us more than the IT helpdesk people.

The biggest stakeholders involved are the employees of the corporation, i.e., people that work in the same group of companies but not necessarily in the same company as I do. These people are from various subsidiaries, but a vast majority of cases come from just one out of almost 20 companies. Around 80% of my work is concentrated on that one big subsidiary alone.

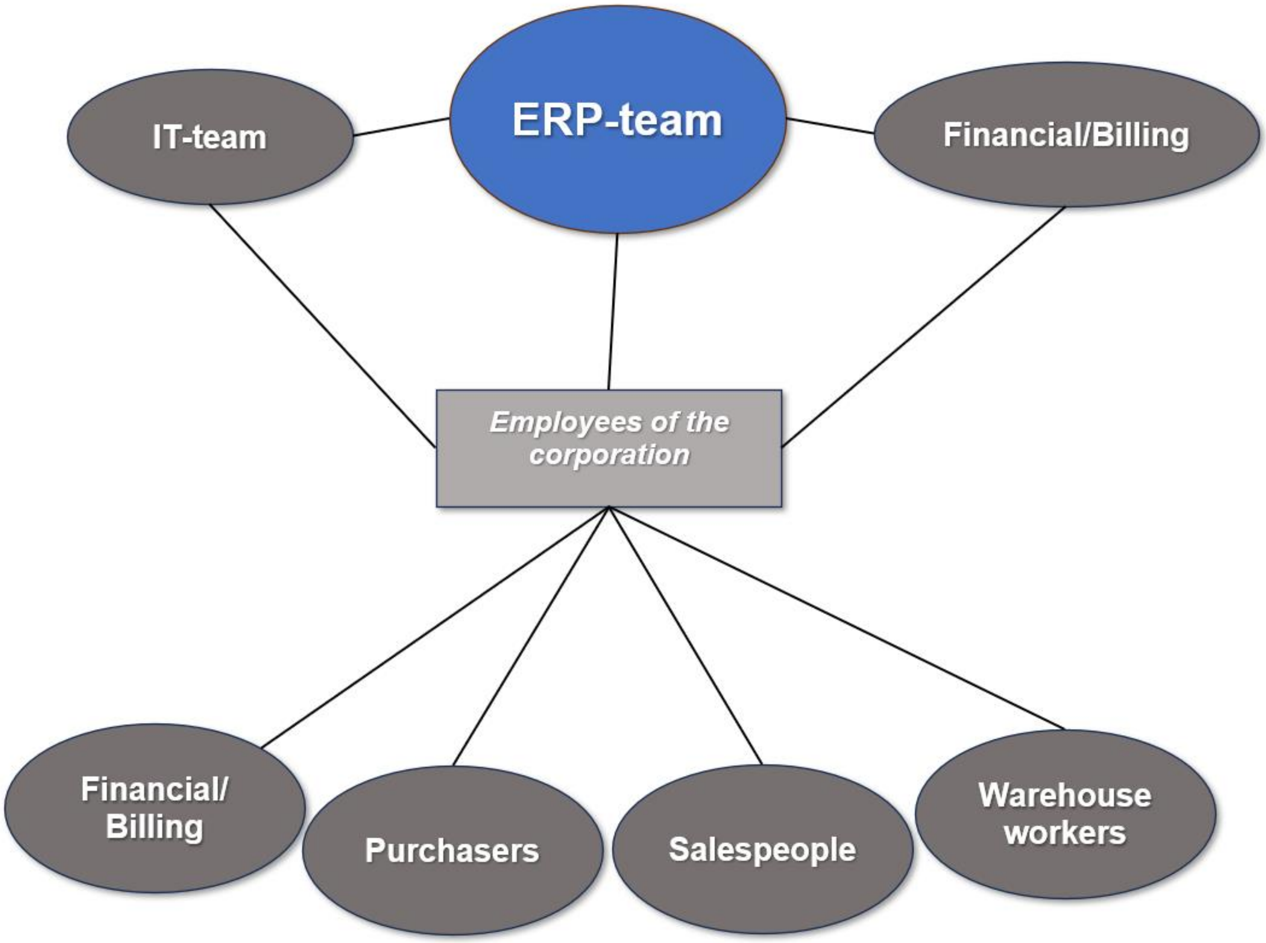

Figure 1: Stakeholders

2.3 Interaction situations

I interact with my colleagues daily. I share an office room with two members of my team who are the first people I ask for help if I need it. Two members of my team work from different locations so I see them in person very rarely, but we talk at least twice a week in Teams meetings, and I also ask for their help when I require help that is related to their areas of expertise. Then there are two other people from my team working in the same building in different rooms out of whom, one is my manager. I also get support from them from time to time if I require help with something more advanced or difficult so that my closest colleagues cannot help me or are too busy to help. The consensus about interacting with my own team is that I talk to most of them face to face, but we also meet twice a week for regular Teams meetings. Teams messaging and calls are also always an option if need arises. Regular calls and emails between team members is also normal especially when working remotely as it is important to inform all members of the team about current topics and such that might concern all of us. The same forms of communication can be used with all stakeholders that need to be interacted with. Teams messaging is a bit rarer with “customers” as they are usually communicated with through emails or normal phone calls.

A common challenge with interaction with colleagues is the fact that people are usually busy. It can be quite hard to approach someone, especially with something more difficult because it will just add to their already busy schedule. It is always best to communicate actively about everything and if there is something that needs attending to right away and you need help with the task, let them know right away. My role was to take away some of my colleagues’ burden, but it can sometimes feel that I am putting the burden back on them if I ask for “too much help”. However, in my opinion this is quite a small problem since I am very sociable and like to talk to people. I would say that my interaction skills are already at an adequate level for optimal working.

Diary entries

The first observation week will focus more on explaining a lot of things about my work in general to set up some context for the coming weeks. After that, every observation week will focus on a different topic. That is done to get more insight into chosen topics or to observe certain aspects of the work done.

2.4 Observation week 1. Overview on common tasks and procedures

31.7. Monday

All my days start with me opening all the software and databases that I usually need the most during the day. These include a few of the bigger ERP databases that are used the most. We have separate ERP databases for all our subsidiaries. That means we have almost 20 different ERP databases, but their feature sets are nearly the same across all of them. An ERP session tool is also needed daily for session and server oversight and control as there are instances where we need to cut a user's session. I also open OneNote, my notepad of choice, and my communication tools Teams and Outlook. Lastly, I open our document management software M-Files that houses a lot of our important files that we utilize every now and then when need arises.

After opening everything I usually need for the day I can start with the first task of the day which is always checking emails that have come outside of my working time. Usually there is not a lot of emails in the morning except the ones that are left over from previous days. I have many different email folders to look over, out of which many are automated error folders from various functions and software integrations. These folders are a part of our good automation when it comes to various errors. When these error notifications come to me, I check what is causing them and then notify the right people what needs to be done or I repair the error myself.

The main email folder for our team is the support folder that receives a very wide range of emails from all the subsidiaries and the difficulty and scope of these requests go from a minute long task to almost small projects that can take days and many people to investigate and develop if it happens to be some feature or improvement that needs to be implemented. We also have a couple other big main folders that house many of the automated error subfolders and then we also have the user access rights folder that receives all the requests related to user rights.

There were not a lot of emails, so it only took a moment to go through them in the morning. After checking the folders under my responsibility, I looked at the status of the larger team shared email inboxes. All members have access to all folders, but some folders are assigned to certain people and some folders are up for grabs for all, like the support folder. Even though anyone can take these tasks, some belong under someone's main expertise and thus they will take responsibility of it. Most support emails and calls are quite basic knowledge for our members so anyone can do them. However, the topics of some calls or emails might be so specialized that only a few team members know what to do.

After doing my regular morning email check I received a decent number of calls in the morning. They were all quite easy, so they did not take a lot of time at all. The weekly meeting of our ERP team is on Monday mornings so that took some of my time this morning as well. This meeting is used to discuss topical themes and subjects that concern our ERP software and anything that is related to it or our team. Usually, these meetings last an hour and are full of new information and discussion on a wide range of topics. Common themes for the meetings include coming projects, changes, and improvements and discussion on what can be improved. Talking about current problems and challenges is also a key part.

1.8. Tuesday

Today started with the regular email check that was nothing out of the ordinary. This day was very quiet when it came to support calls and emails, so I decided to work on some necessary test database tasks. Our subsidiaries have been getting large version updates for the ERP system and the new version is being rolled out one subsidiary at a time. These major updates have given a lot more work to do. This corporation wide updating of databases is the reason I am employed here. Our whole team has been very occupied with tasks related to the testing, improvement, and rollout of the new version. That testing requires us to also utilize test databases, which are almost one for one copies of the actual databases. The only difference is that the functionality has been toned down so that the test database does not send orders and purchases, for example. Basically, it is just an isolated database that can be used to experiment and try things without the actions having any real-life effects. The reason why the amount of work for this version update is so big is because we are jumping over multiple system versions and there are around 20 databases to update one by one. We are going from system version 4.5 straight to version 10. Also, the number of subsidiaries causes this big update project of smaller update projects to be so long and demanding. We need to reserve multiple weeks or even months for the bigger databases and we cannot overlap two updates to be at the same time for the sake of clarity and proper success.

I have been doing certain tasks related to the testing and modification of some databases. I have a set list of things to do and test with each database I work on and now I have done the same tasks at least on five databases. The first couple of times doing these tasks was quite slow and difficult as there was a lot to remember, and I required a lot of help. Now I can easily do these tasks independently as I have learned a lot.

2.8. Wednesday

One small task I do daily is to check the printing of warehouse collection lists. This is done because there are currently some slight problems in two databases where a small percentage of collection lists do not print and the people that print with that certain printing feature might not notice that some of the lists were not printed. I go on to the databases and check the printing logs. There I filter the print logs with the current date, and the ending time of the print. The key is to filter with the ending time so that you get the ones with no ending time at the top of the list. There I will have all the unprinted lists. From there I look up the change history of the corresponding delivery for the collection list and you see the user who has tried to print the collection list. Then I contact the person corresponding to the user found in the changelog who tried to print the list and notify them with the number of the delivery so they can print the collection list and get that delivery on the road.

There were quite a lot of challenging calls today that needed some further investigation. I think the problems in the calls took at least two hours of my day to solve. The usual way of doing support calls for me in a case where it seems like a problem that I cannot solve on the spot and need to investigate further, is to inquire everything I can about the problem and write down all the key points. After that I will get off the call and start looking deeper into the problem and maybe ask for help from my colleagues, if needed.

We also had a spontaneous ERP team meeting today as we had some server problems that caused a decent amount of support request traffic. Usually, these server problems are not that bad as we fix them quickly or they only affect a very small number of ERP sessions and users. There have only been a couple times when the situation has gotten somewhat critical, but luckily this was not one of them. In the meeting we gathered information about the situation and made some improvements to our process concerning the server problems and gave some feedback to our server hosts. This ensures that the problems are solved better and faster in the future.

The rest of the day I continued with yesterday’s test database tasks. Because of the big database version switch we also have new versions of the test databases that are done before the actual databases go live so that users can test it out and give us feedback. The test databases get all the data that the actual databases have at the time of creation. Some of the data from the production databases is not wanted in the test databases so some of it needs to be cleared after the new test database has been made. I do that with files that have the data that needs to be altered and commands that either delete the existing data or replace it with something. An example of this could be customer email addresses in a place that causes customers to receive emails from certain actions of the system when it is tested. These notifications are not wanted because they are notifications of sales orders and other records that are utilized in the actual databases. We do not want someone receiving an order confirmation of something that they did not order.

3.8. Thursday

My workday started with going through the emails as usual. There were not many emails, so it only took a moment to go through them. There were quite a few easy support calls during the first few hours of the day. One call was about enabling an action that is only allowed for admins to enable because it can cause some problems if everyone has the right to do it. These are quite common calls and there are maybe a couple of these easy “enable the action “-calls per week.

Another common request from calls and emails is when a salesperson or a buyer has some records such as buying orders or sales orders that are in the undelivered state when they should be in the delivered state. Situations like these come from user errors. Something has been done in a way or order that should not be done. These types of calls require us to basically finish the record because most of the time they cannot do it themselves as it might require accessing another database that they might not have the rights to. This is because some of the databases are connected. You can do some actions in one database that creates or modifies a related record in another database.

Before noon, an internal team meeting started. On Thursdays or Fridays, we have a weekly department meeting, that being the IT department meeting. There we discuss broader subjects that usually concern the whole department.

4.8. Friday

In the morning I got two calls in a row for a change of supplier. This is usually due to inputting the wrong supplier by accident and the person has already accepted the record in question. This is an easy fix and happens every now and then.

There was one case of a sales record that was not getting billed. This is also quite a common case with an easy fix. Often somebody calls about this and they say they cannot find anything wrong with the record. The first thing to check is a check box named “collection ready”. If this box is not checked the sale will not get billed. This can be caused by making some unorthodox changes to the record.

There was a slightly longer quiet period today, so it was a perfect opportunity to go through and respond to some old low priority emails. Then there was also a case of a customer not receiving emails from our sales records but after investigating the problem it became apparent that the problem was in the receiving end and not in our system.

Week analysis

The analysis for week 1 is not as detailed as the others as this week was used for giving a lot of context for weeks to come. I tried to explain many of the common topics that are part of my work weekly or even daily. This is why this analysis will also be more of an overview of the past week and not a themed analysis as I try to give a different theme for each week to analyze major themes concerning my work, learning and development.

Overall, this week was a run of the mill week. I had some extra work because of the test database tasks and the number of calls was a bit below average, so the difficulty was not that high this week. I had a couple of more demanding and work intensive calls but overall, many easy calls this week. All the work I do is off the burden of the other members of the team so I can imagine how much easier their jobs are now as I take most of the support calls and emails that I can do and other suitable tasks. Other members of the team have their own specializations and responsibilities and I enable them to do their jobs better as they do not have to concern themselves with as many daily support activities. I am also developing to be a lot better ERP support person as I focus on one topic for a longer period compared to an alternate way of working where I would work with multiple different broad topics at the same time. Even though my title is ERP support person, the regular support call and email tasks are just scratching the surface of what kind of things there are to do in our team. There is plenty of work to be done and some members of our team can be very burdened from time to time even if I am doing almost all the support work daily. Our team and department would be even more burdened if it was not for the key perk of having an ERP system which is centralized data. This prevents communication failures between teams and departments because everybody has access to the same data in the databases (Gordon, 2023).

2.5 Observation week 2: ERP system

7.8. Monday

The weekly meeting of our ERP team was quite short this week so nothing crucial there. There was an interesting request for a sales contract specific user creation which is not a regular thing to do. It was still created as requested, as it will not cause any harm, on the contrary it will give the user the help they require. We also had a decent amount of unprinted collection lists today.

There was also a rare call about gift cards. I can count the calls about gift cards during my time with one hand. This call was about the use of gift cards when a customer wants to pay with them. It was very straight forward and required no further investigation as the salesperson was new and needed some quick help.

All these three cases concern people in different departments. Helping them would not be as easy without the ERP system as all these three tasks would most likely be in their own solutions if not for the ERP system. The ERP system is a great unifier. It makes people from different departments and units use the same solution for almost all tasks.

8.8. Tuesday

One long call about some reports that someone wanted to utilize. I wrote down what they were after and then looked into our reporting software to find something for them. Then I also consulted our reporting specialist to make sure I found the correct report. One user reported a reliability of deliveries report showing some anomalies from many years ago. I investigated it and found an old record that was stuck and corrected it so it would not pop up on their reports anymore.

There was also one new user creation today. I sometimes create new users into databases when we receive requests for them. This is quite an easy task but a task that needs to be done regularly as in a corporation this size, new users come and go. We also make multiple users for some people as they might need to access multiple databases or do something that is better done on a separate user account. Many users are also closed which is an even simpler task than creating them. It is not as simple as just deleting them as we want to keep track of all users and basically archive past users. Closing a user is just changing a few variables of the user so that they cannot log into the system anymore. Had a few of these user closures today.

9.8. Wednesday

Today was extremely quiet, especially in the morning when there were no calls for the first three hours. After midday some calls started coming in. A person from a production facility needed material certifications and I tried contacting the person responsible for the certifications, but he did not answer even after trying to reach him multiple times by phone and email. He never reached back to me, so I wonder if he is not part of the organization anymore. I gave his contact information to the caller so he can also try to contact him if he comes back.

Today we had a big EDI connection problem. We started to receive emails from many people about failed purchase order EDI messages but none of our error automations were not going off. Then we investigated it and started sorting it out. We also contacted the service provider so that they can work on it as well. In the end we got it fixed.

EDI stands for Electronic Data Interchange, and it is a standardized format for two-way data transfers usually containing business information. It is used as a way to improve B2B operations with accurate and fast data sharing. For example, some of our customers have EDI connections for receiving our purchases to make business smoother, faster and more accurate (Champion, 2022).

10.8. Thursday

Yesterday's EDI connection problem was repaired, and we cleared a bunch of EDI messages from one our services so there would be less spam there. We also replied and cleared the remaining email traffic about the situation. Many of our purchasers sent emails about suppliers not receiving our purchase orders and this was the reason there was so much email traffic. There have also been some small errors about interest rates in some records every day this week.

11.8. Friday

The interest rate case went further, and we got answers from different parties involved so it was then solved quickly. There was also a refund inquiry for a product that had not arrived. This was irrelevant as you cannot refund an item that has not arrived and thus has also not shipped or billed. We also had our IT department meeting where we went over some of the bigger problems of the week and how we can improve from these situations and make sure they get fixed faster in the future or preferably dealt with so that they do not happen at all.

Week analysis

The topic of analysis this week is our ERP software and ERP overall. Enterprise resource planning is what my work revolves around and at the same time it is the thing that made me want to do this thesis. ERP can be heard thrown around as a term but practically it is a software or a system that is one of the key components of most companies today. This system integrates multiple facets of a company into one big system such as sales, procurement, billing, accounting, production, and warehouse management just to name a few. All the forementioned are also part of our ERP system and it is the one piece of software that enables the whole company to operate.

Christopher Koch has expressed ERP well in his piece, The ABCs of ERP: “Enterprise resource planning software, or ERP, doesn't live up to its acronym. Forget about planning—it doesn't do much of that—and forget about resource, a throwaway term. But remember the enterprise part. This is ERP's true ambition. It attempts to integrate all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs" (Koch, 2002). I love this explanation for ERP, and I think this is a great way to shortly explain ERP to everyone who has not yet heard about it or does not know what it stands for.

It is challenging to get everything into one system but having a single software used by all departments can have major payoffs. The way ERP systems do this integration of departments is by having multiple modules inside the ERP for different departments such as a sales module and a warehouse module. Departments have their programs in their modules that are not just for them as many people use programs from multiple modules daily. Although these departments mainly use different programs within the ERP all the data is still in the same system and is connected throughout. I have also seen this in practice in my work. A good example case is just a simple sales order. We can see in this flowchart how many people and departments are involved in the use of the ERP system with just the creation of a sales order and its effects.

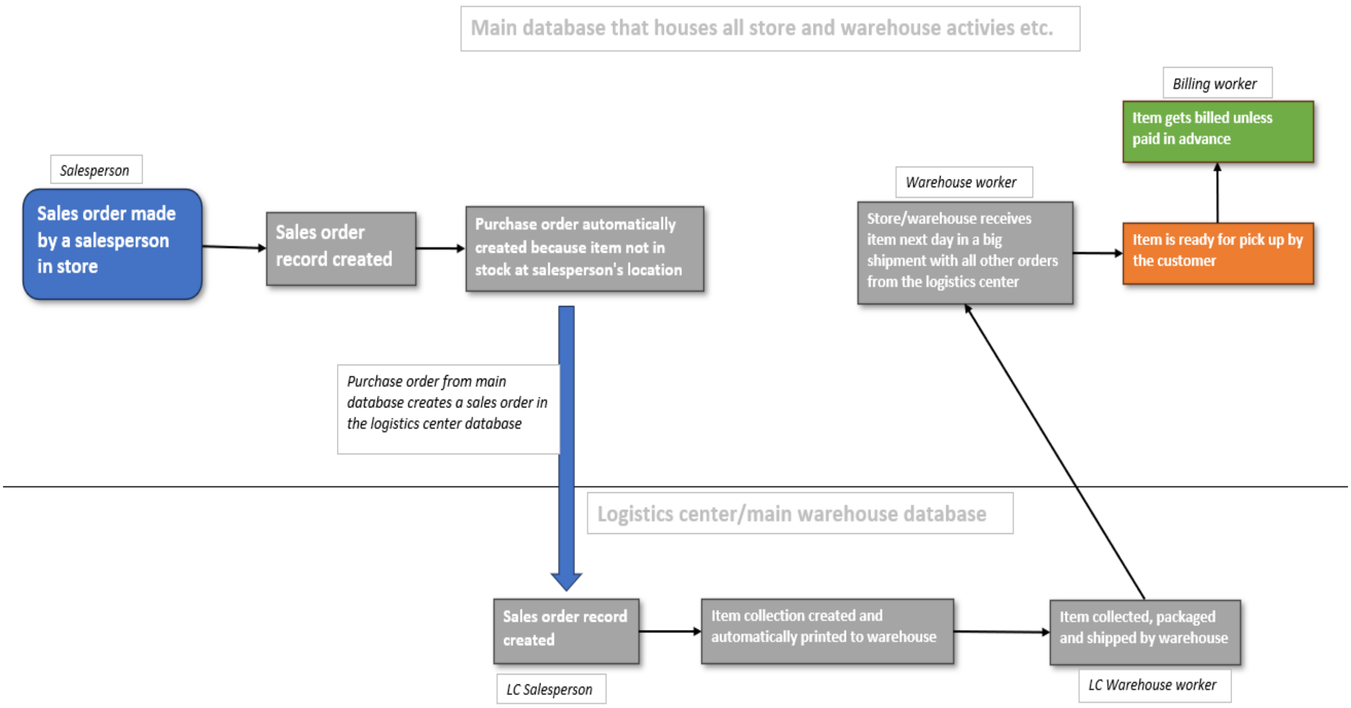

Figure 2: Example of ERP Action and Actors Flowchart

When a salesperson is creating a sales order for a customer, he inputs all relevant information about the customer and the products into the sales order record. When the products are not available in the location of the salesperson, a purchase order is automatically created if the order type enables it. Purchase orders can be created manually as well and can also change depending on the supplier of the product. Our company has such a wide range of products in the selection of the logistics center, so we do not usually need to order products from a supplier outside of the corporation. We also produce a lot of our own products. That means the products that the customer wants could be produced in our own production facilities. This would result in the automatic creation of a sales order in the production database instead of the logistics center database as shown in the flowchart. (Figure 2: Example of ERP action and actors flowchart)

The purchase order from the main database creates a sales order into the logistics center database and then the collection list gets printed in the logistics center warehouse. They collect it and send it with a big shipment of all the products that the corresponding location has ordered. These daily shipments from the logistics center to the store/warehouse locations make for great reliability of delivery as we can guarantee next-day delivery for a lot of products. (Figure 2: Example of ERP action and actors flowchart)

The next day the corresponding store location's warehouse workers receive all packages from the logistics center and start checking and processing the packages further. The collection gets checked and the product will be given to the customer unless the product is delivered to them. When the delivery record is completed in the system the sales record will get a corresponding bill created and go to the billing department to process. After this, the whole sales process with these variables is completed. (Figure 2: Example of ERP action and actors flowchart)

Without an ERP system this whole process would have been very disjointed. It would have taken more time and effort overall. There would have possibly been multiple times that different people would have been contacting other people to inquire about the progress of events in the process chain. The ERP system gives all employees access to view nearly all records and not just their own. A salesperson does not only have their own sales records available as the salespeople can view almost all records. This means that they can see if the warehouse actions have taken place or if the logistics center actions are done or not. (Figure 2: Example of ERP action and actors flowchart)

The ERP system solves the problems and hindrances of multiple isolated systems for different departments and combines them all into one package. In the case of our corporation, we have a few different ERP databases that are also connected, such as the main database and the logistics center database shown in the flowchart as well as the production database. This is more than just combining a few departments. This is combining multiple facets of a big corporation. This is combining hundreds of employees into one group of interconnected systems. (Figure 2: Example of ERP action and actors flowchart)

It has been great to learn what an ERP system does and to see its effects in practice. ERP studies explain a lot about these things, but it is important to see and understand the actual meaning of the things that are taught in studies. I have worked in the warehouse and the store and seen what happens in the logistics center's different departments and what billing and accounting do. With my time working as an ERP support person, I now understand what the ERP system does and what it is in practice. I now also understand the system as a whole.

2.6 Observation week 3: Communication and teamwork

14.8. Monday

This week we only had three members of our team present thus this was not a very communication intense week. Email check of the morning had nothing out of the ordinary. Then I did a weekly task of manually checking and completing some sales orders and their deliveries as some have a fault that makes them not automatically completed.

As there were only three of us this week, we decided together not to have the weekly meeting as it was not necessary. I discussed face to face with one colleague and we messaged one to confirm that there is nothing that big and urgent that it would require us to have a meeting.

There were some automation error messages that needed some work and a few daily unprinted collection lists to be sent to the corresponding people via email.

15.8. Tuesday

On Tuesday I had an interesting call when it comes to communication. This call took over 20 minutes, but the problem was not that severe or broad. At first, I did not realize what the person was after, so I wrote down a bunch of notes on their problem. Nearing the end of the call I realized that they were only after a certain type of report. If I had realized this before I could have told them that I would check for that. Well, I ended up with a bunch of notes and told the person to just wait a moment as I search for the report they are after. I ended up sending an email as a response as it was only a couple of sentences. If they knew what they were after, they could have simply sent a short email asking for the report, but they thought that it was something more complicated that led to us both spending a lot more time than the case required.

This is also a great case to learn from. If you have the knowledge and experience to realize something, you can aid faster and close the case quicker. In this case there was a lot of time to be saved. There was also a user creation and a delivery reliability error fix case.

16.8. Wednesday

Communication can be quite demanding on days when there is a lot of work and hurry. A great example of this is when there is basically a virtual queue of people and many cases to solve and then at the same time something breaks, such as a server. This means that on top of the ongoing cases and people that you need to contact back in some way, there are also dozens of people calling about the server problem. You need to be able to tell them what is happening quickly and then there needs to be a general notification issued about the problem, so people are made aware of the situation. By issuing a general notification, our communications channels will stop from being overflowed with notifications about the same issue from a lot of people. That is why it is important to let people know about a problem quickly.

In these situations, you need to be able to sort out messages that are not as important as others. You always need to prioritize the work that you will do. You need to think what is more important when it comes to priority and do everything in a prioritized order if there is a lot to do. If there is no hurry or overflow of cases, you need to try to do them as they come chronologically. Even in low traffic moments you can prioritize, as some cases are low priority, and the person contacting might even say that there is no hurry with this one and as long as they get feedback within the week it is good. This is always good to hear as you can then focus on other more important tasks first with your mind at ease.

17.8. Thursday

Regarding the notes I take daily, it is a good idea to store them for later if the cases seem like they are not completely done or if it is some rare case that is not yet documented as well. Multiple times there has been a case that is kind of done but then something related to it arises later. This could be weeks or months later and it is very beneficial to have the notes around from the previous time that case was being solved. If a case is very rare or new, it should be reported immediately to others and then it can be investigated. After that matter has been solved or something has been come up with to aid that situation, we document that info into our document management software M-Files. Then when need arises it can be easily accessed and utilized in other cases. M-Files is a very powerful tool for our work as there are so many variables in the ERP software and thus there are also many variations of problems. New types of cases arise every now and then that have never been seen. It is crucial to communicate about these new cases within the team, so everyone is made aware of new things. Also telling others about new additions to M-Files to aid in these new problem situations is important so that everyone knows there is ready-made aid available.

18.8. Friday

On Fridays we have the IT department meeting, and it is good to express all your challenges and worries there. We go through all the bigger things that might somehow concern everyone or most people there. We also do a lot of development on all fronts, not just the ERP system itself, but many other systems and integrations that could be improved. The more things that are brought up, the better, so that everyone is up to speed with the current topics. This week a few of us were not present so there was not as much to discuss as in other weeks.

Week analysis

A company is nothing without communication and teamwork. This analysis will focus on the internal communication of our team, department, and company. As communication and teamwork go hand in hand, teamwork will also be a part of this analysis.

Communication is not just about sharing information, nor does it only concern some parts of a company. Communication is crucial in all parts of a company. A company cannot exist without it. As the title of the web publication from the union of municipalities expresses the matter: “A work community communicates to exist”. Communication in work is done to interact, predict, share information, express emotion and to care. Communication is also giving context, clarifying, and informing things. Good communication improves the well-being and results of employees and enables the company to succeed and thrive. (Hagerlund, Huttunen, Kasurinen, Kaukopuro-Klemetti, Kinnunen, Kokkonen, Laitsaari & Parhiala 2013, 6–7)

Communication in our team is on a great level. We have great structure in our Teams channels and groups which enables us to get the right information to the right group of people quickly. Our team uses our own channel for daily communication even though most of us are sitting in adjacent rooms at the office. A lot of communication happens face to face but when topics concern all members of our team, information is put into our own ERP team channel so that all team members are made aware. Most of the time our ERP channel is used for daily small topics and the bigger topics are left for our weekly ERP team meetings unless the topic is time sensitive and needs to be dealt with immediately. Usually if there is a bigger problem it is good to let the whole department know. That is why most bigger problems that need to be dealt with immediately are put onto another channel so that everybody in the IT department is made aware of the situation as well. This is not a general channel because this is a dedicated channel for problem situations so they do not fill the general channels and then they can easily be viewed in chronological order.

Our weekly ERP team and IT department meetings are great because no matter what, we always have at least two meetings where everybody can express themselves and bring out important things. These weekly meetings ensure that all topics can be brought forward without stress as there is always time reserved for it. Our great Teams structure also enables fast and easy communication, but communication will not work with just a well-made Teams environment. Communication is the culmination of all the members of the work community actively participating in it. If some do not participate, there will be as many opinions and point of views missed as there are people not communicating. (Hagerlund, Huttunen, Kasurinen, Kaukopuro-Klemetti, Kinnunen, Kokkonen, Laitsaari & Parhiala 2013, 10)

Communication can be difficult at first when you are put in a new environment with new people around you. When I started my work in this ERP team, I was not sure what I should say and when. I did not ask as many questions because I did not want to bother other people working. As time went on, I started asking more questions and that led to me learning more. That is just a simple straight correlation as I started doing more work that I did not know how to do, I also learned more. I just asked for help and then someone guided me through new topics and tasks. To this day, that is the most common way for me to learn at work, taking on new tasks that I have not done before.

A valuable skill in communication is listening. We cannot have great communication if our communication goes only one way. Active listening skills are important so that everyone understands everything properly. Active listening is especially important for superiors because unlike passive listening, active listening is also about being present and interested in what someone is talking about. (Hagerlund, Huttunen, Kasurinen, Kaukopuro-Klemetti, Kinnunen, Kokkonen, Laitsaari & Parhiala 2013, 14)

The seemingly simple task of choosing the way to communicate in certain instances can have a huge impact. When talking to a team member or a “customer” that is not nearby for face-to-face interaction you need to be able to choose the best way to communicate. This is not a constant as the best way to communicate changes as the matter of discussion changes. Sometimes it can be best to just call someone to get something more intricate sorted right away and in better detail compared to an email for example, unless you want to get all the details in writing. However, some people might not immediately give you the details in an email even if you asked for them. Usually, the safe bet for the most accurate information is making a call.

If there is only need for simple answers or nothing too complicated, the best way to communicate is often a Teams message. This is not always the case with some employees as some do not use Teams at all so the message might never be answered. This is because some of our employees either do not need Teams in their daily work tasks at all or they are just a bit old-fashioned to be using it and prefer using email and phone. This makes using Teams not that optimal to communicate with people that you do not know, or you are uncertain if they use Teams at all. A simple phone call for more urgent business is better and email for something that is not as time sensitive. If I know a person uses Teams and the matter is not too complicated, I like to use Teams over other means as chatting in an interactive discussion is faster and more effective than sending a dozen emails back and forth to get to the bottom of a case.

2.7 Observation week 4: System testing

21.8. Monday

The most common reason for system testing is when a support case is about a reported problem that involves doing something regular in the system, but it causes something not so regular. The majority of cases are just human error and there is nothing wrong with the system but every now and then there are cases with new bugs or other error cases. These need to be thoroughly tested, especially with the new update as the new version is not as field tested as the old version that had been live for many years.

One of these cases happened today as I got a call about a peculiar occurrence in a record in the system. I gathered as much information as I could from the user while in call with them and then I started testing what the person had reported, to see if I could maybe replicate that situation. Sometimes it is good to also check the same thing in the old version side by side with the new version, if that feature does the exact same things. This is due to the new version having a lot of new features and elements changed compared to the old one. This can lead to some new errors even though it has been tested in advance by many people before the rollout. Nowadays when software projects usually get more and more complex it is almost impossible to not have bugs or other problems.

Many of the problems are found early in testing thus they are taken care of before the rollout happens. This problem was one of many reported bugs or problems that I could not replicate myself even though I tried multiple different variables and variations. These bugs are bad because they cannot be fixed if they cannot be replicated by us. Usually bugs that cannot be replicated by our team are not actually bugs but just user errors that the user did not notice. They are very common, and a majority of bug reports we receive are actually user errors.

22.8. Tuesday

This week I had a big task of cleansing a couple of test databases of some unwanted data. We have these direct copies of all our actual databases for testing purposes. They can be used very freely to use features that would cause some implications if done in the production databases.

Sometimes testing must be done in the production database as there are slight variations between the production and the test database but most of the time you can do all the testing in the test database.

The cleansing is done to isolate the test database more, so it does not accidentally send unwanted messages to companies or interfere with the actual work that people are doing with the production databases. For that cleansing I need to create short command line files to purge some data off records. This requires the use of a couple of different software to extract all the data needed for the files to be executed properly.

23.8. Wednesday

On Wednesday I continued my work on the database cleanse. It is surprisingly time consuming when you are doing a few databases at the same time because you need to access data from all of them and the amount of data can be so big that the loading times to extract the data for the command line file can take a while and then the execution of the file itself can take even longer. This will be done numerous times per database to get all the unwanted data out. All of this could not be done manually in a reasonable time. Cleansing 50 records manually takes approximately the same time as cleansing 5000 with quick file execution. Although doing so many records with one file execution can at worst give a big list of errors that you need to check one by one. There might be some data in the record that blocks the deletion of other data in it. These are system restrictions that are set so nothing bad is done. There are a lot of these error situations that prevent users from doing certain things wrong. In this case it prevents me from deleting data from records, but this is easily fixed as an administrator. Usually, you need to delete something else first or enable or disable something for it to work.

24.8. Thursday

On Thursday there was nothing done concerning testing but there were a couple of interesting cases. One was a very rare occurrence of a collection list automatically getting printed a year in advance, which should not happen. In the end that record already exists in the system, so it is possible to print it manually, but people were saying this happened by itself. This was very intriguing and could not be solved right away. Then there were also two cases about RFID but that is not part of our field of expertise, so these people were redirected elsewhere.

25.8. Friday

There was a case about an improvement that was made to online store orders. A user reported that the sales record for the online store order had done something it should not do. After we investigated the issue, we found out that it was because of an improvement that was made to the online order functionality. The issue was that it was not tested at all or not enough after the improvement was implemented. The improvement had the side effect of automatically changing the status of the record. This should not happen so the improvement was sent for review and repair to our vendor so that it would not do that again.

It can be quite difficult to stay on track with all the changes made to our systems as there are always multiple on-going small fixes. The goal would be to test all features related to any fix that is implemented so that everything still works the same way it did before.

Week analysis

The testing I do with our ERP databases is mostly exploratory testing. It is a great approach to finding bugs and other error situations as most bugs require us to do actions similarly as the end users do them. This is how Shreya Bose has explained Exploratory testing in her guide on the topic: “Essentially, exploratory testing tries to mimic individual end users’ personal freedom and choices”. (Bose, 2023)

In the cases that I need to utilize testing to get to bottom of the problem, I first try to get all the information on the problem in call with them. I try to inquire the user on the specifics of how they used the system step by step. It is crucial to know all the small variables so that I can replicate the exact same path of use in the system. If the user does not remember what they did to get into that error situation it can be very difficult to trace. Even if the user gives all the specifics, the problem might still not be found as some of the errors can be very rare. It is important to try to think about the situation from the perspective of the end user. I think I have quite a good advantage of this as I have used the system as an end user for almost a year. In the beginning it was difficult to do testing even with the previous experience as the system knowledge from the administrator side was not as strong as it is now after almost a year of administrator experience. Now with about a year of experience from both the end user and administrator point of view I think it has brought my skills far.

This exploratory testing is done by our team on all the databases whenever needed but most of the testing is done when we receive the new version of the database from our software vendor. We are not doing this testing alone as it is most important for all the end users to try the software out in the test database before the launch of the production database. We ask the users to do all the actions and use all the features they use daily, so we catch all the most common bugs right away. Then when something is reported by the users, we test it the same way as they have done it and do the required procedures to get it fixed. If it is a bug, we report it to the software vendor but if it is something that we can easily fix then we will work on it. Exploratory testing is very important as it is great for getting the end users involved in testing more as they are the ones who will be using the system in the end. At its core, testing is done to make sure that users have stable and working software to use that is free of errors. Testing is done to ensure that the system is technically and functionally sound and to improve usability, features, and integrations so that the product is of a high enough standard for the wide user base. (Rashid, 2022)

2.8 Observation week 5: Professional Development

28.8. Monday

Sometimes we get additional training from other team members. This usually happens when one of our team members has something new regarding their expertise. There might be a new system integration that is related to their field of expertise or some other big enough thing concerning our work that it is for the best to introduce that topic for the rest of the team. Today's training was done by our EDI connection expert as there were some new aspects to some of our reverse EDI connections. This was quite an impromptu meeting, and we rarely have meetings like these as similar topics are often discussed in our weekly ERP team meetings.

Most of the new topics are small enough that they can be brought forward in the team meeting. Impromptu meetings are made for topics that either are broad enough that they require their own time slot, or they are topical enough that they need to be covered sooner than the next team meeting.

29.8. Tuesday

We had a meeting with the IT department, but this was not the weekly meeting. Instead, we also had one of the executives of the company joining us as we had a special professional development meeting. I found this to be a great thing to have with the whole department as we had an opportunity to share our thoughts on what we should or could be learning in the future. There were plenty of great ideas shared in the meeting and all these ideas were taken into consideration. This kind of meeting will only be beneficial if some of these topics that were talked about are made into reality. Basically, all the topics were new skills and areas that could be beneficial for us in the future in our work. So, if some of them go further and we get training on them it will be great. The meeting was a first step to getting training in topics that people are interested in, and that people think could be crucial for our work in the years to come.

30.8. Wednesday

On Wednesday I had a call on some reports that were related to the Qlik software Qliksense and Qlikview. This was because the report the caller was after is very easily viewed in these applications compared to GEMS, our main reporting software. This concerns professional development as these Qlik applications are applications that I want to learn to use at least on a beginner level so that I understand the basics of them. When our Qlik application expert has more time after the database update projects, I will request him to give me maybe an hour-long beginner tutorial on them. This is me actively trying to progress my professional development in my workplace.

Although these applications by Qlik are some that I do not yet know how to use, I have learnt to use some other new applications during my work. I have learned to use SAP Crystal Reports and GEMS from scratch. I think learning new software is very important and that it is great development for myself. Now I just need to go and learn some more.

31.8. Thursday

There was a tricky call as someone wanted to add a line into a recipe product which are products that consists of multiple other items that combine into one recipe product. Recipe products are basically groups of products that are either combined into something or that are used for some one thing. The caller had saved the recipe product already and after that if you want to add more products into the recipe it needs to be done through a menu that is in another place than it was in the old version of the software. It is rarely used for anything, but this function is one thing that is done from that relocated menu and it is quite small so it can be hard to find if you do not know or remember it. I also had not used it in many months, so I had trouble remembering where this function was but fortunately my colleague knew immediately what I needed and helped me on the spot.

1.9. Friday

On Friday there was a call about some collection list layouts. We have a lot of different layouts for different prints on paper and stickers because there are dozens of different types of papers and stickers that need to be printed in different subsidiaries and locations. This caller was inquiring about a specific niche layout that is used abroad. This is information that can be found from the printing program’s parameters and specifically the attributes of those parameters. This means that this is an administrator thing. We meddle with these parameters and attributes quite often because they affect a lot in many programs and features. I checked what the layout was and told the caller what it was.

This brings me to the topic of information sharing and identities. There is rarely such information at play that I could not give to someone. If there happens to be some slightly classified or such information, it is sent via encrypted emails or the caller's identity will be known as it is always very easily identified. Outlook person search helps a lot and our call service provider has a tool for us, so we see the identity of all callers. Nowadays these tools do not see a lot of use from me as I know almost all people that call me even though there are around a thousand possible different callers. It is a perk of having a long stay here as I have got to know a lot of people.

Week analysis

As I have learned the required skills and knowledge quite well for my work tasks it is still great to acquire new knowledge as often as possible. Professional development is always important for anyone looking to become a better professional in their field of expertise. Acquiring new skills and knowledge can these days be done quite easily as the internet provides people with an enormous amount of information but getting it from industry professionals firsthand is usually a lot more valuable. As some of the events of this week have shown, it is great that in my workplace, professional development is valued quite highly.

I have been in this workplace and position for almost a year now and I have gotten a lot of new information and skills that have benefited me in my work, and I hope that they will benefit me for years to come. Professional development, being a thing that even executives want us to go for, is great as it can lead to our team improving a lot. It is great for the team as a whole but it is especially important for every individual. The core of professional development being the learning of new skills and improving existing ones. Professional development can lead to such skills that will not only help you in your work tasks but also lead you to even bigger positives such as improving your working position, resume and thus improving even your whole career in the long run. As Lian Parsons from the Harvard Division of Continuing Education said in their blog post on professional development: “Professional development is important because it has the potential to open opportunities for career advancement, such as promotions”. (Parsons, 2022)

When it comes to my learning at my workplace, I think that the 70:20:10 model describes our working and learning quite well. The 70:20:10 model is based on the theory of learning at work coming from 70 percent experience, 20 percent collaboration and 10 percent formal learning. Most of the learning that I have done is through experience. That is accurate with the 70 percent part. The 20 percent part is also accurate for me, as there has been a good amount of working with others and getting coaching from colleagues from time to time. There are not a lot of courses or workshops, so the 10 percent is accurate as well for formal learning. (Arets, Jennings & Heijnen, 2017.)

I notice that I have come far with my skills and knowledge of the system as I can perform a lot more tasks quickly without help. The caller from Friday as an example. It was a more advanced task in the system compared to features that most people in the subsidiaries know and I also knew from my previous experience already. As I have been working for about a year now, I knew what needed to be done and where right away. Half a year ago I do not think I would have had any clue on what to do or where to search for it.

2.9 Observation week 6: Support processes and information sharing

4.9. Monday

Some good examples of cases where information share is not needed between team members are session shutdowns, simple sales order fixes and enabling or disabling something on different records. These are tasks that people call us for daily and they require nothing special. They are just simple tasks that you do in a minute or two and then it is done.

Then on the other hand, cases where information sharing is crucial are ones where the situation is difficult or widespread so that the team needs to know about it. An example of this is a call I got today of a problem in the logistics center where workers were reporting that a very high usage feature does not work like it has used to. First, I told my closest colleagues I work in the same room with and then sent a message into our ERP team Teams channel to let everybody else know about this. We tested it together and found out that it indeed had changed. We proceeded to notify our system vendor of this so that they will fix it as soon as possible.

A lot of our more important information sharing is done in our weekly ERP team meeting unless that topic is in a hurry then it is brought up right away or within the same day. If the topic is not urgent and it is just something worth noting, then it is saved for the meeting. The urgent topics will of course be talked about in the meetings as well as it is good to analyze those situations afterwards.

5.9. Tuesday

The most common big issues that concern more than one person are server issues. They are usually not that severe and only concern a dozen people if it is bad. These small server issues happen from time to time but big faults with servers only happen rarely. If I recall correctly there has only been a handful of more severe server problems where the problem was apparent to more than a handful of people. Usually, server issues are seen before anyone can even call us about it as we overview their statuses regularly. Then if we see that a server is not in its optimal state, we share information with the team and the department and do the appropriate tasks to get it sorted.

A few of the worse situations have not been as smooth as we do not see the problem before it becomes apparent through calls. Once we had a huge flow of calls about the system not working and there everyone could quickly deduce that something bigger had broken. Then we need to quickly communicate within the team to decide who does what to get the situation sorted. These big problems are sent into a dedicated channel for acute problem situations. We do also post smaller cases there.

6.9. Wednesday

Tagging cases in our shared email inbox is a part of our communication in that it shows colleagues who is working on what. You always need to remember to tag the case before you start working on it, so that you do not work on it in vain as someone else completes it at the same time you put time on that case. Name tagging prevents this as long as everybody does it.

This is a daily thing, but it is important to point it out as I mark multiple emails for myself daily. If I see that there is an email that does not belong to someone’s expertise, I will mark it and start working on it. If it is quiet, I can mark cases from others’ expertise as well and then just ask them for help for it. That is where I learn a lot of new things. Taking the lead and marking difficult cases for myself is great professional development. They can lead to someone even teaching you whole new dimensions of all kinds of topics.

7.9. Thursday

On Thursday there was a more difficult case that I needed to share right away with the team and our most experienced member came to aid with the situation quickly. This was a case that had no help file in M-files, so she created a new file later for similar cases in the future. She also made sure to notify everybody in our team that that file was now created and could be found in M-files and shared the name so everyone can find it easily.

There was also a case where the caller had a case about topics concerning the other side of the department, the IT helpdesk. Sometimes if the matter is easy, I help them right away if it does not take more than a minute or two but these cases do in fact belong to another place so I will let the caller know about it either way. Most of the time I just start the call by telling them that this matter belongs to the expertise of the IT helpdesk and tell them to please contact the helpdesk. We communicate actively with them as well so many of us let them know of a case coming to them right away unless it is something simple like their daily tasks. If it is something more demanding it is nice to give a heads up.

8.9. Friday

In our IT department meeting of the week, we had a dozen people present and we had one of the most interesting topics of the year at hand, at least to me and I think to many of our ERP team members as well. We got word of a ticketing system that we will be getting to use at some point. There was not that much information on it yet but just the prospect of it got me excited because this is quite a big change for our daily work. It will be interesting to see how it will pan out in practice. A few members of our team will be working together with the provider of the ticketing system so that we can customize it to our needs before we take it into use.

Week analysis

As explained in the Monday observations, we are not currently using any ticketing system for support requests. Whether it be calls or emails, they are not in a ticketing system. When it comes to calls, all of us have the responsibility to get them done and that does include sometimes taking notes of the call and writing information down. Usually writing down cases from calls is not necessary but when there is a bigger case from a phone call, we request the caller to send all related information to our email, so we have all that information there for all to see in writing. When caller cases are difficult, we communicate via Teams immediately that everybody is made aware of the case at hand and if anyone happens to have a solution, they can give it immediately in Teams or just call and assist unless that person is at the office. For simple regular cases information sharing is not necessary at all.

For emails we do have our own system. As explained in previous chapters we have dozens of different inboxes but the majority of these are not time sensitive and are automated error messages or stuff that can be mostly ignored unless something specific needs to be investigated. The main inbox being the ERP support inbox where we receive a wide range of emails from simple sales order fixes all the way up to cases that can take a year to receive any input as their topics are not relevant yet. There might be an email about something with a bigger impact that needs to be tagged immediately and action taken. We do have our own system for these emails as we have created a tagging system where everybody can mark their own cases with their own tags, or an email can be tagged with tags that tell that the case in question is related to some specific branch of our expertise. That email can also be tagged as just information for all as all incoming emails are not support requests or such cases and can just be emails of someone notifying us about a change in something for example. We do also have a tag for classifying high urgency cases, but we rarely use it as it is easy to just check and see what the content is and usually you notice right away how acute the case is.

There is no official time window for cases, but I think the common way of doing them is trying to get everything done the same day they arrive. This also entails the prioritization of more important cases that might need attention immediately or within a couple hours but some cases we receive could be topical in a week or two. When cases are done, they are just sent into the done or processed bin depending on the actions that were taken for that case. There is also a sent folder so we can follow the outgoing emails of the whole team on the ERP support email. There are no classes for open cases because every case that is in the inbox is open unless marked in a certain way. They are closed when they are moved to another folder unless they are moved to another folder where they will be processed differently.

Our way of working is not going to stick for long as we are soon implementing a new ticketing system for our daily work with support emails. I am looking forward to it as I think it will improve our work a lot. It will make our work more organized and efficient. We might save some time with it but I also have to think about it from another perspective as there could be some added time to all cases with the ticketing system. Some cases might be twice as time consuming just because of it. This will be a small negative as overall I think the positives of the ticketing system outweigh the negatives. Organization of cases and more efficient workflow for our team is just the beginning as the system will also make collaboration better as there will be collaboration functions unlike previously us just tagging cases as we go. Another big positive is a case archive where cases can be found much easier than searching for one case from heaps of emails.

We get support and service from our ERP vendor or service provider. That support is mainly done with the help of the issue and project tracking software Jira. This is great so they and we stay on track with our bug reports, fix requests and other bigger projects that we have requested from them. More information on Jira will be in the next chapter that will focus on our service provider, their support to us and our cooperation with them.

2.10 Observation week 7: Cooperation with ERP vendor

11.9. Monday

Today we had an impromptu meeting with people from the vendor. This meeting was about some issues that came up some weeks ago and needed a solution. Our collaboration with the vendor is great. We communicate actively and we get replies fast and work is also done quickly if needed.

The people that we work with are not all from the same company as the vendor has structured their operations so that they have a subsidiary they own that is more in role for the fixes. Then there is also another small company that is responsible for the servers our databases are on. This difference in companies is irrelevant as we have corresponding people for different kinds of situations, so we have direct contacts for our problem situations.

This meeting was a discussion on how we could deal with that issue. They had one of their most experienced people and one newer, but very technically skilled person, talking us through how we could solve it. We had our whole team on the line as this was about a bigger problem that we once had earlier.

12.9. Tuesday

Our Jira cases are updated daily. There are a lot of modifiers to change on the cases and these changes happen often. Often these changes are small and do not matter that much but almost daily there are a few changes that give us important updates on cases. Changes that are made to the cases can be status changes, comments, the person working on the case might change, some cases might be merged into one and the most important is the notification of a case being completed and that usually means that that fix etc. has been implemented. Today our vendor had a busy day, or that is how it appears to us, when we receive a heap of email notifications of Jira updates.

13.9. Wednesday

Sometimes our collaboration with people from the vendor happens face to face. It is rare but it happened some time back when we were working on the update of the logistics center database and at least one other occasion that I remember of. We had one of the more experienced people from the vendor working with us in tandem. This visit to the logistics center was made to give firsthand support to the people working there as that day was the first full day of the new system version for the logistics center database. We were fixing problems live the moment we received word from people working there. This was great cooperation with the end users right on site.

As we have been rolling out updates for all of the databases, we have always had a few members of our team be with the end users at least on the first day of the new version being live. Usually, the subsidiaries do not need more than one day as the new version has been around for a good while already and is a lot more polished than it was a year ago. At the start of the updates, we had more cases because of it as it was not as polished as it is now. The first few databases we updated gave us a lot more to do as they had more users in total and the new system was so fresh. Now the last subsidiaries that we are doing are going much more smoothly as the new version has been around for longer and as it is almost identical for all subsidiaries the patches that were done for others help with all databases. The updates of the main database and the logistics center were easily the most demanding and we had a lot of close cooperation with the vendor then. For a few of the newer updates there has not been nearly as much cooperation as it has not been necessary. We do of course communicate as the vendor performs the roll out etc. so we still need to work together on all of them.

14.9. Thursday

Quite a quiet day overall. Only a few session closures. There was a case on customer changes for an accepted record which is very basic and a case on gift card payments that was a bit more challenging as the payment event was a bit messed up. One caller was requesting a list of all products in the system. This is a standard feature but not as commonly used so not all users know of it. There is a dedicated feature for the printing of product lists and there you can easily print it into excel and have all the information you could need on all products, and you can easily put them in different order or filter them out. Excel is a great tool with our databases as you can extract information from multiple programs and features of the system. It is easier to go through and play with information on Excel than in the database if you just need to view things.

On top of Excel exporting there are also a few types of data importing into the system such as import from a file or from the clipboard. In my work I use exporting rarely, maybe once or twice a week. Importing is even rarer but because of the system updating I have utilized file imports or file executes multiple times when working with the new test databases.

15.9. Friday

When there is a case that requires a fix from the vendor, we send them all the information on the case and tell them what needs to be fixed. Then our vendor will make a new Jira ticket and assign it to one of their support personnel. If the matter is urgent, we can request a rise in the level of urgency so that they prioritize it over everything else. This needs to be done quite rarely but it is very important to have it when something is broken, or it affects users negatively enough in their work.

Week analysis

We communicate with our ERP vendor daily. Most of this communication happens through Jira and email. Jira being the project/issue tracking software that our Vendor and we use for the tracking of the issues and their fixes and other projects regarding our ERP systems. Jira is a great tool to have as it makes tracking a lot better than just having everything done by email. It takes out the need of having to notify other team members of new issues and their fixing. Everything ongoing in Jira is always quite a high priority. Basically, all the cases in Jira are support cases from calls or emails unless they are issues found by our team. We have a lot of ongoing cases in Jira and we try to prioritize them. For high priority cases we just get those cases marked with high priority and then the people from the vendor company can see which cases are the most important to get done first. Information from changed case statuses and other case information is always sent automatically by Jira into our emails. That is how we stay on top of the many cases that are ongoing there simultaneously. It is also good that everyone in our team has access to Jira so even if all of us do not use it that often, all of us can still see the status of different fixes and projects because sometimes they can be crucial for the system, and we need to know if something is fixed and when. Thus, we can also test the system right away after the fix is implemented so that the system still works the same way and has not gotten any new issues because of the changes that were made with the fix.

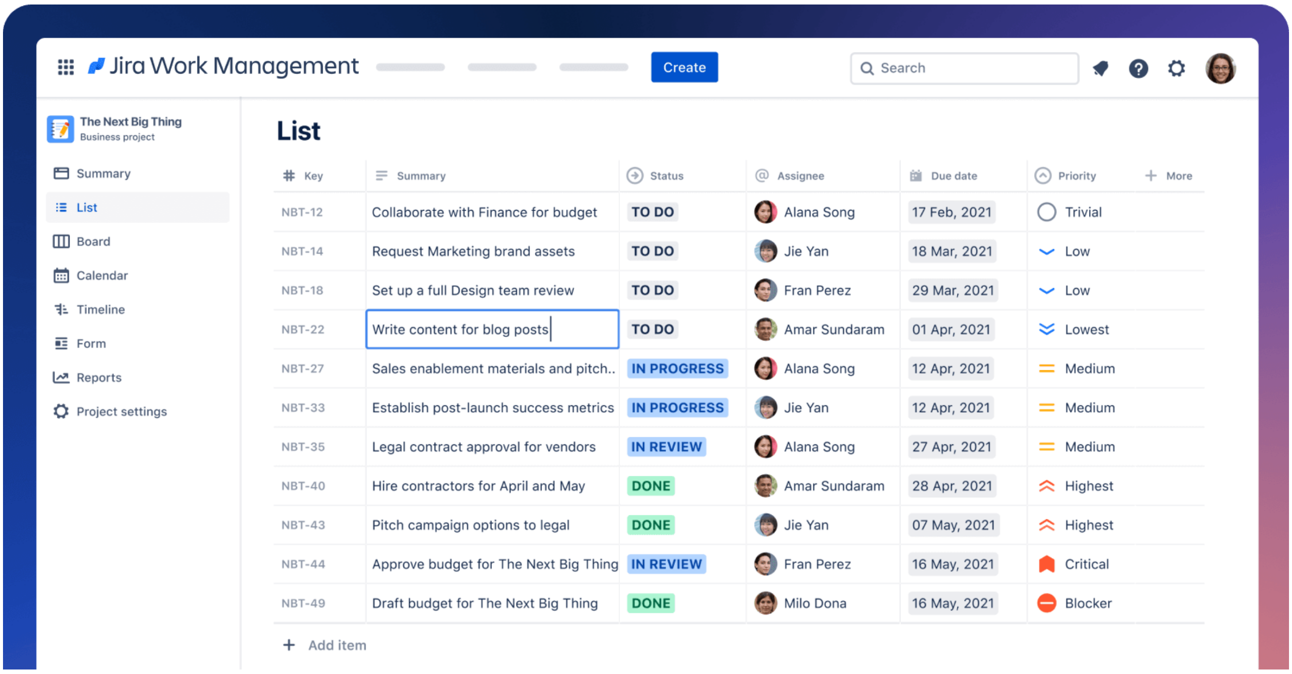

Figure 3: Jira Work Management Example (Atlassian, 2023)

Seeing the benefits of having this kind of tracking software for our support tickets to our vendor makes me hopeful for our own upcoming ticketing system. If we get anything similar with even half of the capabilities of Jira, I think our support workflow will benefit a lot from it. As Leo Díaz has said in his blog about the benefits of Jira: “Generate a greater sense of collaboration and responsibility among each project stakeholder it should be a standard, the tracking of projects is not an exclusive task for those responsible for the project, project tracking is everyone’s business”. (Díaz, 2020)

Jira aside, we communicate very actively with our vendor. We have Teams meetings from time to time and communication via email is very prominent almost daily. Communication with our vendor is absolutely crucial so that everything goes to plan, and everyone is informed. Good, transparent communication will ensure that we get our problems solved well and on time. They also provide us with their experience and technical prowess towards the system. We also have very flexible customization options for our different ERP databases so they can differ from each other as some require special features that others do not. This flexibility gives us more efficiency and deepens our partnership with the vendor as we have unique features and do not just have the exact same product as others might. Our partnership is very close, and we get great service. If we used SAP for example, we would get close to zero support from them as we would be such a small customer for them compared to the huge conglomerates they have as customers. Our ERP vendor is Finnish, and we are their main partner so that enables this very close relationship with them possible. (Schomaker, 2022)

2.11 Observation week 8: Data in ERP and ITIL thoughts

18.9. Monday

As we are a corporation that has a huge catalogue of products, data management is very important. In a company this big we have separate teams that make sure that our data is up to date and accurate. We have a team dedicated to master data and also a team for products and labels called the product registry team. I have had many interactions with the members of these teams, just like today. People often call or email about matters that concern one of these teams. Master data is critical data for an organization that is often shared between various databases or systems. (Cooper, 2021)

One of our databases is the master database, from where we replicate a lot of data to all the other databases that use that data because a lot of our subsidiaries use the same shared master level data. After this shared master level data is replicated to the many databases then that data is modified because those same master level records have data that is not master level and needs to be added per database. I have experience from this as in some tasks I need to add master level data and replicate that to some databases then add the right data to that master level data in each database separately. An example of this master level data could be product data, customer data and supplier data. The master level data is data that is basically a constant but the data that I need to add on top is a variable in each database as they might have a different default delivery type for the same product between databases.

19.9. Tuesday

Sometimes when I create new master data that data also needs to be replicated to test databases so that new master data can be used in tests as well. With the new updated version of the databases, we did not have the replication paths ready. This meant that some of the replication paths needed to be made by hand before I could replicate some data to certain databases that did not yet have their replication path made. This is not a hard task it basically just requires a path to the database and a few other variables to be filled in and it should work. Replication between databases is very efficient as you can replicate master data to all the databases at once if you want to. You go into the replication function and just choose all the databases you would like to replicate into. This is how we get our master data to all databases fast and easily. Data is made into the master database and then just replicated to all the databases that use it.

20.9. Wednesday

Today I was thinking about the implementation of ITIL and how it would affect me and my work. At first one would probably think that it would not affect a whole lot as it is just a framework and frameworks are not always that necessary and impactful. In the case of ITIL though it is different as ITIL is a framework of true change and improvement. I do not know how exactly but there would be notable differences to the structure of my work assignments after ITIL implementation compared to what they are now. Almost all parts of ITIL would shape my work including stage 1 of service strategy that would shape our service management and strategy to function as effectively as possible.

Stage 2 of service design would overhaul almost everything there is as it holds a lot of processes and touches topics on people, products, and partners on top of those processes. Although stage 2 would not concern my work as much as stage 1 even though it has more processes within it. Stage 2 houses processes such as IT security management, supplier management and several service management processes that do not really concern my work in practice.

Stage 3 of service transition is big as it has processes such as change evaluation that could bring substantial new services or changes to existing ones. Change management is very important in this stage to enable all the good that this stage brings but it does not concern me directly. Overall, the service transition phase would possibly be the stage that would rehaul the structure of my work. Stage 4 of service operation is something that is being done in some ways already but with

ITIL it would be done even more effectively, and it would see us managing all the aspects of our IT organization even better than now. (Prawin, 2020)

21.9. Thursday

Thinking about what and how we do things and looking at different IT maturity models makes me realize that we are not yet at the desired maturity level. If I look at my tasks today for example and put them on the maturity model to see if certain things are achieved when it comes to IT maturity, the first level is achieved immediately as almost everything we do is documented. We have such a wide array of documentation towards everything we deem worthy of documenting and then of course the documentation of cases in different ways whether it be just making your own notes or creating a new document for our own M-Files or going far enough to document it forward to our vendor to create a Jira ticket out of it. Thus, level one of IT maturity is easily achieved. (Raza, 2023)

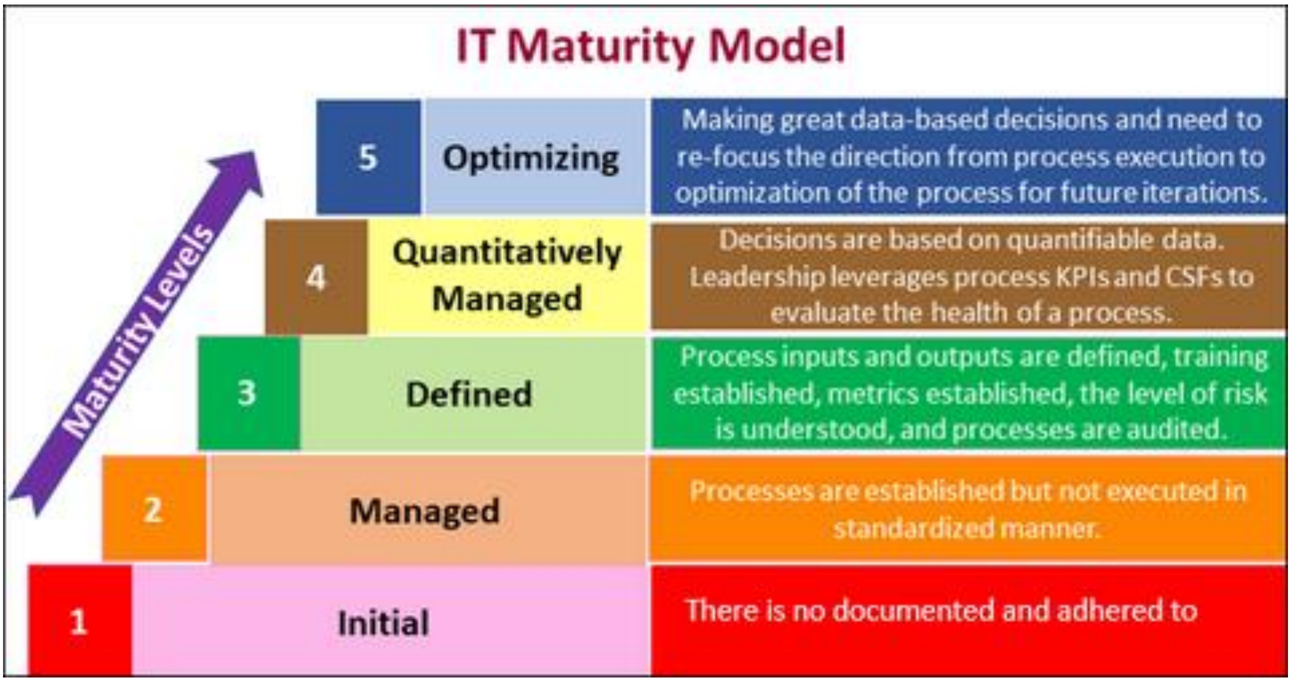

Figure 4: IT Maturity Model (ITSM Docs, 2021)

Moving up to level two, we are still onboard. Our processes are established well enough to give us a maturity level of two. As Muhammad Raza says in his blog: “The process may not be the most efficient option, but it can be standardized and followed consistently by all business departments and IT functions”. (Raza, 2023) We have plenty of established processes that help run our whole IT operation. After level two we get to the limit already as I am not certain that all aspects of level three maturity are matched. We do not have fully coherent integration with others outside of our organization that we could achieve the full potential of our own processes. There is no proper auditing of processes nor are there real established metrics for our activities. (ITSM Docs, 2021) (Raza, 2023)

22.9. Friday

When looking at the further levels four and five that are not yet achieved and comparing them to our operation and processes it becomes quite clear that there is a lot to improve from the viewpoint of ITIL. If we got our ticketing system online and then got some systems that would track and analyze our work and processes and give us new metrics and more insight into what we do, we could truly change and improve. Level four is about these measurable metrics and other data that can be analyzed for further improvement. Level five goes a step further from that and uses what we achieve with level four to optimize and change. Level five would include something that would enable continuous improvement. Level five also holds a key part of ITIL, change management.

Week analysis

Some weeks back we had a meeting where we discussed a lot of upcoming things and how we are going to update our ways of working. In that meeting ITIL was mentioned as a framework that we could look at, take note, and learn something from as we are not using ITIL in the company currently. ITIL is a framework for IT service management and a collection of practices for it. It aims to improve IT organizations by using better practices, improving productivity, implementing new standards, and maximizing the use of skill and expertise. In optimal cases this will lead to lowered costs, risks, and the chance of failure. It will enable the IT organization to grow and change for the better and make customer relationships stronger and better. (White & Greiner, 2022)

I am not sure if our IT department is mature enough to start utilizing ITIL yet, but I think if we utilize it in the future, it would be great. The IT maturity level currently stands somewhere in the middle of levels two and three. There is a lot of room to change and improve. The biggest improvement would most likely be continual service improvement as other parts of ITIL are somewhat in place well enough already but there is no real continual improvement happening. A big reason for this is the big database update rollouts that have taken a lot of time, so we have had to focus on other things than the development of our IT organization. With the fifth stage of ITIL, the continual service improvement, we would be evaluating our processes and other aspects of our work and improving them continuously as now we are barely doing it at all. I do think that other parts of ITIL would also give improvement such as the fourth stage of service operation where we would manage and control our processes and functions better. (Prawin, 2020) (Raza, 2023)

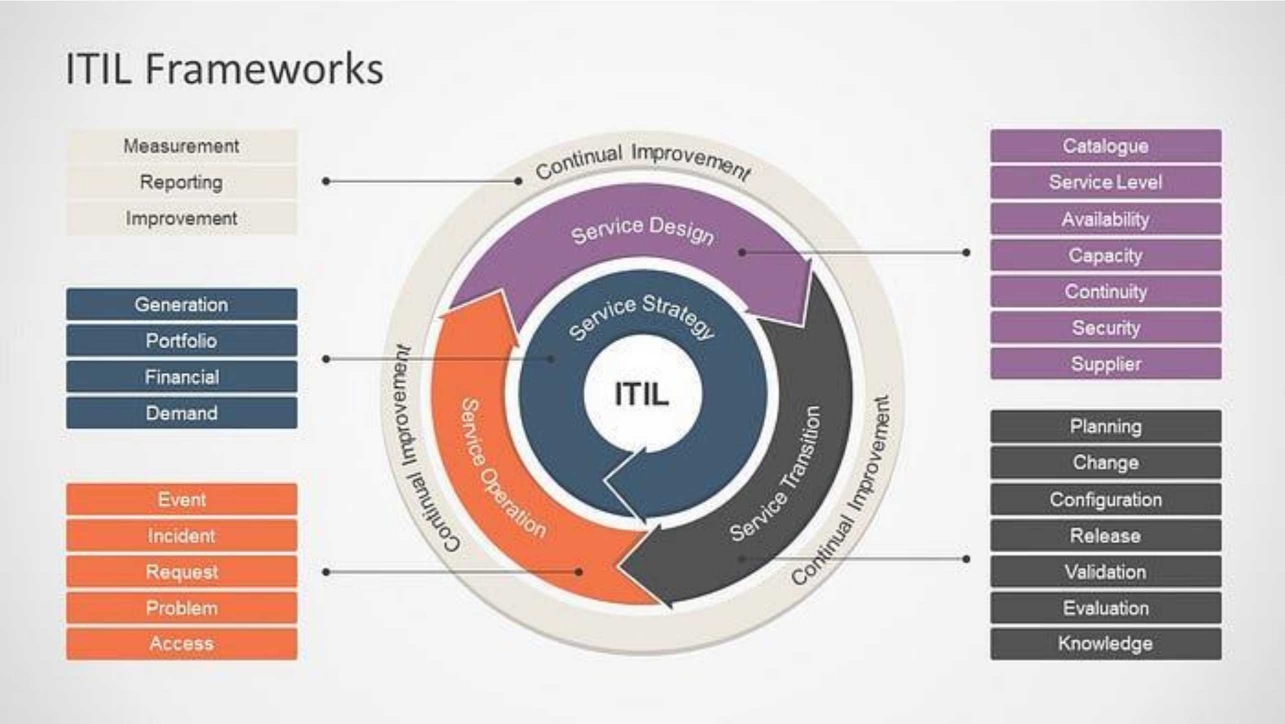

Figure 5: ITIL Framework (Prawin, 2020)

3 Discussion

During this two-month period I have had a lot of time to ponder and analyze everything there is to my work. Two months is also a long enough time to develop as a professional if you try to develop actively. Even though I have been at my job for many months before this two-month period, I still have improved. I would say that people never stop improving as there is always something new to learn or something to improve in your skills or otherwise.

Analyzing the aspects of my work has given me deeper insight into my work and given me an improved potential for even more growth and development. In my daily tasks I have learned to maximize efficiency as I have found out faster and better ways to do almost every task I do. These changes are not changing the way I do work completely but are small changes that help streamline my own processes. This means that there are no big new solutions or methods but more of a fine tuning and polishing of my own work. During the writing of this thesis, I already saw before the midway that the more valuable aspect of it is the analysis on everything that I and our team do as an IT organization. This led to me looking at all the processes and functions from viewpoints that I had not used earlier as I had no real reason to analyze them before the making of this thesis.

The analysis of all these different processes and functions really came together with the ITIL thoughts. They gave me a good understanding of how advanced an IT organization needs to be to meet big industry criteria such as the ITIL framework. Our IT organization is great as we get our work done and try to develop and improve. We are operating a customer service of roughly a thousand people along with the development of the ERP with just a dozen people in the whole IT organization, and I would say that is good work from us. The place where we would need to be to meet the highest levels of IT maturity is very high and it truly surprised me when comparing our situation with the IT maturity model (Raza, 2023)

Doing this thesis while working has boosted my professional development as I have been actively thinking about the topics that are being worked on at work and what is being used and done to complete these work tasks. This constant analysis of my own work from multiple viewpoints has made this thesis a great learning experience on many topics. As the thesis has been one big analysis of my work, it has given me a lot of food for thought. All this work has culminated as an improvement in my professional development. The competencies that have improved during this period are communication, problem solving, analytical thinking, business process and enterprise knowledge and information system knowledge.

Sources

Gordon, W. 2023. CRM vs. ERP: What’s the Difference? https://www.nutshell.com/blog/crm-vs-erp

Champion, A. 2022. Guide to Electronic Data Interchange (EDI). https://flow.space/blog/electronic-data-interchange/

Koch, C. 2002. The ABCs of ERP. http://celes-teng.mis.yzu.edu.tw/im434/ERP%20stuff/ABCs%20of%20ERP.pdf

Hagerlund, T., Huttunen, R., Kasurinen, M-J., Kaukopuro-Klemetti, H., Kinnunen, E., Kokkonen, T., Laitsaari, M. & Parhiala, M. 2013. Työyhteisö viestii, jotta olisi olemassa. https://www.kunta-liitto.fi/sites/default/files/media/file/tyoyhteiso_viestii_ebook.pdf

Bose, S. 2023. Exploratory Testing: A Detailed Guide. https://www.browserstack.com/guide/exploratory-testing

Rashid, H. 2022. System Testing | Types and Importance Of System Testing | Steps Of Test An Implemented System. https://limbd.org/system-testing-types-and-importance-of-system-testing-steps-of-test-an-implemented-system/

Parsons, L. 2022. Why is Professional Development Important? https://professional.dce.harvard.edu/blog/why-is-professional-development-important/

Arets, J., Jennings, C. & Heijnen, V. 2017. What is the 70:20:10 model? https://702010institute.com/702010-model/

Atlassian. 2023. https://www.atlassian.com/jira

Díaz, L. 2020. 6 Benefits of Tracking Projects Using Jira. https://blog.deiser.com/en/tracking-projects-using-jira-benefits

Schomaker, L. 2022. Why a Good ERP Vendor Relationship is so Important and Which Ones Deliver. https://www.inteltech.com/why-a-good-erp-vendor-relationship-is-so-important-and-which-ones-deliver/

Cooper, D. 2021. What is the Difference Between Master Data and Metadata? https://www.stibosystems.com/blog/what-is-the-difference-between-master-data-and-metadata#difference-1

Prawin, M. 2020. Overview of ITIL. https://munna-prawin.medium.com/overview-of-itil-64c1833f92f1

Raza, M. 2023. Maturity Models for IT & Technology. https://www.splunk.com/en_us/blog/learn/maturity-models.html

ITSM Docs. 2021. IT Maturity Model – Why Should a Company Undertake ITIL Assessment Process. https://www.itsm-docs.com/blogs/asset-management/it-maturity-model-why-should-a-company-undertake-itil-assessment-process

White, K. & Greiner, L. 2022. What is ITIL? Your guide to the IT Infrastructure Library. https://www.cio.com/article/272361/infrastructure-it-infrastructure-library-itil-definition-and-solutions.html

Figures